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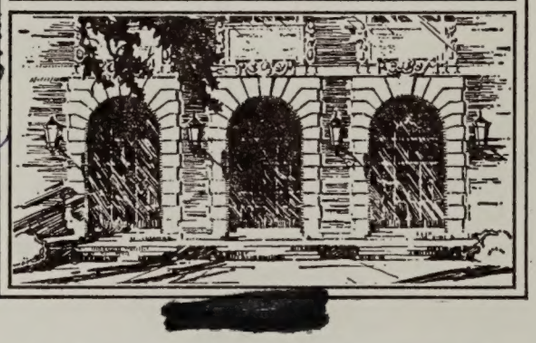

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AN ADDRESS
ON THE
SURGICAL AIDS TO MEDICINE.*

By T. CLIFFORD ALLBUTT, M.A., M.D., F.R.S.,
Senior Physician to the Leeds Infirmary.

GENTLEMEN,—As I rise to address you this evening, I know not which is the stronger feeling in me—the pleasure—the honest pleasure I may frankly avow in the distinction your invitation confers upon me, or the diffidence which tells me I am unworthy of the duty to which I am called. Your kindness gives me courage to believe that I shall at least have gentle judges.

The subject of an address like the present should, I venture to say, be a practical one. It should come home to every man's experience, and concern itself with every man's craft. To deal more widely with things, to take views of them so lofty that the details of our daily work recede into the distance is more proper in essays written for the student. These can be tested by no ready touchstone, but will be judged by time and longer labour. For this reason I have chosen a subject to-night upon which each one of my hearers can be the instant critic, and which deals with the details of our common practice. By the title Surgical Aids to Medicine, given to my paper, I wish to signify the relation of help which the surgeon can give to the physician, and to speak of those maladies which, though belonging to the sphere of the physician need the hand of the surgeon for their adequate treatment.

It has been too hastily said that specialism has been the bane of modern medicine, and that the divergent paths of our closer researches have led us away from those comprehensive views of our art which alone can give us mastery as practitioners.

If this assertion be made as a due warning against quackery, or as a paradoxical way of impressing upon us that analysis alone without synthesis may be profitless, then, accepting it at its true value, we may take it at its worth. But I fear the charge against specialism means more than this—is no mere denunciation of selfishness, of pettiness, or of strenuous trifling, but is aimed against subdivision of labour as a mode of progress. I scarcely need combat such an opinion as this, nor seek to show you that, without the devotion of gifted men to narrow fields of investigation, the science which inspires our art cannot prosper. Whither they have preceded we must follow, and with them seek to embody their new gains with the old. Not only must this be true of the remoter deviations of medical inquiry, but it is true also of the larger contingents of our art. That any one part of medicine can fail to depend upon, and to interosculate with the rest, is of course impossible; but on the other hand, in respect of our limited faculties, we must do provisionally and artificially what nature does not do—if we are to grasp firmly, we must limit our embrace. The old standard divisions of medicine into medicine, surgery, and midwifery, are then designed not in the following of nature, but for the sake of our own infirmities. Even when medical science was more restricted than it is to-day, no man could attain a fine and progressive mastery over more than one of these great divisions, and with the increase of time such a range of power becomes less and less attainable.

By taking parts from each, distinction may be reached partly upon surgical partly upon medical lines, and such integrating kinds of work are invaluable to us; but so far as I know, no one man was ever both a great surgeon and a great physician. Not only is the field too large, but the mental habit seems different; and we are thus compelled to recognise our limitations, and, labouring each in our own sphere, take good heed of the dangers of isolation, and avoid them as well as we may. Perhaps the majority of my hearers are not devoted exclusively to medicine, surgery, or midwifery, respectively, but are engaged in the attractive field of general practice. There is something very fascinating in the freedom of that practice which, rapidly gleaning the chief results of the more special workers, binds them into temporary unity, and, seeking rapid and effective combinations for instant needs, develops a class of men inferior to none, if not superior to any in dexterity and versatility, in variety of knowledge and readiness of resource. Yet, even in the ranks of general practice, the distinction between physic and surgery is not lost; and not only in later life, but even in the wards of our hospitals, our better students betray some personal leaning and fitness for the one branch of their profession or the other. Thus it is, perhaps, that the border subjects lying between surgery and medicine are neglected, and the threads are not tied which should weave the two into a single work. If I may command your patience for a little while, I will drive the shuttle across this division.

My first introductions into the No-man's land between medicine and surgery were twofold. One of my revered masters—the late Professor Trousseau—interested himself deeply in the extension of surgery to the relief of medical cases. After the manner of his countrymen—less bound by the traditional habits which led their English brethren some years later gravely to consult with each other how far the operation of morphic injection was permissible to their order—Trousseau took pleasure in operating with his own hand upon cases of empyema, of pericardial effusion, and so forth. It is not given to many physicians to train their fingers to the skilful use of the knife or the needle, but Trousseau's practice taught his pupils the value of early and effective surgical aid, and the calamitous results of its neglect. The next point of contact between surgeon and physician which engaged me, was in the field of diseases of the eye. I need not stay to estimate for this audience the great advances which have been made in this branch of clinical observation. Not the least of the advantages of the ophthalmoscope to me was, that it brought me, twenty years ago, into close collaboration with my surgical colleagues in Leeds—colleagues with whom I have worked in intimate association from that time until now, and to whom I owe more than I can adequately record or acknowledge. Working and reasoning with them, we have learned together to pull down the wall of somewhat jealous separation which too often divides the physician from the surgeon, to the great disadvantage of both, and to create a fellowship and community of purpose which, I venture to think, must greatly enlarge the powers of both. The united efforts of physician and ophthalmic surgeon have discovered a new region of facts and inferences that I will now scarcely enter upon, so well is it known, so far has it become the property of the whole profession. To two points only will I refer:—first, to the ill effects of latent strain of accommodation, and secondly, to optic neuritis not secondary to cerebral disease. There is no passing or superficial malady which is so vexatious as headache, and returning headaches sometimes prevent all the industry of young students. In many cases, no doubt, these headaches are more strictly neuralgic; but Mr. Brudenell Carter and others have proved that in many cases the headaches recurring on application to study are not due to cerebral overstrain, but simply to overstrain of the eye. An irregular cornea, or an unnoted defect of focal vision—and such defects are often latent—has caused a continued strain upon the highly nervous ciliary region of the eye, the pain of it has spread itself over wider nerve-districts, and a pair of spectacles has at once restored the sufferer to full powers of application. This striking discovery is now becoming well known, but it has been more recently suspected that, in some of the cases of optic neuritis discovered in young women and others in whom there is no cerebral disease, the inflammation of the disk may be due to previous strain of accommodation. If it be true, as Mr. Mason of Bath tells me, that in some of these cases a neglected optic neuritis may result in meningitis, we see before us a grave responsibility, and a wide field for successful effort in taking such order that the vision of young people shall be duly tested before they are put to continuous study. To another ophthalmic surgeon, Mr. Liebreich, we owe no less valuable teaching, who has pointed out to us how many spinal and other deformities, weaknesses and pains, are due to the dis-

* An Address delivered at the Inaugural Meeting of the Midland Medical Society, October 19th, 1881.

advantages of abnormal vision, and to the bad shape and ad positions of the windows and furniture of schools. I must also regretfully deny myself even any enumeration of the additions to our knowledge of palsies and of constitutional diseases, which have been given to us by ophthalmic surgeons. Nor is our debt to the aural surgeon to be considered much less. Many cases of extreme vertigo, long attributed to epileptoid states or to dyspepsia, are now known to depend upon aural states, and, when due to syphilis or to mechanical irritation, may be cured. Some kinds of troublesome cough, again, now seem to be dependent upon aural irritation, and can, therefore, be cured by the surgeon. The danger to the encephalon of intra-aural mischief has been long known, but the various surgical methods—such as perforation of the mastoid bone—by which these secondary evils may be averted, are better understood and more fully carried out. My colleague, Mr. Atkinson, recently published a series of successful cases of this kind. The trephine belongs to the early history of surgery, but the discoveries of Broca, Hitzig, and Ferrier, are guiding the hand of the operator more and more surely to the probable site of an intracranial abscess or exostosis. Tapping of the head in hydrocephalus I refer to, I am sorry to say, only to condemn. We have given it a fair trial in Leeds, and I believe we have all discarded it.

To turn to the throat, excision of the tonsils is no new operation, but the constitutional mischief caused by such tonsils is better known, and is treated with more prompt and better results. No doubt many tonsillar enlargements are due to bad sanitary conditions, and I trust that so far the officer of health may take precedence of both physician and surgeon. To the work of laryngeal surgeons, physicians are deeply indebted for the revelations of the local processes of constitutional disease, and for new indications of intrathoracic tumours: unhappily, however, our means of cure have not herein kept pace with the new facilities of our diagnosis. The nausea, dyspepsia, and consequent loss of flesh and strength, which is often caused by the descent of the foul secretions of ozæna into the stomach, are now more accurately traced to their real cause; but ozæna, I regret to say, seems as incurable as ever. Œdema of the glottis, on the other hand, has been robbed of some of its terrors by the bistoury. The operation of tracheotomy still remains the sudden salvation of but a few, rather than the sure help of many. My own experience of it is not a very bright one; and although I feel it my duty to suggest it in acute cases so soon as the epigastrium and intercostal spaces are drawn in by inspiration, yet I do so with very faint hopes of a happy issue. The difficulty of feeding children with diseases of the throat is often insurmountable. In cases of scarlatina anginosa and the like, I have fed successfully, by pushing an India-rubber teat, connected with an elastic ball, into the nostril, and gently squeezing liquid food into the throat *per nares*. Mr. Charles Smith of Halifax, in a case we attended together, when this method failed, improved still farther upon it. He filled one of the long fine rubber tubes sold with Southey's trocars, with milk from a cup in which one end of the tube was sunk. At each time of feeding, the other end was quickly and easily threaded up the nostril and so into the throat, and by raising or lowering the cup the food ran by drops at the will of the operator into the patient's gullet. I have no hesitation in saying that this manœuvre saved the little one's life. When the nostrils are full of offensive discharge, they must previously be cleared with a syringe bearing a disinfecting solution.

The transition from diseases of the throat to glandular swellings of the neck, or scrofula, is easy; and herein I have an important message to deliver. I must now be brief, but for further detail can refer my hearers to my paper read before the Medical Congress in August last. In that paper I urged that, although individuals differ widely in the readiness of their lymphatic glands to undergo bubonic change, and that to this extent scrofula is subject to hereditary influence, yet, on the other hand, such hereditary tendency is not called forth save by local irritation. Such irritations are for the most part propagated from the mucous membranes of the mouth, throat, or ear. Nay more, I am satisfied that scrofulous neck may be set up by intense or prolonged irritation of this kind in persons having no hereditary tendency thereto. Pharyngeal scarlet fever, and the deposit in the throat of the effluvia of drains, are the most potent known causes of this kind, the latter being the more frequent. The mucous membrane sifts the particles from the indrawn air, and rapidly and sleeplessly drifts them out again in its currents. So long as the membrane remains in health all is safe, but there comes some check, by cold or otherwise, to the membrane, its surface changes, its activity fails, its currents slacken, the septic particles are arrested and inhere, and, exercising either a germinal or a catalytic action, prepare a more permanent bed for the development of morbid matters, and for the implantation of more. This goes forward, noticed or unnoticed, or the sore throat is treated in ignorance of its abiding cause. Gradually secondary changes from absorption arise. Glands remote from the surface, and of small size it may be, enlarge slowly and caseate, but may escape observation. Thus are formed new centres of centrifugal infection, and thus is developed the full degree of the malady called scrofula. Against it the physician alone is feebly armed. By cod-liver oil and sea-air he endeavours to resist and counteract the malady; but a true therapeusis can be founded only upon the reasonings I have summed up, and must depend greatly upon surgical interference. The so-called suppurating glands under the jaw are in most cases no glands at all, but subcutaneous secondary abscesses. These, some bolder physicians aspirate or attack with potassa fusa and so forth; but do this as you may, the minor foci are untouched and uncleansed. The superficial abscesses must be freely laid open under ether, and the sinus or sinuses leading inward must be probed. There will usually be found a caseous gland hidden behind the sterno-mastoid muscle; this must be reached and scooped out, and all the enlarged glands discovered, scooped and cleared of their decaying elements.

This in practice is not difficult. Mr. Teale has worked on this plan in a number of cases of mine and his own—cases which were tabulated by our colleague, Mr. Hartley, and laid before the Congress. The results were excellent, both in respect of permanent local cure, of rapidly restored health, and avoidance of disfigurement. Subclavian, axillary, and other scrofulas must be dealt with in the same way.

The surgery of the chest is so large a subject, that I can only now sum up our chief results, and remind you how recent they are. In respect to the lungs, although we have realised that death by phthisis is for the most part death by septicæmia, yet we have obtained no direct method of disinfecting the decaying parts of a lung. Opportunities of tapping large posterior cavities of the lungs are not many, and I have not been much encouraged by the results of the few I have attacked. Still, when, in an otherwise healthy person, excavating mischief in the posterior and inferior part of lung is threatening life by septic poisoning, then we ought to interfere by aspiration, and after that by drainage if that be indicated.

That ordinary phthisical cavities will lend themselves to systematic aspiration or other tapping is not at present probable, and we must seek the cure indirectly by antiseptic and aseptic atmospheres.

With diseases of the pleura we have more surgical success, and have arrived at something like definite canons. We admit that, in acute cases, where a moderate and highly fibrinous exudation rises quickly and subsides quickly, we may trust to expectant or purely medical means. But when an effusion is more than moderate in amount, or being moderate remains long, then, in view of threatened damage to the soddened and retracted lung, we must take to methods more direct and draw off the fluid. If the fluid be purulent, we must make a free opening at the most dependent part, and empty and drain the cavity under antiseptic precautions and dressings. The antiseptic method often shortens these cases wonderfully. To proceed by repeated aspiration prolongs the case, keeps up the pressure on the lung, does not avert the formation of pulmonary fistula, and may leave caseous remnants to become dangerous in after time. If a case of empyema present itself to us with a pulmonary fistula, we must perform the same radical operation; thus securing a fall for our drainage, and sparing the lung from the continuous infection of foul secretions.

In pleural dropsies of renal, cardiac, or other origin, aspiration is of infinite value, and has superseded all iodised applications and such superficial remedies. Aspiration gives rapid and complete relief to dyspnœa, and its repetition is prayed for by the patient as the pleura refills. There is no limit to the repetitions of the operation. For instance, Dr. Wilson, of Doncaster, has performed it twenty-eight times in a case of Bright's disease I have often seen with him, to the prolongation of the patient's life and the relief of his great sufferings. The same patient, I may add, has been tapped thirty-three times in the abdomen, and eleven times in the legs, by Southey's trocars. There is no fear of such effusions turning to pus. These aspirations, even in thoracic cancer and the like, are often a great temporary relief, and defer the inevitable issue. In hæmothorax, the blood may safely disappear by reabsorption; but, if symptoms and signs suggest ichorous change, a puncture must be made, and degenerative mischief will probably make incision necessary. In pneumothorax, apart from septic effusions, puncture is very rarely needed or desirable. Paracentesis pericardii, by means of the aspirator, has been safely and successfully performed several times under my observation, and has taken its place as a recognised remedy. I have never seen any harm from the remedy, not even when the heart has been pricked in cases of mistaken diagnosis.*

The efforts of the surgeon to cure intrathoracic aneurysm have as yet been unavailing, and this awful malady continues to baffle our skill.

* A most striking case of drainage of pericardium and pleura, with recovery, is recorded by Professor Rosenstein, in a recent number of the *Lancet*.

I may pass by the wire coil and other devices to refer to the only hopeful procedure, namely, the method of galvano-puncture. Although I was among the first of those who tried the operation, and have had a long experience of it, yet I regret to say that increase of experience has diminished my faith; and, notwithstanding a few partial successes, I must still rank this remedy as of less average value than the treatment by rest, with large doses of iodide of potassium.

Not only does surgery help us in the treatment of diseases of the chest, but it is indispensable even for diagnosis. To distinguish between fluid and solid gatherings in the chest is at times impossible without the needle, and the same is true of like difficulties in the liver and elsewhere. Indeed the aspirator, and the familiarity with finely made trocars of various kinds, has given us new arms against obscure disease both in respect of diagnosis and treatment, in these and in many other organs.

Paracentesis of the liver is now as readily employed as in the case of the pleura. Hepatic abscesses are sought for by the needle, and their contents evacuated by exhaustion with a readiness and success, that a very few years ago would have seemed wildly improbable and dangerous. Yet the surgeon, if hepatic abscess be suspected, thrusts the instrument in by way of the axillary line, near or below the costal margin, and if he fail at first to draw pus away, does not hesitate again and again to repeat his bold incursions in various directions. No harm comes of this boldness, and the success of the operation in appropriate cases has quite changed and reversed their former gloomy prognosis. Hydatid cysts are rapidly emptied and cured in like manner; and I can scarcely forbear to refer to the complete surgical cure of a case of hydatid of the liver under my own care, in which, by repeated aspiration alone, a group of large sacs were gradually destroyed, though two of them suppurated freely. The defect in hepatic surgery which yet remains is the imperfection of topical diagnosis, so that punctures have in some cases to be repeated in vain before the abscess is tapped, and, after all, some collection of pus may escape the instrument.

The surgery of the gall-bladder is as yet in its immature youth. In extreme cases, as published by Lawson Tait and others, bold intervention on a heroic scale has saved life; but I look forward confidently to more than this—to tapping of the gall-bladder as the systematic and the only means of permanently curing those miserable cases in which the passage of gall-stones, repeated time after time, embitters, and even shortens the days of patients otherwise healthy. I know of no cases so distressing in which the physician is more helpless.

Few practitioners will look back with any content to their cases of ascites. Under all circumstances, but especially in cases of hepatic origin, this symptom has proved as intractable as its treatment by purgation has been distressing both to doctor and to patient. Is it not true that one has been wont to shrink from a case of ascites as from a hopeless strife? Here, surgery again has come to our aid. In early tapping we have a prompt, safe, and fairly effective relief—cure in such cases we cannot hope for. Late tapping is an opprobrium of medicine, but I have learned in recent years to tap as soon as ascites is prominent, and to repeat the operation as needed, using of course other remedies meanwhile. A few tappings generally succeed in reducing the tendency to fill, the patient gains a substantial respite, and is saved the discipline of pulv. jalapæ co., and elaterium.

In diseases of the kidney we may now resort, not to the aspirator only, but to operative means far more radical.

In cases of impacted calculus, and of pyelitis with or without calculus, the physician, calling in the surgeon, cuts down upon the diseased viscus, and under the baptism of antiseptics, opens, cleanses, and even extirpates the part; his temerity and success being limited as yet rather by imperfection of diagnosis than of mechanical means. Even in incurable cases, a drainage-tube in the loin offers an easier outlet for septic fluids and particles, and relieves the sleepless torment of vesical irritation. While these words are written, there lie in the Leeds Infirmary no fewer than three cases—under Mr. Wheelhouse, Mr. Teale, and Mr. Jessop respectively—in each of which the loin has been opened and drainage-tubes inserted into the kidney with complete success, so far as success in those cases was possible. In these cases, as in all others to which surgical methods are extended, aid is given too late, is not asked for till mischief is beyond repair. As we gain knowledge and confidence this will be otherwise, and I shall not again witness, as I witnessed a few years ago, the slow destruction of a bright and promising young life by a calculus impacted in the kidney, without endeavouring at least to reach the offending body. Mr. Teale some time ago operated in such a case, but dared less than he would dare now, and the necropsy showed him that, had he explored the first portion of the ureter, he would have felt and easily removed a stone which, unremoved, destroyed the patient. In later days, the whole kidney has more than once been extirpated with complete success; and such cases were shown at Guy's Hospital during the recent meeting of the International Congress in London. The spleen also has been removed successfully so far as operation is concerned, but without benefit to the patient, and apparently with the result of causing distressing nervous symptoms. These, no doubt, were due to some accidental injuries to nerves which might hereafter be avoided. The safe opening and exploring of the abdominal cavity is, perhaps, the greatest achievement of modern surgery, and by it medicine largely benefits. By it especially are we strengthened against the dangers of intestinal obstruction. In cases in which the obstruction is hernial in character—in which, that is, by some twist, snare or fold, the gut is obstructed as in a hernia—I do not hesitate to say if, after a fair trial of complete rest with opiates and fomentations no relief seems probable, and death faces us—I say that the risk of opening the peritoneum and searching for the strangulation fades into little before the risk of *laisser faire*. In chronic obstruction, and where cancerous or other fixed obstacles may be inferred, then the propriety of such interference must be judged in each case by its own circumstances. I can only say that, in the many cases I have known thus dealt with, I have found no reason wholly to discourage the larger operation on account of its added dangers, and in more than one of them it has been distinctly helpful by giving the line for colotomy or otherwise.

Before leaving this subject, I would refer to a rule of my colleague, Mr. Jessop, who says that some cases of repeated or continuous wearing, aching pain of the abdomen, are explained by the discovery of umbilical herniæ, too small to cause obstruction or to catch the eye. Since I had this hint I have seen two such cases, and have cured them by reposition and the application of a button truss. Gastrostomy is as yet one of the difficulties of the surgeon, though it seems that the new method of securing the stomach to the incision before piercing the viscus may prove more hopeful. Mr. M'Gill, of Leeds, has just succeeded in a case of this kind. If gastrostomy should be robbed of its terrors it might be pressed into the service of the physician not only for the relief of cases of œsophageal obstruction, but also for the dressing of gastric ulcers, and for dilatation of strictures of the pylorus.

Kussmaul's method of catheterising the stomach in dilatation and catarrh of that organ does not seem, if I may judge by a recent essay of my friend Dr. Wade, to find favour in Birmingham. In a paper of my own, published two or three years ago, I expressed a contrary opinion, which time has strengthened. As in a dilated and never empty bladder decomposition is constantly going on, so in such a stomach a fermenting remnant is always left behind, to vitiate the incoming food. By completely emptying and purifying the viscus alone can we prevent this abnormal fermentation, and put the stomach in a position to recover its normal state.

Rectal diseases often simulate maladies which belong to the sphere of the physician, such as irritable bladder or uterus, diarrhœa, lumbago, sciatica and the like; and sad are the oversights of the physician who is not ready with that handy little instrument, the forefinger. By it he may again and again be led to the discovery of cancer of the rectum or uterus, of pelvic abscess, of displaced uterus, of prostatic disease, rectal syphilis, stricture of the sphincter ani, hæmorrhoids, fistula, and other local affections, all distressing, and some destructive.

Forgive me if my words to you to-night seem in this, and other matters, to be too trivial and too homely for such an audience, but I am driven to dwell on these familiar things by the sadness of lives wrecked for the lack of timely insight and timely skill. Undiscovered hæmorrhoids are not uncommonly the simple but most effective cause of a broken constitution. Unfortunately, they are too often concealed, purposely or not, by the patient. There is an unlucky notion abroad that the discharge is a safety-valve, and its suppression dangerous—a notion strengthened by the sense of relief which it gives to dilated vessels, and of the fulness and weight which these cause in the pelvis. Women, again, are naturally shamefaced in such a matter, even to their own sex, and being accustomed to the recurrence of sanguineous issues, they regard the bleeding of piles with the less anxiety. Finally, the obscurity of the discharge, and its loss in a dark water-closet, generally conceal from the sufferer some part at least of the mischief which is undermining him.

Let no weakly or anæmic person then escape inquiry on this subject, and you will help or save many a life. Be it remembered that long continued bleeding is not to be repaired at once. Even in the comparatively young, a large or continued hæmorrhage may leave its mark for the rest of the life, and take the use and happy vigour from length of days. Probably the whole organism and its parts have suffered too long from inanition to recover their normal tone, or the bleeding has so overstrained the blood-making organs that they never can again turn out a full tale of blood; or in some other way the organism, having long revolved in an abnormal equilibrium, cannot be brought back to its normal orbit. In some cases, indeed, continued hæmorrhage brings on ultimately a

state of incurable organic anæmia, with pigmentary retrogressions. Bleeding from the bowel is not an uncommon feature in hæmophilia, and I have found, remembering a hint of Sir William Jenner's, that such bleeding is rectal, and may be arrested by injection of tincture of iron.

The many difficulties which surround the practice of transfusion, forbid me as yet confidently to point to that process as the sure refuge in the sorest need which some day I believe it will be.

Pain in the back, or continued diarrhœa, or mucoid discharge, should of course always lead to a rectal examination; and yet how often is this overlooked, and grave rectal or pelvic mischief goes on unknown and unchecked.

To pass from looseness to constipation: here, too, the exploring finger may help us to diagnosis or relief. Strictures of the slighter degrees may be met with, or a backward uterus; or, again, an abnormally tight or hypertrophied sphincter. The sphincter ani should be examined in all cases of habitual constipation, for a very tight ring is no uncommon condition; the rectum bags, and sacculates above it, and, until the sphincter be freely stretched, no douches or other remedies can restore the due relations of the parts. In painful fissure, stretching of the sphincter is, of course, the foremost mode of cure; and it is surprising how many cases of bleeding piles, which have resisted treatment for years, are cured promptly by stretching a tight sphincter; but the value of the operation does not end here. If the sphincter be found large and tight, there is no knowing what reflex irritation has caused it; or, in turn, what uneasiness it may set up, or how far the rupture of one link in a morbid chain may dissolve the rest. Mr. Teale has said much on this subject, and had much success with the operation.

I must not attempt to enter upon the large field of surgical treatment of the maladies of the urogenital tract. The subject has of late become too familiar to need full discussion in this place, but I may refer to a few points which will bear repetition. Stretching of the sphincter vesicæ in the female, sometimes proves most efficacious in relieving that distressing affection—intolerance of the bladder. In other cases it fails as conspicuously, and it is far from clear to us wherein the distinction lies. So incessant, however, is the torment of this wretched condition when fully developed, and so destructive is it to the peace and health of the sufferer, that any reasonable means may well be tried which offer a chance of success. As the cause of the intolerance is often obscure, so this shot in the dark may not rarely hit the target. It is of course less likely to be useful in the vesical intolerance of pyelitis. To turn from the female to the male, I would refer to the now well known tendency of inflammations in mucous surfaces to spread along the tracts, a tendency often leading to great mischief in the urinary organs; wherein irritation, advancing from a urethral stricture, may reach the kidneys, and either set up chronic nephritis, or in some more sudden way arrest the action of the kidneys and cause death by uræmia. Every physician should, therefore, be tolerably familiar with the diagnostic use of the catheter and sound, for within the sphere of *his own* work he will be sadly at a loss without the catheter. A case of uræmia in an old person is found to depend upon a distended bladder, or a fever-patient from the same cause is lying in a typhoid state with the catheter only between him and death. These things happen within the experience of us all, and for many years I have never gone to a distant call without a catheter in my bag. No, "never," I must not say; it is too strong a word; for indeed I remember being called to a distance by a train too early to permit me to get my bag, to the bedside of a young man in convulsions. I found that his bladder was full up to the navel; his prostate was swollen and tender, and there was no catheter within reach. Such is the irony of fate.

Syphilis lies on debatable ground, between medicine and surgery, and primary sores fall more generally to the surgeon. I believe that a chancre should be cut clean away when first noticed, if its position render this possible. Not being myself very handy with the knife, I always burn them deeply out with caustic, and have had reason to congratulate my patients on the results. The consequences of any given chancre cannot be foreseen, but after such action, when taken in time, I have never seen any great development of secondary symptoms. Circumcision is gaining ground of late years, as a means of promoting purity both of mind and of body, and of preventing venereal disease in some degree. I believe the rite would in many cases prevent the occurrence of some reflex disturbances of a nervous kind which come under the eye of the physician. A friend of my own is engaged upon a paper which will advocate the general use of circumcision, but this crusade I will leave to this own right arm. Before leaving the genital organs, I would refer to the practice of washing out the uterus in puerperal septicæmia, for his is but one instance of a rule which must guide physician and surgeon alike, namely, wherever in the body there is any decomposing or effete matter, remove it by the shortest and quickest route possible.

The rapid subsidence of high temperatures which often follows the removal of decomposing matter from the womb or elsewhere, leads me to believe that the septic poison is so rapidly eliminated as to poison only for a day. A continued septic fever means, therefore, a daily dose of poison; remove the poison at its source, and the disease is at an end. I publicly urged this practice so many years ago, when it was almost unknown, that I may now be permitted to impress it upon you again when it is more generally accepted. This method has brought hope into the treatment of cases which without it were almost hopeless.

Maladies of the trunk and limbs will not long delay us. Physicians and surgeons alike are interested in the recent advances in the treatment of diseases of the spine, and of these I have nothing to say in detail.

Leaving uterine diseases on one side, as scarcely suitable for my present purpose, let me turn to affections of the limbs and to the pains and muscular failures occurring in them. No pains are more distressing and tedious than those of the shoulder and upper arm, pains which are often attended with muscular stiffness or wasting, and which are attributed at one time to a blow or fall, at another to rheumatism, at another to neuralgia pure and simple. Now many of these cases owe their cure to the surgeon, more especially when they are of longstanding and chronic habit. In some cases of pain in the cervico-brachial region the extraction of a carious tooth removes the cause of pain and the pain itself. In all such cases, therefore, the mouth must be closely examined. In other cases of pain with stiff and wasted muscle, there has been a distinct cause in the bruising of nerve trunks, and in them electricity rather than surgery is needed. But in other such cases of chronic malnutrition the results of acupuncture are often immediate and astonishing. Patients with stiff and painful limbs, to their own amazement, throw the crippled arms in the air or toss the crutch aside within a few seconds of the operation. In other cases, apparently the same, the method fails, and I cannot tell you wherein the difference lies. Mr. Thomas Smith informed me in respect of a case under our care, that such cases are often cured by free manipulation under ether, as though some adhesion pressing on a nerve kept up pain and paresis.

There is another kind of pain, most common in the leg, which is aggravated by walking, and is often of a tearing or wearisome kind. These pains, whether of a rheumatic origin or not, seem to lie in the periosteum; and by a linear incision through the periosteum, a young lady was quickly cured, who for a great length of time had been unable to take ordinary exercise. The pain lay in the leg, between the knee and ankle.

The wonderful success of rubbing and shampooing muscles weakened or stiffened by chronic rheumatism, old sprains or palsies and so forth, is more and more recognised; but, unhappily, this remedy has lain too long in the hands of persons of lower repute who have used it indiscriminately as a panacea. Delivered from the hands of quackery, rubbing is likely to take a high place among our remedial means. Among cases which torment both doctor and patient, I may refer to railway injuries. After such shocks and contusions, the muscles of back and limbs may remain for many months or for an indefinite time in a feeble, painful, and stiffened state. This condition is aggravated by inaction, but tends to recovery when the compensated patient is compelled to exert himself. I believe that the recovery of such patients is due not merely to the moral effort, but also to a painful and sickening strife with morbid muscles; and this recovery might be brought about more precisely and more quickly—in a word, more scientifically—by systematic rubbing and electricity.

Nerve-stretching is a means of relieving pain both in "functional" and organic disease, which has but recently established a claim to trial; and we must not allow the purely empirical character of the remedy to prejudice us against the increasing evidence in its favour. The cases of spinal disease in which, like those lately published by Dr. Morgan, horrible pain has been wholly banished by nerve-stretching, are now too definite and too many to be ignored; and nerve stretching, moreover, is the only remedy which offers much hope of relief to sufferers from the pains of chronic neuro-myelitis. In cases of violent neuralgia, again, and in spasmodic affections of muscles of the face and elsewhere, nerve-stretching seems to have wrought some remarkable cures. Somewhat early in the history of the remedy, I was disheartened by its failure in more than one case, but we must certainly have recourse to it again when occasion offers.

I must not leave the medical surgery of the limbs without a reference to Southey's method of tapping the limbs in anasarca, a method which, in my experience, has often proved invaluable both for the removal of serum and the prevention of erysipelas of the legs.

Finally, I will allude only to the efforts made by our surgical colleagues to aid us in the cure of diseases of the skin; and I will make special reference only to the scooping away of lupus patches which, in some cases under my care, has answered very well.

One surgical aid to medicine, gentlemen, I have reserved for the pleasure of making it my last word to night. This, although not mechanical, has done more than any one of those gifts of surgery to mankind to enlighten our darkness, to fortify our reason and to guide our handicraft—I mean the discovery and demonstration of that great agency which, dimly guessed at for many years, has but recently come fully into light—the work of germinal matter, or catalytic matter in the processes of death. These revelations we owe to many workers, perhaps to none more than to M. Pasteur, who is neither physician nor surgeon. But the working of these agents must be demonstrated in the simple and visible before it can be realised in the complex and invisible—on the surface of the body before the inward parts; and I am speaking to you as to one man when I say that which surgeons owe to the genius of Mr. Lister is but the beginning of the debt due to him from physicians. To him we owe that demonstration upon the outer surfaces of the body of the forces and changes which fail not to reach and disturb the innermost; and I would dwell upon the name of Mr. Lister as the last I will cite to-day of the surgical aids to medicine—an aid without whom many of the measures I have advocated to night would have been impossible.

SELECTIONS FROM
CLINICAL LECTURES,

Delivered at the London Hospital.

By JONATHAN HUTCHINSON, F.R.C.S.,
Senior Surgeon to the Hospital; Consulting-Surgeon to Moorfields Ophthalmic Hospital; and Professor of Surgery and Pathology in the Royal College of Surgeons.

The Pre-cancerous Stage of Cancer, and the Importance of Early Operations.

Gentlemen,—The patient who has just left the theatre is the subject of cancer of the tongue in an advanced stage. As I demonstrated to you, the lymphatic glands are already enlarged. It is hopeless to think of an operation, and there is nothing before him but death, preceded and produced by a few months of great and continuous suffering. His case, I am sorry to say, is but an example of what is very common. Not a month passes but a case of cancer of the tongue presents itself in this condition. The cases which come whilst the disease is still restricted to the tongue itself are comparatively few; nor does this remark apply only to the tongue. "Too late! Too late!" is the sentence written but too legibly on three-fourths of the cases of external cancer concerning which the operating surgeon is consulted. It is a most lamentable pity that it should be so; and the bitterest reflection of all is, that usually a considerable part of the precious time which has been wasted has been passed under professional observation and illusory treatment. In the present instance, the poor fellow has been three months in a large hospital, and a month under private care. I feel free, gentlemen, to speak openly on this matter, because my conscience is clear that I have never failed when opportunity offered, both here and elsewhere, to enforce the doctrine of the local origin of most forms of external or surgical cancer, and the paramount importance of early operation. I have tried every form of phraseology that I could devise, as likely to impress this lesson. Nearly twenty years ago, I spoke to your predecessors in this theatre concerning the "successful cultivation of cancer"; telling them how, if they wished their patients to die miserably of this disease, they could easily bring it about. The suggestion was, that all suspicious sores should be considered to be syphilitic, and treated internally by iodide of potassium, and locally by caustics, until the diagnosis became clear. More recently, I have often explained and enforced the doctrine of a pre-cancerous stage of cancer, in the hope that, by its aid, a better comprehension of the importance of adequate and early treatment might be obtained. According to this doctrine, in most cases of cancer of the penis, lip, tongue, skin, etc., there is a stage—often a long one—during which a condition of chronic inflammation only is present, and upon this the cancerous process becomes engrafted. I feel quite sure that the fact is so. Phimosis and the consequent balanitis lead to cancer of the penis; the soot-wart becomes cancer of the scrotum; the pipe-sore passes into cancer of the lip; and the syphilitic leucoma of the tongue, which has existed in a quiet state for years, at length, in more advanced life, takes on cancerous growth. The frequency with which old syphilitic sores become cancerous is very remarkable; on the tongue, in particular, cancer is almost always preceded by syphilis, and hence one of the commonest causes of error in diagnosis and procrastination in treatment. The surgeon diagnoses syphilis, the patient admits the charge, and iodide of potassium seems to do good; and thus months are allowed to slip by in a state of fools' paradise. The diagnosis, which was right at first, becomes in the end a fatal blunder, for the disease which was its subject has changed its nature. I repeat that it is not possible to exaggerate the clinical and social importance of this doctrine. A general acceptance of the belief that cancer usually has a pre-cancerous stage, and that this stage is the one in which operations ought to be performed, would save many hundreds of lives every year. It would lead to the excision of all portions of epithelial or epidermic structure which have passed into a suspicious condition. Instead of looking on whilst the fire smouldered, and waiting till it blazed up, we should stamp it out on the first suspicion. What is a man the worse if you have cut away a warty sore on his lip, and, when you come to put sections under the microscope, you find no nested cells? If you have removed a painful, hard-based ulcer of the tongue, and with it perhaps an eighth part of the organ; and, when all is done, and the sore healed, a zealous pathological friend demonstrates to you that the ulcer is not cancerous, need your conscience be troubled? You have operated in the pre-cancerous stage, and you have probably effected a permanent cure of what would soon have become an incurable disease. I do not wish to offer any apology for carelessness, but I have not in this matter any fear of it.

Empiricism and Specifics.

The patient whom we are about to discharge from Talbot ward, cured of severe pemphigus, was admitted for a special purpose. He was sent in by my friend and former pupil Dr. Tom Robinson, in order that he might be cured. You will say that the hope of cure is the motive which brings most of our patients to us. True; but in this instance there was something more than this. Dr. Robinson could easily have cured him himself, but he sent him here in order that I might do the miracle of cure under your eyes, and thus claim your belief in the efficacy of drugs. You will remember his state when admitted; he was covered from head to foot with bullæ; the trunk was less severely affected than his limbs, head, and genitals; on these, there was nowhere a space as large as the palm free from bullæ, and on the trunk also there were a considerable number. He was in a miserable condition from pain and irritation. The eruption had been out about ten days, and it affected the mucous membrane of his mouth as well as the skin. You may remember that we kept him in bed for a few days before we used the magician's wand, in order that all might see that there was no natural tendency to amelioration. More bullæ came out; then, without making the slightest change in diet, we ordered a few drops of a tasteless solution of arsenic to be swallowed three times a day. The result was that, at our next visit, most of the bullæ had dried, and there were no fresh ones. He continued to improve greatly for ten days, when suddenly a few fresh small bullæ seemed to threaten a relapse. We doubled the dose of our remedy, making the dose eight instead of four drops; and, from that day, with the most trifling exception, the recovery has been uninterrupted. With such a fact before you, let me beg of you, gentlemen, to believe in drugs, and to treat empiricism with respect. In the prescription which I ordered, I availed myself solely of empirical knowledge; I prescribed, just as any old woman might prescribe, that which I knew would do good. Concerning the nature of pemphigus, I knew nothing; of its cause, absolutely nothing; of its clinical relationship, but little; of the *modus operandi* of arsenic, I knew scarcely more; but this I did know as a fragment of assured conviction, that arsenic would cause the pemphigus eruption to disappear, and the patient to regain his health. Far be it from me to speak slightingly of scientific work; let us by all means work as hard as we can in the laboratory and microscope-room, and penetrate as far as we possibly can into the mysteries of disease; let us never weary in our search after causes, or in our endeavour to find practical application for the facts of physiology. But, whilst doing this, let us remember that, as regards the relief of suffering, much of our usefulness must be based upon knowledge which is nowise scientific, but simply a matter of experience and memory. We have many specifics for many maladies, or rather for many symptoms, and he is the most successful practitioner who has stored in his memory the largest number of them. As years go on, we shall add many more to our list; and I doubt not that there are those who now listen to me who are destined to give help in their discovery; for discoveries in this direction are rarely made by single observers, but rather by the concurrent work of many experimenters, all keeping their eyes open, willing to try new things, and resolute to store faithfully the results of their observations. Iodide of potassium for tertiary syphilis, the bromide for epilepsy and as an anaphrodisiac, iodoform for phagedena and specific ulceration, balsam

of Peru for scabies; so silently have these invaluable specifics been introduced into practice, that it would puzzle most of us to say who first recommended them. I mention this fact, in order to show how important is the honest labour of all in the pursuit of therapeutics. We all prescribe, and we ought all, on system, to observe and record the results of our observation as to the effect of drugs. Five-and-twenty years ago, I believe that the case of pemphigus which you have seen cured would have been found incurable in all the medical institutions of the world, with one single exception. Much more recently than that, the disease was pronounced by Hebra to be invariably fatal. So, indeed, it would have been to this day, if we had not found out arsenic. I know of nothing else that will cure it. Our patient was already beginning to emaciate, and, in the course of a few months—possibly of a few weeks—he would have had to die, worn out by the constant discharge from his skin, had we not put the arsenic into his blood. Never shall I forget seeing a poor wretched child carried on a bed into Mr. Startin's out-patient room at the Blackfriars Hospital for Skin-Diseases. It had been brought straight from the wards of one of our largest hospitals, where, during three months, all had been done for its help that benevolence, aided by the science of the day, could suggest. Yet it was emaciated to skin and bone, and so covered with sores, that it was impossible to put its clothes on. A few minims of arsenic were prescribed, and in a few weeks the child was well. So much for empirical knowledge; so much for drug-specifics.

Prompt Amputation in Traumatic Gangrene: Importance of Amputation high up.

In cases of traumatic gangrene, ought amputation to be performed without waiting for a line of demarcation to be formed? I believe that the reply of most surgeons to this question will be an unhesitating affirmative. Such certainly would be my own. We have recently had a very instructive case. A man aged more than 50, but of good constitution, was admitted with a compound fracture of the lower third of the leg. We tried to save it, and the limb was put up in antiseptic dressings. The foot, however, became gangrenous, and, about the sixth day after admission, Mr. Tay amputated the limb below the knee, the man being at the time very ill. The amputation was done through perfectly sound parts, but it was presently followed by gangrene of the stump. The flaps became livid, and the man was in a most urgent condition. Mr. Tay and myself, in consultation, determined at once to perform a second amputation; and, within twenty-four hours of the first, this was done in the lower third of the thigh. The man did well, and the stump on the second occasion has made, as you saw the other day, a very good one. The main reason for prompt amputation in such cases is, that the gangrenous process is a very dangerous one. Whilst soft parts are dying, and the circulation still going on to some extent through them, the blood becomes poisoned by the absorption of gases and fluids from the putrescent parts, and a most dangerous condition of septicæmia results. Of this state, a rapid pulse, a sunken countenance, high temperature, and vomiting, are the most constant signs. It is remarkable how quickly they are sometimes relieved by the removal of the dying part. It may be that the process of mortification is also attended by shock to the nervous system, but I suspect that the chief part of the mischief is done through the blood. In the pyæmia which results from phlebitis, it is of no use to amputate after once the poisonous emboli have been shed from the inflamed vein into the blood. It is then too late, for the secondary abscesses will form, whether you remove the original focus or not. In the septicæmia from gangrene, however, the case is different. Here it seems to be easily possible for the blood to rid itself of the contamination. I well remember the case of a young soldier who was under treatment some years ago for a damaged foot, the consequence of a Canadian frost-bite. He had also obliteration of his femoral artery. My junior colleague at the time amputated through the tarsus. The stump never healed, and, some time later, I amputated in the upper third of the leg at a great distance from the disease, for the whole of his leg looked at the time as healthy as yours or mine. I went high up, because I knew that the femoral artery was occluded. The result, however, was, that the stump passed into gangrene, and very soon we had all the symptoms of the most severe form of that malady. The patient had frequent vomiting, a very rapid pulse, and was indeed in such a critical state when on the third day I decided to amputate again, that I did not dare to have him taken from his bed. The second amputation, performed high up in the thigh, saved his life. No ill symptoms occurred after it, and the stump healed well. I am inclined to believe that the usefulness of amputation in gangrene will become more widely appreciated, and that this measure will be resorted to, not exclusively in traumatic gangrene, but in all forms which are attended by serious constitutional symptoms. If a part be simply passing quietly into a mummified condition, and the patient's health not suffering, then there is no reason for interfering until you see where nature is going to make the separation. There is, indeed, no reason for interfering at all, for you must let nature finish the work. If you amputate near to the line of demarcation, your stump is almost certain to slough, and all that you must dare do in the way of help in such cases is just to saw through the bones when they are laid bare. The explanation of disappointment in amputating for gangrene, whether traumatic or otherwise, is, I feel sure, almost always from amputating too near to the disease. In all such cases, we ought always to go high up. If the foot be concerned, go above the knee; if the upper extremity, near to the shoulder. You must think rather of the patient's life than of the length of his stump. Adopting this rule, I have of late years more than once amputated for severe forms of senile gangrene with very excellent results.

Can a Man have Syphilis twice?

The man whom we have just seen offers a remarkable example of the occurrence of a second chancre soon after the first. His second sore has been, as I have repeatedly demonstrated, characteristically indurated. He is quite candid, and makes no doubt that this sore was the result of contagion. Yet it is barely a year since he had his first chancre, and this was followed by an eruption, of which he had scarcely got clear when this second sore occurred. The case is proof that a man may have an indurated sore on the penis within a year of a former one, but it is not proof that he may have syphilis twice, for this patient has not as yet had any constitutional symptoms as the result of the last chancre. If, however, you ask me for an answer to the general question, Can a man have true complete syphilis twice? then I must reply clearly that he can. Such cases are rare—as rare, perhaps, as examples of second attacks of small-pox—but they do occur. I am at present attending a gentleman who has a terrible phagedenic chancre and rupial eruption, and who unquestionably had complete syphilis, chancre, sore-throat, and rash, seven years ago. I have also a second case under care, very much milder, but illustrating exactly the same fact, with almost precisely similar dates. Second chancres are, however, far more common than second attacks of constitutional syphilis. Many of them are the result of fresh contagion, but seem to have no power to produce constitutional symptoms; but others are not from contagion at all, but form in connection with a taint still remaining from the first attack. It is a most important fact that indurations may form in the penis in every respect exactly like Hunterian chancres, not distinguishable in any way, and yet that they may be merely recurred sores, and the products of constitutional taint. I have seen this over and over again; and M. Alfred Fournier of the St. Louis Hospital has written a very instructive paper on this form of sore. In the case of our patient, it is obviously impossible to say, after the statement which I have just made, whether or not his present sore is the result of fresh contagion. It may be simply a relapse, or it may be a gumma. He, however, confesses to exposure; and, as the sore followed in due course, it is probably true that he was afresh inoculated. Second attacks of syphilis are sometimes, as in the case just mentioned, very severe. The same has, I believe, been occasionally noted in recurred attacks of variola. As a rule, however, they are mild, or even abortive. Third attacks may even occur; and so may, as we are told, third attacks of small-pox. We must explain such facts, I expect, by reference to individual peculiarity and idiosyncracy, but it is important that they should be known. The belief that syphilis can occur but once in a lifetime is very widely spread amongst a certain class of the public. I have watched with amusement the change in expression in many a young gentleman's face when he got my reply to his smiling suggestion—"A man cannot, I suppose, have the disease a second time?"

Treatment of Lichen Psoriasis (Lichen Ruber).

We discharged recently from Sophia ward a middle-aged woman, who was the subject of lichen psoriasis. As I explained at her bedside, I much prefer this name to either of the others by which this disease is known. As you know, it has been named lichen ruber by some, and lichen planus by others. It is, however, essentially a form of psoriasis. It occurs to the same class of subjects, is curable by precisely the same means, and, like psoriasis, is liable to relapse or to recur after considerable periods of health. The case which we have just been studying was of much interest in reference to the points to which I have adverted. Although it certainly was an example of the malady known as lichen ruber, yet in parts the eruption was not distinguishable from common psoriasis. It conformed to the lichen type in that it began in little papules, which occurred in groups; and, when a patch was formed, it was by the coalescence of a number of small papules. This mode of spreading is, perhaps, the chief feature

of distinction between the malady in question and common psoriasis. The latter begins as a point, which, spreading at its edge, becomes a papule, which, again enlarged at its border, becomes a patch, possibly a very large one. Thus, psoriasis patches are always almost round, nummular, *i.e.*, like coins or rings, whilst those of lichen ruber are irregular, in lines or particles. In the case in question, most of the eruption was arranged in this manner, but some patches were not. On the elbow-tips and over the ulnæ were patches which, in mode of formation and in accumulation of scales, could not be distinguished from common psoriasis. Our treatment of the case was exactly that of the latter disease—tar externally, and arsenic internally. In nine cases out of ten, these remedies will cure lichen psoriasis pretty quickly. Some of you may remember a man whom we had under care six months, a splendid specimen of the disease. He had been sent to me by Mr. Forshall of Highgate. It was a first attack, and occurred to a healthy young man. I prescribed arsenic and tar. Through Mr. Forshall's kindness, I had an opportunity of seeing this man again last week. He told me that about six weeks' use of the remedies quite cured him, and that he has, during the last four months, remained without treatment quite well. In our last case, however, we have not been so fortunate. Our patient was of very peculiar nervous system, in fact almost insane, and the influence of arsenic appeared to be to excite her. Several times we had to suspend it on account of the irritable condition which it appeared to produce, and finally she was discharged from the hospital uncured, in consequence of the trouble which she gave in the ward. As a rule, I have found lichen psoriasis more easily influenced by treatment than common psoriasis. The cure is also usually more complete. The periods of immunity are also longer, often not less than several years; whereas psoriasis, however good the cure, usually relapses, I think, within the year.

Chronic Synovitis, Arthritis, or Struma: Importance of the Diagnosis.

We have had lately a great many cases of synovitis of the knee-joint. I think you will have observed that, roughly, we may divide all the cases of chronic synovitis into two groups, those which are connected with stroma, and those which are of an arthritic nature, in the conventional sense of that term. This division is of considerable practical value. Under the arthritic head, I comprise all that are associated with gout, rheumatism, or rheumatic gout, and all gonorrhœal rheumatism; and of all these, we may say that we expect them to get well. Sometimes there is stiffening, sometimes effusion is very long in disappearing; but still, in nearly all cases, in the end the patient again walks on the limb. It is very different with the strumous group. Here the tendency is to pulpy thickening of the synovial membrane, and to incurable conditions. It may be that destructive changes are warded off by long rest, but the patient is disabled, and the limb useless. We have half a dozen of this kind of knee now in our hands, not bad enough for amputation or excision, but still so bad as to prevent walking. In these cases, we are obliged to forbid walking, whereas in most of the arthritic cases, unless exercise causes pain, it may be permitted with impunity. A considerable variety of conditions is presented in this group, and especially is the arthritic process modified by the age of the patient. The older the patient, the more chronic and the less painful is rheumatism. You know that I am in the habit of insisting upon the importance of the patient's diathesis, even in cases of synovitis which is called traumatic. We admit a great many cases in which free synovial effusion has followed a sprain or contusion. In these cases, if the effusion lasts long, or if it is in excess of what its supposed cause will account for, you must suspect the arthritic diathesis. The patient is rheumatic or gouty. We have had numberless illustrations of this. Sometimes it is difficult to get at the exact facts. In the case of a man who has just left us, the synovitis persisted in spite of treatment, and relapsed after an apparent cure. It appeared likely that the case might end as hydrops articuli. I had repeatedly taxed the man with being gouty, but we could get but little evidence. Last week, his employer called on me; I then learned that the man had been for thirty years employed as a bottler in wine vaults, and that his habits of free wine drinking had often nearly cost him his place. I was told that no objection was made to a bottler drinking as much wine as was good for him, and that complaint only resulted when so much was taken as to interfere with his efficiency as a workman. It is not easy to imagine a position more likely to produce a gouty state of system. We have since let this patient leave the hospital, supplied with a knee-cap. He still has some fluid in the joint, but he can walk without any pain. Exercise, which would of course be most injurious if the disease were strumous, will not hurt him.

Dr. Beamish, late medical officer of the City Prisons, Cork, has been granted a retiring allowance of £110 *per annum*.

A FEW REMARKS ON YELLOW FEVER, AND ON THE MOVEMENT OF TROOPS.

By Surgeon-Major J. P. H. BOILEAU, B.A., M.D.,
Diplomate in State Medicine, University, Dublin, etc.

The return of the 1st Royal Lancaster Regiment (1st 4th Foot) from the West Indies, has recently been made the subject of a short paragraph in a contemporary. The regiment arrived in England in November last, having been ordered home from Barbadoes, on account of the prevalence of yellow fever at that station, and in consequence of the officers and men of the corps having suffered very severely from the disease. The paragraph states, that it was anticipated that a regiment from Malta would be ordered to Barbadoes as soon as the local authorities considered the epidemic to have passed off, and after the barracks had been thoroughly disinfected.

It seems to me, judging from the lessons of the past, that the authorities will not hastily order a regiment from Malta to Barbadoes under present circumstances. I will narrate a few cases which seem to justify me in forming this opinion; and first, that of the 84th foot, in 1867.

I served in the Malta command during the years the 84th was stationed in the island—1865-67. The first year was that of the great cholera epidemic there, and in that year sickness and mortality were very high in the 84th; during the year 1866 continued fevers were much more prevalent and fatal than usual in the command. The 84th left Malta early in 1867, and landed in Jamaica in April; it was immediately marched up to the hill station of Newcastle; in May, 18 cases of fever were admitted to hospital; in June suspicion arose as to the true nature of the disease, and before the end of the month a case proved fatal. The disease—yellow fever—spread, and the regiment lost 13 men in July, 13 in August, and subsequently 5 more. Further particulars will be found in the 9th Volume of the *Army Medical Department Reports*.

The 1st-4th Foot, which has returned from Barbadoes, arrived there in January, 1879, and like the 84th, it came from the Mediterranean, from Gibraltar, where it had been stationed upwards of four years. The sad experience of this regiment in Barbadoes is too fresh in the minds of your readers, to need dwelling on here.

The 2nd-3rd Foot arrived in the West Indies in July 1864, also from Gibraltar. Soon after its arrival it suffered from an epidemic of remittent fever, which was the cause of 182 admissions into hospital in November, and 133 in December. Officers, men, women, and children were alike subject to it. The Royal Artillery also were affected by the epidemic, "but by no means to so great an extent" as the 3rd regiment.—Vide *Army Medical Department Reports*, Volume 6.

The 1st-21st Foot went from Malta to the West Indies in April, 1860. During the nine months of 1860 that it was in Barbadoes, 84 cases of remittent fever were admitted, and two died; and it is worthy of notice that the year before the regiment left Malta, it was exceptionally healthy; for whilst the admissions for fever were "exceedingly numerous" in other regiments, the 1-21st was "the only corps which appeared to have enjoyed a marked exemption from the disease."

Now, contrast the above cases with that of the 29th Foot, which after two years in Malta, went to *Canada* in July, 1867, and thence, in December, 1869, to the West Indies, (relieving the 84th). I was then the assistant-surgeon of the 29th, and served with it continuously for more than three years in Jamaica and in Barbadoes. I well remember that, as we lay off Port Royal, in view of the dreaded palisades, we contemplated our future abode on the distant hills, between three and four thousand feet above us, with many and with mingled feelings, for *inter alia*, had we not the unfortunate experience of the regiment we were about to relieve as a subject for our reflections? Yet, as the sequel proved, we need not have troubled ourselves with a single gloomy foreboding; for the fates were singularly propitious to us. During the three years and three months that I served with the 29th in the West Indies, I attended altogether but two fatal cases (mitral valve disease, the sequel of rheumatic fever, and a case of acute hæmorrhagic phthisis in a young recruit). We lost not a single man, woman, or child from any endemic or epidemic disease; nor indeed from any zymotic disease whatever, either at Newcastle, Jamaica, or at Barbadoes, nor did we invalid any, to the best of my recollection.

The 98th Foot relieved the 29th in the West Indies, in March 1873. It came from Bermuda, and its medical history, in the West Indian command may be found in the *Army Medical Department Reports*, volume 15, page 77, and volume 16 page 75, etc. Suffice it to say here, that the sun of health which had shone so brightly over the 29th, with

the departure of the latter from the island, became shorn of its beams, and Hygeia was overshadowed by a cloud. Before the end of the year "fever of a severe bilious remittent type became prevalent," and three cases proved fatal. In 1874, there were 221 cases admitted under the head of fevers, and "most of these cases were complicated with enteric symptoms, in many cases severe."

Now, *why was the 29th regiment so exceptionally fortunate?* I think that anyone who has studied the medical history of European regiments in the West Indies, will admit that this question deserves to be italicised. For a more or less complete answer to it I must refer to papers of mine in the *Lancet* for 1880, volume 1, page 560 and 599. Here, I will notice only one point. Whilst other regiments had been sent to the West Indies from more or less debilitating climates, such as Gibraltar, Malta, or Bermuda, the 29th was sent from a very healthy and invigorating command, from Canada, where, for nearly two years and a half, it had been laying in a stock of disease-repelling vigour. Two years in such a climate must impart to the human economy a resisting power against morbific forces, very different from that to be gained by a residence of the same period in Malta.

I do not, of course, mean for a moment to insist that a regiment sent from Malta to the West Indies must suffer; or that a regiment sent from such a climate as Canada cannot suffer; but, I desire to strengthen the idea that a very important factor in estimating the effects of deteriorating or of lethal influences on any regiment, is a consideration of the hygienic characters of the place from which it comes; and, believing this, I hold there is much to be thought of before sending a regiment from Malta to Barbadoes to take the place of one removed therefrom in consequence of an outbreak of yellow fever.

Whether the few facts I have brought together, and the remarks which I have made, will convey to other minds the impression produced on my own, I cannot say; but the end which I have in view will certainly not be attained, if they are found wanting in suggestiveness.

POISONING BY CHROMATE OF LEAD IN WEAVERS.

By ROBERT C. SMITH, M.D.,
Bachelor of Science in Public Health, Univ. Edin., Manchester.

On February 12th, 1881, Mrs. B., aged 30, a weaver in a cotton-mill, came to me for advice and treatment. She had been unable to follow her work for the previous six weeks, and was suffering from great weakness, wandering pains in her limbs, and anæmia. Her gums showed well-marked signs of lead-poisoning. There was no albumen in her urine. She attributed her illness to the inhalation of a yellow dust that was given up from the yarn in the process of weaving an orange-coloured cloth. She had always enjoyed good health before being employed at this class of goods. She gave, as a reason, that it was the coloured dust (lead dichromate) which had made her ill; that her fellow-workers, when engaged at the same kind of work, sooner or later sickened; and that there were many others at home ill from the same cause.

Mary C., also a weaver at the same mill, applied for advice a few days after Mrs. B.; and had, like her, been engaged as a weaver of orange yarn. The blue line was very distinct. Her breath was offensive, and the skin and conjunctivæ were of a distinctly yellow colour. There was no albumen nor bile in the urine; nor had she any tenderness over the liver. She suffered from tormina and wandering pains over the body, and was very costive. Under treatment, the yellowness of skin passed away; but the blue line remained long after other symptoms of lead-poisoning had disappeared.

Jane C., sister of the above, was visited by me at her own home on the same day. I found her also affected with lead-poisoning. She appeared at first sight to be suffering from an acute attack of jaundice: her skin and conjunctivæ were intensely yellow in colour. There was obstinate sickness, and purging of dark sap-green motions (probably stained with chromium oxide). The urine contained albumen and a trace of chromium, but no bile nor lead. This patient recovered with great difficulty—the staining of the tissues, sickness, and purging ceasing first, but the blue line is still yet present.

The above are types of cases that were of constant occurrence, about nine months ago, in the practices of medical men in the neighbourhood of the mill in question. I had eight patients at once from the same mill under treatment for this form of lead-poisoning. Another medical man has had twenty, and a third has had from thirty to forty similar cases in all under observation. One of the mill-hands, under the care of a fourth medical man, dying from lead-poisoning, an inquest was held, when, at the *post mortem* examination, this gentleman found distinct traces of lead in the liver. Public opinion having been drawn to the dangerous nature of the work, pressure was brought to bear on the employers, who have since then caused the yarn to be more carefully dyed and prepared before being woven. They have also insisted on the winders and weavers wearing a muslin respirator over the mouth and nose, when at work; and the use of hooks to thread the shuttle, instead of sucking the weft through its eye with the mouth, under a penalty. By these precautions having been rigorously carried out, the operatives, though still weaving chromes, no longer suffer from lead-poisoning.

In the cases which I have observed, the yellowness of the skin is the first symptom to disappear, and the blue gums the last; and chromium is found in the urine, and probably in the fæces. I therefore conclude that, after absorption, the dichromate undergoes decomposition within the blood; the lead being fixed in the tissue, whilst the chromic acid combines most probably with soda—a compound which is intensely yellow, and stains the liquor sanguinis and skin for a time; and, finally, leaves the body by the liver and kidneys.

OVARIOTOMY IN GENERAL HOSPITALS.

By JAMES E. ADAMS, F.R.C.S.,
Surgeon to the London Hospital.

The desirability of performing ovariotomy in general hospitals must be admitted to be a matter requiring some consideration, seeing that there are some surgeons, my colleague Mr. Hutchinson in particular, who think it better to send all patients requiring this operation to special hospitals; and this opinion is mainly based on the improving statistics of the practice of those who have made this operation a specialty, and through whose praiseworthy efforts the operation has become one of the most brilliant in surgery. There are, however, many reasons against declining to do this operation in ordinary hospitals, especially where there are large schools; and I hope to be able to show that patients operated on by us do just as well, and show as good an average as those dealt with by others. What reasons are there against it? Is it because we cannot have a sufficiently pure air, pure dressers, nurses, and materials? I aver that—by complete disinfection, isolation, Listerian methods of operating, careful selection of specially trained nurses, rigorous exclusion of all sponges and dressings not absolutely new and carbolised—we can place our patients in conditions just as favourable as in any special hospital. If we could not, we ought to abstain from opening the peritoneal cavity at all, and decline all kinds of abdominal section. Do we lack the necessary manipulative skill or knowledge in dealing with difficulties? As to the former, the hands of any skilled operating surgeon should be good enough for the work; and to assume that we lack the latter, is paying a poor compliment to the lucidity of the various writers who have so carefully recorded and published such large masses of evidence as are now before us. My view is, that the specialists have given us the means of learning, and that it is the duty of surgeons in large hospital practice to acquire knowledge and to diffuse it. Nevertheless, I would not advise any patient to undergo any operation in my wards, if I thought it could be done with less risk in a special hospital; but this is the very thing which I do not believe; and I undertook my ovariotomies with the firm conviction that the preventable causes of danger or death could be as thoroughly eliminated in the London Hospital as elsewhere. I can only adduce the facts that occur in my own practice, and they are very few in number; but, so long as the belief holds that ovariotomy is not safe in a general hospital, the opportunities for extending our experience and enlarging our statistical tables are not likely to be frequent. Of five ovariotomies (properly so-called), including one woman aged sixty-one, where there were numerous adhesions, all recovered. There were two cases, besides, in which an operation was undertaken with a full knowledge of the probable difficulties and dangers, which terminated fatally; one being a soft solid malignant tumour involving the peritoneum, and the other a large succulent fibroid attached to the fundus of the uterus. The statistics, including the cases of my colleagues, extend back as far as 1878, and show a mortality of 23 per cent.; and even this, though including one or two very unfavourable cases, will bear comparison with some of the numerous series lately published. No one is more gratefully appreciative of the results obtained by, and the means of acquiring information given by, the masters and pioneers in this branch than myself, and I have no desire to acquire a special reputation as an ovariotomist; but I should like to show, if possible, that it is not only justifiable, but desirable, to perform these operations in those hospitals where patients seek relief in the first instance, instead of having to banish them to a distant institution. My argument, if I have made myself clear, is not in the direction of bold-

ness or rashness, but in that of increased caution, combined with an earnest desire that we should avail ourselves of the means of knowledge placed before us.

My cases were all treated on Listerian principles, the pedicles transfixed and tied with carbolised silk, and enclosed within the abdominal cavity.

PERINEAL CURVE AXIS-TRACTION FORCEPS.

By S. MACVIE, M.B., C.M., Chirnside, N.B.

Recent attempts to obtain the advantages of axis-traction in forceps operations have resulted in contrivances so cumbrous as little likely to be adopted by the main body of the profession. I am, therefore, induced to describe a modification of the double curved forceps for the attainment of the same object, which I have lately successfully employed, and which has the merit of simplicity to recommend it. This modification does away with the necessity for traction-rods and all other extra aids; and consists simply in the addition of a perineal curve to the ordinary double curved forceps.

Taking Simpson's "intermediate" forceps to work upon, I have added about two inches to the length of the stem of the blades, that is, of the part intervening between the commencement of the cranial curve and the lock. This additional length I have so bent that, with the blade *in situ*, it shall curve round the fourchette and pass backwards over the perinæum until it touches a line prolonged downwards through the traction axis of the blades. At this point, I have again bent the stem, so that the remaining part of the added length and the handle thereon shall continue in the traction axis line.

Such is the modification. Briefly, I have neutralised the pelvic curve by the addition of a perineal curve, so that the focus of resistance lies in the line of traction; and the instrument, in this respect, becomes practically a straight forceps. Nor is this advantage obtained at any cost, except the addition of one-and-a-half inches to the total length of the instrument. The "perineal curve" simply re-confers the power of axis traction which was sacrificed by the adoption of the pelvic curve, and without limiting the range of applicability bestowed by the latter. Therefore in the ordinary "intermediate" forceps, thus modified, we have an instrument of the widest utility, endowed with the power of axis traction; suitable wherever forceps are required, except where the obstruction is exceedingly high; and neither unhandy in the simplest nor inefficient in the most difficult cases. This modification is also valuable since it is equally applicable to the "long" forceps, and, moreover, it deprives the short straight forceps of the single superiority it possesses.

I do not pause to contrast in detail the merits of the "perineal curve" with other contrivances for the same purpose. In principle, they are identical. But in efficiency the former is fully equal to the latter; while for handiness and simplicity it is much superior. But I may mention a few particulars in which my experience shows that it excels the instrument out of which it has grown.

1. With the tip of the blade directly in the line of the handle, its introduction is easier and its adaptation more precise.

2. When the under (posterior) blade is introduced first, the handle lies far behind the fourchette, and entirely out of the way of the introduction of the upper blade.

3. For the same reason, the operator is less interfered with by the patient's thighs, both while introducing the blades, and during the extraction of the head; and suffers less loss of power from the handles projecting far in front when the head is passing under the pubic arch. In fact, from first to last, the operator occupies a more commanding position.

4. The lock, being well behind the fourchette, cannot possibly inflict any injury upon the soft parts during the adjustment of the handles.

5. The instrument, being practically straight, is capable, when the head has fully entered the pelvis, of aiding the movement of rotation. This is an advantage afforded by no other instrument whatever at such an early stage.

6. Lastly, and mainly, it confers all the advantages of axis-traction. These need not be enumerated. But it may be permitted to say, that it does so with the slightest departure from the simplicity of the instruments in common use; and with no departure whatever from the manipulative procedure at present practised.

Messrs. Young and Sons, North Bridge, Edinburgh, are the makers.

Dr. J. E. A. Ball, of Biard, Texas, reports, in an American contemporary, the case of a negro woman who gave birth to a child at the age of sixty. The age of the mother was authenticated by the record of her birth, in possession of her former owner.

ON A CASE OF ECTROPION SUCCESSFULLY TREATED BY TRANSPLANTATION OF SKIN FROM THE ARM.

By LOUIS H. TOSSWILL, M.B.,
Surgeon to the West of England Eye Infirmary at Exeter.

At a meeting of the South-Western Branch of the Association held at Exeter on October 5th, 1881, I showed a patient from whose arm and forearm I had removed large pieces of skin on July 28th, 1881, transplanting them to his left upper and lower eyelid respectively. The operation has proved so successful, that I propose to describe the case somewhat in detail; and I have the more reason for doing so, because the operation in question appears to have been but rarely performed in this country.

C. W., a boy, aged 10, was severely burnt about the head and face several years before he came under my care, the result being an amount of disfigurement which exceeded anything that I remembered to have ever seen before. The whole of the left side of the face and forehead presented one uniform surface of dull white cicatricial tissue; the outer two-thirds of the left upper lid was much everted, even when the boy looked straight in front of him. The edge of the upper lid was dragged up close to the margin of the brow, against which the lashes rested, with their points directed upwards; and when the boy attempted to close his eye, or to look downwards, the eversion became still more marked. There was considerable corneitis with opacity present in the left eye, due in part probably to the eyeball remaining uncovered during sleep, so that he appeared to be staring at anyone standing by his bedside. The position of the edge of the left lower lid was shown by a row of lashes, apparently growing from the cheek, an inch or so below the eyeball, and the mucous membrane was to a considerable extent replaced by what could not be distinguished from ordinary skin. Over this surface the tears were continually flowing, and had produced an excoriation. In addition, the almost complete eversion of the lower lip, over which the saliva was constantly running, the right eye with an opaque and staphylomatous cornea (sight quite lost), and a considerable ectropion of the right lower lid, produced an amount of deformity which was certainly unusual in its extent. As the dense cicatricial tissue extended over the whole of the left side of the face, and along the forehead to the outer side of the right eye, and also partly involved the right side of the nose, and the skin immediately beneath the right lower lid, there was no healthy skin available for the formation of a flap, whether sliding or otherwise, and it appeared to me that there was only one operation which presented even the very faintest hope of success. The boy being placed under chloroform, I made an incision parallel with the edge of the left upper lid, as shown by the row of lashes mentioned before, and about a quarter of an inch above it, and dissected the remains of the lid well down over the eyeball. I then made a similar incision just below the edge of the lower lid, as evidenced by the lashes growing from the cheek, and dissected up the remains of the lid, until the two lids thus formed could be easily approximated, leaving a large raw surface above and below the eye, from which the bleeding was so free, that one or two small arteries had to be twisted. I then pared slightly the edge of each lid, and united them with two or three strong silk sutures; next, I cut off from his right arm, with a sharp triangular knife, a semicircular piece of integument, about two and a quarter inches in length, by one and an eighth in breadth, carefully cleaned it from all areolar tissue and fat, and secured it in the gap above the eye by means of four fine silk sutures. The flap for the raw surface beneath the eye was obtained from the forearm, and was about two-thirds as large as the flap from the arm. It was carefully cleaned of areolar tissue like the other, and fastened into its bed by means of five fine silk sutures. Goldbeaters'-skin was placed over both lids, and over this abundance of cotton-wool, which was kept in its place by an ordinary roller bandage. The outer dressings were changed at the end of four days, but the goldbeaters'-skin was not removed until the sixth day, when some of the stitches were removed from the flaps. The remaining sutures were removed two days later. Eleven days after the operation, the stitches which united the lids were removed, and the latter were found to be firmly grown together. On the following day, the lids were separated by means of a bistoury, when the cornea was found to be much improved in appearance. The dressings were gradually left off, but were not entirely discontinued until about a month after the operation.

The graft on the upper lid remains almost exactly the same in size as when first placed in its bed; and even now, four months after the operation,

its boundaries can be distinctly traced, from its colour offering a considerable contrast to the cicatricial tissue round it. The same remarks apply, word for word, to the graft on the lower lid, save that the outline of the latter is not so well defined, and that I think a part of it was lost by ulceration.

The ectropion of the upper lid has been completely cured by the operation, and the conjunctival surface is no longer exposed, not even when the patient looks downwards. In the lower lid, notwithstanding the presence of the large skin-graft, the deficiency of lid-tissue is shown by its still slanting downwards unduly, but this defect I hope to rectify at some future date by a similar operation. I must add that, in sleep, his eyeball is now quite covered, and that his cornea now presents a nearly normal appearance.

THE REDUCTION OF DISLOCATIONS BY MANIPULATION.

By J. H. ANDERSON, M.D.,
Surgeon, Royal Navy.

In the *Lancet* of May 7th, 1881, I read with much interest a letter by Mr. C. H. Greene, of London, on "Dislocation of the Shoulder-Joint, and Death from Chloroform," in which he recommended a plan for the reduction of dislocations, very similar to one which was first suggested to me by Professor Gordon, of Belfast, and which I invariably practised during the years 1869-71, when I held the appointment of house surgeon to a general hospital in a large manufacturing town in the north of Ireland, where all the serious accidents—and they were not a few—occurring among the working classes, were brought for treatment; and among them dislocations were of frequent occurrence.

I can remember only one instance in which the plan I refer to failed, and that in a very muscular man in whom the luxation—of the shoulder—was of nearly three weeks' standing.

In several cases the ordinary plans for reduction had been tried and failed, before or after admission; and one case, I remember distinctly, of subcoracoid dislocation of the shoulder-joint, in which the ordinary plans of "the heel in the axilla," etc., had been tried for nearly an hour, and without success, and which I reduced without any difficulty by manipulation. Another case, I can recall, of dislocation of the head of the femur on the dorsum ilii, in which the reduction was effected without any difficulty whatever, and with very little pain. In no instance have I found it necessary to use anæsthetics. The plan too is so simple that, after a little practice, the operator will find that he has little or no trouble in reducing any recent simple dislocation.

In order to make it as plain as possible, I shall now describe the mode of procedure, and take a case of dislocation of the right shoulder-joint as an example.

I placed myself on the same level as the patient, and on his right side, but in front of the limb, raised to a right angle, or higher or lower as I found most convenient, the elbow also being bent to nearly a right angle, and allowing the latter to rest on my left shoulder or upper arm, and using my left hand to steady the upper part of the arm, or control the scapula, if necessary, I inserted the tips of the fingers of my right hand into the axilla beneath, and to the inner and anterior or posterior part—according to the nature of the dislocation—of the head of the humerus, and, by gradually increasing pressure, lifted it quietly into the glenoid cavity, where I generally found it would go without much difficulty. If the bone got jammed at all, or the patient were very muscular, a slight amount of traction, with or without a little rotatory motion, or manipulation of the scapula with the left hand, I found would almost entirely overcome the difficulty; and the pressure on the head of the bone being continued, it would slip into its place. On the left side the treatment was just the same, the opposite hands, of course, being brought into use.

Dislocations of the elbow-joint I found most easy to reduce. I merely bent the patient's forearm on the arm to a right angle, or angle of 120°, and allowed his forearm to rest on my right forearm—in the case of a right dislocation, or on my left forearm—in the case of a left dislocation; or I supported the forearm with the inner fingers of both hands; and with the other fingers applied on the highest point of the bone dislocated upwards and backwards, and the thumbs on the lowest point of the humerus dislocated downwards and forwards, pressed the bones into their proper places. This dislocation can often be reduced by one hand only.

Although in luxation of the forearm backwards the coronoid process of the ulna is frequently broken off, it does not give any trouble. Other joints are treated on the same principle.

In the one case of dislocation of the hip, to which I referred, the man was brought in with the characteristic deformity of luxation of the head of the femur on the dorsum ilii, and was at once placed in an arm chair in a semi-recumbent position. I requested an assistant to raise the foot off the floor to a height of about twelve inches, and to rotate gently, whilst I placed my fingers beneath the head of the bone, and lifted it towards the acetabulum, into which it slipped without any difficulty.

Having as briefly as possible described my mode of procedure, I shall now conclude by stating what I consider the advantages of this plan.

1. It is simpler and more easy of application than the ordinary plans, and can be adopted anywhere and at once, as no surgical appliances are required.

2. As a consequence of the latter, no injury need be done to the limb or the parts around the joint, as the dragging of pulleys, bandages, heel in axilla, etc., are liable to do, owing to the fact that the fingers are the principal means employed for employing force, and there the sense of touch serves us.

3. It is attended with very little pain to the patient, and anæsthetics are seldom or never required.

P.S.—Since writing the above, two short papers have appeared in the BRITISH MEDICAL JOURNAL on the subject of reduction of dislocations by manipulation; but neither of them appear to me to have the advantages of the plan above described.

CLINICAL MEMORANDA.

ENTERIC FEVER IN INDIA.

SOME of the readers of the JOURNAL who take an interest in the causation of enteric fever in India, so destructive to young soldiers there, who attended the section of military medicine and surgery at the International Medical Congress, held in London last August, may remember a paper read by me on this subject, and the interesting discussion which followed. Some of the highest authorities on tropical medicine took part in this discussion; prominent amongst whom were Drs. Norman, Chevers, Scriven, Ewart, Sir Joseph Fayrer, and Dr. Billings of Washington, U.S. My contention, both in the paper and in the debate, was: 1. That enteric fever is not a new disease in India; 2. That in innumerable examples, this disease has passed for the adynamic form of remittent fever, and in its mildest form is often included in military medical "returns" as "simple continued fever"; 3. That the diagnosis is often obscured by malarial complications, that this was so, particularly in the days preceding medical thermometry; 4. That the disease, as seen in India, is due to the same cause as in Europe, viz., pythogenic impurities, introduced into the system through the same channels as here—air, water, food. My contention under the last head was controverted in a very animated way by some of the speakers in the debate. What appears to me an important piece of evidence in support of my argument has just come to hand from a source above all suspicion of partisanship. Surgeon-General Sir Anthony D. Home, V.C., K.C.B., on the 8th of November, 1881, forwarded to the Acting-Secretary to Government Military Department, Madras, a report on the prevalence of enteric fever in the Madras command during 1808, compiled by Surgeon-Major Bidie, M.D., Statistical Officer, from which the following extract is taken.

"During the third quarter of the year, there occurred in the 2-13th Regiment at Kamptee twenty-seven cases of fever, of which eight were returned as enteric, and the rest as simple continued fever. Regarding the latter, it has to be observed that, from the description given, they appear to have also been cases of mild enteric fever, although the distinctive symptoms were not considered sufficiently marked by the executive medical officer to warrant his returning them under the head of enteric fever. The twenty-seven men attacked belonged to various blocks in the barracks, and no room seemed to be more obnoxious to the disease than another. The latrines were all in fair order, and no suspicion attached to them. The drinking-water supplied to the barrack-room was taken from a well specially conserved for the supply of drinking-water. This water was also carefully filtered. The milk also was beyond suspicion. After a time, it was noticed that nearly all the men attacked were 'teetotallers'. Of the eight cases of undoubted enteric fever, seven occurred in men belonging to this class; and of the nineteen attacks returned as continued fever, thirteen were in total abstainers. Further inquiry elicited the fact that the teetotallers had a recreation-room where tea, coffee, and aërated waters were supplied, and that the water used there was taken, not from the well set apart for drinking purposes, but from another close at hand, the water of which was considered fit for cooking purposes only. This well was situated close to the site of former latrines; the surface-drain from the washhouse passed within four feet of it, and, on closer examination, signs were discovered of percolation from the drain into the well. On

analysis, the water was found to contain an undue proportion of organic matter. *The well was then closed, and the fever ceased soon afterwards.*" The italics are mine. It is noted that all who drank of the impure water did not "suffer any injury". There is nothing remarkable in that; everyone exposed to the contagion of small-pox or scarlet fever does not "suffer injury".

In this example the disease was clearly traced to its source. In scores of instances it is not possible to do so, as soldiers, in spite of all precautions, in their rambles in the neighbourhood of their cantonments, partake of beverages the water of which is taken from sources over which the authorities have no control. My readers will not fail to notice in the above extract what is said about the cases of continued fever being none other than mild enteric, as giving valuable support to another part of my argument at the Congress.

W. C. MACLEAN, Netley.

NERVE-STRETCHING IN TRAUMATIC TETANUS.

IN the report of the proceedings of the Surgical Society of Ireland in the JOURNAL of December 17th, Mr. Wheeler is said to have described his case of traumatic tetanus treated by nerve-stretching as being "the first recorded (save that of Paul Vogt) in which nerve-stretching had proved effective in curing acute traumatic tetanus", and he believed it was the only case in which the operation had been done with that object in the United Kingdom. In the *Glasgow Medical Journal* for July 1879, I published the details of a case of acute traumatic tetanus in which this mode of treatment was tried with success, and I also referred to seven other cases where nerve-stretching had been performed by British surgeons for the relief of this disease. Since that time, three or four other cases have been published in the medical journals. While I believe my own to have been the first successful case in Great Britain, I am quite sure that Mr. Wheeler's is not even the second, as at least one unrecorded case has come under my notice, and no doubt there are others of which I have not heard.

Mr. Wheeler is to be congratulated on the successful issue of his case; but it would not have detracted from the merit of the operator if he had recognised the work of other surgeons in the same department.

HENRY E. CLARK, Glasgow.

A CASE OF CARBONIC ACID POISONING.

EARLY on the morning of December 16th, I was called out by a man who lived a few miles off, to see one or two of his children, who were affected, he said, "with something like lock-jaw". On arriving at his residence, a small, new country farmhouse, I was told that one of the children was dead, and this I soon found to be quite true; and I therefore directed my attention to the living. I was brought to the bedside of a young girl aged apparently about 18; and, on a brief examination, I found her cold and wan, and in a queer sort of half-stupid, half-comatose condition; the eyes half-open, and the eyelids slowly but very imperfectly performing their accustomed functions. The pupils presented nothing abnormal. She appeared not to understand or comprehend any remark or question I addressed to her at this time, although she evidently at least heard my voice. Immediately on reaching the house, I had been informed that this girl and another some years younger, together with their little brother, aged 4 or 5, who then lay dead in an adjoining room, had retired to rest the previous night all in their usual good health; and that, as there was no fireplace in the room, they had taken a small tin dishful of clear coals and had placed them under the bed; the last one getting into bed, moreover (as came out afterwards at the inquest), shutting the bedroom door. Of course, on hearing this statement, and on inspecting the bedroom itself, which I found exceedingly small, with an exceedingly small window and low ceiling, and without the slightest provision of any description whatever for anything in the shape of ventilation, but quite the reverse, I had no difficulty in arriving at a diagnosis in the case.

My treatment was sufficiently simple, and yet rapidly successful. I threw open the window, applied a hot bottle to the feet, and placed an extra blanket on the patient. The latter precautions were, perhaps, rendered the more necessary as the poor patient, when discovered, was lying half-naked across the edge of the bed, with the dead brother on her arm; and in this condition and position the poor creature may have lain no one knew how long, probably two or three hours. In the course of a very short time, vitality and consciousness had so far returned that the patient was able to reply quite intelligently, though apparently still with some little difficulty (chiefly, it seemed to me, from a peculiar stiffness of the articulation of the lower jaw), to my questions and remarks; and, still a little later, perfect consciousness resumed its sway. Afterwards, and before I left the house, the patient became a little nervous and excited; and I deemed it prudent to allay these symptoms, which I did effectually by the hypodermic injection of a small dose of morphia and atropine, and no further medical treatment of any kind was called for in the case.

The younger girl, who occupied the position in the bed next to the wall, escaped without any apparent injury; she merely vomited slightly afterwards, but was not unconscious at any time.

I inspected the deceased child the next day, at the request of the coroner. The body presented nothing striking in any way. The features were perfectly tranquil; and this showed, I think, that death must have been quite painless. The skin maintained almost its natural colour *post mortem*, and even about the lips and gums hardly any bluish or other abnormal colour was evident. The pupils were quite normal; I mean they were neither much dilated nor much contracted.

I need hardly say that my opinion to the coroner's jury was that, from all the circumstances of the case, the boy must have died from carbonic acid suffocation; and this opinion they of course endorsed by their verdict.

GEORGE K. GIVEN, Medical Officer, Gortin, Co. Tyrone.

THE DANGERS OF NERVE-STRETCHING.

IN Dr. Cavafy's able paper on nerve-stretching which has lately appeared in the JOURNAL, only the advantages, but not the dangers, incident to the operation of nerve-stretching in locomotor ataxy, have been dwelt upon. It may, therefore, not be out of place to mention that at least five fatal cases have already been recorded; viz., one by Socin (mentioned by Dr. Cavafy); another by Langenbuch, who originated the operation; a third by Billroth and Weiss; a fourth by Berger; and a fifth by Benedict. In most of these cases, the cause of death appears to have been undue violence used in stretching, whereby the medulla oblongata would appear to have received a shock. Thus, in Benedict's case, severe vomiting and singultus, together with complete paralysis of the bladder and bowels, supervened after the operation; dyspnœa and cyanosis eventually set in, and the patient died comatose on the ninth day.

The operation cannot, therefore, be considered a slight one; and, in advising it, we must be careful not to conceal the risks attending it from the patient and his friends. Nevertheless, I think that it will keep a prominent place in the therapeutics of tabes spinalis, since in numerous well-observed cases the improvement has been most marked and satisfactory, not only in the sphere of the stretched nerve, but far beyond its territory. It will, however, be incumbent upon us to avoid undue violence in stretching, and not to resort to it at all in patients in whom there is the least suspicion of an affection of the medulla oblongata, such as asthma and certain cardiac and respiratory diseases.

JULIUS ALTHAUS, M.D.

THERAPEUTIC MEMORANDA.

SALICYLATE OF SODA AS A LOCAL APPLICATION IN ACUTE RHEUMATISM.

WITHOUT entering into the question of salicin, salicylic acid, or salicylate of soda being "specific" in the treatment of acute rheumatism, I think that anyone who has had an opportunity of testing these remedies will be bound to admit that all three preparations have been useful in the highest degree in controlling the fever and giving relief to the affected joints. Neither in hospital nor in private practice have I met with any symptoms which I could consider as serious drawbacks to the use of salicin or its compounds. I will not give statistics, and I will only briefly allude to a severe case of polyarthritis acuta in a young lady, aged 19, where joint after joint became red, swollen, and exquisitely painful and tender. I tried many local applications, besides internal remedies, without giving much relief, until I applied lint soaked in a solution of salicylate of soda, under a cover of oil silk, to the affected joints. The relief was speedy and great. I have since tried it in a few cases in private practice with success; and am now using it, more extensively, in cases under my care in the North Staffordshire Infirmary. I have previously used, with some benefit, local applications of potash and soda; but the relief from pain with the salicylate has been so marked in the few cases in which I have tried it that I venture to publish the result, with the hope that further experience in other hands will not prove that I have been too sanguine in regarding it as a simple and efficient method of relieving pain.

CHAS. ORTON, M.D.DUR., F.R.C.P.E.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

UNIVERSITY COLLEGE HOSPITAL.

A CASE OF DIABETES MELLITUS: MUCH BENEFIT FROM THE USE OF OPIUM IN LARGE DOSES.

(Under the care of Dr. H. CHARLTON BASTIAN, F.R.S.)

[FOR the report of this case we are indebted to Mr. E. A. DINGLEY, late Clinical Clerk.]

G. P. T., aged 48, had worked for twenty years as foreman on the London and North-Western Railway, chiefly on night duty. He was married, but had no children. He was in the habit of drinking about four pints of beer and a little spirits daily. He describes himself as an extremely healthy man until June 1880, when he began to feel out of health, and noticed that he was passing more water than usual; these symptoms gradually increased, so that at the end of July he was obliged to leave work. At this time he was treated for nervous debility. About the middle of September he consulted another doctor, who, on examination, found sugar in his urine.

He was admitted on November 17th, 1880. He was a tall well-built man, standing about six feet high; his chief complaints were of thirst and weakness; he had been losing flesh for six months, but the emaciation was not extreme, though, as evidenced by comparison of his weights then and at this date, very decided. His intellect was clear, but he felt heavy, and his temper had become irritable. Vision had grown less acute lately, and he was incapable of making any considerable exertion; the grasp, as measured by the dynamometer, was decidedly below the average. Beyond a slight tendency to emphysema, no evidence of any disease of the chest could be detected. His appetite was not good, and he suffered much from flatulent distension. He complained of constant thirst, and of a sour clammy taste. The breath had a peculiar sweetish, almost vinous, odour; the tongue was large, moist, indented by the teeth, clean and red anteriorly and at the edges, but, on the dorsum and posteriorly, covered by a thick whitish-brown fur. The bowels were constipated; he had to make water frequently during the day, and three times during the night. There was no scalding on micturition. He was found to be passing daily about 110 fluid ounces of urine, of specific gravity 1,039. The amount of sugar which this quantity of urine contained was about 6,600 grains. The urine contained no albumen.

The progress of the case will be best shown by the following table, which has been very carefully compiled. The amount of sugar in the urine was carefully estimated every day (with a very few exceptions) for the whole of the six months the patient was in the hospital. It was estimated by Fehling's standard solution, and the results frequently confirmed by testing solutions of dextrose in normal urine of a known strength.

Average Excretion of Sugar and Urine in a case of Diabetes under various conditions.

Date of Alteration.	Condition.	Average Quantity of Sugar passed in 24 hours in grains.	Average Quantity of Urine passed in 24 hours in fluid ozs.	Average Specific Gravity of Urine.
Nov. 19	Patient on full diet	5624.2	120.0	1036.1
,, 28	Patient on modified diet (toast instead of bread) ..	4408.1	127.3	1036.3
Dec. 2	Patient on strict diet (bran biscuits, meat, etc., no bread)	1397.5	73.8	1032.7
,, 8	,, ,, and taking ext. opii gr.iij *per diem*	192.5	45.9	1027.0
Jan. 13	,, ,, ,, ,, gr.ivss. ,,	47.7	43.7	1028.5
,, 21	,, ,, ,, ,, gr.vj ,,	38.4	40.1	1028.7
Feb. 5	,, ,, ,, ,, gr.vijss. ,,	29.7	35.0	1031.0
,, 13	,, ,, ,, ,, gr.ix ,,	20.2	26.6	1026.4
,, 25	,, ,, ,, ,, gr.xij ,,	17.4	34.4	1023.1
Mar. 29	,, ,, ,, ,, gr.ix ,,	13.1	36.2	1023.3
April 5	,, ,, ,, ,, gr.vj ,,	12.3	36.1	1028.0
,, 12	,, ,, ,, ,, gr.iij ,,	10.8	27.5	1025.3
,, 19	,, ,, ,, ,, gr.iss. ,,	11.0	27.3	1023.8
,, 26	,, ,, no opium	10.9	26.8	1024.6
May 3	,, full diet (except sugar)	18.2	25.7	1026.7

The numbers in the table relating to one condition are the mean result of the whole of the observations belonging to the period during which that condition lasted. The patient for the first few days was given 10 grains of compound ipecacuanha powder thrice daily; but, this causing nausea, it was changed to a grain of extract of opium made into a pill with bread. When taking extract opii. gr. xij. per diem, the patient felt no inconvenience from this large dose; the pupils were contracted, and there was slight drowsiness, but no headache, no constipation, and no sweating; the tongue clean and moist; strength of grasp considerably increased.

On December 29th, when on strict diet, and taking 3 grains of extract of opium daily, the sugar passed was 83.7 grs.; in the evening he ate two small pieces of cake, and had a little port wine. On December 30th, the sugar passed was 233.2 grs.; and, on the 31st, it was 131 grs. On January 1st, it fell to 87 grs. again. On May 3rd, the patient having then left off the opium for a week, returned to ordinary diet. The urine of the 3rd contained 13 grs. of sugar; that of the 4th, 61 grs.; that of the 5th, 52 grs. On the 6th, however, the quantity fell to 10 grs., and remained about that figure until the patient went out.

When discharged, on May 17th, 1881, the patient looked in good health, and said he felt as well as ever he had been; he had gained one stone in weight, and his grasp, as measured by the dynamometer, had risen from—right 54, left 45, before treatment, to—right 70, left 66, on discharge.

CHARING CROSS HOSPITAL.

FIBROUS TUMOUR OF LARYNX REMOVED BY THE AID OF THE LARYNGOSCOPE.

(Under the care of Mr. JOHN H. MORGAN.)

[From Notes by Mr. WHITEHEAD.]

SUSANNAH B., aged 56, was admitted on account of a constant irritation of the throat, with occasional difficulty in swallowing. She was a married woman, and had had three children. Two years ago she experienced tickling in the throat, for which it had been painted with some benefit. A year and a half ago she had a fit of spasmodic dyspnœa which lasted for a few minutes; a second attack occurred four weeks ago.

On admission, she seemed in fairly good health; there was a well marked arcus senilis. She said that with the exception of the two above-mentioned attacks of dyspnœa, she had had no cough or spasm, and only some slight occasional difficulty in swallowing. On the left tonsil was a small, hard tumour, rather larger than a pea, apparently of cystic origin, which did not cause any inconvenience. She was not hoarse. On examination with the laryngoscope, a large smooth oval tumour was seen attached by a pedicle to the right aryteno-epiglottidean fold. It rested upon the ventricular band, and entirely obscured the right vocal cord. The left vocal cord was partially hidden by the projecting portion of the growth, and its extremities were in a state of chronic congestion. After two or three examinations, during which the growth was manipulated with a probe, the patient being very tolerant of examination, a thin curved wire écraseur was passed over the epiglottis, and the noose guided by the mirror over the growth until it encircled its base. The mirror then being held by an assistant, the tumour was dragged up by means of the écraseur until its apex shewed above the epiglottis, when it was seized with a pair of curved vulsellum forceps. All danger of its falling into the glottis having thus been prevented, the wire of the écraseur was gradually tightened, until the base of the tumour was cut through, when it came away in the vulsellum. There was no bleeding, and on examining with the laryngoscope both vocal cords were seen, the right being white and healthy. The patient suffered no pain or inconvenience, and left the hospital in a few days.

The tumour was of the size and shape of a small grape, was hard, and covered with a soft mucous membrane. The microscope showed it to be composed of pure fibrous tissue, with hardly any cell-elements.

MATER MISERICORDIÆ HOSPITAL (DUBLIN).

POPLITEAL ANEURYSM CURED BY VOLUNTARY FLEXION OF THE LIMB.

(Under the care of Mr. COPPINGER).

[Reported by Mr. J. O'CARROLL].

P. B., aged 44, was admitted on June 4th, 1880, suffering from popliteal aneurysm. He had formerly been a soldier, and had served for fifteen years in India, but although intemperate, he had never suffered from syphilis. The aneurysm, which was about the size and shape of a goose's egg, was first noticed about six weeks before admission, when his attention was drawn to it by an attack of severe pain. This occurred spontaneously, and there was no history of exceptional strain or injury to the part.

The aneurysm occupied the centre of the popliteal space, and grew, apparently, from the posterior aspect of the artery. It was thin walled,

pulsated strongly, and was the seat of a very perceptible thrill or *frémissement*. The patient was kept in the recumbent position, and ordered a restricted dietary, with a limited quantity of fluids, and iodide of potash in ten grain doses three times a day. After a few days of this treatment his pulse, which had been full and strong (80), became weaker and slower (68), while some aching pain which had been complained of in the calf of the leg, disappeared. The effect of even moderate flexion in entirely preventing pulsation in the aneurysm was now noticed. The fact was demonstrated to the hospital class, and it was determined to try, after some days, a combination of the treatment by flexion, and that by digital compression. Two days later, (July 9), at 3 p.m. pain was felt in the aneurysm radiating upwards and downwards, along the limb; this pain became very severe, and the patient was seen by Mr. Coppinger at 9 p.m. Pulsation in the sac had then disappeared, and on inquiry it transpired that the patient, who took an intelligent interest in his own case, had tried, on his own account, the effect of flexion, and had kept the limb in the flexed position for two days. This position was now maintained and morphia administered hypodermically to relieve the pain.

On examination the next morning, the aneurysm was found replaced by a solid non-pulsating tumour, while pain was no longer felt in the limb. The man remained in the hospital for a fortnight, and was then discharged cured.

This case is of interest as an illustration of the value, in suitable cases, of the treatment by flexion introduced into this country by Mr. Ernest Hart. A flexed position of the limb voluntarily maintained for about 48 hours, proved, in this instance, sufficient to induce consolidation in the sac, and a permanent cure of the aneurysm.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, JANUARY 3RD, 1882.

SAMUEL WILKS, M.D., F.R.S., President, in the chair.

Squamous Epithelioma of the Upper Jaw.—Mr. BUTLIN said that his colleague, Mr. Morrant Baker, had removed the tumour from a woman aged 48. The patient stated that she had only noticed the disease two months earlier. When admitted, there was a swelling of the alveolar process and the hard palate, extending nearly to the middle line; but there was no swelling below the eye. The teeth had disappeared from the jaw; and, at the bottom of the socket of one tooth, was the opening of a sinus, discharging a foul fluid. At the operation, it was found that the disease extended much more widely than was anticipated, and the woman died five days afterwards from exhaustion. Mr. Butlin exhibited drawings of the microscopical appearances. These showed that the growth was a squamous epithelioma, and contained a number of epithelial nests. He had brought a similar case before the Society last year. It was the disease known in France under the name of "epithelioma terebrans", and was of importance owing especially to the insidious manner in which it progressed. In both his cases, the growth had not attracted attention until within a few months of death.

Mixed-celled Sarcoma of Phalanx of Thumb.—Mr. BUTLIN showed the growth, which had been removed from a young girl; it had existed for eighteen months before removal. The growth had no capsule; and, on microscopical section, it was found to be a mixed-celled sarcoma, with a well-marked alveolar structure and some giant-cells. Mr. Butlin had suggested that it might be connected with the periosteum; but Dr. Wilks of Ashford, who removed it, said that it was freely movable, and apparently not so related. Mr. Butlin was inclined to suppose that it had sprung from the outer surface of the periosteum.

Morphœa Alba.—Mr. STARTIN showed a woman, who presented a large patch of indurated waxy tissue at the outer aspect of the right thigh. The disease seemed to be situated in the connective tissue and the corium; it had not altered materially while under observation.

Xanthelasma.—Mr. STARTIN also showed this patient, who was a girl five years old. The disease appeared as small closely-set yellowish nodules, and occupied the extensor aspect of the elbow-joints, the buttocks, and the popliteal spaces. It had been first noticed when the child was about three years old. This patient had a brother, aged two years, who was beginning to exhibit the same condition.

Neurotic Excoriation.—Mr. STARTIN exhibited a child, who presented a condition which he believed to be of the same nature as the disease described by Sir Erasmus Wilson under the above name. The patient was four years of age. The skin in the affected part appeared as if rubbed by some hard substance. The excoriated surfaces were seen best on the abdomen and loins; their condition fluctuated a good deal; sometimes the patches became nearly healed, and then again broke out.—Dr. RADCLIFFE CROCKER wished to know how Mr. Startin distinguished this disease from eczema. In this case there had been discharge, with eruption about the plexuses of the joints, and there had been a discharging sore of the scalp. He failed to see any evidence of nerve influence. Many of the cases of so-called "neurotic excoriation" had an element of suspicion about them; often they were self-induced. Mr. Sangster, who had showed a similar case at the International Medical Congress, now admitted that in his case the disease was produced by imposture.—Dr. STEPHEN MACKENZIE was inclined to agree with Dr. Crocker. The eruption was in the characteristic situations for eczema, and the mother stated that there had been a discharge from the head at one time.—Mr. JONATHAN HUTCHINSON thought that the case of xanthelasma was an extremely interesting one; he had never seen a case exactly the same. The child had some curious outgrowths in connection with the bones of the fingers. He had grave doubts whether it could be described as xanthelasma. He had seen this case a few months ago, and the patches were not increasing in size. With regard to the case of neurotic excoriation, he thought that, on the trunk, the patches did bear some relation to the nerve distribution; they had somewhat the oval outline of patches of herpes zoster. No doubt they were of an eczematous character; but the case was at least not one of ordinary eczema. He suggested that a committee be appointed to examine and report on the patient with xanthelasma and her brother.—At the request of the President, Mr. Startin, Mr. Jonathan Hutchinson, and Dr. Radcliffe Crocker, were appointed to act on a subcommittee for this purpose.

Bilharzia Hæmatobia.—Dr. CAVAFY introduced Dr. Zancarol (of Alexandria), who exhibited some specimens of the ova of this parasite *in situ*; and also an adult male. The specimens were obtained from two cases which occurred in the Greek Hospital, at Alexandria. The first was an Arab, aged 45; he had suffered from dysenteric symptoms during life; the colon contained large vegetations. Microscopical section showed that these vegetations contained numerous ova in the tissue between the mucous and muscular coats. The ova, as is usual when occurring in this situation, were each provided with a large lateral spine. The second case was also that of an adult Arab, who died after the operation of lithotomy. The mucous membrane of the bladder showed numerous vegetations, and was ulcerated in places. In these vegetations also, there were numerous ova. Each ovum was provided with a spine, but here its situation was terminal, and not lateral. The adult male worm exhibited was removed from the portal vein. It was of a filiform shape, and was about one inch long. The adult parasites were only found in the portal, mesenteric, and vesical veins; in the veins copulation was effected—the female entering a canal in the body of the male. From these veins the ova escaped to the mucous membrane of the intestine and bladder; and there led to the vegetations and ulcerations described. He believed that the frequency of vesical calculus in the natives of Egypt was due to the alterations in the mucous membrane of the bladder produced by these ova.—Dr. NORMAN MOORE said that a patient, a medical man, under treatment now at St. Bartholomew's, had been the host of Bilharzia for some months, but had quite recently noticed filariæ in his blood at night. The natives of Central Africa believed that the parasite entered by the urethra; and, before crossing a river, tied up the orifice of the canal. Was there any truth in this idea?—Mr. BRYANT wished to know what were the clinical symptoms to indicate the presence of the ova in the bladder.—Dr. ZANCAROL, in reply, said that he had not himself met with the filaria in a case of Bilharzia, and he had only once heard of such a thing. He did not think that the theory, that parasites entered by the urethra, deserved serious consideration. The disease in Egypt was only found in persons who drink the undistilled water of the Nile; it was therefore seldom met with, except in the Arabs. The chief symptom was hæmaturia. Microscopical examination of the urine yielded evidence of the embryos; they resembled pumpkin-seeds in form, and were provided with cilia; they remained active in the urine for about twenty-four hours. Patients could be the hosts of the Bilharzia for many years, and experience no inconvenience beyond slight attacks of cystitis and hæmaturia. Attention to hygienic details and rest were of most value in treatment, but the symptoms invariably recurred after apparent recovery.—Dr. WILKS thanked Dr. Zancarol, on the part of the Society, for affording it the opportunity of seeing these very interesting specimens.

Ulcer of Stomach.—Mr. KESTEVEN showed this specimen. There were several ulcers on the mucous surface of the stomach, and at the bottom of one was a small perforation. The patient was an unmarried female aged 20; she was only ill for a short time, and urgent sym-

ptoms occurred but a few hours before death, which was caused by peritonitis due to the perforation.

Bovine Tuberculosis in a Ruminant.—Dr. CREIGHTON showed the thoracic organs removed from a nylghau, the member of the ruminant class which is most nearly allied to the true bovine genera. The pericardium was covered by numerous nodules of a tubercular character. On the upper surface of the diaphragm were numerous grape-like clusters exactly resembling the outgrowths of *Perlsucht*, while on the under surface the appearances approached more nearly the condition found commonly in the human being. The lungs contained a quantity of white material, which was arranged in a racemose manner; in the centres of these racemose masses were nodules of calcareous matter. Similar conditions had been found on another animal of this species which was dissected at Hamburg. He thought it very interesting to find well-marked "bovine tuberculosis" occurring in a member of another genus of the Bovidæ.

Annular Stricture of the Intestine.—Two cases of this condition were brought forward by Dr. Stephen Mackenzie. In the first case, the patient, a woman, had suffered for some time from gradually increasing troubles of an obstructive kind: the abdomen was greatly distended, pain was severe, and the motions were small. After death, there was some peritonitis; the stricture was situated twelve inches from the anus, and just admitted a No. 8 catheter: the colon above it was much dilated. In the second case, complete obstruction developed after a long period of habitual constipation. At the necropsy, the colon was found enormously distended; the stricture admitted the end of the little finger. In both these cases, the diagnosis was made; and both might have been benefited by colotomy, had not other circumstances prevented its performance. On microscopical examination, these cases showed that the stricture was due to a new growth, and that this was really the nature was proved by the occurrence of metastatic deposits in some cases.—Dr. SYDNEY COUPLAND wished to ask whether there was any ulceration in the intestine just above the stricture.—Mr. HENRY MORRIS inquired whether there was ulceration of the cæcum, as the stress of the obstruction seemed frequently to fall there most.—Dr. MACKENZIE said that in both cases there was a little erosion above the stricture; that in one case there was perforation; and that in both there was ulceration of the cæcum.

Intestinal Obstruction.—Dr. FOWLER showed this specimen, removed from a young man. The symptoms did not commence until after he had received a severe kick with the naked foot. He suffered much pain; and vomiting began immediately. When admitted into the Middlesex Hospital, three days after the blow, he was much emaciated and exhausted; and the vomited matters had a fæcal odour. He grew gradually more exhausted. Mr. Hulke made an abdominal section, and, after a careful search, he found a knuckle of small intestine constricted by a firm band; this was divided, and the intestine, which was much congested, was returned. The patient died a few hours later. At the *post mortem* examination, there was only very limited peritonitis. The constriction had been effected by two cords, which had their upper connections with the great omentum, and extended down towards the pelvis. He thought that the obstruction had been caused by a knuckle of the ileum slipping beneath one of the above-described omental cords, and that the ileum may have been displaced in that way by the blow.

The meeting was then resolved into the Annual General Meeting. The report of the Council, read by Mr. Henry Morris, one of the Secretaries, showed that the Society was in a most flourishing condition. After the election of officers, and the usual vote of thanks to the Council, the Society adjourned.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, DECEMBER 7TH, 1881.

J. MATTHEWS DUNCAN, M.D., President, in the Chair.

Ovarian Tumour with Adherent Fallopian Tube.—Mr. KNOWSLEY THORNTON showed a portion of an ovarian tumour with the Fallopian tube adherent by its fimbriated extremity to the opposite ovary, which was so completely grasped that it had partly atrophied. It demonstrated perfectly an occurrence which he had been led to suspect by a series of cases in which both ovaries had been found to be involved in one tumour, the respective tubes and ligaments forming two distinct pedicles. He thought that the tube, elongated by the growth of the cyst, was carried into contact with the opposite ovary, and its fimbriæ fell over this ovary.

Translucent Sac.—Dr. HERMAN exhibited microscopic sections of the specimens he had shown at the meeting in October, made by Mr. McCarthy, and showed the membranous wall of the translucent sac, which was sheathed with epithelial cells, such as are seen in amnion. The other showed a section of the minute solid body, one line in length, the mass of which consisted of undifferentiated cells like those of the very early embryo.

Conjoined Twins.—Dr. PERCY BOULTON showed a specimen of conjoined twins. The children were females, and were united in front by the thorax and abdomen. The first child presented by the face in the third position. The second stage lasted six hours, and Dr. Boulton was then sent for by the midwife in attendance. The first head was delivered by forceps, and then a monster was diagnosed. Traction was made, and the shoulders, arms, and trunk of No. 1 were brought down, then the four feet, then the rest of No. 2 as a footling, evolution taking place round the pubes as an axis. The children were still-born, measured fourteen inches, and weighed five pounds. The mother made a good recovery.

Uterine Tumour.—Dr. HEYWOOD SMITH showed a tumour removed from a patient aged 55. Sir James Simpson had diagnosed a fibroid tumour of the uterus more than twenty years before. Lately, a cyst had developed, and Dr. H. Smith diagnosed ovarian cyst with fibroid of ovary. At the operation, the cyst was found to be an offshoot from the solid tumour, and the whole tumour was removed; the pedicle being very short and hard, close to the right corner of the uterus. There was nothing to distinguish the tumour from a fibroma of the uterus.—Mr. DORAN did not understand why pathologists were so reluctant to recognise fibro-myoma as possible in the ovary. The normal ovarian stroma contained many cells closely resembling the muscular fibre of uterine tissue, and the ovarian ligament was undoubtedly muscular. He had seen clear cases of ovarian fibro-myoma, small and large.

Fallopian Pregnancy.—The PRESIDENT showed a right Fallopian-tube pregnancy. The laceration was very long, measuring an inch and a half. The patient consulted Mr. Falconer at the Stirling Infirmary, thinking herself four months pregnant; the fœtus was of about five weeks only. She complained of weakness and pain in the belly. She had syphilitic psoriasis, was anæmic, and had been losing blood repeatedly *per rectum*. She died in thirty-six hours. The abdomen contained large masses of clotted blood.

Pregnancy with Epithelioma of Cervix Uteri.—Dr. EDIS asked for an expression of opinion on the following case. A woman aged 29, married seven years and nine months, mother of one child eighteen months old, came as out-patient on account of pain and sanguineous discharge, and was found to be six months pregnant. The whole of the cervix, and the posterior wall of the vagina, down to within an inch and a half of the perinæum, were affected with epithelioma. The cervix was dense, nodulated, rough, but did not bleed very readily. The whole disease could not be removed by the Porro-Freund operation; and the question was, whether to induce premature labour, or let the patient go to term, and perform Cæsarean section.—Dr. WILTSHIRE thought that if the disease had extended down the posterior vaginal wall nearly as far as the perinæum, Porro's operation would fail in removing it. He mentioned a case of excessively dense cancer of the cervix in which he performed Cæsarean section some years ago, but in which Porro's operation would have been admissible, had it been then in vogue.—Dr. HERMAN said that published cases showed that the consistence of the growth was of more consequence, as regards delivery, than its extent. Living children had been born after quick and easy labours, although the whole circumference of the cervix and vagina was cancerous; and, conversely, cancer of small extent might, if very hard, cause great obstruction.—Dr. PRIESTLEY agreed with Dr. Herman that the consistence of the growth was of most importance. He did not think the case suitable for Porro's operation, as the child was not viable at the sixth month, and the mother's life could hardly be prolonged by it. He would chiefly regard the child's life; and would be disposed to let the woman go to full term, or nearly so, and then act according to the amount of obstruction found to exist.

On the Normal and Pathological Anatomy of the Ganglion Cervicale Uteri.—Dr. JASTREBAN (St. Petersburg) concluded that the so-called ganglion cervicale of Frankenhäuser was in reality a plexus consisting of many ganglia, found at the junction of the twigs from the sacral nerves with those of the hypogastric plexus. From microscopic examination of the ganglia, he inferred that there was a potent connection between the diseases of the plexus and those of the uterus; and that on disease of the ganglia most probably depended functional disease of the uterus in the different stages of labour.

The Treatment of Spasmodic Dysmenorrhœa and Sterility by Dilatation of the Cervical Canal with Graduated Metallic Bougies, with Notes of Five Successful Cases.—Dr. GODSON gave a history of the introduction of the method, more than fifty years ago, by Dr. Mackintosh of Edinburgh, and of the various phases through which it had passed, it having fallen into disfavour, until recently its claims had been advocated by Dr. Matthews Duncan. A statement was made of all the cases

of dysmenorrhœa associated with sterility which the author had treated, pregnancy having followed in five, or one half of them. The dysmenorrhœa was of that kind known as spasmodic or obstructive, characterised by severe colicky pains in the hypogastric and sacral regions, either before the menstrual flow or coincident with it. The author preferred to drop the title obstructive, as he knew no evidence to prove that there was a want of patency of the cervical canal; and Dr. Duncan had passed a probe into the uterus at the height of the pain without meeting with obstruction. He believed that the spasm of the uterine muscular tissue was of itself sufficient to give rise to the severe pain, without any obstruction. Case I, aged 32, married four years, applied on account of sterility; its association with dysmenorrhœa was then elicited. On two occasions, at an interval of two months, several dilators were passed, the highest No. 14. The dysmenorrhœa was relieved after the first menstruation; pregnancy occurred three months after the second. Case II, aged 29, married three years, sterile, applied for severe dysmenorrhœa. Two dilators only (Nos. 7 and 8) were passed, producing very severe pain. The next period took place without pain, and was followed by pregnancy. Case III, aged 22, married two years, complained of spasmodic dysmenorrhœa. Dilators 7 and 8 were passed; three periods comparatively free from pain followed, then pregnancy. Case IV, aged 24, sterile, married two years and a half, applied for severe dysmenorrhœa, aggravated by marriage. Bougies Nos. 7 and 8 were passed only a few days before a period, which, when it occurred, was in no respect freer from pain. Two periods followed with hardly any pain, and then pregnancy. Case V, aged 25, married three years and a half, sterile, applied for dysmenorrhœa. Dilators 6, 7, 8, 10, and 12 were passed. One period occurred without pain, and then pregnancy. The author concluded: 1. That the method was simpler and safer than any other proposed; 2. That the dilatation might be performed with safety at the house of the consultant; 3. That a very small amount of dilatation was necessary; 4. That the operation should be performed within a week or ten days after a period; 5. That it should be done, not on successive days, as hitherto recommended, but all at once; that the first bougie should be a small one; and that there should not be sufficient difference between the size of successive bougies to cause a splitting of the mucous membrane; 6. That pregnancy appeared to occur on account of the dilatation having cured the conditions on which the dysmenorrhœa depended. In none of his cases was there either stenosis or constriction of the canal by acute flexion. The theory, therefore, of permanent constriction being discarded, in what did the impediment lie? Was it a spasmodic constriction causing ejectment of the semen? Of the five cases in which the sterility was not cured, one—a hospital case—was lost sight of; one was relieved of her dysmenorrhœa for a time; but, it having returned again as badly as ever, was treated by an intrauterine stem, and cured. Of the remaining three, in all was the dysmenorrhœa relieved; but pregnancy had not yet resulted.—Dr. GRAILY HEWITT had found that, in the large majority of cases, relief of dysmenorrhœa was obtained by simply maintaining the canal of the uterus in a state of straightness. In cases where the uterus was unduly soft and pliable, dilatation was not necessary; but in long-standing cases, dilatation was a great assistance in the treatment. He had used a two-bladed dilator acting on the principle of a glove-stretcher. This instrument produced the same kind of effect as the dilators now exhibited. He had cured many cases of sterility, some of ten, or even thirteen years' standing, by the above treatment. In regard to diagnosis, cases of very soft flexed uterus were sometimes overlooked, owing to the apparently easy passage of the sound.—Dr. HEYWOOD SMITH said that the author had referred to the President's experiments on the flow of fluid through bent tubes; but the substances used in such experiments had no analogy to the uterine canal, which was of varying thickness, and of such a substance as rendered its canal obnoxious to impressions upon its inner surface from any flexion. His father, when assistant-lecturer to Dr. Rigby at St. Bartholomew's in 1836, had used Mackintosh's bougies for the treatment of dysmenorrhœa and sterility: and, since the foundation of the Hospital for Women, that procedure had been practised with the greatest possible advantage. He thought it best to have the sounds straight in their uterine portion, not curved, like the dilators shown.—Dr. CARTER had obtained exceedingly satisfactory results from the use of graduated sounds, both as regards dysmenorrhœa, and sterility when it accompanied it. When the flabby condition of uterus mentioned by Dr. Hewitt existed, he found that dilatation alone was not sufficient; and in such cases he had employed an intra-uterine stem with the best results. He had found it better not to pass the sounds within four or five days.—Dr. ROUTH said that he did not see what advantage the method had over that of dilatation, first by tangle-tents, and afterwards the employment of an intra-uterine pessary. A plan analogous to Dr. Duncan's had been in use in early days at the Samaritan Hospital; but it had been proved that it was not so free from danger as stated to-night, and it had been abandoned. When such men as Sir James Simpson and Dr. Marion Sims had discarded the dilators because of their danger, clearly they should not be lightly resumed. The effect was transitory, unless pregnancy occurred very soon after; and the pain induced was sometimes very great. In the case of flexion, it was often difficult to pass even a bent sound; and the use of a straight dilator in such cases would be liable to set up inflammation. With either Dr. Wynn Williams's pessary or his own, an uterus was not only kept dilated, but it reduced the uterus. The comfort of such instruments was such, that women did not like to part with them; but he always removed them after eight or twelve months; and pregnancy frequently followed.

The discussion was then adjourned.

CAMBRIDGE MEDICAL SOCIETY.

FRIDAY, DECEMBER 2ND, 1881.

DR. BACON, M.A., in the chair.

Case of Paralysis of the Left Fifth and Facial Nerves in a Child.—Mr. WHERRY showed a child, aged 3, with atrophy of the left eye and paralysis of the fifth and facial nerves on the same side. The cornea was opaque and could be touched without any reflex movement of lid or eye-ball. There was loss of sensation on the left side of the face, nose, supra-orbital region, and inside of the mouth. The teeth on the left side were absent or decayed. The food collected in the left cheek. There was paralysis of the left orbicularis palpebrarum and the facial muscles. On the left side the nasal mucous membrane was discharging, the left auditory meatus usually blocked with secretion, and the membrana tympani dull. The ophthalmoscope revealed no disease in the sound eye. The perspiration induced by a Turkish bath at 150° did not differ in amount on the two sides of face and forehead. The child is stated to have been quite well and its eyes bright and clear till it was seven months old, when it "had a cold in the eye" and did not seem to mind a towel rubbed across the eyeball. There was no history of syphilis. The child was in other respects healthy. Mr. Wherry considered all cases of paralysis of the fifth nerve interesting to ophthalmic surgeons.—Dr. LATHAM believed that the disease must be localised in a small spot about the course of the fifth nerve and anterior to the Gasserian ganglion. If the fifth nerve were divided anterior to the Gasserian ganglion, inflammation of the conjunctiva, ulceration of the cornea, discharge of the humours of the eye, with loss of smell on the paralysed side, took place—but not if the nerve be divided at a point posterior to the ganglion, though that operation was followed by loss of sensibility on one side of the face, of the conjunctiva, and the anterior portion of the tongue. Disease affecting the nerve at a point anterior to the ganglion would explain many of the symptoms in the case under discussion, but not all; there was discharge from the child's left ear and it was deaf on that side—symptoms independent of the fifth nerve. As, however, the ganglion rested upon the petrous portion of the temporal bone, disease of this bone at a spot anterior to it, and involving the branches of the nerves by pressure or otherwise, would account for all the symptoms. He regarded the case as a striking illustration of the antagonism between the sympathetic and cerebro-spinal nervous systems—a point to which, several years ago, he had directed attention in explaining some of the phenomena of sick headache or megrim. The ulceration of the cornea, etc., was dependent upon excessive or uncontrolled action of the sympathetic on the vessels of the part modifying its nutrition; for if, before dividing the fifth nerve anterior to the Gasserian ganglion, the superior cervical ganglion were removed, no ulceration of the cornea took place; and even after ulceration had taken place, complete destruction of the eye could be prevented by removing the cervical ganglion, though this was hardly an operation to be recommended on a human subject.—Dr. SMITH (Newport) referred to a case, in his practice, in which a woman, aged 30, with bad teeth, had had herpes frontalis on the right side, with pain in right eye and dimness of vision; the left eye was also affected. The ophthalmic and inframaxillary nerves were both involved, and pain and tingling remained after recovery from other symptoms.—Mr. WHERRY agreed with Dr. Latham's theory of localisation, and said that the fibres of the facial were involved as well as the three divisions of the fifth, which might be accounted for by disease of the petrous bone. The teething was also to be noticed; no signs of teeth appearing until the child was eighteen months old. The child was perfectly well until the usual period of first dentition.

On the Treatment of Delirium Tremens.—Dr. LATHAM thought the subject offered scope for considerable difference of opinion. If sleep were obtained, recovery generally ensued quickly; but was the induction of sleep a *sine quâ non* in treatment? If sleep did not ensue, sub-

arachnoid effusion and coma were likely to follow in some cases, while the majority might recover; but Dr. Latham thought the disease ought to be treated actively. He divided cases of delirium tremens into three classes: 1. Patients in moderate health who had used stimulants in excess; 2. Those in robust health who had indulged after excitement or distress, chiefly young men; 3. Those broken down in health and with damaged organs. The first class could be treated with opium without risk, provided the urine were free from albumen; and he had been surprised to find albumen in the urine in a large proportion of cases without any other indications of kidney disease, the albumen disappearing as the patient recovered. Soup, beef-tea, and alcohol, in nearly the accustomed doses, should first be given for twenty-four hours, and then opium, beginning with a dose of calomel, if needed. He advised the hypodermic injection of morphia, first in half-grain doses, and then in quarter-grain doses every half-hour till sleep was procured, or the patient was distinctly under its influence. He believed diminution in the quantity of stimulants taken by the patient to be an early symptom and not a cause of the disease. In the second class, he preferred to give henbane, which gave more benefit than bromide of potassium. In the third class, he thought opium should be given with great caution, and that the free administration of stimulants was important. He mentioned the case of a gentleman who, in his eager desire for insensibility, had taken 240 grains of chloral, and the same quantity of bromide of potassium at a dose, and survived, after very free action of the skin, bowels, and kidneys. He deprecated the use of large doses of digitalis, as suggested by Dr. Jones, of Jersey.—Mr. T. HYDE HILLS, speaking from his experience as a gaol surgeon, thought leaving off stimulants was a cause of the disease, and that many prisoners became delirious after admission owing to this deprivation. He advised giving the usual amount of alcohol to which the prisoner had been accustomed, and thought chloral of benefit.—Mr. HODSON advocated the use of tincture of capsicum, especially in old people, and thought that the combination of chloral and capsicum was useful.—Dr. SMITH alluded to the usefulness of cold sponging of the body as a means of inducing sleep.—Dr. LATHAM, in reply, stated that he recognised the value of capsicum in confirmed cases, and that it was much esteemed in India. In young men, he approved of Dr. Graves' plan of giving antimony and opium every two hours.

MANCHESTER MEDICAL SOCIETY.

WEDNESDAY, DECEMBER 7TH, 1881.

EDWARD LUND, F.R.C.S., President, in the chair.

Amputation at Hip-Joint for Osteomyelitis.—Mr. WHITEHEAD exhibited a girl, aged 16, whose left leg he had amputated at the hip-joint for osteomyelitis. The practical features of the case consisted in the somewhat unusual sequence of pathological changes that had taken place in the progress of the disease in the femur, and in the method of operating. The appearance of the bone, which was also shown, read by the light of the clinical history, suggested that the mischief commenced as an acute osteitis of the lower epiphysis and articular lamella, speedily followed by an extension of the inflammation to the synovial membrane, and the rapid accumulation of pus within the knee-joint. The epiphysal cartilage marked what had evidently been the extent of inflammatory destruction of the bone, in the first instance; and it was pretty clear that the shaft had been secondarily attacked by the circuitous extension along the periosteum, owing to its continuous structure with the capsule of the joint. The periostitis, thus communicated rapidly, resulted in suppuration, and eventually in the development of a prominent ridge of stalactitic spicula. The third stage would appear to have consisted in the invasion, by inflammatory changes, to the medulla, through the Haversian canals from the periosteum, and the consequent osteomyelitis, which necessitated the amputation of the limb. The whole cycle of the disease was exceedingly rapid, and was primarily attributed to working all day in garments saturated with rain. The amputation was effected at the hip-joint by one long external oval flap, fashioned, for sanitary reasons, so as to remove the free borders as far as possible from the perinæum, and at the same time to obtain a dependent and vertical outlet for any discharge. Recovery was interrupted by the formation of numerous bed-sores, notwithstanding the use of a water-bed, and every other precaution; ultimately, however, the girl made a complete recovery, and, when shown, had grown quite fat and regained perfect health.

Spasmodic Paralysis of Infancy.—Dr. ROSS showed an example of the spasmodic hemiplegia of infancy (unilateral atrophy of the brain), in a girl nineteen years of age. The disease was ushered in when the patient was four years of age by an apoplectic attack, attended by convulsions. The chief peculiarities of the case were that the paralysed were smaller than the corresponding healthy limbs, owing mainly to arrest of development of the long bones; and that epileptic attacks supervened when the patient was twelve years of age. These attacks were at first unilateral, but had become general.

Bilateral Athetosis, with Aphasia.—Dr. ROSS also showed an example of this affection, in a girl twelve years of age. The affection was ushered in by a series of convulsions, accompanied by prolonged unconsciousness, when the patient was two years of age. The muscles of the upper extremities, neck, and face were affected by clonic spasms, which were continuous during waking hours. The muscles of the lower extremities were entirely free from spasm. At two years of age, the patient was unusually advanced in the use of infantile language, but she had not spoken a word since. All her senses, including hearing, were very acute; she could make her wants known by pantomimic signs; she could read, write, and even play the piano; and she was, moreover, almost entirely self-taught.

Contraction of the Limbs.—Dr. ROSS showed a specimen of contraction of all the extremities, in a boy seven years of age. The patient was affected with a series of convulsions for the first three days after birth, and remained paralysed in all his extremities for a long time afterwards. Great difficulty was experienced in feeding the infant, inasmuch as fluids regurgitated through the mouth and nose, and passed into the glottis. The muscles of all the extremities were affected by spasmodic rigidity, which was continuous during waking hours; while those of the neck, lips, and tongue were seized by spasm during voluntary movements of these parts. The patient's articulation was very stammering and imperfect, and even now some difficulty was experienced in swallowing fluids. Dr. Ross thought that both pyramidal tracts were injured by a lesion, probably thrombosis of a vessel, in the upper end of the medulla oblongata. The fact that the boy was very intelligent, appeared to show that the lesion was not situated in the cortex on each hemisphere.

Case of Rodent Ulcer of the Auricle and External Auditory Meatus.—Dr. PIERCE showed L. W., aged 34, mother of seven children; her father was aged 64, living and healthy; her mother died at 54, from "abscesses behind the ear and various parts of the body". L. W. had otorrhœa from childhood. Two years ago, earache became more frequent and unbearable. In June 1881, she noticed a hard, livid swelling, of the size of a florin, situated over the left temporo-maxillary articulation, extending from the tragus over the middle root of the zygomatic process. Movement of the jaw was painful. Profuse greyish-yellow bloody pus flowed from the external meatus. The hearing distance was $\frac{8}{7\frac{2}{2}}$ inch. The tuning-fork was heard fairly at the meatus on the vertex at the left ear only. The entire circumference of the meatus up to the membrana tympani, except the posterior wall, was the seat of caries. The meatus was filled with a mass of granulations of large size. She had some pain in the ear, and over the left cheek and parietal bone to the vertex. She had intermittent rushing tinnitus aurium. There was no pain nor tenderness of the left mastoid. The granulations of the meatus, which spread over the membrane, were repeatedly removed with small forceps and galvano-cautery; and solutions of chromic acid, chloracetic acid, etc., were applied, but failed to check the destructive process, though improving the hearing distance to $\frac{1}{7}\frac{2}{2}$ inch. Solutions of bichloride of mercury, with cinchona, followed by Donovan's solution, were prescribed. At the end of two months, she had paralysis of the left side of the face; the motion of the jaw was very limited and painful. There was no vomiting, nor vertigo, but pain at the back of the neck. At the end of August, the area of disease was of the size of a crownpiece—circular, and sharply defined. The anterior wall of the meatus was disintegrating very rapidly; and the caries now involved the cartilaginous meatus and posterior wall. The area of the disease was now falling in, and the margins of the meatus loose. There was no loss of taste or smell. The otorrhœal matter contained a large quantity of bony particles, and was very offensive. The patient was ordered doses of iodide of potassium up to two drachms, nourishing diet, and to use a lotion of iodine and carbolic acid. The membrana tympani contained a small perforation. The left Eustachian tube was pervious. The patient went home for a month, and neglected treatment. On her return, the entire meatus, up to the membrana, had fallen in, disclosing the capsular ligament, the condyle, and posterior edge of the ramus of the jaw. The temporal artery was evidently occluded. The disease had now reached the back of the auricle, which was only attached to the head by a portion near the lobe. The points of interest were: the entire absence of hæmorrhage, rigors, and vomiting; the glands behind the ears and in the neck were not enlarged; the rarity of caries of the anterior wall of the meatus; the distance of fair hearing (owing to the middle and internal ears being exempt from the disease). There was the doubt as to the disease being rodent ulcer or cancer. When first seen, it did

not differ from simple but extensive caries of the anterior wall of the meatus.

Absorption of Neck of Femur.—Mr. JONES exhibited a lad, aged 18, the neck of whose right thigh bone was undergoing interstitial absorption. This change followed, and appeared to be directly traceable to, a fall on the trochanter major, which the patient sustained ten months ago. The injury, of a very slight character, was not immediately followed by any untoward symptoms. The patient was able to continue working, although he experienced a dull, aching pain in the upper part of the injured limb. The pain was followed by gradual stiffness of the hip-joint, and a diminution in the length of the limb. When he was admitted into the infirmary, the limb was strongly everted an inch and a quarter shorter than its fellow, and was ankylosed at the hip. The trochanter was nearer the middle line, and the distance between its upper margin and the anterior superior spinous process of the ilium was half an inch less on the diseased than on the sound side. Under the influence of an anæsthetic, the limb could be freely moved, rotated inwards to a very unusual degree, and the head made to project behind, and almost on a level with the trochanter. Examination also revealed an alteration in the head, which was of an oval flattened shape. The result of the examination made it evident that decided alteration in the head of the femur had occurred. The head was nearer the trochanter major, as well as altered in shape. It was also on a lower level than was natural at the patient's age. While the patient had been under observation, the limb had further shortened by three-fourths of an inch—so that it was quite two inches shorter than the other leg.

Principal Varieties of Idiocy.—Dr. SHUTTLEWORTH read a paper on the principal varieties of idiocy, with special reference to physical abnormalities associated therewith. The paper was illustrated by numerous photographs, arranged in series, and by specimens and microscopic preparations.

MEDICAL SOCIETY OF THE COLLEGE OF PHYSICIANS IN IRELAND.

WEDNESDAY, DECEMBER 7TH, 1881.

J. W. MOORE, M.D., Vice-President, in the Chair.

Alkapton in Urine.—Dr. GEORGE C. ARMSTRONG exhibited a specimen of the urine of a little girl apparently in perfect health, whose mother he had attended three years ago in the worst puerperal convulsions he ever saw. The child's mother remarked that the child's urine, although perfectly normal in appearance when first passed, on being allowed to cool, assumed a deep colour and stained the child's linen. He sent some of the urine to Professor Tichborne, who had made the following analysis. "The specific gravity of this urine at 60° Fahr. was 1025. Albumen was absent. It was acid to test-paper, and, on standing, gave a slight deposit, consisting of urate of ammonia and a little mucus. The urea was scanty, and not sufficient to account for the high gravity; it was 1.2 per cent., or 5.25 grains per fluid ounce. This urine presented a great peculiarity; it contained a substance which is only met with occasionally, and which has been termed alkapton. Bödeker met with a case, and Lionel Beale mentions a case in which Dr. Johnson found it in the urine of an infant. This body stains the linen, particularly when the urine becomes alkaline. It behaves like sugar, and reduces copper, and probably it may be viewed in a somewhat similar light pathologically. Estimated as a sugar, it would give about eight grains to the fluid ounce. The urine was examined for the bile-reactions, but gave none." Dr. Armstrong said he put some of the urine into small bottles, and, having hermetically sealed them, left one exposed to light and air, and put the other into a dark place. The latter specimen, after six hours, was not changed in any way.—Dr. J. W. MOORE said that, although this urine, after a manner, "behaved like sugar", as Dr. Tichborne's analysis stated, yet the reaction was very different. Under the influence of liquor potassæ *without the aid of heat*, it struck a dark brown colour. Urine containing grape-sugar, according to his experience, did not change when liquor potassæ was added to it, except under the influence of heat. Again, with sulphate of copper, the reaction of the urine was very incomplete—not at all so complete as that given by grape-sugar. The results of the microscopical examination of the deposit of the urine were completely negative. The deposit he experimented with consisted of a little mucus, epithelium, and a few small oil-globules, the presence of which may have been accidental.—Dr. WALTER SMITH said that, upon testing the samples with which Dr. Armstrong and Dr. J. W. Moore had kindly supplied him, the results confirmed the statements originally made by Bödeker in reference to so-called "alkapton" in urine. These were: 1. Strong alkalies darken the urine without the application of heat, and the coloration proceeds *from the surface of the liquid downwards*—*i.e.*, oxidation co-operates with the alkali; 2. Reduction, at least partially, of the copper test; 3. Non-fermentation with yeast. From various considerations, Dr. Smith thought it probable that the peculiar substance or substances in the urine exhibited belonged to the "aromatic series" of chemical compounds, the physiological relations of which group have been investigated with remarkable success during the past five years. Pending further investigation, it would be premature to express a definite opinion on the subject in question.—Dr. FINNY asked whether the urine was dextro-gyrate or sinistro-gyrate.—Dr. SMITH replied that he had not yet made an examination with the polariscope.

Idiopathic Pericarditis.—Dr. WALTER G. SMITH related three cases of idiopathic pericarditis which came under his notice within the past three years in the Adelaide Hospital, two of them in the course of last spring. By "idiopathic pericarditis" the author understood inflammation of the pericardium occurring independently of injury or other local cause, or of extension from the neighbouring parts, and exhibiting no demonstrable relationship to rheumatic fever, chorea, the exanthemata (*e.g.*, scarlet fever), renal disease, pyæmia, tuberculosis, or the puerperal state. Cases of isolated partial pericarditis, attended with trivial or no symptoms, were not taken into account. In the first case, that of a girl aged 22, the diagnosis was verified by a necropsy; in the second, that of a young man aged 18, it was confirmed by such a careful observer as the late Dr. Hayden; and in the third, that of a lad aged 14, the symptoms and other evidence were sufficient to warrant the diagnosis which was made. While all would readily grant that primary pericarditis was of comparatively exceptional occurrence, Dr. Smith thought it must be admitted that its rarity was apt to be overestimated; and in this opinion he was supported by Dr. Bäumler. The recognition of this fact would tend to keep observers more on the alert to detect a formidable disease which often commenced insidiously; and it emphasised the necessity for accurate examination of the heart, repeated at short intervals, in all cases of acute febrile disturbance.—Dr. J. W. MOORE said it should be borne in mind that, in one of the three cases, there was apparently a hereditary tendency to pericarditis. The father of the patient had suffered from rheumatic inflammation of the pericardium.—Dr. HENRY KENNEDY said that in the course of thirty years he had seen some nine or ten cases of the kind, and he had a strong conviction that they generally occurred in strumous subjects. This remark applied to the first case detailed by Dr. Smith. The profuse acid sweating in another of the cases raised a suspicion of a rheumatic origin. It did not follow that rheumatic pericarditis might not exist without the joints being affected. He had twice seen pericarditis precede the pain and swelling of the joints in a rheumatic attack. As a rule, when pericarditis occurred in a person of rheumatic diathesis, and in the course of rheumatic fever, the pains subsided materially, and all the anxiety of the patient was referred to the heart.—After some remarks from Dr. PATTON, Dr. FINNY said he thought it very probable that, in Dr. Smith's second case, the disease was of rheumatic origin, and affected primarily the internal pericardial surface. He concurred with Dr. Kennedy as to the possibility of rheumatic fever expending its whole violence on the pericardium alone.—Dr. WALTER SMITH, in reply, said the word "strumous" was very elastic, and he neither affirmed nor denied the existence of strumous pericarditis. He would venture to lay stress chiefly upon three things in connection with cases of pericarditis: first, the general symptoms of the patient; secondly, the fact that physical signs, as an exclusive means of diagnosis, were sometimes insufficient; and, thirdly, that there were varying degrees of implication of the muscular tissue of the heart. In other words, the clinical evidence pointed to a frequent coexistence of myocarditis with pericarditis; and the great danger of pericarditis lay in that direction, and not in the serous inflammation itself.

A DIFFICULT QUESTION.—TWO experts—Mons. De Beauvais, physician to the Paris Humane Society, and Mons. Brouardel, Lecturer on Medical Jurisprudence in the Faculty of Medicine—were recently called upon for a decision, in a case where two people being drowned in a boat-accident, as to which died the first. The survivors appeared in court, and described in detail how and when the sufferers, M. and Madame Rivoire, disappeared under the water. Dr. Brouardel declined to offer any opinion, as no *post mortem* examination had been made. Dr. Beauvais, after hearing the detailed account of the accident, considered it possible that Madame Rivoire outlived her husband. The plaintiffs have asked for the postponement of the trial, and for a consultation of medical experts, for which they have chosen six local medical men. This singular case is tried at Marseilles.

REVIEWS AND NOTICES.

DES PARALYSIES DANS LES MALADIES AIGUËS. Par le DR. LOUIS LANDOUZY. Paris : J. B. Baillière et Fils. 1880.

THE PARALYSES OF ACUTE DISEASES. By DR. L. LANDOUZY. London : Baillière, Tindall, and Co. 1880.

THIS work commences with two diffuse and pointless chapters on the limitation and history of the subject—chapters, we are glad to say, forming a marked contrast to the body of the work. A book on such a subject as this must necessarily be very largely a compilation; and, such being the case, Dr. LANDOUZY has wisely, we think, chosen to make his work extensively clinical—culling from French, German, and English authors good illustrative cases, which are given in full detail. Even as a record of clinical cases, illustrating a particular class of diseases, this work has a very considerable value, more especially as full references are given with each case to the original source, and a complete bibliography furnished at the close of the volume. In addition to this, however, these cases are connected by well-digested remarks on their etiological, clinical, and therapeutic bearings; and the closing third of the space is devoted to the pathological anatomy and physiology of the acute diseases, in relation to the paralyses occurring as their accompaniments or sequences.

A considerable portion of the work is occupied naturally with the clinical account of the paralyses occurring in diphtheria. Among others, several interesting cases are recorded, showing the want of concomitance between the severity of the primary disease and the occurrence of paralysis. A small patch of false membrane on the tonsil, an overlooked nasal diphtheria, a cutaneous diphtheria affecting a small wound or abrasion, may quite as readily produce paralysis as an extensive diphtheria involving pharynx, larynx, and trachea. He also shows how the period at which the paralysis appears affects its character and course. The average period is ten to fifteen days from the apparent recovery; and, if delayed beyond this date, the paralysis will, as a general rule, be more sudden and more general. His cases, illustrating affection of the heart and respiratory muscles in diphtheria, are also of much practical and therapeutic interest. The paralyses occurring in typhoid fever, in intermittent fever, and in small-pox, are fully treated, in addition to others of less common occurrence. The author makes full use of the classical work of Trousseau, and also of the modern results of Charcot, Vulpian, Westphal, and others; and the differential diagnosis and clinical features of these various paralyses are clearly stated and fully illustrated.

In the part devoted to pathology, we have an account of the muscular lesions in acute diseases, and a full digest of our present knowledge as to the pathological anatomy of the spinal cord and cerebral centres in the paralyses of acute diseases. A more special account is given of the pathology of diphtheritic paralysis; and a section is devoted to the condition of the central nervous system in hyperpyrexia, discussing the nature of the lesion which produces the pale rose tint of the grey matter, so constantly observed after prolonged hyperpyrexia. The last chapter gives a few general observations on diagnosis, prognosis, and treatment.

A TEXT-BOOK OF PRACTICAL HISTOLGY. With Outline Plates. By WILLIAM STIRLING, M.D., F.R.S.E. Pp. lv and 130. London : Smith, Elder, and Co. 1881.

THE recent advances in histology have been so great, and the importance of the science is so fully recognised, that it now takes a prominent position in the curriculum of every medical student in this country. As a result of the impulse thus given to it, there have appeared from time to time various manuals, giving directions for the preparation and observation of the normal tissues. Of late years, the increase in the number of these manuals has become very conspicuous; and where, ten years since, Quekett and Beale, Hogg and Fry, were the only books of reference upon the subject of microscopic technology, we now have an abundance of works, giving very much fuller details in every department. The present work, which is the latest, takes up a somewhat different standpoint from those which have preceded it : for it aims, not only at making the student who works with it thoroughly conversant with the appearances presented by the majority of the normal tissues, but it seeks to make him employ the time spent in the practical histology class in acquiring the elements of scientific precision. To effect this object, Dr. STIRLING has intercalated with his text a series of exceedingly well-engraved outline plates, which exhibit the main features of the tissue under examination. References are made to these plates in the explanations of the tissues given in the letterpress; and the student is directed to draw in the detail with pencil, and then to colour the whole with crayons or water-colour. By this means, every student possesses at the end of the course an atlas, representing the more important preparations which he has made in the class. Dr. Stirling states that he has adopted this plan for some time at Aberdeen, and that it answers excellently—sufficient dexterity in the manipulation of the pencil and water-colour being, in the majority of cases, very rapidly acquired. The plan is, no doubt, an exceedingly good one : for those who have had any experience in teaching a large class, whether of histology or zoology, will at once agree with Dr. Stirling, that students show the very greatest reluctance in making drawings of their preparations. It is unnecessary to point out the value of forming a habit of correctly delineating objects; and it is, therefore, to be hoped that teachers in the other centres of medical education, in the United Kingdom, will follow the example thus set by Dr. Stirling, and will insist upon the necessity of each individual in the class drawing, to the best of his ability, a part at least of every specimen which he prepares.

The work itself is an excellent one; and we have no doubt that the student, who has thoroughly worked through it, will have acquired such a knowledge of the appearances presented by the normal tissues, as will materially aid him in his course of medical anatomy, to which, after all, the study of normal histology must always be subordinate.

NOTES ON BOOKS.

The Professional Pocket-book, or Daily and Hourly Engagement Diary for 1882, specially arranged for professional engagements, published under the immediate direction of Sir JULIUS BENEDICT, by Rudall, Carte, & Co., London.—This book is arranged on an excellent system, as it affords space for the tabulated entry in single column of hourly engagements each day of the week.

An Elementary Treatise on the Function of Vision and its Anomalies. By Dr. GIRARD-TEULON. Translated by LLOYD OWEN, F.R.C.S.I. London : Baillière, Tindall, & Cox, 1880.—The name of the author affords a guarantee for the quality of this book, as does that of Mr. Lloyd Owen for the accuracy of its translation. The subject matter is easy to comprehend, being free from any admixture of mathematical formulæ. Though the author is pre-eminent in all that concerns the refraction of the eye, yet the surgical treatment which he deduces from his ideas has not come into general acceptance at least in this country. As an example of this, as well as of his somewhat elaborate style, we may quote part of paragraph 115: "Insufficiency combined with asthenopia is really nothing other than a potential strabismus, overcome momentarily by the imperious need for simple vision with both eyes. The double or false image of this virtual strabismus not being neutralised by psychical abstraction, the sensorium finds in the muscular system forces which cause it to be fused into one with the real image; but these forces are excessive, they overstrain the organ and soon compromise its integrity.....In this measure (tenotomy) is to be found the true treatment of progressive myopia." In conclusion, we venture to think that the book is more suitable for students entering upon the special study of anomalies of refraction, than for the general practitioner.

Ideal Chemistry : a Lecture. By Sir B. C. BRODIE, Bart., D.C.L., F.R.S. (London: Macmillan and Co. 1881.)—This lecture was delivered by the late Sir B. C. Brodie, before the Chemical Society, on June 6th, 1867, when it gave rise to much discussion and criticism; but was not at that time published, except in a report which appeared in the *Chemical News* of June 14th, 1867. It was first published by the author, in a separate form, in 1880, shortly before his death. The lecture was devoted to the exposition of some original ideas of Sir B. C. Brodie for the construction of new chemical formulæ. After some remarks on the theories of phlogiston and on Dalton, an attack is made upon the modernised atomic theory, and more particularly the glyptic formulæ of Dr. Frankland, which is described as a "bit of joiner's work". Then follows the remark, that any one who attacks existing ideas with regard to formulæ, is bound to show some better way of representing facts. This the author attempts to do by introducing a method of denoting chemical compounds and changes in composition by mathematical symbols expressing the "units of chemical substances"; for a detailed account of which theory we must refer our readers to the book itself. The work contains the mathematical diagrams and expressions used by the lecturer. We do not think the system proposed will meet with any more favour now than heretofore in the eyes of chemists; but it is worth perusal, as an example of a carefully worked out mathematical study by an eminent scientist.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1882.

SUBSCRIPTIONS to the Association for 1882 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JANUARY 7TH, 1882.

PRIVATE BOARDING-SCHOOLS.

THE soothing conviction that Dotheboys Hall is a thing of the past, and that schoolmasters of the type of Squeers were finally crushed and abolished by the weight of popular indignation heaped on them by Charles Dickens, will be rudely disturbed by the report of the case of Denman *v.* Cripps, which lately engrossed the attention of the Chancery Division of the High Court of Justice for five days, and upon which Mr. Justice Kay delivered an intrepid and luminous judgment. This case was an action brought by Mr. Denman, who was formerly the master of a flourishing school at Chertsey, as the purchaser of a school for boys called Cliffe House, at St. Margaret's, near Dover, claiming to set aside the purchase on the ground of fraud and misrepresentation, on the part of the defendant, Mr. Cripps, the vendor of the school; and claiming repayment of the sums paid by the plaintiff as purchase-money under the agreement. With the alleged misrepresentations made at the time of the sale, and with the legal questions raised during the trial, we are not concerned; our interest being aroused only by the evidence which appears to have been adduced, in so far as that throws light on the state and management of the establishment at St. Margaret's. According to such evidence and the judgment of Mr. Justice Kay, the school was an old-established one, and was certainly at one time in a prosperous condition and good repute, averaging from 120 to 140 boys. The former master having died, it passed, in 1873, into the hands of Mr. Cripps, who appears to have conducted it with some success for three or four years, when it contained about one hundred boys, but with waning fortune since 1876. From that date, the number of pupils gradually diminished; and, in the opinion of Mr. Justice Kay, the reason of that diminution was patent, for there had been numerous complaints made by parents of the management of the school. The defendant, in the witness-box, did not recollect the complaints, or thought they were frivolous, and, in fact, appears to have treated them with indifference; but the progress of the case showed that were only too well founded. Itch and ringworm, according to the evidence, existed in the school; and some parents seem to have expressed the greatest indignation at their children being sent home with these diseases, amongst healthy brothers and sisters, without any intimation having been previously given that they had anything the matter with them. It was quite true, the judge observed, that such diseases might get into a school in an accidental manner, but that was not the case here; and that the neglect to give notice to the parents of the condition of the boy was almost inconceivable. One of the letters to which he referred, from a parent, in July 1876, described the boy's body as being full of vermin, which actually ran about the hands and arms of those who undressed him. A medical man was called on behalf of the defendant; but his evidence, instead of assisting Mr. Cripps's case, went to show that itch and ringworm were contagious diseases, brought on generally from dirt and want of attention; and that boys with such affections should be immediately isolated, in order to prevent them from spreading. Under such circumstances as were described, it was easy to account for the falling off of the school; and, moreover, it appeared that Mr. Cripps was the master of three other schools, so that the seminary at St. Margaret's only enjoyed his supervision at somewhat uncertain intervals, being often left for long periods in charge of ushers and servants. Mr. Bourke, formerly a master in the school under Mr. Cripps, is reported to have said that, at a time when it contained sixty-five boys, he had to conduct its educational course with the help of an assistant and two pupil-teachers, the proprietor taking no part in the intellectual, moral, or religious training of the youths entrusted to his care. Another former master is reported to have characterised St. Margaret's as a low school—the lowest class school he had known. Sea-bathing, the judge thought, was one of of the attractions which induced parents to send their boys to St. Margaret's; but the lowness of the terms was, perhaps, even more influential in securing that result. The rate of board was represented to be from £23 to £35 *per annum*, but many boys were taken at as low as £20, which, when food and housing were taken into calculation, could not leave much margin for education and supervision. Even as to food, allegations seem to have been made that it was not good nor sufficient; and, although these were not fully established, it would seem that there had been no superabundance of meat. The butcher's bill showed that the supply of meat at one time was equal to one pound and a half per week to each boy, which, allowing for bone and cooking waste, would leave about two ounces and a quarter of animal food *per diem* for each growing boy. Such is the effect of the evidence in this case as commented on by Mr. Justice Kay.

The school at St. Margaret's, it seems, had been carried on mainly by means of that mighty engine, advertisement; and it was suggested at the trial that Mr. Temple, his successor, might have kept it going by giving publicity in the same way to its stupendous advantages. It was unfortunately true, Mr. Justice Kay said, on this branch of the case, that there were many guardians and relations of children whose only object was to get rid of them by sending them to such low class schools as these. Several of the relations of the boys had been called as witnesses to show that the school was properly conducted; but he could not derive much information from the class of men who had given their evidence. With the conduct of one man in particular, the grandfather of a boy, he was exceedingly disgusted. He seemed to think it an amusing thing to send two grandsons to a cheap school, and never to ask any questions as to how they were cared for. Such a man deserved, in Mr. Justice Kay's opinion, to be held up to public reprobation. His lordship added that he could not allow this case to be disposed of without saying that he feared there was something wrong in the feelings of Englishmen, when such schools as these were possible; and he sincerely hoped that the improvements now being effected in education would bring about a better state of things, and that it would in future be impossible, even for low class schools, to be so mismanaged as this had been.

The concluding observations of the learned judge, which were strong and emphatic, but not more so than was warranted by the circumstances of the case which he had been passing under review, are certainly deserving of thoughtful consideration. It is impossible to believe that the case which called for such strong observation from Mr. Justice Kay is a solitary instance of the kind. There are probably in this country a great number of cheap private and adventure boarding-schools, in which gross abuses exist. The number of such schools has increased greatly of late years, for the middle and trading classes have shown a growing disposition to imitate the aristocracy, and send their boys away from home to be educated. If young lords go to Eton and Harrow, why should not young shop-keepers and farmers go to a genteel boarding-school, and acquire that manliness and those graces of deportment and admirable traits of character which may be picked up, it seems, anywhere but in the home circle, and which always grow luxuriantly in a heterogenous crowd of uncouth and mischievous boys? And thus the schoolmaster, whose mission was at one time confined to actual instruction, has now intrusted to him the whole care of the bodily, mental, and moral welfare of the boy for three-fourths of the year. In the progress of a complex civilisation, parentage by deputy is becoming more and more common and complete. Wet-nurses, nurses, kindergartners, governesses, tutors, masters, and professors, have supplanted old-fashioned fathers and

mothers; and now parents who can afford to pay for the indulgence may be relieved of all obligations and duties to their offspring, beyond those of a primary and physiological nature. But although parental responsibility can be deputed, parental affection—that old-fashioned sentiment—cannot be conveyed with it; and those who, for a money consideration, undertake the care of other people's children, have only their interest and sense of right to guide them in the execution of the trust. But, unfortunately, in some people the sense of right is not very highly developed, while in others it is dimmed by the cares of this life and the deceitfulness of riches; and so it comes about that occasionally self-interest alone, unrestrained by any finer feeling, is the guiding principle of a private boarding-school proprietor. But when competition is keen, and when profits are small, self-interest is not a safe guide in the performance of onerous and delicate duties, involving the life-long welfare of others, more especially when these others are in a comparatively helpless position, by reason of their tender years, and cannot, from ignorance or timidity, resist injustice nor seek redress against cruelty and neglect.

The temptations to which the keepers of low class boarding-schools, n which only small rates of board are paid, are subjected, to increase their profits, or even make both ends meet, by stinting the food, necessaries, and education of their pupils, must be very severe; and against these temptations they ought, undoubtedly, to have more extraneous support than they have hitherto enjoyed. At present, their establishments are subjected to no kind of outside supervision, and very discreditable practices may be long carried on in them with perfect impunity. In future, it seems to us that they should be submitted to strict and regular medical supervision; for by that alone shall we be able effectually to prevent mismanagement, such as that which Mr. Justice Kay deplores, and for which he earnestly desires a remedy in connection with the educational changes now going on. The principle that the educational work of all schools should be tested and examined by independent authorities is universally accepted. Not less important is the principle that their sanitary arrangements, dietary, domestic management, and discipline, should be overlooked by a competent and impartial inspector. It is in the lower class of private boarding-schools that inspection of the kind we indicate is most urgently needed; but occurrences of public notoriety might be quoted, to show that even great public schools under committees and boards of governors would also derive benefit from it. Wherever weak and comparatively defenceless beings are taken in for profit by persons whose ignorance, prejudice, or cupidity might possibly interfere with due attention to health, comfort, and happiness, there ought to be independent and trustworthy inspection.

The proposal to bring public and private boarding-schools under official inspection will, of course, meet with opposition in some quarters, although we feel sure it will be welcomed by intelligent schoolmasters and be recognised as a method of lightening their responsibilities, increasing public confidence in their undertakings, and conducing to general efficiency. Public and private asylums, workhouses, and private homes of paupers, prisons, and police-cells, factories, and mines, schools of anatomy, and physiological laboratories, are all subjected to inspection; and there seems to be no good reason why schools should be left entirely to their own devices. Young boys are practically much less capable than lunatics of looking after their own interests, and schools offer facilities for tyranny and stinginess that do not exist in asylums, where necessarily large staffs of officers are a constant check on the proprietor. And yet, for lunatics and asylums, skilled and unbiassed supervision has been found indispensible. Pauper children, boarded out in the families of labourers, are not, one would think, more liable to ill-treatment than stepsons and inconvenient little relations placed in schools where board and education are provided for £20 a year and no extras, and and where the holidays are unfrequent and short. But for pauper children, when boarded out, constant visitation has been pronounced essential. The conclusion cannot be escaped, that all schools should be subject to inspection, criticism, and regulation in certain matters.

Those opposed to the inspection of schools will doubtless repeat the old cry about the multiplication of administrative agencies, and the futility of hoping that Government interference can take the place of private enterprise. We shall be told, again, that inspectors of all kinds have been already multiplied to an unjustifiable extent; that the State already pries into private affairs in an almost intolerable way; and that it is childish to look to officialism for the cure of all social evils. We are certainly not of those who believe that the law can reach all abuses, or that inspection is a panacea for all ills. But, in the case of public institutions, experience has proved abundantly that inspection is a valuable corrective; and we have confidence that, if properly organised, it will supply just the stimulus and restraint that are wanted in boarding-schools, and brighten the lives and improve the prospects of many forlorn and wretched children. It need interfere in no way with individual freedom, but will prevent cruel trespasses on the rights of others. Any increase of the public burdens—and an extension of inspection to a new class of institutions of course means that—is certainly to be regretted; but there are still in this country a large number of practically sinecure offices, the abolition of which would supply all the funds necessary for adequate inspection of schools, which need not, after all, be a very large item in the public accounts. In the case of schools, imperial inspection would only be required to a very limited degree. Centralisation should indeed be avoided, the inspection being carried out in each district by medical men of high standing residing in the locality, appointed and paid by the School Board, and reporting to the Committee of Council on Education. Attached to the Committee of Council there might be two or three medical advisers to receive and consider the reports of the local inspectors, to afford them assistance whenever special inquiries were deemed needful, and to pay unexpected visits to schools to which any suspicion attached in any part of the country. The details of the system of inspection of schools might, of course, admit of much discussion; but the principle that some system of inspection is demanded should, we think, be affirmed without delay.

LEGAL OBLIGATIONS OF THE MEDICAL PROFESSION.

I.—CORPORAL EXAMINATION WITHOUT ASSENT.

In our JOURNAL of the 10th ultimo, we published a letter from a correspondent, who was called up at night by a policeman to examine a young woman who had been injured, according to her account, on her face and knees by a young fellow who was charged before the magistrates for this assault. Upon the hearing of the case, the Mayor, who, as our correspondent says, was a lawyer, on being informed by the latter that he only examined the injured parts of the body of the prosecutrix, said, much to his annoyance, that this medical man had failed in his duty, and should have further examined her and "the limbs". In our reply, we approved of the course adopted by our correspondent, and stated that, if he had acted according to the magistrate's direction, he would have been liable to an action for assault, and damages for its commission. In this statement, we are supported by the remarks of Mr. Justice Lopes in the case of Agnew *v.* Jobson and others, in which it was held that an examination by medical men, in pursuance of a magisterial order, of the person of a female in custody upon a charge of concealing the birth of her illegitimate child, was an assault, inasmuch as a justice of the peace has no power to make such an order, either by common or by statute law. In order to enable our readers to duly appreciate the importance of this case, it is necessary to give a brief account of it, and a quotation from the observations of the judge who tried it.

In connection with the criminal offence just alluded to, an action was brought by the "Vigilance Association for the Defence of the Personal Rights of Women and Children" on behalf of the plaintiff, who was convicted at the Winter Assizes at Durham in 1875 for concealing the birth of her bastard child, against the defendant, a magistrate of the county of Durham, and a physician, a surgeon, and a police-

inspector, for two assaults, occasioned by compelling her to be twice examined, which was done by lifting up and partially removing her clothes, to ascertain whether she had recently been delivered of a child.

It appears from the evidence of the physician who alone examined her the first time, and by the testimony of him and the surgeon who examined her on the second occasion, that no force was used on either examination to induce the girl to submit to the same; and that the former was only partial and incomplete; but, when about to examine her subsequently, she said, "I have already confessed, and there is no use in your examining me"; and, while not resisting the inspection, she did not expressly consent to it. As no evidence was offered against the inspector of police, the case against him was abandoned. During the progress of the trial, Mr. Justice Lopes said that, "unless the jury are convinced that the girl gave her consent to the examination, the defendants had no right to do it.....I think there is a great difference between consenting and submitting. But, if she really consented, thinking they had the power to compel her, that would do." In his charge to the jury, he further remarked that "the main question was, Had the plaintiff actually consented to the examination which took place on the second occasion? If not, then the examination would be an assault illegal and unjustifiable, and the plaintiff would be entitled to their verdict. But if she consented, then they must find for the defendants.....They were dealing only with the second case; and it was for them to say whether it looked like the girl consenting, when she told the doctors that it was no use their examining her, as she confessed all..... The order given by the magistrate was a foolish one, and Dr. Jobson must have known little of the law.....The defendants had acted extremely foolishly; and the damages might be such as to show in unequivocal terms that neither magistrates, nor policemen, nor medical men may infringe on the rights of any person." A verdict was accordingly returned for £50 damages for the assault.

Another case of great importance of a similar kind has been before our courts, viz., that of Latter *v.* Braddell and Wife and Another. In this, the plaintiff, who was a woman of about twenty-eight years of age, was a housemaid in the service of Captain and Mrs. Braddell. On account of some information given to the latter by a charwoman, Mrs. Braddell suspected that the plaintiff was pregnant ; and, about the end of December 1880, the defendant told the plaintiff to pack up her things, and leave the house before twelve o'clock that day, as she was in this condition. On the plaintiff denying this charge, Mrs. Braddell said, "The doctor will be here presently, and then we shall see", and requested the plaintiff to go to her bedroom. Dr. Sutcliffe, the third defendant, who had, unknown to the plaintiff, been previously sent for, arrived, and was asked by Captain or Mrs. Braddell to examine the plaintiff to see if she were pregnant. On the doctor going into the plaintiff's bedroom, she cried, and asked him what he was going to do, as she did not like to be examined. He replied that he was a professional man, and asked her to take off her dress. She strongly expressed her objection to this treatment, and to stripping herself, and cried nearly the whole time. No third person was present during the examination ; and, after it was finished, the doctor said she was not pregnant, and that he should speak seriously to Mrs. Braddell about the matter. The latter, however, dismissed the plaintiff from her service, and even refused to give her a character.

An action was then brought by this housemaid against the defendants, which was first tried at the Manchester Spring Assizes in 1880, before Mr. Justice Denman, when the jury disagreed, and were discharged without giving a verdict. It was also re-tried at the following assizes in the same city, before Mr. Justice Lindley, who withdrew from the jury the case against the plaintiff's master and mistress, as he considered there was no evidence against them of the plaintiff's non-assent on which the jury could reasonably act ; and a verdict was, therefore, found for Dr. Sutcliffe. With the assistance of the Vigilance Association, a rule was afterwards obtained requiring the defendants to show cause why the verdict should not be set aside, and a new trial was had, on the ground that Mr. Justice Lindley ought not, as against Captain and Mrs. Braddell, to have withdrawn the case from the jury, and that it was against the weight of the evidence. Upon the motion in support of the rule being argued before this learned judge and Mr. Justice Lopes, they differed in their decision. The former adhered to the opinion upon which he acted at the trial; while the latter considered there should be a new one granted, and expressed himself to the same effect as he did in the case of Agnew *v.* Jobson and Others. The rule was consequently discharged.

On the refusal of a new trial, a further application was made for such to the Court of Appeal, before Lords Justices Bramwell, Baggallay, and Brett, on February 23rd, 1881, when it was held, in support of the view of Mr. Justice Lindley, that, to maintain the action, the plaintiff must have been overpowered, or have had reasonable cause to think that violence would be used to cause her to be examined; but that the evidence showed that she reluctantly submitted to it, and that no threats or violence were used by the doctor, nor could she suppose, from the way in which he acted, that force would be used against her ; therefore, that the case was rightly withdrawn from the jury as against Captain and Mrs. Braddell, and that the verdict of the jury in favour of Dr. Sutcliffe was right. In his decision upon this case, Lord Justice Brett very properly said : "I cannot conclude this judgment without expressing my abhorrence of the whole conduct with regard to this unhappy girl from beginning to end. I cannot conceive how right-minded people should presume, because they suppose—even if it had been true—that a young girl is in the family-way, that they should immediately take it into their heads that they are insulted. Why on earth should they have sent to the doctor? If they did not like to keep the girl, why not let her go away as quietly as possible? This idea of having servant-girls examined by doctors is, to my mind, absolutely wrong, and it is conduct which everybody ought to scout." Some strong reasons were given by Mr. Moreton, the junior counsel for the appellant, the plaintiff in this cause, in support of the judicial statement, when he said that, in a case of this kind, the mistress has a very great power over a servant ; for she can accuse her of being pregnant, and can send her out of the house at a moment's notice, without even board-wages, and dismiss her without a character ; and, therefore, all these grievances may be made known to her to compel her to submit to the examination referred to ; the girl assented without her will, as she felt that a worse wrong might be done to her, therefore she was not in a position to assent. Mr. Justice Lindley, also, on the motion for a rule for a new trial, said : "I protested most energetically against the theory that a master and mistress had a right to submit a servant to such treatment as this ; I was not going to allow that to pass."

After the decision of the Court of Appeal in this case, the committee of the Vigilance Association contemplated an appeal to the House of Lords, but on further consideration they thought that, if the decision should be reversed and a new trial directed, the plaintiff, after so long a time had elapsed, might fail to get a verdict ; and although the law upon this subject which might be declared by the Law Lords would be probably more satisfactory than that notified by the Court of Appeal, it would be far from supplying the exigencies of justice and morality. The committee have, therefore, resolved that it would not be advisable for the plaintiff to appeal to the final appellate tribunal, but to make the judgment of the Court of Appeal the ground of an application to Parliament for the amendment of the law ; and they propose to frame a Bill for this purpose. The committee is of opinion that the law should be so amended that personal examinations of this kind, whether of men or women, for whatever purpose, unless done at the express request of the individual examined, should be declared to be an indecent assault, and "that neither submission nor request should be a valid plea, but nothing less than express request".

Again, at the Leeds County Court, on the 6th of May 1878, before Mr. Serjeant Tindal Atkinson and a jury, an action was brought, under the direction of the Vigilance Association, against a surgeon to re-

cover damages for an alleged indecent assault upon a domestic servant about eighteen years of age. In the early part of that year, she was arrested by two police-officers on a charge of concealment of birth; and although she admitted having had a child, she was afterwards examined by the surgeon to ascertain if this were a fact, but without being asked for her consent. She was afterwards charged before the magistrates with this criminal offence, and committed to the assizes, when she was acquitted. The county court judge very rightly stated that it was no part of the duty of the surgeon "when a girl was arrested on a charge of this kind before she had been before the magistrates, and for the purpose of making evidence against her, she being entirely powerless in their hands, to make an examination of that girl without her consent; and it would be for them to say, under the circumstances in which she was taken from her place by the detective officers, whether she would be likely to consent. Before the examination took place, she admitted having had a child. The jury would ask themselves, if that admission was made, why examine further?.....There was no legal authority at all to examine this girl." After a short absence, the jury returned a verdict of £25 damages for the plaintiff.

It is also well to bear in mind that the unnecessary examination of a woman's person for medical or surgical treatment was also denounced in the case of Rex *v.* Rosinski, in which it was decided by the judges in 1824, upon points reserved for their consideration by Mr. Justice Bailey, who tried the case at the Spring Assizes at Lancaster in the previous year, that if a medical man unnecessarily strip a female patient under the pretence that he cannot otherwise judge of her illness, it is an assault if he himself take off her clothes.

From this decision, and the verdicts at the Durham Assizes and the Leeds County Court, and the judicial statements to which we have referred and which we have quoted, it need scarcely be said that the medical profession are under a strong obligation to be exceedingly careful in examining the person of girls and women, in order to avoid actions for assault, with claims for substantial damages, for so doing. The case mentioned by our correspondent will, he says, be brought before the Quarter Sessions; and we shall be anxious to know the result, and to have a full account of the judicial remarks at its trial.

LIFE-PEERAGES.

THERE is a vacancy now in the list of life-peers, and a lawyer will, no doubt, be appointed to the vacancy, as the object of making these life-peerages was to strengthen the Court of Appeal in the House of Lords. But why should not a successful career in medicine as surely lead to a seat in the House of Lords, as work in the Church or at the Bar, in the Army or Navy, or in the Civil Service of the State at home or in the colonies? When the average duration of the life of the whole population is increased by workers in sanitary science, why should men like Farr and Simon be rewarded by the barren honour of putting the two letters C.B. after their names, when Lord Napier is rewarded by a pension and hereditary rank for defeating a king of savages? In one of the Association addresses at Manchester, Mr. Spencer Wells asked us: "Why should a baronetcy be the highest titular distinction conferred upon members of our profession? Is Jenner or Paget less worthy of a life-peerage than any one of the eminent men who now sit on the bench of bishops, or any of the lawyers, soldiers, or sailors, who have been rewarded by hereditary peerage? Can any member of the House of Lords do greater service to his country in that assembly than would such a wise and learned physician as Watson, who so very lately has proved himself capable of the highest efforts of statesmanship by his remarkable essay on the abolition of zymotic disease?"

We have repeatedly advocated the increase in the number of life-peerages, as good both for the medical profession and the nation. Again quoting Mr. Spencer Wells, we may agree with him that: "Since the health of the people is, or should be, one of the first objects of legislation and administration, the help of acknowledged masters of sanitary science is indispensable. That want, now manifest in the recent ill-devised Acts of Parliament, and the imperfect machinery put in action for their execution, must force upon the nation the conviction that medical science ought to be properly represented in Parliament, and especially in the House of Lords. None of our leaders have time for electioneering or the turmoil of party struggles in the House of Commons; whereas many of them are well fitted for the more dignified position, and would be quite able to devote their time and energy to sanitary legislation in the senate."

An active member of the House of Lords, of distinctly legislative capacity, activity, and knowledge, could, for example, do more in one session to abate the smoke-nuisance, than the useful association which has promoted the interesting exhibition at South Kensington may do in a generation.

SIR ERASMUS WILSON, at a cost of nearly £30,000, has erected a new wing and chapel to the Margate Sea Bathing Infirmary, and the building will shortly be opened by the Prince and Princess of Wales.

THE Order of the Cross and Collar of Knight Commander of the Crown of Italy has been conferred upon Sir William Mac Cormac by King Humbert, in recognition of his distinguished scientific attainments.

PROFESSOR ERNST HÆCKEL, the well-known German biologist, is engaged on a scientific mission in Ceylon, after completing which he will proceed to India.

THE temperature on Tuesday was recorded as being 47 at Yarmouth, 57 at Hurst Castle, and 50 at Jersey; while in London the reading of the thermometer was 42 degrees.

Thirty-two deaths are recorded from small-pox in the metropolis last week. Twenty-five of the thirty-two fatal cases of small-pox belonged to the South, and four to the East groups of registration districts.

A CHAIR of physiology is being established by the Trinity Medical School, Toronto, at its own cost. The preparations being made are such as will place physiological teaching in Canada on a level with the best schools for that study in Europe.

THE Newport (Isle of Wight) Town Council have refused to comply with several directions from the Local Government Board as to the appointment of one medical officer for the island, resoivlng to resent the centralising policy of that authority.

THE National Board of Health reports 25 deaths from small-pox last week in Pittsburg, 14 in Cincinnati, 11 in New York, and 11 in Philadelphia, and 76 cases and 25 deaths near Wahpeton, Dakota, where the disease is of a most malignant type.

DR. SAMUEL A. GREEN has been elected Mayor of Boston, Massachusetts. The *Boston Medical and Surgical Journal*, in an article expressive of satisfaction at the appointment, states that, having been for ten years city physician, and having also served on the school committee, and as a trustee of the city library, Dr. Green is practically acquainted with the details of various departments of city government.

AN inquest has been held on the body of a child aged three months which was found dead in bed by its mother's side. It is said to have been suffering from bronchitis, but Dr. M'Laughlin, of Bromfelde Road, who saw it after death, was of opinion that the cause of death was suffocation. The jury, however, dissented from this view and returned a verdict of "Death from natural causes."

DURING last week, 2386 births and 2079 deaths were registered in London. Allowing for increase of population, the births exceeded by 147, and the deaths by 185, the average numbers in the corresponding week of the last ten years. The annual death-rate from all causes which had slowly increased in the four preceding weeks from 19.9 to 22.5 per 1000, further rose to 28.3.

THE commission of inquiry relative to the Lunatic Asylum at Colombo has been appointed. The "cottage" principle, which was insisted upon by the Home Government, seems to have involved an unnecessarily large outlay, and to be, after all, but ill-adapted to such institutions within the Tropics. The *Ceylon Observer* remarks that, in spite of the large expenditure upon this building, it is now found to be insufficient for the accommodation of more than half the number of patients.

THE inquiry into the circumstances of the death of a painter named Pullam, who recently died in the Borough Lunatic Asylum, Birmingham, has been adjourned a third time. The medical officers are said to have been charged with treating the deceased for a complaint other than that from which he died, while the attendant is accused of brutally illtreating the deceased. The surgeon who made the *post-mortem* examination stated that death resulted from rupture of the bladder and peritonitis, the rupture being probably caused by violence; while it is contended that the two resident medical officers, who had nearly seven hundred patients between them, treated deceased for inflammation of the bowels. The whole of the facts of the case had been laid before the Home Secretary and the Lunacy Commissioners, and the Commissioners have intimated their intention of instituting an additional inquiry at the conclusion of the inquest.

THE HOSPITAL SATURDAY FUND.

CHEQUES have been issued during the past week to one hundred and five participating institutions, the amount of the award varying from £5 to a small dispensary, to nearly £400 awarded to a well-known hospital. In three cases the Distribution Committee have been obliged to withhold the cheques, as the institutions have not agreed to the conditions required by the Board of Delegates.

THE BRITISH MEDICAL BENEVOLENT FUND.

A YEAR ago, an appeal was made in this JOURNAL on behalf of this most deserving institution, which, we are glad to say, met with much support. It is gratifying to observe that an increased interest in the matter has been awakened in the Branches of the Association. For many years, the secretaries of the South-Eastern and other Branches have made endeavours to augment the fund by keeping it systematically under the notice of their constituents, and much good has resulted therefrom. Last summer, the South Wales and Monmouthshire Branch decided that each of its members should pay five shillings annually to the fund; and the secretaries of that Branch issued a circular to their colleagues in the other Branches, urging them to follow their example. This communication having been laid before the Council of the Metropolitan Counties Branch, the president and secretaries were instructed to issue an appeal on behalf of the fund, along with the circular calling for the annual subscription to the Association and Branch; and this has been just done. A similar step has been taken by the Glasgow and West of Scotland Branch. We trust that similar activity is being shown on the part of all the Branches, the officers of which, especially at this time of the year, have large opportunities of making the Medical Benevolent fund and its merits known to their professional brethren; and that the endeavours made to improve its resources will be attended with early and great success. The publication of the following extract from the circular of the Metropolitan Counties Branch will probably be interesting, and be productive of good. The facts are derived from a recent report of the fund. "The fund was established for the relief of medical men in temporary difficulty or distress, and for their widows and orphans; and also for granting annuities to those who are quite incapable of providing for themselves after sixty years of age. It was originally founded, forty-seven years ago, by the Provincial Medical and Surgical (now the British Medical) Association. In the administration of the fund, there are no salaries nor office expenses. The entire administrative expenditure, including collector's commission, the printing of the report, postage and stationery, amounted to a little over £100 in 1880. Much of the distress which the donation department is called upon to relieve is capable of alleviation only; the applicants are in absolute poverty, and unable, from ill-health or incapacity, to do anything towards their own maintenance, and the aid given helps to keep them from starvation or from the workhouse. In other cases, a widow or daughter is maintaining herself and, perhaps, a family, by teaching, or by letting lodgings or keeping a shop, or by acting as nurse, or by needlework or work with a sewing-machine. The earnings fall short from some cause or other, and timely assistance saves a deserving hard-working woman from falling into hopeless misery. Again, no year passes in which some widow left utterly unprovided for, often with children, does not come to the fund in the early days of her bereavement. From time to time, a medical man, broken down by misfortune or illness, is driven to seek the aid of the fund. A distinguishing feature of the fund is, that the applicants for aid are put to the least possible trouble and expense, and that they are not required to make public their distress by canvassing. During forty-one years, up to the end of 1880, 3,144 grants of immediate relief were made to applicants, at a cost of £29,786; thereby relieving much misery among the destitute members of the profession, and their widows and children. The Council of the Branch hope that, if you are not already a regular subscriber to this most meritorious fund, you will become so. If each member of the Metropolitan Counties Branch would pay only five shillings annually—and no doubt many will give more—most valuable assistance would be rendered to a good cause."

MEDICAL SOCIETY OF LONDON.

THE Lettsomian Lectures at the Medical Society of London, on the Diseases of the Testicles and their Coverings, will be delivered this year by Mr. H. Royes Bell of King's College Hospital. The subjects of the lectures will be: I. January 9th. Varieties and Treatment of Hydrocele: Symptoms and Treatment of Hæmatocele: Elephantiasis Scroti: Epithelioma and other Affections of the Scrotum.—II. January 23rd. The Anatomy of the Testicle: Development of Spermatozoa: Abnormal Situation of the Testicles: Varicocele and its Treatment: Nervous and Functional Disorders of the Testicles: Tumours and Imperfections of the Spermatic Cord.—III. February 6th. Acute and Chronic Orchitis: Tubercular Disease of the Testis: Benign Fungus of the Testicle: Simple and Malignant Tumours of the Testicle: Castration. The lectures will be illustrated by casts, diagrams, microscopical and other specimens.

MR. G. H. LAMSON.

MORE than one member of the General Medical Council has communicated with us on the subject of the alleged medical degrees of Mr. G. H. Lamson, who is at present charged with poisoning his brother-in-law. The fact that this individual had been in the habit of falsely assuming various medical titles was officially brought under the notice of the General Medical Council in April last. Anxious, however, not to prejudice the position of a person charged under the weight of so fearful a charge, we abstained from making any reference to the subject. It has, however, now been officially brought under notice in the course of the case presented by the prosecution, and we may refer to the circumstances as being in themselves important and instructive. It appears that G. H. Lamson, when living at Bournemouth, applied for certain appointments in Bournemouth, making use of the titles of M.D. of Paris, L.R.C.P. of London, and S.S.C.Cam., or holder of the sanitary science certificate of Cambridge. It was brought to the notice of the Council, on the authority of Dr. Pitman, the Registrar of the College of Physicians, of Professor Liveing of Cambridge, and of the Secretary of the Faculty of Medicine of Paris, that he did not possess any of these titles. Further, and at the same time, Mr. Lamson employed a flourishing testimonial alleged to have been given him by Professor Humphry of Cambridge, which was also a forged document, as we have Professor Humphry's authority for saying that he never gave any such testimonial. The various facts and documents were brought before the General Medical Council, when it appeared that Lamson was, and is actually, a licentiate of the Royal College of Physicians and

Surgeons of Edinburgh of 1878. Copies of documents having reference to the case were sent to these licensing bodies, from whom Mr. Lamson had obtained registrable qualifications, and each body was requested to inform the Branch Council of the steps it might take in the matter. It does not appear that these bodies have taken any step in the matter; and we are informed that, in fact, no communication has been received by the General Medical Council of any disciplinarian proceedings on the part of these colleges. It is palpable, however, that, unless the false assumption of medical titles and the use of fictitious testimonials be very severely visited by the medical licensing bodies, the moral value of the control which they possess over their licentiates, and in favour of retaining which much has been said by way of obstacle to sweeping measures of medical reform, must be greatly diminished. Possibly some explanation will be forthcoming from these eminent bodies as to the manner in which Mr. Lamson obtained their licences, and the reasons which induced them to abstain from taking rigorous steps in consequence of the communication made by the General Medical Council in April.

MR. SPURGEON ON VIVISECTION.

THE Rev. Mr. Spurgeon, replying to the Honorary Secretary of the Folkestone Branch of the Society for the Abolition of Vivisection, declines any office in the society that might entail work, as his time is already fully occupied, but places his name at the service of those who are opposing all experiments on living animals. "I loathe the subject intensely," he says; "and I am unable to imagine the process by which men of education, or men at all, bring themselves to perform such cruelties." Clerical antagonism to scientific progress is no new thing; and Mr. Spurgeon will not probably be regarded as a very competent authority on the subject of experimentation on animals for the purpose of promoting science. His sensitive detestation, however, of the very idea of the suffering of animals is somewhat curious, seeing that throughout his long ministrations he has never shrunk from depicting in bold and lurid colours the tortures of human souls. The reverend gentleman, who is horrified to think that a mouse may be scratched for the benefit of mankind, has times out of number, with complacent unction and much oratorical elaboration, dwelt on the intolerable and eternal torments inflicted on the lost for the satisfaction of retributive justice. To us, the difficulty is how a man of education, or a man at all, can bring himself to perform such inconsistencies.

CONCERTS FOR HOSPITALS.

A CONCERT was given last week—with, we understand, satisfactory pecuniary results—by Lady Miles, at Jey Court, near Bristol, for the benefit of the East London Hospital for Children, at Shadwell. The entertainment, which was supported by distinguished amateurs, was rendered doubly enjoyable by the locality in which it was given—a fine old English mansion, containing one of those splendid picture-galleries peculiar to English country houses, rich in splendid specimens of the genius of the great Italian and Flemish masters. The chief feature of the musical entertainment was the singing of Lady Colin Campbell, who, to the gift of a beautiful contralto voice, adds the diviner qualities of passion and pathos. We understand that this lady is good enough to be willing to exercise her remarkable talents for the entertainment and improvement of the masses of our labouring population.

THE TRANSACTIONS OF THE INTERNATIONAL MEDICAL CONGRESS.

WE have received three volumes of the *Transactions of the International Medical Congress*, of which we are obliged to defer a detailed notice until next week. We have, however, glanced over the contents of the three volumes received, and are impressed with the extreme value of their contents, both as a record of the range and extent of the work done at that most interesting Congress, the International Medical Congress of 1881, and also as a reflex of the most advanced knowledge in pathology, physiology, medicine, and the allied sciences. The entire work, which will be completed in four volumes, the fourth to be at the service of members of the Congress immediately, is a marvel of cheapness, when it is considered that so vast a collection of the fruits of medical knowledge in its broadest meaning is here presented for their information at the cost of the original subscription—one guinea only. Indeed, it is probable that some additional funds will be needed, besides the balance in hand from the subscriptions to the International Medical Congress Fund; but we feel sure that the medical public will sufficiently appreciate the merits of this remarkable publication to be quite ready to supply any pecuniary deficit. The greatest credit as well as the thanks of the profession are due to Sir William Mac Cormac and Mr. Makins, who have undergone the labour of so well editing, indexing, and passing through the press this monument of the accumulated medical knowledge of the centuries up to 1881.

THE ALKALI WORKS REGULATION ACT.

THIS Act "consolidating the Alkali Acts of 1863 and 1874, and making further provision for regulating alkali and certain other works in which noxious or offensive gases are involved" (44 and 45 Vict.- cap. 37) came into operation on January 1st. It provides for the registration of alkali, sulphuric acid, chemical manure, gas-liquor, nitric acid, sulphate and muriate of ammonia, and chlorine works. The owners of such works are to use the best practicable means for preventing the discharge of noxious and offensive gases from them, and they are to be under the supervision at all reasonable times of the inspectors appointed by the Local Government Board. The penalty for an infringement of the Act is £20 for the first offence, and £50 for every subsequent offence, together with a further sum, not exceeding £5, for every day during which such subsequent offence has continued, to be recovered in the County Court from the owner, or (if he have used due diligence to comply with the Act) the actual offender, in his employ.

BROMPTON HOSPITAL LECTURES.

WE are informed that, henceforth, the abundant clinical and pathological material at the Brompton Hospital will be utilised for the purposes of more systematic teaching. The lectures and demonstrations, which have hitherto been delivered in short courses, and at comparatively long intervals, will, in future, be continued throughout the academical year, on Wednesdays, at four o'clock. The adoption of a fixed day, and of a fixed hour, will be to the advantage of many who in the past have wished to attend, but have failed to obtain information as to the special time at which lectures were delivered. The opening of the new buildings, on the south side of the Fulham Road, will add greatly to the existing opportunities for clinical study. The new out-patient department, which is now in full operation, and the new wards, which will accommodate about one hundred and fifty new patients, will afford unusual facilities to students, and to practitioners, anxious to observe cases of the varied diseases of the lungs and of the heart in larger numbers than can be collected in the wards of a general hospital. The hospital regulations have hitherto precluded the admission of cases in the acute stage; it has now been decided that a proportion of the beds in the new buildings shall be exclusively devoted to the treatment of acute cases. The usefulness of the hospital, in an educational sense, will thereby receive an important extension.

POISONING BY ACONITE.

DR. E. T. REICHERT (*Philadelphia Medical Times*, November 19th, 1881) gives an analysis of the treatment of forty-one cases of aconite poisoning. Evacuation of the stomach, the administration of large doses of stimulants, and the use of external stimuli, was the system of treatment pursued in the majority of cases. Opium and its preparations were used in four cases, all of which terminated favourably. In one case, five and a half drachms of laudanum were administered in four hours without causing narcotism. Digitalis was administered in two cases, in connection with other stimulants. One died, and one recovered. The latter, who had taken an ounce of Fleming's tincture of aconite, received three hypodermic injections, each of twenty minims of tincture of digitalis, within an hour. Amyl-nitrite was used with

very marked results in one case, and certainly deserves an extended trial in poisoning by aconite as it is a marked cardiac stimulant. Tincture of nux vomica was used in one case, with marked benefit to the heart and respiration.

FATAL ACCIDENTS IN VARIOUS OCCUPATIONS.

A PAPER on the Rates of Fatal Accidents in Various Occupations was read, on Monday night, at a meeting of the Institute of Actuaries, in King's College, Strand, by Mr. W. J. H. Whittall, of the Clerical, Medical, and General Life Assurance Society. The rapid growth of accident assurance, the passing of the Employers' Liability Act, and the periodically recurring discussions respecting schemes for a National Accident Fund, Mr. Whittall remarked, had created a demand for statistics on the subject of accidents which could not be said to have been satisfied. The tables given in his paper were, he believed, unique as regarded this country. They were based upon a comparison of the male population in each occupation in England and Wales, as enumerated in the census of 1871, with the average of the number of violent deaths occurring to male persons following that occupation in England and Wales during the three years 1870, 1871, and 1872. For the extraction of the particulars relating to these deaths, from the records of the General Register Office, special permission was obtained from Dr. Farr. Accidents to persons under ten years of age had been excluded; and, to make the investigation complete, the whole of the deaths were next classified with respect to age, the influence of age on accidents being among the subjects noted. The total number of deaths classified was 25,455. The first table gave results in 157 occupations, where neither the nature of the occupation nor the results themselves suggested any disturbing influence. Taking them in order of comparative immunity from fatal accidents, the list was headed by authors, etc.; students; total accidents in the three years under investigation 23; population in 1871, 61,085; average annual rate of fatal accidents per 10,000, 1.3. The figures in the same arrangement of number of accidents, population, and ratio for some other occupations were: Protestant minister, 5, 9264, 1.8; schoolmaster, 15, 19,378, 2.6; clergyman, 17, 20,694, 2.7; medical student—assistant, 4, 4514, 3.0; printer, 49, 44,066, 3.7; teacher, professor, lecturer, 15, 13,349, 3.7; domestic servant (general), 80, 68,335, 3.9; tailor, 143, 111,843, 4.3; shoe and boot maker, 257, 197,465, 4.3; barrister, 5, 3580, 4.7; merchant, 23, 15,903, 4.8; commercial traveller, 26, 17,895, 4.8; civil engineer, 8, 5234, 5.1; Civil Service, 37, 25,717, 5.2; butcher, 116, 72,675, 5.3; commercial clerk, 199, 124,787, 5.3; solicitor, 20, 12,314, 5.4; police, 47, 28,330, 5.5; horsekeeper, groom, jockey, 109, 63,878, 5.7; coach, omnibus, cab owner, livery stable keeper, 10, 5558, 6.0; painter (artist), 9, 5005 6.0; undertaker, 3, 1459, 6.9; actor, 4 (all in 1870), 1899, 7.0; farrier, veterinary surgeon, 14, 6650, 7.0; physician-surgeon, 41, 14,684, 9.3; coachman, cabman, flyman, 183, 56,171, 10.9; plumber, painter, glazier, 356, 103,380, 11.5; horse proprietor, dealer, 6, 1364, 14.7; pilot, 25, 3039, 27.4; bargeman, lighterman, waterman, 354, 29,445, 40.1; and highest, horsebreaker, 18, 1253, 47.9. He then dealt with more obviously dangerous occupations, treating at length of the statistics of accidents affecting railway *employés* and miners, which have been the subject of special returns and reports. Table 5 distinguished for 43 occupations, as far as was possible, accidents in connection with occupation from those which occurred outside the occupation. In the case of coal miners, 2968, out of the total of 3464 fatal accidents in 1870-2, or 85.7 per cent., occurred in connection with the occupation. In the discussion which followed, Mr. Bailey, the president of the Institute, asked if the ratio of non-fatal accidents could be ascertained. Mr. Cornelius Walford said he thought that at present this could not be determined. Remarking on the number of accidents to those having to do with horses, he observed that more persons were killed by horses than by railway accidents. From long experience of accidents, from the actuary's point of view, he next offered some words of warning with regard to the principles on which employers' liabilty companies and some accident insurance companies were conducting their business. In the accidental insurance business, cycles of disaster occurred with as much regularity as panics in the commercial world; and, what was more remarkable, these cycles of accidents affected different districts in turns. Mr. Nelson entered at some length into an analysis of Mr. Whittall's paper, comparing its results, especially with regard to railway *employés* and miners, with statistics obtained from other sources. Mr. Adler said, with regard to the ratio of non-fatal to fatal accidents, that investigations at Chemnitz showed that, for 91 deaths, there were 213 total disablements, 369 partial disablements, and 8177 accidents of a lighter character; or, roughly, about 100 accidents to one death.

THE METROPOLITAN ASYLUMS BOARD.

THE Metropolitan Asylums Board has issued its account of the estimated expenditure up to Lady-day next, and a call is made upon the metropolis for £240,000 to meet this expenditure. Of the whole amount, £40,000 is to meet the estimated deficiency from the last estimate; £16,000 is for interest on loans; £2,900 is the whole cost of the central administration; and £2,000 is for law costs. The deduction of the £40,000, to make up the estimated deficiency of the last year, leaves £199,000 for the half-year's expenditure. The Leavesden Asylum is estimated to cost for the half-year £21,480, of which £11,666 is for the cost of provision and clothing the two thousand patients in the Asylum at 4s. 8d. per head weekly. The Caterham Asylum, with the same maintenance account for a like number of patients, is estimated to cost £23,540. The Darenth Schools and Asylum, with nine hundred patients at 5s. 6d. per head weekly, are estimated to cost £17,500. Homerton Hospitals, with two hundred fever-patients, costing a minimum of 10s. a week for food and clothing, and one hundred and fifty small-pox patients at a like cost, are estimated at an amount of £17,650 for the half-year. The Stockwell Hospitals, with an equal number of patients of both classes, are estimated to cost £12,870 for the half-year. The Fulham Hospital, with two hundred small-pox patients at 10s. a week, is estimated to cost £8,130. The Deptford Hospital, with four hundred patients, is estimated to cost £20,200. The hospital-ship *Atlas*, with provision for a hundred patients, is estimated to cost £5,000; while the ambulance station and wharf are estimated to cost £1,600. The training-ship *Exmouth*, with six hundred boys on board, provisioned and clothed at 7s. per head a week, is estimated to cost £9,730 for the half-year, the charge including officers' salaries, firing, lighting, medical charges, the rent of a house in Grays used as a sanatorium and storehouse, and also cost of furniture, taxes, and insurance. Of the whole £199,000, the sum of nearly £128,000 will be charged to the "Common Poor Fund" account, and raised from the whole of London, according to valuation—the richer parishes thus paying in excess of the poorer ones, while the balance for "maintenance" is paid by the parishes which have sent the patients.

HOSPITALS IN PARIS.

THE Municipal Council of Paris has passed a resolution, by forty-eight votes against five, in favour of the entire secularisation of the public hospitals of that city. By the terms of the same vote, the credits asked for by the administration for the salaries of the almoners attached to the hospitals have been refused. At the same time, the Council increased the sum set aside for public instruction by 3,500,000 francs.

SMALL-POX AT BOULOGNE.

IN his last report on the health of the Port of London, Dr. Collingridge drew special attention to the recent epidemic of small-pox at Boulogne. On communicating with the authorities, the health-officer learnt that during the first three months of last year there had been one hundred and sixty deaths, mostly amongst the unvaccinated. As there was great difficulty in tracing the progress of the disease, Dr. Collingridge made a personal visit to the seat of the outbreak. He found that small-pox had existed in the town for four months previously. Commencing at the fishing part of the town, Capécure, it gradually extended to other parts, and at the time of the health-officer's visit had entirely left its starting-place. No hospital for infectious diseases exists in the town, the cases being admitted to the general hos-

pital. There is no compulsory removal of patients to hospital, nor any compulsory vaccination, the operation at ordinary times being performed entirely by midwives, by whom it is naturally very imperfectly carried out. Chiefly through the exertions of the English medical men, heifers were employed during the height of the epidemic for vaccinating all such as were willing; but, unfortunately, no public notice was given of this, beyond an advertisement in one newspaper. At this time, the epidemic was fairly on the decline, though one or two cases had just occurred among the English residents, who had previously been quite free. One death occurred in the Train Boat Service. The cases, especially at the commencement, were of a markedly virulent type, just such as one would expect to find where vaccination and revaccination are either very imperfectly carried out or altogether neglected. Dr. Collingridge adds that it is a very difficult matter for an Englishman to realise the amount of difficulty there was in extracting the simple facts he has enumerated.

COMPULSORY VACCINATION IN TASMANIA.

AN Act, causing the above measure to come into force, has been passed by the Parliament of Tasmania, and assented to by his Excellency the Governor. Twelve thousand persons in South Australia have been vaccinated during the last two months. The registered number of vaccination cases performed successfully on children under fourteen years of age, in New Zealand, is as follows:—1877, 10,746; 1878, 11,495; 1879, 12,384; 1880, 13,628; total, during the last four years, 48,253.

COMPULSORY VACCINATION IN SWITZERLAND.

THE National Council of Switzerland, at its meeting of December 21st, had a discussion on the law of epidemics, which terminated in the adoption of the principle of compulsory vaccination, by ninety votes against twenty-three. The articles 13 and 14 of the law as regards epidemics now stand as follows. Article 13: Every child born in Switzerland should, according to law, be vaccinated in the first year of its life, or, at the latest, in the second. A longer delay is not permissible, except for hygienic reasons certified by a medical practitioner. Children born in other countries, and not vaccinated when brought into Switzerland, are placed under the same regulation. The vaccination to be certified by a registered medical practitioner. Article 14: No child can be allowed to enter any public or private school unless he possesses this certificate.

THE EVASION OF QUARANTINE.

"IT seems to be beyond doubt", says the correspondent of the *Globe*, "that two considerable caravans of returning pilgrims have managed to give El-Wich (the Red Sea quarantine station) the slip by making a detour. It is of course the duty of the soldiers to stick at no expedient for turning back these infected pilgrims, wherever and whenever they present themselves on the Egyptian frontier. But this is difficult, not to say impossible, for two reasons; first of all, the cordon is far too slender to stem a horde of impatient travellers; and second, were it even otherwise, no Mussulman soldier could be got to fire upon a green-turbaned pilgrim, come straight from the holy shrine, and consequently reeking with piety—the said soldier would far more likely kneel down and kiss the good man's sandals. From El-Wich or El-Wadej itself, I hear that the 8,000 pilgrims who have arrived up till now are most incensed and mutinous at their forced detention, and that the sanitary force experiences the greatest difficulty in keeping them at all within bounds. There were sixty deaths from cholera there during the week ending December 22nd. Thus you see that, if we are spared the dread scourge here, it will not be entirely owing to sanitary arrangements, for these are confessedly insufficient."

DISTRICT MEDICAL OFFICERS IN BRITISH GUIANA.

THE treatment of medical men who enter into contracts with the Government of British Guiana is exceedingly harsh, and shows that this colony should be avoided by those who are desirous of holding their appointments on a fair basis. The *Demerara Argosy* of November 19th contains a heavy indictment against the Governor, who is stated to dismiss medical officers forthwith from their appointments, without making any "investigation into the cause of dismissal". He is also said to have kept open permanent appointments for more than a year, because the temporary officer is paid less than full pay for the district, and a saving to the Government is thereby effected. The article commences with a statement to which we would invite the attention of those who think of emigrating to this colony: "If a colonist were asked to name the one department in the Government service which, beyond all others, is treated by the executive as a pariah amongst officials, he would have no hesitation in naming the district medical officers." In some instances, medical officers who have been dismissed have been requested as a favour to undertake the work in a district after the death or removal of the person in whose favour they had been displaced. The whole service appears to be in a most unpleasant position, especially for supernumeraries, as they may be required at any time to take over a district in any part of the colony for an indefinite time, and to remove his furniture and family to some part of his new district, without receiving the salary which has been assigned to it by the Combined Court, or without having a house provided for him to rent. As houses are very difficult to obtain, most colonists building their own, this appears to be a special grievance.

SCOTLAND.

HEALTH OF EDINBURGH.

THE annual mortality of Edinburgh during the past six years has been, per 1,000—in 1876, 19.51; in 1877, 20.86; in 1878, 21.53; in 1879, 19.06; in 1880, 21.05; and in 1881, 20.06. During the last week, the death-rate was 19 per 1,000. No death from fever was reported, and only six from other zymotic diseases, of which three were scarlet fever. Four of the six occurred in the New Town, and two in the Old Town.

EDINBURGH ROYAL INFIRMARY.

ACCORDING to the charter of the Royal Infirmary, Edinburgh, an annual meeting of qualified contributors is held the first Monday in each year. Some years ago, when different sides mustered strongly to vote for or against the admission of female students to the wards, the Queen Street Hall was not too large for the meeting then held there; but in these more placid times the council chamber suffices. At the meeting held on Monday, the Lord Provost presided. The report submitted to the meeting showed that at 1st October 1880, there remained in the hospital 458 patients, and at 1st October 1881, there remained 494. Between those dates, 5,288 new cases were admitted; of whom, after treatment in the hospital, 2,801 were dismissed as cured, as relieved, 1,651, and on other grounds 325; while 475 died in the hospital. Of the above number, 480 cases of fever (which included 169 cases of scarlet fever) were treated in the fever hospital in the old Infirmary buildings; 2,163 were medical cases, and 2,659 were surgical cases. The average number of children inmates during the year was from 30 to 40, and these were chiefly distributed through the surgical wards. The daily average of patients in the house was 520, the highest number having been 576, and the lowest 453; while the average period of residence was thirty-three days, as compared with the previous year, when the average period of residence was 31.6 days. Of all the cases admitted, 2,110 were from the county, 421 from Leith, and 2,721 from Edinburgh. Of 475 deaths, 79 occurred within forty-eight hours after admission, and these were mostly cases of severe injury: reckoning them in the total of medical and surgical cases, the percentage of deaths to admissions was 8.0; deducting them, it was 6.5. In the fever-house, the percentage of deaths was 10.0; but, deducting fifteen cases which died within forty-eight hours of admission there, the percentage was 7.1. The Convalescent Home at Corstorphine received 704 patients, a decrease of 118 as compared with the previous year: 55 were admitted each month; 43 was the average number resident at one time; and the average residence of each was twenty-two days. In the out-door departments of the hospital, 15,000 pa-

tients were attended to, and in the surgical received the necessary dressings and appliances. As to the financial condition of the Infirmary, the ordinary income was £21,902, and legacies and donations £6,572; conjointly, these went to meet the ordinary expenditure (£31,720), thus leaving a deficiency of over £3,245. The ordinary income for this year exceeds last year's by £362; but the receipts from donations and legacies are less by £11,683. Fees from students constitute an important item in the income: on October 1st, 1879, they were £2,643; on October 1st, 1880, £4,179; and on October 1st, 1881, £3,443. It is a serious outlook for so large and important a charity that its expenditure so far exceeds its income, both ordinary and extraordinary. This is largely due to the Infirmary authorities supporting a large separate fever hospital, which of itself must entail an expenditure of about £3,000 a year; and, as the city has now purchased, and intends converting into a fever hospital, the old Infirmary buildings, it may be reasonably expected the Royal Infirmary will be relieved of the greater part of its fever expenditure. The many and widespread friends of the Infirmary will be glad to know that the managers expect soon to receive a sum of £12,000 from the estate of the late Dr. Hunter. The meeting re-elected the six managers who are to represent them as managers for the next year.

IRELAND.

AT a recent meeting of the Cork Town Council, Mr. W. B. Harrington was appointed City Analyst, at an annual salary of £100, and a fee of half a guinea for every analysis made after one hundred during each year.

CHARGE AGAINST A MEDICAL OFFICER.

LAST week, Dr. MacCabe held an inquiry at the Carrick-on-Suir Workhouse, in reference to the death of James Hickey, in consequence, as alleged, of the neglect of Dr. O'Ryan, the medical officer. The deceased was admitted with a broken leg, but persisted in leaving for his home, contrary to the wishes of Dr. O'Ryan, and died shortly afterwards. The evidence exonerated Dr. O'Ryan, but Dr. Mac Cabe will forward his report to the Local Government Board.

QUEENSTOWN: THE PUBLIC HEALTH ACT.

THE Queenstown Town Commissioners having refused to adopt the provisions of the Public Health Act regarding the removing of patients to hospital, under the 141st section of the Act, the attention of the Local Government Board has been directed to the subject. The board also regret to learn the general order given to the sanitary sub-officer as to disinfection of infected articles of bedding and clothing. For previously, it had been the practice for the sanitary sub-officer to proceed at once, on receiving directions from the medical officers, to disinfect and cleanse premises, and remove infected articles of bedding to the disinfecting chamber, from places where cases of infectious diseases had proceeded, without waiting for the meeting of the sanitary authority, for receipt of a special order in each particular case from that body. But, in consequence of a resolution adopted on the 23rd ultimo, rescinding this arrangement, it has occurred that, in several cases of typhus fever arising in No. 2 district, no disinfection or cleansing of the bedding or premises has taken place; and infection has, and probably will still further, spread from this cause. Eleven cases of fever were admitted to the hospital during December, and it is to be feared that fever will again spread in Queenstown. The Local Government Board have requested that a meeting of the sanitary authority be immediately convened to deal with the cases where disinfection is urgently needed, and with a view to the reconsideration of the resolution adopted by the commissioners. They point out that it is the duty of the sanitary authority not only not to obstruct the operation of the provisions of the Public Health Act, but to enforce, if necessary, its being carried out with activity and despatch, and the sanitary authority will incur a serious responsibility if they neglect to do their duty in this respect.

THE METROPOLITAN DISPENSARY QUESTION.

AT a meeting of the East London and South Essex District of the Metropolitan Counties Branch, held on Thursday, December 15th, at the Hackney Town Hall—Dr. BRIDGWATER of Harrow, President-elect of the Branch, in the chair—a discussion took place on this question.

Mr. TIMOTHY HOLMES, in opening the discussion, said: No apology is required for introducing to your notice a matter so important, both to the general practitioners and to the members of the hospital staffs, as the proposal to found provident dispensaries on the self-supporting principle, which will, if successful, relieve the hospitals from the burden of a large proportion of those out-patients to whom, in their present numbers, they cannot possibly do justice, and will also provide general practitioners with an adequate remuneration for a great amount of labour which at present is almost unremunerative. I say that the institution in question will do this if it be successful; and the question which I wish you to discuss to-night is, whether the present proposal contains the elements of success. As I wish this to be merely a business discussion, I shall not spend your time in dwelling on the evils of the present system, on the condemnation of it which has been pronounced by great authorities on all hands, both lay and medical; on the fruitless efforts which have been made to reform it; nor even, except by merely mentioning it and begging you not to forget it, on the indubitable fact that the evil is still growing. While everybody is agreed that medical teaching, true charity, the proper treatment of the most common diseases among the poor, the proper independence and dignity of the poor—in a word, every object which the benevolent ought to have in view in founding hospitals—is swamped under the indiscriminate crowding of our out-patient and casualty-rooms, yet no effectual steps have been taken to mitigate the evil; and, as a natural consequence, it increases with the increase of London. Happily, the great hospitals are beginning to see the necessity of some change. It is now some years since Dr. R. Bridges, then casualty physician to St. Bartholomew's, wrote an account of the casualty department there, which was published in the fourteenth volume of the *Hospital Reports*, and which, therefore, cannot be charged with inaccuracy or exaggeration. The ludicrous and shameful perversion of so-called charity which that discussion revealed, did much to show the absolute necessity of some limitation on the indiscriminate admission of out-patients; and, although only the casualty-rooms were included in Dr. Bridges' paper, yet I believe I am right in saying that the authorities of St. Bartholomew's quite recognise also the necessity for reform in the other branches of out-patient practice; and, coming nearer to this neighbourhood, the same may, I believe, be said for the governors and staff of the London Hospital. This is a favourable augury of success of any well-considered scheme of provident dispensaries. We know, from the experience of the northern towns, that dispensaries of the kind can be managed to the satisfaction equally of the public, of the patients, and of the medical men, in the absence of large eleemosynary institutions. But in London it seems hardly possible to found self-supporting dispensaries on a sufficient scale when the large hospitals and special institutions throw their doors open, without any question or restriction, to any who choose to come in. The assumed willingness of the London Hospital authorities to co-operate as far as they can in a well-devised scheme of provident dispensaries, approved of by the practitioners of the vicinity, has induced me to accept Mr. Wallace's invitation, and introduce the question to you to-night, whether you think our scheme satisfactory. Now, in debating this, you must bear in mind that no man of sense expects the foundation of provident dispensaries to be a panacea for all the evils which the neglect of former generations has entailed on us. We only regard it as one of the necessary preliminaries to the better treatment of what we may call the ordinary maladies of the poorer classes, that they should be provided with the means of procuring proper medical attendance at the dispensary when possible, and at their own homes when necessary, on the principle of insurance—*i.e.*, by small regular payments made during health. That such payments, not exceeding what a working man can well afford, will leave a sufficient income for the medical man, is proved by the experience of the towns aforesaid; but, in order to do so, they require large numbers. Now, provident dispensaries have been started in many parts of London, and have been more or less successful, some very successful, as that at Haverstock Hill, of which I hope Dr. Ford Anderson will give us some particulars, illustrating the working of such dispensaries. But they have all, I believe, contained an admixture of the charitable element. Now, it seemed to those with whom I was acting, that the necessary numbers would be most easily secured if we could amalgamate with the medical departments of the large benefit societies which are

so numerous in the metropolitan area, and which at present provide medical attendance only for their own members, the wives and children being omitted. But such amalgamation involves the giving up of the eleemosynary element; for these large societies, far from being objects of charity, have large funds, and are rapidly rising in importance and political power. It involves also the necessity of giving up any attempt to fix a wages test, at least as far as the club members are concerned, for all members are entitled to the attendance of the club doctor, and they would not tolerate any inquiry into their private affairs. But really it seems that any attempt to insist on a wages test is perfectly futile. The fact is, that well-bred people do not care to attend at a public dispensary except in very rare instances. However, in order to meet the case of such exceptional abuse, we have stipulated that the medical men may object to the reception of any person as a member, and have the matter referred to the committee, on which the medical staff is always represented. This matter, therefore, though it is one which seems important when the objection is made that, under our rules, a duke, or, to put a less improbable case, a well-to-do tradesman, might join one of our dispensaries, and get attendance for himself and family for one shilling a month, is found in practice to be of no great moment. If such a person were not a member of a benefit society, he could be objected to, and would be probably excluded, though the great probability is that he would withdraw without risking the exposure of such a proceeding. If he were a member of a benefit society, he must be tolerated, and his family attended at the dispensary rate, and to that extent the system would no doubt work an injustice to the medical man; but the cases would be so very rare, as to be hardly worth taking into account. A more serious question is, whether the rates fixed will prove sufficient to keep the dispensaries going, and afford a fair income to the staff. If they be not sufficient, they must be raised, for you will notice that the rates fixed are minimum rates, and a provision is then made for raising them; but, in practice, this would be found extremely difficult, and it would much imperil the existence of any dispensary to attempt to raise the rate which had once been settled. However, we believe the present scale will be high enough for the object in view. And this object, it must be recollected, is not to originate a perfectly ideal and unobjectionable arrangement between two parties hitherto unconnected with each other. Unfortunately, medical men have made bargains with the working classes by which they must in some measure be bound. In the present case, it is clear that we could not expect the members of benefit societies to pay more for their own medical attendance than they pay now; for, though the rate seems low, they have plenty of qualified applicants for their clubs; and the rest of the scale must be governed more or less by the rate for club members. The attendance on these members will be somewhat less laborious than it is now, when the dispensaries become frequent through the metropolis, seeing that all the patients will be collected into an area of about a mile radius, while at present the club members often live at a distance of about three miles on either side of the medical man's residence. The calculation which the officers of our Association have made is, that, with two thousand members, a dispensary may be made fairly self-supporting, and give a fair income to each of the medical staff. It is not possible to state in exact figures what the amount would be, since the receipts will vary according as the majority of members are single men or families, club or ordinary members; but it may be stated in general terms that two thousand members at 6s. 6d. a year would give a gross income of £650 a year, half of which by our rules is divisible among the medical staff. The same sum would be contributed by one thousand families or by three thousand single club members. The actual amount of work to be done may best be judged of by the experience of the Haverstock Hill Dispensary, which would be probably a little over the mark, since our dispensaries would contain a larger proportion of members of benefit clubs, who are "selected" lives, *i.e.*, men in the prime of life, and little exposed to sickness. It must be recollected that medicines are provided from the dispensary fund. The number stated is the minimum. As larger numbers are recruited, the dispensary would become more remunerative to the staff. I submit to you the accompanying calculation on this head by our organising agent, Mr. Radley, who is here present. As I said before, I submit these details to you not as being all that could be wished, or as representing the scale on which we think the labours of medical men ought to be remunerated; but, as it seems to us, after prolonged consideration and hearing both sides of the question, they are about as good terms as can be obtained for the class of practice in question, and they have been accepted in many parts of London and the suburbs by men of unquestioned respectability and efficiency, under whose care various dispensaries are in satisfactory working, under the auspices of our association. One word about this association. The cardinal principle of our scheme is, as I have said, that there shall be no admixture of charity in it, but the dispensaries cannot be self-supporting at first. The funds required for the purchase or hire of premises, furnishing, etc., must be lent by someone, and this association has been founded for that purpose, and for the purpose of general supervision; much as a similar association has performed similar duties towards the High School for Ladies. Such, in the briefest compass, are the main outlines of our scheme; and I have endeavoured to put them before you in as fair a manner as possible; for, though I myself believe that the general adoption of such a scheme throughout the metropolis would be the greatest advance at present possible in the medical treatment of the poor. I feel that an audience such as this is composed of men whose judgment is far more trustworthy than mine, and to your judgment I leave the matter with full confidence. We are not blind to the many difficulties in the way of such a scheme. One of the greatest is the competition of private practitioners, who open what they call provident dispensaries, frequently at a lower rate than ours. This fact shows again the impossibility of fixing a higher standard of fees. I do not wish to speak of any such private dispensaries with any disrespect, but it is clear they are wanting in two of the great features of our scheme, viz., its fixity, since, with the death or removal of the medical man, the dispensary comes to an end; and, secondly, the power which one of our members has, when he removes to another part of London, of transferring his subscription to the dispensary in that neighbourhood. Again, they are, as a rule, destitute of what is the true "provident" principle, viz., insurance during health for subsequent attendance in sickness. Some of the other great difficulties in our way are, we hope, beginning to diminish. We think that the more intelligent of the working classes are beginning to see that it is better to pay a moderate sum during health to secure medical attendance in sickness, rather than trust entirely to gratuitous aid when sickness comes; and we believe that both the medical officers and the lay governors of hospitals begin to perceive that the system of indiscriminate out-patient relief, which has grown into such extravagant proportions during the last thirty or forty years, might now be stopped. We perfectly recognise, however, that, without the confidence of the great body of the profession, we cannot succeed; and a meeting of this kind will be a very useful test to us how far we deserve or have obtained that confidence.

Dr. FORD ANDERSON expressed his belief in the provident principle, although it had received little support from gentlemen connected with the hospitals, which he thought to be due to an idea that its general adoption would cause the teaching power of the hospitals to suffer. One difficulty that would have to be faced was the number of spurious imitations in London, which had sapped public confidence. Speaking from an experience of many years, he did not find well-to-do persons resort to provident dispensaries, nor did he think they were likely to. People would not run the risk of losing position by attending dispensaries in their own districts, where they would have to associate with a lower class; but they did to a large extent avail themselves of the free hospitals. He found that the work in dispensaries could be rapidly performed from the knowledge gained of the members and the facilities with which they submitted to regulations. The Haverstock Hill Dispensary had been established seventeen years, and had last year 5,066 members, paying in monthly sums £841, and for midwifery £117; total, £958 from members. Only 15 per cent. of the whole income is derived from honorary subscriptions. The medical officers received 75 per cent. of members' monthly payments, as well as midwifery fees; and last year £775 were divided among four medical officers. If the Haverstock Hill Dispensary were self-supporting, the medical officers would, at this rate, get £605, that is, about sixpence a visit, exclusive of midwifery. This would be fair remuneration, considering the facility of work. He thought the weak point about the Provident Medical Association was the small charge for families. It was based on experience of friendly societies where one doctor was employed; and the scale is not applicable where several medical men are engaged, and where women and children who require so much attendance, are treated as well as men. This was a fault that could and should be remedied. Independent practice amongst the poor compared unfavourably with provident dispensary practice; the work was less methodical and more harassing, and there was a large percentage of bad debts.

Mr. TREVES said many could not see how the relief of the out-patient departments would be brought about by provident dispensaries, while he thought it would interfere with teaching. At the London Hospital, the out-patient work was done well, and was got through in three hours each day. This class of cases furnished material for a special form of teaching and testing the judgment and powers of diagnosis of the students not found in the cases in the wards; and for this purpose slight cases were as valuable as others.

Mr. W. SMITH said he had been medical officer of a provident dis-ensary, and he considered it was greatly abused by well-to-do persons. ne new association had no wage-limit, without which any such system ust be injurious. The scale of subscriptions was too low, while, in dition, there should be some limit to the age at which persons were mitted. The system would be worse than club practice, from its mission of women and children, among whom increased averages of kness were found; while the remuneration was insufficient for the ctors, the remainder would be inadequate for the other purposes of e institution.

Mr. PARAMORE expressed disapproval of the proposal to establish ovident dispensaries.

Dr. G. P. BATE gave some results of his experience of club rates. He id that, on a membership of about 1,300, allowing 2s. for a home-visit, 1879 the rate for consultation at the surgery was 7d., and in 1880 5d.; ile, if 1s. 6d. were allowed for visits, the remuneration would be 9d. 1879, and 6d. in 1880. These rates were inadequate unless they rried with them the attendance of the wives and children at ordinary es; and if a system became general to include these at similar rates, must result in the ruin of many respectable practitioners.

Mr. E. G. GILBERT said the rates propounded were unsound, inas-uch as the more healthy male members would have to bear the burden the women and children; and in addition to this, they were too low be fair to the medical men. At Reading, where there was a large ovident dispensary, the payments averaged 4½d. a consultation, half which were at the homes of the members. On the other hand, if ese institutions could be made self-supporting, he saw no reason for a ge-limit.

Dr. A. E. SANSOM thought the time had arrived when something ght to be done in the matter. If they did not approve the present heme, they ought to propound another. He would not allow the bject to drop, and hoped to have the opportunity of developing other ews in a subsequent paper.

Dr. DUNDAS GRANT said hospitals were supported by the subscrip-ns of rich people, by the fees received for teaching, and by the atuitous services of a part of the medical profession. The relief they ovided was intended for persons who were not paupers nor well-to-do. present, hospitals were used by both these classes, which he thought ould be prevented. He thought a new instrument ought not to be ated until the old ones were reformed and utilised.

Mr. HOLMES, in reply, traced the growth of out-patient work from origin, and said it had been perverted from its proper function, hich should be chiefly that of consultation. With regard to teaching, undertook to say the number of patients seen in the allotted time t such a thing out of the question. If the proposed system were nerally adopted, governors of hospitals would see trivial cases could provided for in another way, and many persons now getting that nothing for which they are well able to pay will be debarred from ing so. The remuneration proposed was lower than he could have shed, but higher rates would be undersold, and would throw the sses proposed to be dealt with into the hands of quacks and dealers in strums. He left the matter to their consideration, not as a perfect plan, t as one much needed, and the best the circumstances would allow. The proceedings closed with a vote of thanks to Mr. Holmes for his per.

THE PATHOLOGICAL SOCIETY.

IE character of the discussions, and the kind of work done by this iety has, as the President has observed at several recent meetings, ered materially within the last few years; theoretical disquisitions ve come to occupy more time, and less has been devoted to the mere ord of facts. Whether this change has been a source of unmixed vantage, may be a matter of dispute; there can, however, be question that the Society has never been more flourishing than the present moment. The report of the Council presented the annual meeting on the 3rd instant showed that the number of mbers was greater than at any previous period; that the finances re in excellent order; and that the Society was preparing to adopt recommendation of its late President, Mr. Jonathan Hutchin-n, for the extension and systematising of its labours. Thus, a mmittee has been appointed to examine past volumes of the *ansactions*, with a view to completing the history of those cases which it had been left incomplete at the time of their presenta-n; this committee has already commenced its duties. A standing mmittee, also, has been appointed to report on any specimens of dis-se in the lower animals which may be brought before the Society, and rangements have been made by which this committee will, through e courtesy of the Zoological Society, be enabled to make use of orbid material from the *post mortem* room of the gardens in Regent's Park. The report paid a graceful tribute to the memory of Dr. George Rolleston, who had been one of the earliest members, and also referred, with becoming expressions of regret and respect, to the decease of two of the honorary members, Dr. Julius Vogel of Halle, and Professor Pirogoff of St. Petersburg. The following gentlemen were elected to serve on the Council of the Society for the ensuing year: *President:* S. Wilks, M.D., F.R.S. *Vice-Presidents:* W. Bowman, F.R.S.; G. Buchanan, M.D.; T. Buzzard, M.D.; *W. H. Broadbent, M.D.; Andrew Clark, M.D.; *John Croft; Jonathan Hutchinson; and S. J. A. Salter, F.R.S *Treasurer:* G. Johnson, M.D., F.R.S. *Honorary Secretaries:* J. F. Payne, M.D.; H. Morris. *Council:* E. B. Baxter, M.D.; J. Cavafy, M.D.; *W. B. Cheadle, M.D.; *J. Curnow, M.D.; Sir J. Fayrer, K.C.S.I., M.D.; W. M. Ord, M.D.; R. D. Powell, M.D.; G. H. Savage, M.D.; *R. Southey, M.D.; T. T. Whipham, M.D.; W. M. Baker; J. N. C. Davies-Colley; *A. H. G. Doran; *T. R. Jones, M.D.; J. Lister, F.R.S.; *J. Langton; *E. Nettleship; R. W. Parker; W. Tay; and W. J. Walsham.—The gentlemen whose names are marked with an asterisk (*) were not on the Council or did not hold the same office during the preceding year.

CHRISTMAS AND NEW YEAR FESTIVITIES AT THE METROPOLITAN HOSPITALS.

IN every hospital, without exception we believe, the festive season which has just passed, was marked by some effort to amuse and gratify the patients, and to make up to them, as far as possible, for the loss of those home associations which have bound themselves about the last few days of the old year, and the first of the new. We proceed to give particulars of the doings at some of the hospitals, for which we are indebted to the courtesy of members of the medical staff of the various hospitals.

GUY'S HOSPITAL.

At Guy's the usual Christmas fare was distributed to the patients on Boxing Day, as it was thought that the Sunday celebration might curtail the harmless enjoyment allowed when Christmas Day occurs on other days of the week. The customary roast beef and plum pudding were freely served to all who could partake of it (and it is astonishing in a hospital for the sick, how few cannot), while the generosity of the students and members of the staff enabled all to participate in a substantial dessert, and the men patients to smoke tobacco to their heart's content, a privilege which, as it is only conceded once a year, is always highly prized. Each ward was gaily decorated with banners and flowers emblematic of the season, and numerous shields and scrolls bearing inscriptions from Tennyson, Keble, and from other sources, all inspired with mutual feelings of peace and good, were to be seen everywhere on the walls. The aspect of some of the wards was especially attractive and testified to the discrimination and taste of the sisters and nurses, aided in most cases by the dressers and students employed in the respective wards, but where all exerted themselves more or less successfully, it would be invidious to single out any for special commendation. Neither were the inmates forgotten by their outside friends. Gifts of capital toys, from the readers of *Truth*, were supplied to all the young people in the hospital, Christmas trees blossoming with useful presents for young and old were to be seen in most of the wards, and an almost overwhelming amount of Christmas cards and Christmas literature of all kinds, from a legion of well-wishers, were freely distributed among the patients. In one of the large wards a magic lantern exhibition of real interest was held, and in several of the surgical wards, where the patients were well enough, musical entertainments of a very pleasing and effective character, combining the comic with the sentimental element, were given during the week by the sisters and resident students, assisted by a few friends from the outside. If, as Solomon states, "a merry heart doeth good like medicine," a motto prominently displayed in one of the wards, there has been no stint of the old remedy; and since every one testifies to the efficacy of the drug, there is good reason why music should find a place in some future edition of the pharmacopœia. Altogether, the Christmas festivities at Guy's passed off very happily and hopefully.

ST. THOMAS'S HOSPITAL.

At St. Thomas's Hospital the wards were tastefully decorated with flowers and holly. In "Victoria" ward (for children) two Christmas trees, loaded with presents, were kindly provided by friends. The chapel, through the efforts of the hospitaller and matron, was most beautifully decorated with flowers. On Christmas Day, the traditional roast beef and plum-pudding was partaken of by all who could safely be allowed to share it.

The annual entertainment for the patients will not take place till the end of January; but in many of the wards, during the week, tea parties with amusements were provided by the sisters. On New Year's Eve

the nurses and probationers of the Nightingale Home visited each ward and sang carols, and New Year songs with charming effect.

WESTMINSTER HOSPITAL.

On Christmas-eve the wards were decorated with evergreen, etc.; and on Christmas-day plum-pudding was added to the usual hospital fare. On the following Wednesday, a tea was given in all the wards, by the visitors, to those patients who were sufficiently recovered to partake of it. Afterwards, various amusements were engaged in, and numerous presents distributed. In some of the wards songs were given by the nurses and officers, and those patients who wished to do so were allowed to smoke. On Thursday evening, December 29th, a Christmas-tree entertainment was held in the "Chadwick" ward. It was presented to the hospital by Mr. and Mrs. Thynne, who were present at the entertainment, and assisted in distributing the gifts. Afterwards, some capital songs and choruses were given by the patients, and the proceedings terminated with three cheers for Mr. and Mrs. Thynne. On January 11th, a musical and dramatic entertainment will be given to the nurses and patients by the resident medical officers, students, and their friends.

CHARING CROSS HOSPITAL.

For the third time, the board-room of the Charing Cross Hospital was the scene of a musical and dramatic entertainment on the evenings of December 20th and 21st. The success of the past two years has been such as to induce further co-operation on the part of students, so that pieces containing more characters were able to be chosen for this Christmas. Each evening commenced with "Oh, Who will o'er the Downs so free?" sung by the glee party, formed by Messrs. Shaw, Smith, Sutton, Taylor, Wigan, and Wyborn, and followed by a violin solo, "Meditation" (Gounod), by Mr. Barnard. The glee party interspersed their various items between the acts, preserving the long and necessary intervals from becoming tedious. Dr. Wolfenden took direction of the musical part of the entertainment. The *pièce de resistance* was Palgrave Simpson's "A Scrap of Paper," followed by the favourite farce, "The Turkish Bath." While heartily congratulating one and all in their several *rôles*, we must say that the characters were cramped by the smallness of the stage; and, had this disadvantage been absent, all would have shone to greater advantage. The parts were filled by students of the hospital, assisted by Miss Bruce, Miss Simons, Miss Gilbert, and Mr. J. Cantlie. Thanks to the exertions of the various members of the "Students' Club," under whose auspices the entertainment was given, a most enjoyable evening was spent on both occasions, as well by the visitors as by the patients.

UNIVERSITY COLLEGE HOSPITAL.

All the wards of the hospital were gracefully decorated on Christmas Eve; and on Christmas Day, additions, of various kinds, suitable to the varying appetites of the patients, were made to the ordinary hospital dietary. On Thursday, December 29th, an entertainment was given to the patients, and the hospital was visited by numerous ladies and gentlemen interested in its welfare. Much pains had been expended by the resident medical staff, and the sisters of All Saints, on the embellishment of the wards, and their labours were rewarded with success. "In addition"—we quote the words of the *Times*—"to bright-coloured banners and shield-shaped pieces of cloth, bearing appropriate inscriptions, with holly and evergreen borders, floral wreaths, and other mural decorations in the twelve wards, there were in many what might be called 'set pieces.' For instance, one of the house-surgeons had, with painted pasteboard and fir branches, produced a capital representation of an old-fashioned stage-coach passing through a turnpike. In another ward the story of Cinderella was presented in four *tableaux*, with dolls set among dolls' furniture. The story of 'The House that Jack built' was similarly figured with coloured earthenware animals, toy-house and farm-yard buildings, cart, etc.; and another very pretty 'set' showed a caravan crossing a sandy desert and pressing forward to a shady oasis formed with the fresh fronds of fan-palms, Robin Hood's Cave, an Arctic scene, and an Alpine village were among the other triumphs of the ingenious decorators. In the children's ward was a small Christmas tree, but most of the little occupants of the fourteen cots in this ward had been taken to other rooms to see the more wonderful things they contained, and the toys and serviceable garments which were to be afterwards distributed. The choir of All Saints' Church, Acton, sang, with an accompaniment played on a harmonium, some carols and part-songs; and later, Mr. A. W. Gerrard, pharmacist to the hospital, showed some clever automatons, moving figures of a goat, ape, a pug with a monkey rider, a fox on a marauding expedition, and others of French invention and make." On Tuesday, January 3rd, the University College Choral Society, assisted by some lady friends, gave a musical entertainment in the wards.

ST. GEORGE'S HOSPITAL.

At this hospital the wards were prettily decorated with holly and other evergreens, but no special Christmas festivities for the patients were held.

MIDDLESEX HOSPITAL.

The patients of this institution had the same kind care and attention shown to them this Christmas as has always marked the festival at each recurrence. Through the kind exertions of Miss Thorold, the Lady Superintendent, and the liberality of other friends, a really magnificent Christmas tree was provided—magnificent, that is to say, by reason of the fruit with which it was laden; for it bore a present for every patient in the hospital. We were pleased to find that these presents were chosen with much discrimination, and were such as were likely to be useful to the recipients.

THE HOSPITAL FOR CONSUMPTION, BROMPTON.

The wards and galleries of the hospital were hung with wreaths and various devices, mottoes, etc., the preparation of which had pleasantly occupied the nurses and patients for some days beforehand, the effect being most cheerful and picturesque. The supplies of evergreens had been contributed by Earl Sydney; Mrs. G. Wingfield; Mr. P. Ralli, M.P.; and Captain Rowley, R.N.; whilst creature comforts were not forgotten. On Christmas Day, all the patients who were not on milk-diet dined off turkey and plum-pudding. On Monday, a further dietetic luxury was provided, through the kindness of Messrs. Saunion and Co. of Queenborough, who had sent about 3000 oysters to the hospital. This novel treat was highly appreciated. As day closed in, the entrance hall and corridors were lighted up by Chinese lanterns, and the scene became most cheerful and animated. Music, singing, and other innocent amusements, combined to cheer the patients. Miss Abbott (the lady superintendent), the Rev. J. Hughes-Owen (the chaplain), Dr. Hicks (the medical officer), the clinical assistants, and the whole of the nursing staff exerting themselves, and with entire success, in rendering the evening happy and enjoyable to the inmates. On Tuesday evening a musical entertainment, with ventriloquism, was given in the board-room by Mr. John Elwin, ably assisted by Mrs. Elwin, Mrs. Coles, Miss Viall, Miss Hodges (solo violin), and Master Hodges. The performance afforded evident delight to the patients, on whose behalf a vote of thanks to Mr. Elwin and his friends for the pleasure afforded, was moved by Mr. J. A. Shaw-Stewart, and carried amidst much applause. On December 30th, a beautiful Christmas-tree was placed in the central hall, which bore a present for every patient in the hospital.

THE GREAT NORTHERN HOSPITAL.

The wards were decorated by those patients who were sufficiently convalescent thus to exert themselves; and on Christmas-day, plum-pudding, wine, and fruit were added to the ordinary fare. The Ladies' Association attached to the hospital sent for each patient various articles of clothing, and numerous toys and Christmas cards were sent by other friends.

THE CHILDREN'S HOSPITAL, GREAT ORMOND STREET.

The wards were decorated, and some additions were made to the ordinary diet; but the festivities ordinarily held at this time are postponed for a short time. In the fever block, however, a Christmas tree was held, and presents distributed to the inmates.

SAMARITAN FREE HOSPITAL.

On Wednesday, December 28th, a Christmas-tree was exhibited in the largest ward of the hospital. A large number of old patients were present, and several ladies and gentlemen who assisted at the festivities kindly undertook to entertain the company with vocal and instrumental music.

BEQUESTS AND DONATIONS.—Miss Susan Bown, of Weston-super-Mare, bequeathed £500 to the Earlswood Asylum for Idiots, and £3[illegible] each to the Taunton and Somerset Hospital, the Weston-super-Mare Hospital and Dispensary, and the West of England Sanatorium. Mrs. Susan Crozier, of Clifton Road, Brighton, bequeathed £300 each to the Sussex County Hospital, and the Brighton Hospital for Sick Children.—Mr. William Ward, of the Lawn, Brixton, bequeathed £1[illegible] each to the Royal Hospital for Incurables, and the Royal Hospital for Diseases of the Chest.—Mrs. Caroline Coller, of Montpelier Square, Brompton, bequeathed £100 to the St. James's Dispensary.—The Mercer's Company have given one hundred guineas towards the proposed Scarlet Fever Convalescent Home.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A MEETING of the Committee of Council will be held on Wednesday, the 18th day of January next, 1882, in the Council Room, Exeter Hall, Strand, London, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, London, December 13th, 1881.

NOTICE OF QUARTERLY MEETINGS FOR 1882: ELECTION OF MEMBERS.

MEETINGS of the Committee of Council will be held on Wednesday, January 18th, April 12th, July 12th, October 18th. Gentlemen desirous of becoming members must send in their forms of application for election to the General Secretary not later than 21 days before each meeting, viz., March 22nd, May 22nd, September 27th, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

November 4th, 1881. FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH: NORTHERN DISTRICT.—The next meeting of the District will be held on Thursday, January 19th, at 8.30 P.M., at the house of Dr. Cree, 2, Pemberton Villas, St. John's Park, Upper Holloway. Dr. Woakes will re-introduce the discussion on the Etiology of Diphtheria; its Contagium; the Occurrence of Sudden Death in it—reconsidered. Dr. George Ogilvie will read a paper on Electricity as a Therapeutic Agent.—GEO. W. POTTER, M.D., Honorary Secretary, 12, Grosvenor Road, N.—January 2nd, 1882.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting of the above District will be held on Thursday evening, January 19th, at 8.30 P.M., in the Library of the London Hospital Medical College; Dr. Bridgwater, President-elect of the Metropolitan Counties Branch, in the chair. Dr. Sansom will read a paper on the Best Means of Providing for the Medical Wants of the Poor who are above the Ranks of Pauperism.—FREDERICK WALLACE, Honorary Secretary, 96, Cazenove Road.—December 22nd, 1881.

BATH AND BRISTOL BRANCH.—The third meeting of the session will be held at the Grand Pump Room Hotel, Bath, on Thursday, January 19th, at 4.15 P.M.; D. Davies, Esq., President.—R. S. FOWLER, E. MARKHAM SKERRITT, M.D., Honorary Secretaries.—Bath, December 1881.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.—The fourth meeting of the session will be held at the Medical Institute, on Thursday, January 12th, 1882. The chair will be taken by the President, Mr. Bartleet, at 3 P.M. Papers: Dr. Thursfield: Notes on a case of Relapsing Typhoid. Mr. Eales: Notes on a case of Orbital Aneurysm, the result of Injury. Mr. Bennett May: Case of Hæmaturia, with Obstruction of the Ureter. Members are invited to exhibit patients, pathological specimens, new drugs, instruments, or appliances, at the commencement of the meeting. —E. MALINS, M.B., 8, Old Square; E. RICKARDS, M.B., 14, Newhall Street, Honorary Secretaries.—January 4th, 1882.

THAMES VALLEY BRANCH.—The next meeting of this Branch will be held on Thursday, January 26th, at 6 P.M., in the Board Room of the Richmond Hospital. Dinner at the Station Hotel at 7 P.M.—EDWARD L. FENN, M.D., Honorary Secretary, Richmond.

GLASGOW AND WEST OF SCOTLAND BRANCH: MEETING.

THIS Branch met on December 15th, in the Royal Infirmary, the use of a room in the hospital being kindly granted by the directors.

Vivisection.—The Branch approved the action of the Council in appointing five members towards a central committee on vivisection which has been formed in Glasgow.

Medical Reform.—The Branch also approved of the action taken by the Council in protesting against the report of the Medical Reform Committee of the Association, where it recommends the abolition of the powers of the Faculty of Physicians and Surgeons in Glasgow.

British Medical Benevolent Fund.—It was agreed to recommend the members of the Branch to subscribe five shillings annually to the British Medical Benevolent Fund; the subscription to be collected along with those of the Association and Branch. Several members spoke warmly of the good which this fund had effected in cases of which they were cognisant.

Demonstration of Cases.—Dr. WILLIAM MACEWEN gave a most interesting demonstration of certain cases in which the surgical aspects of brain-affections were illustrated. He also showed a series of cases in which a modification of the subperiosteal method of resection of the elbow had been performed. An operation of this kind was performed by Dr. Macewen.—A vote of thanks to Dr. Macewen and the Directors followed.

Dinner.—Some of the members dined together at the Bath Hotel.

CORRESPONDENCE.

ENGLISH LUNACY LAWS.

SIR,—My attention has been lately directed to a case which appears to me to illustrate a serious flaw in the English Lunacy Laws. It is enacted that no person (not a pauper) shall be received as a lunatic into any asylum, licensed house, or hospital, without medical certificates (in addition to order and statement of particulars) of *two* persons, each of whom shall be a physician, surgeon, or apothecary (16 and 17 Vic., c. 96, s. 4; c. 97, s. 74. 25 and 26 Vic., c. iii., s. 23. See Schedule F, Nos. 2 and 3). But in 25 and 26 Vic., c. iii., s. 26, it is further enacted —"The order and certificates required by law for the detention of a patient as a pauper shall extend to authorise his detention, although it may afterwards appear that he is entitled to be classified as a private patient.

In the case I speak of, a person in no respect a pauper, being in possession of means amounting to about £4,000 or £5,000, and being well known to be in a fair position, was sent to an asylum as a pauper, under no special conditions of emergency—*i.e.*, there was no special difficulty in obtaining two medical certificates. After a few weeks' residence in the asylum, this person was transferred from the pauper to to the private list, and was detained under the original instrument until discharged. If there is any object in greater precautions being observed in the case of the confinement of a private patient than in that of a pauper, it is evident, from the instance adduced, that it is not difficult to evade them. It appears to me that, if a person not a pauper is sent to an asylum as a pauper, under any circumstances of emergency, on his name being removed from the pauper roll and transferred to the private list, the procedure necessary for the detention of a private patient should be observed, otherwise it is quite possible for a person of means to be detained for life on the same instrument as a pauper.

In Scotland, private patients and paupers are received and detained on the same instrument—viz., the order of a sheriff—who grants it after having had submitted to him a petition and statement accompanied by two medical certificates. My experience is that this judicial procedure secures protection to the lunatic, assurance to the public, and security to the asylum authorities. I know of only one instance, and this occurred more than twenty-five years ago, in which the sheriff's order was called in question by a patient; and, although considerable trouble and expense resulted to several concerned, the order was sustained by a decision of the Court of Session, and, on appeal, by the House of Lords.—I am, sir, etc., J. BATTY TUKE.

Saughton Hall, near Edinburgh, December 30th, 1881.

FARMAR AND SEALEY FUND.

SIR,—With reference to my letter, which you were good enough to insert in the BRITISH MEDICAL JOURNAL of October 15th last, in which I mentioned the fact of a subscription being in progress for a testimonial to Corporal Farmar, V.C., and Private Sealey, of the Army Hospital Corps, for their gallant conduct at the disaster of Majuba Hill, and gave a short account of the wounds by which they had been disabled for further military service, I have the pleasure now to state that £170 have been subscribed, and that this amount, equally divided, has been presented to the two men by the Director-General of the Army Medical Department. The sum named includes the liberal donation of twenty-five guineas from the family of the late Surgeon Landon, A.M.D., under whose direction Corporal Farmar and Private Sealey were carrying on their duties at the time that lamented young officer received his fatal wound. The presentation has been notified by a circular from the Director-General to the officers and men of the Army Medical Department.—I am, sir, your obedient servant,

THOS. LONGMORE, Surg.-Gen. H.P.,

Netley, January 3rd, 1882. Professor of Military Surgery.

A SPECIMEN CHART for tabulating cases of deaths from infectious diseases has been circulated by Mr. Yates of Dewsbury amongst many of the local sanitary authorities in England. Dots of different colours represent the deaths from the different infectious diseases, and short strokes cases. From the circular accompanying the chart, it might be supposed that the plan is new, whereas it has been used by several medical officers of health to urban authorities. For instance, at Newcastle, a dot is used to indicate a death, and a cross a case; whilst at Birmingham, a red dot means a death from scarlet fever, a red cross a death from measles, and a blue cross a death from typhoid. The plan is good, but, as Mr. Yates has acknowledged, is not altogether novel. The colours for the different diseases are well chosen.

SPECIAL CORRESPONDENCE.

BIRMINGHAM.

[FROM OUR OWN CORRESPONDENT.]

The Queen's Hospital and Dr. Heslop.—The General Hospital.—Mr. A. Baker's resignation.—Mr. T. F. Chavasse.—The Ingleby Lectures.—The Birmingham Medical Review.—The Mason's College Trustees and Vivisection.—The New Superintendent of the Borough Asylum.

SINCE my last letter there have been many changes here, some of which you have noticed. The resignation of Dr. Heslop, the senior physician to the Queen's Hospital, would have caused no surprise, as he may fairly claim to have done his share of public work, and is fully entitled to dispose of his time as he pleases; but it was with painful feelings that we learned that this resignation was due to a dispute with the committee, and that the offence was so serious that Dr. Heslop refused the offered consulting physiciancy. No man in the present generation has taken a more prominent part in connection with the medical charities of this time; while he personally took a large share in founding the Children's Hospital, the Hospital for Women, and the Skin and Lock Hospital; he has served the General Hospital, the Queen's Hospital, and the General Dispensary, either as resident or honorary officer, during his long career in Birmingham. Possessed of great talents, and with much force of character, Dr. Heslop has won for himself a foremost position in this town, and we can but regret that, in bringing to a close his long connection with the Queen's Hospital, there should have been any absence of those friendly feelings which long and faithful services call forth, as a rule, from both the lay and medical governors of our charities.

At the General Hospital we must record with regret the resignation of Mr. Alfred Baker, who has held the post of senior surgeon since the resignation of Mr. D. W. Crompton, in 1869. Mr. Baker's administrative capacity, business habits, and rare surgical skill, will be much missed by his colleagues, both lay and medical; but Mr. Baker has, surely, earned the right to be relieved from some of his arduous duties. It is a pleasure to know that this step has not been rendered necessary by ill-health or failing strength, and that Mr. Baker leaves the hospital with the very best wishes of everyone that he may live many years to enjoy the fruits of earlier labour. A committee of governors has been formed to raise subscriptions, and to procure a portrait of Mr. Baker for the hospital board-room, and to purchase some testimonial of his long and valuable services for his acceptance.

The vacancy created by Mr. Baker's resignation has been already filled up by the election of Mr. T. F. Chavasse, who has been for the last four years one of the assistant-surgeons to the hospital. Mr. Chavasse studied in Edinburgh, and was house-surgeon to Professor Spence; he has shown great zeal since his appointment as assistant-surgeon, and there is every reason to believe that in his new position he will fulfil the sanguine expectations of his friends. A good deal of feeling was caused here by the action of the officials of the Conservative Association, which has been already referred to in your columns; the contest was a close one, and it is, perhaps, not too much to say that that ill-advised action contributed to secure Mr. Chavasse's return. Mr. Chavasse's election creates a vacancy for an assistant-surgeon, and already several candidates are spoken of; among them are Mr. A. F. Hawkins, casualty-surgeon to the Queen's Hospital, and for four years house-surgeon to the General Hospital; Mr. Howard Lowe, the present house-surgeon and Mr. Hawkins's successor, and Dr. Gilbert Barling, the pathologist to the hospital; but it is not certain that all or any of these will apply.

The Ingleby Lectures for 1881 were delivered by Dr. Thomas Savage early in December. He took for his subject some of the applications of abdominal section, and, as might be expected, treated it in a masterly manner. The lectures are being published in the *Birmingham Medical Review*. The *Review* is now being published monthly, to afford greater room for the press of matter. It is no small subject for congratulation that we have been able, thanks principally to the public spirit of Dr. Heslop and Mr. Furneaux Jordan, to maintain and finally establish this local journal on a firm financial footing.

The authorities of Mason's College have refused at present to accede to the request of the professor of physiology, Dr. Haycraft, to take the necessary steps for obtaining a licence for the college for physiological investigation under the Experiments on Animals Acts. Seeing the universal consensus of opinion and declaration by the medical profession, and by biologists throughout the world, of the paramount necessity of such investigation for the advance of physiological and medical knowledge, it may confidently be anticipated that no obstacle will ultimately be interposed to the essential element of research and steady progress by so responsible and intelligent a body, as the trustees.

The borough authorities have lost a faithful servant in the late Mr. Thomas Green, the superintendent of the borough asylum, whose death you chronicled, referring at the time to the painful circumstances which preceded, and, it is much to be feared, actually caused it. The asylum committee has elected in his place Mr. E. B. Whitcombe, the superintendent of the East Riding Asylum, and for many years assistant to Mr. Green. Mr. Whitcombe is well known to be an excellent officer, and fully justifies the choice of the committee.

GLASGOW.

[FROM OUR OWN CORRESPONDENT.]

The Medical Schools.—Financial Position of the Infirmaries.—Dr. Russell on the Decennial Census.—Glasgow Health Lectures.

THE medical classes in the university, and the other medical schools, have resumed their teaching after the short Christmas and New Year's vacation; but it will probably be the commencement of next week before teachers and students have settled down thoroughly to the work of what is always the most important half of the winter session. Judging by numbers, there seems no falling off in the prosperity of our different schools of medicine, and the clinical classes in the Western Infirmary are both numerously and regularly attended. There seems, too, this session a more equable distribution of students among the different clinical teachers—a state of matters advantageous to all concerned, as one physician or surgeon, with a large class and with only a limited number of beds, cannot supply his pupils with the dresserships and clerkships which alone can make hospital work profitable and beneficial. The wards in both the Western and the Royal Infirmaries have been as usual tastefully decorated, and the patients have not been forgotten at this festive season. In the Royal Infirmary, there was the annual New Year's Day meeting on the part of the directors and friends of the institution with the nurses; and among the speakers was Professor M'Call Anderson, who gave a short but excellent address, in which he dwelt on some of the many qualifications demanded from the nurse of the present day. Afterwards there was a distribution of presents to the children in the various wards, the suffering recipients being greatly pleased with the considerate notice taken of them.

It is a matter of regret that both our large hospitals are feeling the want of funds for carrying on their work. In the case of the Western Infirmary, seeing that it is quite a young institution, this is not so much a matter of surprise; but the Royal, with its large vested capital, the accumulation of so many years, should by this time have been above the necessity of issuing such an appeal as appeared lately, where the public are invited, by increased subscriptions, to meet the deficit that is likely to occur at the end of the financial year. We understand, however, that with the view of aiding the funds of both institutions, it has been proposed by a number of gentlemen that a fancy ball should be held early in this year, and a meeting has been arranged for considering the proposal.

Among the statistical statements issued at this season of the year we find a pamphlet by our excellent medical officer of health, Dr. J. B. Russell, which contains an interesting and carefully-prepared report on "The Decennial Census as a Basis for the Statistics of Intervening Years, illustrated by the case of Glasgow, with Tables derived from Census." A short time ago, Dr. Russell brought the same subject before the Philosophical Society, and then he briefly indicated the scope of the more important results which are now embodied at more length in the present pamphlet. The medical officer points out that when the census was taken in April of last year two estimates were in use: one by the Registrar-General, in which the population was reckoned at 601,266, and the other by himself, where it was rated at 538,128. Both of these were wrong, as the actual population in April was 511,520, Dr. Russell's estimate being 26,608 in excess, and the Registrar-General's 89,746 more than the census figures. It would be too lengthy a matter to go into any detail as to how these discrepancies arose; but an examination of all the facts in the present case show that the amount of the population in a manufacturing town like Glasgow depends very much on the briskness or dulness of trade—increase attending the former, decrease the latter. Thus, the past decade in Glasgow may be divided into two periods of five years, the first of which were years of prosperity and the latter of adversity; and we find that in the latter there was a marked decrease in the population. The final conclusion to which Dr. Russell comes in his report is that, "the variations in the decennial rate of growth of cities is such that a decennial census is practically useless as a basis for the determination of the population in intermediate years."

The Glasgow Health Lectures have now come to a close, and the success attending them has been very gratifying. With a view of still further increasing their sphere of usefulness, they have been issued in a very neat volume, with a short preface by Professor McKendrick attached to the series. This preface tells us that the object of these lectures was "to convey information regarding some of the laws of health, and to give practical directions as to what should be done for those who may have suffered from accidental injuries of various kinds." The list of lecturers is sufficient guarantee that this object has been ably carried out; and if the hints and lessons in these lectures are acted upon by those who had the good fortune to hear them, and by the general public, we are sure their lives will be rendered more enjoyable, and we should see the disappearance of many health-destroying customs that are now only too prevalent amongst us. The committee of these lectures are to be congratulated on taking this step for the diffusion amongst the community of such an amount of useful knowledge; for in our large cities there are many who have yet to learn that, as Professor Gairdner puts it—the care of the body is both a private and a public duty.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE ALLEGED PUNISHMENT OF SICK PAUPERS.

SIR,—In the issue of the *Birmingham Gazette* of the 15th ultimo will be found a report of the proceedings of the board of guardians of that parish, at which a report was brought up and read of the evidence, taken by a special committee of the board, as to certain alleged punishments that had been inflicted on the persons of sick and imbecile inmates, at the instance of one of the medical officers of the workhouse, Dr. Simpson. It was moved by the chairman of the said committee, "that the minutes of evidence be forwarded to the Local Government Board for further inquiry, and that Dr. Simpson no longer retains the confidence of the board". After a lengthened discussion, it was ultimately agreed that, pending the investigation by an impartial tribunal, no expression of opinion as to Dr. Simpson's conduct should be come to by the board.

The report in the *Gazette* does not give the evidence brought forward, and therefore I feel myself in some degree of difficulty as regards its bearing. But, as a workhouse medical officer of many years' standing, I trust that you will permit me to give a brief statement as to the special difficulties that attend the supervision and treatment of the inmates of workhouse infirmaries. First, let me state advisedly that no one who has not held such an office can be at all aware of the amount of malingering and deception that one has daily to encounter. Many of such inmates have been inmates of jails, or have for years practised deception in all its manifold forms, and have become absolute adepts in deceit. In our voluntary hospitals, the suspicion of malingering is followed either by heroic treatment, or the rogue is discharged. Not so in a workhouse; there is no possible getting rid of the cheat, unless you make life to him so disagreeable, that he is glad to betake himself to honest ways. As a corroboration of my views, let me relate some cases. The first occurred twenty years ago, when I was medical officer of the Strand Union. One day, I was summoned to go immediately to see a woman who had been brought to the infirmary on a stretcher, tied down to prevent her from falling off, she being alleged to be in convulsions. On visiting her, I came to the conclusion that the attack was a feigned one. I directed that the whole of her spine should be covered with a mustard poultice. If her case was a genuine one, that would have roused her; if, as I suspected, it was simulated, it would effectually disgust her. I superintended the application, and stood by to see the dénouement. After five minutes, her convulsions suddenly ceased. I happened at the moment to turn round, when, suddenly wrenching herself free, she sprang to her feet, and, tearing off the poultice, she sent it at my head, accompanying it with a volley of oaths. I therefore directed the master to give her into custody. He preferred to let her go, which she forthwith elected to do. I never saw her again.

When I succeeded Mr. French at the Westminster Union, I found there a man who had been under treatment five years, professedly paralysed in his lower extremities. I exhausted on that man every medicinal remedy of which I had ever read, but without avail. At last, information reached me that this presumedly paralytic was in the habit of taking a "constitutional" in the small hours of the morning, when nurses and inmates were wrapped in sleep. I forthwith decided to send him to the Highgate Infirmary, with a hint as to my suspicions. He was sent back a short time afterwards well, and was passed to his settlement, where probably he is trying on the same interesting game.

Twenty-two years ago, a young woman came under my care in the Strand Union. She professed that she could not talk, and had occasional fits, all of which I diagnosed as being of an hystero-epileptic character. Being chargeable to St. Ann's, she was transferred, fourteen years ago, to the Westminster Union, and she again passed under my care. She was so discreet as effectually to deceive master, matron, nurses, lady visitors, and medical officer, all of whom lavished on her gifts, religious books, etc. Four months ago, she became so very troublesome, that I had her removed to the insane ward. One day, on visiting her, I thought she was presuming on my kindness, and therefore directed her to be galvanised. *Credat Judæus*, she speedily became docile, and, what is more, talked as well as anyone else. This power of speech was continued to this day. I need not say that this exposure has chilled the sympathy of all the lady visitors.

I have given three instances of deception. I could, by reference to my notes, add to them indefinitely; and yet, for using the same measures as I have done, and shall do, when I suspect deception, a respectable member of the profession, albeit a workhouse doctor, is likely to have his fair name wrested from him, and possibly his living, at the instance of ignorant pseudo-philanthropists, who feel in nothing so great a pleasure as having a poke at the parish doctor.

In conclusion, let it be known that I have the largest sympathy with the honest deserving sick poor, as well as a like loathing of those who prey on our want of appreciation, our ignorance, or our mistaken sympathy with their imaginary sufferings. To such impostors, mustard poultices, blisters, the galvanic battery, or the shower-bath, appear to me to be the most fitting treatment.—I am, sir, yours obediently,

JOSEPH ROGERS.

Soho Square, January 2nd, 1882.

MILITARY AND NAVAL MEDICAL SERVICES.

TRAINING OF NAVAL MEDICAL OFFICERS AT HASLAR.

SIR,—Will you kindly permit me to say a few words on the subject to which you have drawn attention in the last number of the JOURNAL? I allude to the present system of training young medical officers at Haslar. You regret the change, and contrast the advantages at present given with those lost by removing the candidates from Netley. I am in a position to state that the change was made on the recommendation of the late committee, after hearing evidence on the subject, which I think I am correct in stating was unanimous in its favour. This evidence was given by naval medical officers, who could have had no other object in view than the elevation of the status of their own cloth, and the benefit of the service generally. Individually, I strongly advocated this change, and I am still of the opinion that I was right in doing so. I have had opportunities of testing the knowledge gained by the "Netley *élèves*", and have not a very high opinion of the same, nor do I think that a young doubly qualified medical man fresh from his studies requires to spend a stated number of hours daily in the wards of Netley, to gain an insight into the mysteries of naval or military surgery. What a young man does require before he enters on the active duties of his future calling, whether it be naval or military, is instruction in the usual routine incidental to his calling, and an acquaintance with the class of patients which he will in future be called upon to treat. Will anyone acquainted with the naval branch of the public service say that this can be learned as well at Netley as at Haslar? The two services are quite distinct in every respect, except the link of belonging to the same profession. The practice at Haslar is infinitely superior to that at Netley, inasmuch as in one injuries of the most serious nature are always under treatment, while the practice at the other is confined almost entirely to chronic cases of tropical disease. The general tone which prevails in the naval service is a pride in the profession of medicine, and an endeavour to support its status individually and collectively. This feeling it is sought to inculcate amongst those who enter it. That this feeling has not prevailed to a great extent amongst military medical officers has been my experience, and that of many others whom I have met; and I am sorry to say, since Netley was opened to the navy, a very sensible decline in this *esprit de corps* is noticeable. We wish our future medical officers to be "doctors" before everything, and for this reason I, for one, must hail with pleasure the change you deprecate.—I am, etc.,

R. N.

OBITUARY.

REUBEN J. HARVEY, M.D., DUBLIN.

AMONG the many serious losses the Dublin School of Medicine has sustained in 1881, not the least regrettable is that of the above young physician, who was laid in his grave on the last day of the year. The day week preceding his death, although not feeling well, as a Censor of the King and Queen's College of Physicians in Ireland, he took part in an examination for the licence of that College. The following day, one of his most esteemed friends and colleagues recognised in the symptoms the dread indications of typhus fever. He succumbed rapidly, overwhelmed as it were by the virulence of the poison, and died, without having made any rally, on the evening of the 28th ultimo.

Reuben Harvey was the son of the present esteemed and respected ex-Professor of Midwifery in the Queen's College, Cork. He was born in Cork in 1845, and educated in that city and in Trinity College, Dublin, of which he was a science scholar and a highly distinguished student, having obtained a senior moderatorship and gold medal in pure mathematics in 1866. In the study of medicine, he soon afterwards equally distinguished himself, gaining the first medical scholarship in 1868, and his degrees of M.B. and M.Ch. in 1870, on very high answering. After this, he studied for some months in Vienna, under Stricker, and also at Würzburg. On his return to Dublin in 1871, he was appointed a Demonstrator of Anatomy in the School of Physic, Trinity College, and the following year was elected Lecturer in Physiology in the Carmichael School of Medicine, in succession to Dr. Gerald Yeo, then called to the Chair of Physiology in King's College, London. From the commencement of his connection with the Carmichael School, Dr. Harvey devoted himself to its interests and progress with an energy and a business capacity which few but his colleagues—who owe so much to him, and who mourn his loss so deeply, can appreciate. He was not only the leading spirit in every movement for the benefit of the school—including its transfer from its inconveniently situated old premises to the site it now occupies—but also he spared neither time nor trouble in seeing practically carried out every detail of whatever he undertook. Thoroughness was an essential characteristic of his. He would have no half-work. And this feeling pervaded his every action as well as thought. He was a foe to all deception and subterfuge, and a model of rectitude and singleness of purpose. He saw how defective and how dishonest in many ways the system of medical education was; and one of the tasks he set himself was to improve this, and make it *bonâ fide*. His heart was in this movement; and if he has not, unfor-

tunately, been spared to carry it on, he has started the good work, and left an example to his late colleagues and to all the medical schools of Dublin.

It was, however, chiefly as a physiologist and an histologist, that Dr. Reuben Harvey was known to the profession. He had an eminently scientific, as well as a practical mind, and it was therefore natural that his favourite study should be in a field of science in which both qualities would have such scope. His published writings are not numerous, but the work he did was good. As a teacher he was unsurpassed; and his class of practical physiology—the first of its kind established in Dublin—was always largely attended. He generally contrived to infuse his own spirit and ideas of thorough work into his pupils; to stir up in them an ambition to make original investigations. To students and brother-professionals alike, he was ever ready to give any assistance that his experience, skill, and extensive knowledge of physiology and pathology enabled him to; and that with an unaffected modesty and genialness, which endeared him to all.

It is only about two months since Dr. Harvey resigned his appointment as assistant-physician and pathologist to the House of Industry Hospital, in order to have more time to devote himself to certain physiological work which his untimely death has so suddenly arrested. He retained, however, the office of physician to the Cork Street Fever Hospital, where, for upwards of five years, he discharged his duties with singular assiduity and success. Dr. Harvey was elected a Fellow of the King and Queen's College of Physicians in 1880, and, as already stated, was a censor of that college at the time of his death. He was a member of the councils of the Medical and of the Pathological Societies, of the council of the Dublin Branch of the Association, and of the biological club. He was also a member of the Royal Irish Academy. Had his life been spared, a distinguished career as a physiologist might have been indubitably predicated for him. As it is, his memory will live long in the memory, as well of those who knowing him well, loved him well, as of those who, knowing him less intimately, equally esteemed and respected him as a man of superior ability, and as a honourable, conscientious, and God-fearing gentleman.

JAMES OLDHAM, F.R.C.S.

WE have to record the death of Mr. James Oldham, of Brighton and Hayward's Heath. Mr. Oldham was residing at the latter place at the time of his death. He had retired to his private estate there for more than a year. He was born on January 17th, 1817; died December 26th, 1881. With untiring energy and devotion, Mr. Oldham practised his profession in Brighton from the year 1842 until his retirement about the time named, October 1880. His education was private. He was apprenticed to Dr. Pye-Smith, the father of Dr. Pye-Smith of Guy's Hospital; entered at Guy's in October 1838, aad was dresser to Mr. Aston Key. Though not of a strong frame or constitution, Mr. Oldham had nevertheless been able to do the work of a very large, probably one of the largest private practices in the country; and, it may certainly be added, to the great advantage and satisfaction of all who had the privilege of his care.

The profession of medicine will never lose the respect due to it from the public whilst maintained by such good services, and rendered with such delicate feeling and high sense of honour, as are daily afforded by gentlemen in general practice of the type and character of Mr. Oldham. Happily, he was but one of a large class to be found in distinguished positions all over the country. One of his younger colleagues in Brighton writes thus of him:—"My acquaintance with him was of a personal kind from my early boyhood, and all the time he was as kind to me as an elder brother, always taking an affectionate interest in my welfare, and winning my love and esteem."

Without being scientific, he had that practical acquaintance with disease which is of immediate value to the sick; and those who knew him intimately through his long and arduous practice will feel how faithfully and adequately he set before him and attained the proper aims of medicine, whether for alleviation or for cure. This testimony will find a ready echo amongst Mr. Oldham's many friends and distinguished patients.

Mr. Oldham was very liberal. He purchased and supported a coffee-house tavern; and, at Hayward's Heath, St. Christopher's Home for Sick Children was almost entirely supported by him. He was a liberal contributor to the church and schools in his neighbourhood; and in these, and many other ways, gave largely of that fortune which he had accumulated from his deservedly successful practice.

Mr. Oldham married, in 1844, Anna, second daughter of Thomas Brame Oldfield, Esq., of Champion Hill, Surrey. He leaves three sons and two daughters. Mr. Oldham's death, at the age of sixty-five, though early, was not premature. For some years his health had been failing; he had gradually become anæmic, with enfeebled circulation and albuminuria. During his long and tedious final illness, he had the continued and affectionate services of his friend, Dr. Byass of Cuckfield. He was one of the founders of the Brighton and Sussex Medical and Chirurgical Society, thirty-five years ago, it now numbers eighty-eight members.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in Anatomy and Physiology, at meetings of the Board of Examiners, on the 3rd and 4th instant, and when eligible will be admitted to the pass examination.

Messrs. Thomas Underwood, George Hart, George R. Pigg, Herbert M. L. Dean, and James Young, students of the Manchester School; Henry Lloyd, William M. Bristow, Alfred J. Charlick, Thomas W. Twinem, and Robert H. Currey, of the Liverpool School; George Parker, M.A.Cantab, Llewellyn J. Bateman, B.A.Cantab, Archibald Keightley, B.A.Cantab, and Herbert P. Tayler, B.A.Cantab, of the Cambridge School; H. Shirley Jones, R. F. Thornton Perkins, and Frank A. Bennett, of the Birmingham School; Henry M. Hughes, and Joseph Hick, of the Leeds School; William Atkinson, and Ralph Beresford, of the Sheffield School; Campbell Boyd, of the Dublin School; Thomas Sinclair, of the Belfast School; D. Rastamji Wadia, of the Bombay School; H. Robinson Codd, of University College; Trevor A. Dagg, of St. Bartholomew's Hospital; George Hanby De'Ath, of Guy's Hospital; Clement J. Wilkinson, of St. Thomas's Hospital; Weston P. Davis, of St. George's Hospital; and Albert G. Hanson, of the London Hospital.

Eighteen candidates, having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their anatomical and physiological studies for three months, including three who had an additional three months.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, December 29th, 1881.

Fielden, William Eckett, Walthamstow.
Holdsworth, William Thomas, Handsworth.
Hoole, John, 135, Hornsey Road.
Moore, Robert Carmichael, Belfast.
Tarleton, Edward Eustace, Cheddar, Somerset.

The following gentlemen also, on the same day passed their Primary Professional Examination.

Duckworth, Frederick Victor, Guy's Hospital.
Nutt, William Anthony, London Hospital.

MEDICAL VACANCIES.

THE following vacancies are announced:—

ALVERSTOKE MEDICAL BENEVOLENT SOCIETY—Medical Officer. Salary, £180 per annum. Applications to J. Elliott, 10, Shaftesbury Terrace, Gosport, by January 7th, 1882.

CHARING CROSS HOSPITAL, West Strand, W.C.—Assistant-Physician. Applications by 28th instant.

CITY OF DUBLIN HOSPITAL—House-Surgeon. Salary, £100 per annum. Applications to Surgeon Wheeler, 27, Lower Fitz William Street.

CITY OF LONDON LYING-IN HOSPITAL, City Road—Consulting Physician. Applications by 17th January.

DONOGHMORE UNION—Medical Officer for Borris-in-Ossory Dispensary District. Salary, £100 per annum, with £20 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 10th instant.

GRAVESEND DISPENSARY AND INFIRMARY—House-Surgeon and Dispenser. Salary, £100 per annum. Applications to the Honorary Secretary by January 10th, 1882.

HOSPITAL FOR WOMEN AND CHILDREN, 3 and 4, Vincent Square, S.W.—Assistant Medical Officer and Chloroformist (Honorary). Applications to the Chairman of the General Committee by January 10th, 1882.

HUDDERSFIELD INFIRMARY—Senior House-Surgeon. Salary, £80 per annum. Applications to F. Eastwood by January 21st, 1882.

HUDDERSFIELD INFIRMARY—Junior House-Surgeon. Salary, £40 per annum. Applications to F. Eastwood by January 21st, 1882.

LEAMINGTON AMALGAMATED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION—Resident Medical Officer. Salary, £200 per annum. Applications to the Secretary, Mr. C. Wildman, 6, Woodbine Street, Leamington.

LONDON LOCK HOSPITAL, Male and Out-Patient Department, 91, Dean Street, Soho, W.—House-Surgeon. Salary, £50 per annum. Applications by January 21st, 1882.

MEDICAL MISSIONARY DISPENSARY, Liverpool—Medical Officer. Salary between £200 and £300 per annum. Applications to Dr. H. Taylor, 1, Percy Street, Liverpool, by January 15th, 1882.

NATIONAL DENTAL HOSPITAL, 149, Great Portland Street, W.—Dental Surgeon. Applications by January 10th, 1882.

NORTH ORMESBY COTTAGE HOSPITAL, Middlesborough. House-Surgeon. Salary, £70 per annum. Applications to the Honorary Secretary.

OWENS COLLEGE, Manchester—Demonstrator and Assistant-Lecturer in Physiology. Salary, £150 per annum. Applications to the Registrar by January 7th, 1882.

PARISHES OF KILDONAN AND LOTH—Medical Officer. Salary from the two parishes, £73 per annum. Applications to Jas. Campbell, Inspector of Poor Helmsdale, by 9th January, 1882.

ROYAL COLLEGE OF SURGEONS IN IRELAND—Professor of Practical and Descriptive Anatomy. Application to John Brennen, Registrar, by January 21st, 1882.

ROYAL SURREY COUNTY HOSPITAL—House-Surgeon. Salary, £75 per annum. Applications by January 30th.

ST. MARYLEBONE GENERAL DISPENSARY, 77, Welbeck Street, Cavendish Square, W.—Honorary Obstetric Physician. Applications by January 16th.

ST. MARYLEBONE GENERAL DISPENSARY, 77, Welbeck Street, Cavendish Square—Resident Medical Officer. Salary, £105 per annum. Applications by January 16th.

SUSSEX COUNTY LUNATIC ASYLUM—Junior Assistant Medical Officer. Salary, £100 per annum. Applications by January 18th.

UNIVERSITY OF EDINBURGH—Examinerships in Clinical Medicine, Surgery, Physiology, Materia Medica, and Pathology. Applications to the Secretary of the University by January 16th, 1882.

UNIVERSITY OF LONDON—Assistant Registrar. Salary, £500 per annum. Applications to A. Milman, Registrar, University of London, Burlington Gardens, W., by January 31st, 1882.

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, Chelsea, S.W.—Medical and Surgical Registrar. An honorarium of £63. Applications to the Secretary by January 10th, 1882.

MEDICAL APPOINTMENTS.

BLACK, M., M.B., appointed Out-door Accoucheur to the Glasgow Maternity Hospital.

BONYNGE, F. G., L.R.C.S.I., appointed House-Surgeon to the Loughborough Dispensary and Infirmary *vice* Robert Beattie, M.D., resigned.

BOWER, E. D., M.R.C.S., appointed Ophthalmic Surgeon to the General Infirmary, Gloucester, *vice* T. S. Ellis, M.R.C.S., resigned.

BROWN, A. S., M.R.C.S., appointed Medical Superintendent to St. Mary's Hospital.

BROWN, M. L., M.D., appointed Assistant Medical Officer to the Middlesex County Lunatic Asylum.

COWER, E. D., M.R.C.S., appointed Ophthalmic Surgeon to the General Infirmary, Gloucester, *vice* T. S. Ellis, M.R.C.S., resigned.

CHAVASSE, T. F., M.D., appointed Honorary Surgeon to the General Hospital, Birmingham, *vice* A. Baker, F.R.C.S., resigned.

GALLYHER, T. M., L.R.C.S.I., appointed Medical Officer to the Ballina Union.

GUEST, R.A., L.R.C.P., appointed Honorary Surgeon to the Chorlton-under Medlock Dispensary, *vice* C. Holmes, M.D., resigned.

HOWES, F. C. P., M.D., appointed Resident Medical Officer to the Lincoln General Dispensary, *vice* C. G. Dalton, M.R.C.S., resigned.

JAMES, C. A., L.R.C.P., appointed Resident Medical Officer to the Stamford Hill, Stoke Newington, and Clapton Dispensary, *vice* John Denny, L.R.C.P., deceased.

MACLEOD, M. D., M.B., appointed Medical Superintendent to the East Riding Asylum, Beverley.

MAKEHAM, P., M.R.C.S., appointed Resident Medical Officer to the Metropolitan Asylums Board, Dartford.

MUIR, W., M.B., appointed Assistant Obstetric Physician to the Glasgow Maternity Hospital.

ROW, F. E., M.R.C.S., appointed Surgeon to the St. John's and Clowance District Parish of Stoke Damerel, Devonport.

SHEPPARD, Charles E., M.D.(Lond.), appointed Resident Assistant Physician and Medical Registrar to St. Thomas's Hospital, *vice* G. Gulliver, M.A., M.B., appointed Assistant Physician to St. Thomas's Hospital.

WHITCOMBE, E. B., M.R.C.S., appointed Medical Superintendent to the Borough Asylum, Birmingham.

WHITCOMBE, P. P., M.R.C.S., appointed Assistant House-Surgeon to the London Lock Hospital, *vice* W. H. T. King, M.R.C.S., resigned.

WILSON, H. B., M.B., appointed Out-door Accoucheur to the Glasgow Maternity Hospital.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

MARRIAGES.

BRUCE—CONNELL.—On December 22nd, at Hilton House, Woodside, Aberdeen, by the Rev. D. C. Boyd, of Portsoy, Alexander Bruce, M.A., M.B.(Edin.), to Annie Louisa, daughter of the late William Alexander Connell, H.E.I.C.S.

ELLIS—WEBB.—On January 3rd, at Christ Church, Mayfair, by the Rev. W. Cardall, Vicar, Heber D. Ellis, M.D., of 7, Howard Square, Eastbourne, to Frances Audrey, eldest daughter of the late Rev. Robert Holden Webb, M.A., Rector of Essendon, Herts.

MR. W. F. TEEVAN, B.A., F.R.C.S., has been elected President of the West Kent Medico-Chirurgical Society, and Honorary Member of the Medical Society of the State of New York.

DR. JOSEPH STEDMAN describes, in a recent number of the *Boston Medical and Surgical Journal*, a case of united twins, the union extending from the clavicle to the umbilicus (Thoracopagus of Förster). The children, both males, were delivered by forceps, and were still-born. The mother made a good recovery.

DR. MACLEOD, who for several years has ably assisted Dr. Campbell at the Carlisle Asylum (an asylum well known for its good results, and the work that has emanated from it), and who has contributed several valuable papers on subjects connected with his department of medicine, was, on January 2nd, unanimously elected Medical Superintendent of the East Riding Asylum of Yorkshire, at Beverley, in room of Mr. Whitcomb, who has been appointed to the Birmingham Asylum.

HEALTH OF FOREIGN CITIES.—The following facts and figures, derived from a table in the Registrar-General's last weekly return, afford fairly trustworthy indications of the recent health and sanitary condition of various foreign and colonial cities. According to the most recently weekly returns received from Calcutta and Bombay, the annual death-rate in those cities averaged 36.8 and 25.5 per 1000 respectively. Cholera caused 58 deaths in Calcutta and 4 in Bombay, each showing a decline upon recent weekly numbers, and fever fatality also showed a decline. No return from Madras is published. In seventeen European cities, the death-rate averaged 28.7, and very considerably exceeded the average rate prevailing in the twenty large English towns before the recent cold weather. The death-rate in St. Petersburg, in the middle of December, was equal to 43.9, and higher than in recent weeks; the 564 deaths included 28 fatal cases of typhoid fever, and 21 of diphtheria. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate did not average more than 23.2, the highest being 28.1 in Christiania, where no fewer than 26 of the 65 deaths were due to an exceptionally fatal epidemic of measles. In Paris, the death-rate was equal to 28.6; 62 deaths were referred to diphtheria and croup, and 25 to typhoid fever. The rates of mortality in Brussels and Geneva did not exceed 18.9 and 21.2, although whooping-cough was somewhat fatally prevalent in Brussels. The usual return from the Dutch cities does not appear to have come to hand. The Registrar-General's table includes returns from eight German and Austrian cities, the death-rate in which averaged 28.4, and ranged from 21.7 and 23.9 in Dresden and Hamburg, to 32.5 and 38.1 in Prague and Buda-Pesth. Small-pox caused 12 deaths in Vienna, 11 in Buda-Pesth, and 7 in Prague; and diphtheria showed increased fatality in Berlin. In three of the principal Italian cities, the average death-rate was 26.7, the rate being 24.9 in Turin, 25.1 in Venice, and 28.1 in Naples; typhoid fever caused 4 deaths in Turin and 10 in Naples. In the second week of December, the death-rate in Alexandria was equal to 40.4, and the 164 deaths included 8 from typhus and typhoid fever. In four of the principal American cities, the death-rate averaged 26.2; it was 21.3 in Philadelphia, 22.0 in Brooklyn, 28.0 in Baltimore, and 28.7 in New York. Small-pox caused 14 deaths in Philadelphia and 8 in New York; diphtheria again showed excessive fatality in each of the four American cities.

KENSINGTON.—To write a summary of Dr. Dudfield's annual reports is in effect to give a history of every sanitary event of importance that has occurred throughout the kingdom during the period reported on. Nothing seems to escape Dr. Dudfield's vigilance; and, as he makes the chief sanitary topics of the day a special feature in each of his reports, the volumes (for such indeed the reports are) become invested with a value and importance out of all proportion to the ostensible object of their publication—the information of the Kensington Vestry. The various points touched upon by Dr. Dudfield have all, however, already received attention in these columns, and his remarks on general subjects do not need, therefore, more than mention and commendation. In Kensington itself there were during the year 1880 2,884 deaths, or fewer by 108 than in 1879, and 160 below the corrected decennial average. This total includes, however, all the deaths in public institutions, 99 being non-parishioners whose deaths happened in the Brompton Consumption Hospital. The death-rate was 18.0 per 1,000, or 1.1 below the decennial average. The zymotic death-rate was fairly satisfactory, 347 deaths being registered from this class of diseases, or 22 below the average. Whooping-cough was the fatal zymotic disease, 93 deaths being attributed to it. Measles were fatal in 60 cases, scarlet fever in 51, diphtheria in 27, diarrhœa in 71, and small-pox in 22; fever caused 23 deaths. An analysis of this mortality shows that the deaths from scarlet fever and diphtheria were in excess of the corrected decennial mean; that the deaths from measles and whooping-cough were average; and that the deaths from small-pox, fever, and diarrhœa were below the average. Measles were most fatal during the period from the middle of June to the middle of August, scarlet fever (of which about 466 cases were recorded), in the last quarter of the year, and whooping-cough in the first half. Diarrhœa, as usual, was most prevalent during the summer and autumn months. The deaths under five years of age numbered 1,219, or about the same number in 1879, and equal to 42.3 per cent. of total deaths, and to 26.5 per cent. of the registered births. The deaths of illegitimate children under five were 85, or no less than 47.4 per cent. of the registered illegitimate births—a result that tells a sad tale of carelessness and neglect. Phthisis caused 272 deaths, irrespective of 99 which happened in the Consumption Hospital, and chest-diseases 595 deaths. The sanitary condition of the parish was, as usual, well looked after under Dr. Dudfield's energetic management; but it is a matter of regret, however, that the parish has not yet provided itself with a mortuary.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY .... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. First Lettsomian Lecture, by Mr. Hutchinson Royes Bell, on Diseases of the Testicles and their Coverings.—Odontological Society of Great Britain, 8 P.M. Annual General Meeting. President's Valedictory Address. Abstract of paper on Diseases of the Teeth, by Mr. Dunn. Casual communication by Mr. Sewill.

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Dr. C. Creighton: Three Cases of Tumour arising from Skin-Glands in the Dog, showing the Connection between the Disorders of the Secreting Structure and Function and Cancerous Invasion of the Connective Tissue. Mr. T. M. Girdlestone: On the Surgical Uses of Kangaroo-Tendons.

WEDNESDAY.—Obstetrical Society of London, 8 P.M. Specimens will be shown. Adjourned Discussion on Dr. Godson's paper on Spasmodic Dysmenorrhœa and Sterility, and its Treatment by Graduated Metallic Bougies. Dr. Playfair: Notes on Trachelo-Raphé, or Emmet's Operation.—Hunterian Society, 7.30 P.M., Council Meeting. 8 P.M., Dr. Pye-Smith: The Pathological Significance of Pus in the Urine.

THURSDAY.—Ophthalmological Society of the United Kingdom, 8.30 P.M. Dr. Stephen Mackenzie: Case of Acute Vascular Disease, with Retinal Hæmorrhages. Mr. James E. Adams: 1. Case of Epithelioma of Cornea, with Microscopical Specimens; 2. Case of an Exceptional Degree of Spasm of Accommodation. Mr. G. E. Wherry: 1. Case of Paralysis of Fifth and Facial Nerves, with Corneal Opacity, in an Infant; 2. Case of Chancre on the Palpebral Conjunctiva. Mr. McHardy: 1. An improved form of Stevens' Registering Perimeter; 2. Specimen of Black Cataract. Dr. Walter Edmunds: Case of Suppurative Panophthalmitis after Ligature of Common Carotid. Mr. Lawford: 1. Case of Optic Neuritis following Purpura; 2. Case of Unusual Gunshot Injury of the Eye. Mr. Nettleship: Note on a Case of Diabetic Cataract. Living specimens at 8 o'clock.—Abernethian Society, St. Bartholomew's Hospital, 8 P.M. Mr. Kendall: Curiosities of a Shilling Practice.

FRIDAY.—Clinical Society of London, 8.30 P.M. Annual Meeting. Election of Officers. Adjourned discussion on cases of Myxœdema. Mr. W. H. Kesteven: A Case of Unilateral Xanthopsis. Cases of Renal Calculus removed by Operation, by—1. Mr. Beck; 2. Mr. Butlin; 3. Dr. Whipham and Mr. Haward. Dr. S. Mackenzie will exhibit a case of Lupus-Psoriasis.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

AN APPEAL.

THE following gentlemen appeal to the medical profession and general public on behalf of the widow and family of the late Dr. J. H. M. Gallwey. He was born in India, but received his education in this country, and graduated as M.B. and C.M. at the University of Glasgow, where he began and completed his full medical curriculum. During his University course, he was appointed and held the responsible post of house-surgeon to Professor Macleod in the Royal Infirmary of Glasgow. Having received his diploma, he held two subordinate positions before he was appointed medical officer at Ponteland, Northumberland; and, on the outbreak of the Turkish War, he was sent out under the Stafford-House Committee, and remained in active service until hostilities were ended. Ultimately he came home, settled in the Shieldfield, Newcastle, where he will long be remembered as a kind friend among the poor. Just as he was beginning to be known, he was suddenly seized with an illness, from which he died on Saturday, November 27th, 1881, leaving his widow (who is near her confinement) and four young children totally unprovided for. Subscriptions in aid of this necessitous case will be thankfully received by the chairman, or any of the members of the subjoined committee. Several ladies have kindly formed themselves into a committee to further the objects of this appeal.

Committee: Chairman, G. H. Philipson, M.D., Newcastle-on-Tyne. Rev. T. Talbot, vicar, Shieldfield, Newcastle; Rev. Mr. Macphee, curate, Shieldfield, Newcastle; Professor W. Gairdner, M.D., Glasgow; Professor G. H. B. Macleod, M.D., Glasgow; T. W. Barron, M.D., Durham; W. G. Black, M.R.C.S., South Shields; S. W. Broadbent, M.R.C.S., Dalton-le-dale; David Drummond, M.D., Newcastle; C. J. Gibb, M.D., Newcastle; C. Jeaffreson, F.R.C.S.Ed., Newcastle; R. T. Lightfoot, L.R.C.P., Newcastle; Samuel MacBean, L.R.C.P., Newcastle; William Mearns, M.B., Gateshead; G. B. Morgan, L.R.C.S.I., Sunderland; William Murray, M.D., Newcastle; Thomas Oliver, M.D., Newcastle; R. N. Robson, M.R.C.S., Durham; Thomas Scotland, M.B., Newcastle; Robert Torrance, L.R.C.P., Newcastle; G. E. Williamson, F.R.C.S., Newcastle; Adam Wilson, F.R.C.S., Newcastle. Treasurer, W. C. Arnison, M.D., Newcastle-on-Tyne. Secretary, Robert Allan Campbell, M.B., Newcastle.

The amount already collected amounts to £248 18s.

TREATMENT OF POST PARTUM HÆMORRHAGE.

SIR,—Your correspondent Mr. Charles Soloman asks for further information with reference to the compression of the abdominal aorta in *post partum* flooding. There is little difficulty in carrying out this proceeding if the right hand be passed between the flexed thighs, and the two first fingers are pressed inwards on a level with the umbilicus and a little to the left side, the pulsating aorta is readily reached, except in very fat persons, and the flow of blood through it may be entirely or partially arrested, according to the degree and force of the pressure against the vertebra. In a severe case, I should check the flow entirely for a short time, hoping to bring about one or both of two desiderata, viz., either contraction of the uterus, or, failing this, of coagulation in the mouths of bleeding vessels. Other measures would, of course, be employed at the same time, such as the exhibition of ergot, and if spasm seemed a prominent feature of the case opium. It would be impossible to give any formula of time as to how long the pressure should be employed; the object is to stop the hæmorrhage, and if the compression is complete this occurs at once, and allows time for other and slower measures to operate. It is not a patent method of stopping flooding, because sometimes the vessel slips from under the fingers, in others the patient shifts her position, or is intolerant of pressure, and then the fingers soon weary under the firm pressure necessary to check the entire flow of blood; but it is a method of treatment which I have found of singular advantage in some cases that have come under my notice, when the hæmorrhage was occurring rapidly, and where the customary grasping of the uterus failed to arrest it.—I am, etc.,

JOHN BASSETT.

Birmingham, December 31st, 1881.

ATTENDANCE ON PATIENTS IN HOSPITALS.

SIR,—In the burgh where I practise, there is a hospital under the management of the local authority. By far the greater number of patients admitted are injured seamen and others. These patients, or their friends, require to give a guarantee before being admitted that they will pay 2s. 6d. *per diem* for board, and 2s. for each visit of the medical officer of health for the burgh. Now I am not the medical officer of health for the burgh, but believe I have the best share of practice; and I am anxious to know whether I should not be allowed to attend patients sent thither by myself, seeing they are compelled to pay for medical attendance, and certainly do not come under the class of local authority patients.—I am, etc.,

M. B. M. A.

*** Our correspondent has not, we think, any claim to attend patients sent to the hospital in question, unless by special arrangement with the local authority.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

THE VIRCHOW TESTIMONIAL.

SIR,—I beg leave to acknowledge the receipt of the under-mentioned sums since my letter to you of last week. The total amount of the subscriptions I have received is £99 6s., of which all but three guineas have been forwarded to Professor Küster.—Yours obediently, J. S. BRISTOWE.

11, Old Burlington Street, W., December 24th, 1881.

Dr. Southey, £1 1s.; Dr. Barratt, £1 1s.; Dr. Beddoe, £1 1s.; J. Croft, Esq., £1 1s.

ATTENDANCE ON WIDOWS OF MEDICAL MEN.

SIR,—I cannot forbear expressing my strong opinion that very few medical men will agree with the views on this subject somewhat dogmatically advanced by Dr. Dutton in your issue of Dec. 17. It is obvious that we may meet with two widely different cases. In the first, a doctor's widow is left in straitened circumstances, and has perhaps to work hard for the maintenance of her family. Here I presume few medical men would object to attend and prescribe occasionally without fee, although, even then, I do not think they should be expected to furnish medicine gratuitously. But suppose that the widow is left with a comfortable fortune, perhaps not derived from her husband; in this instance, surely she ought to have too much self-respect to take, without fee, the smallest attendance from one of our hard working and underpaid profession. If the latter, however, were weak enough to refrain from charging, I fear that only too many ladies would not scruple to tax his time and energies severely, sending for him at all hours of the day or night. I myself fully agree with Mr. Blackburn in the course he pursued; and certainly think that (except when poverty is pleaded) a doctor's widow should be placed on exactly the same footing as any ordinary patient, more especially when she is attended by a general practitioner, a stranger to her late husband.—I am, sir, your obedient servant, HERBERT L. SNOW, M.D.LOND.

SIR,—I cannot agree with Dr. Dutton, that we should adopt an indiscriminate rule to "give our time and skill" to the widows and children of deceased medical men, if these be in straitened circumstances, or even if their means be limited. The rule should be strictly adhered to, but why should it be, if the widow be able to live in comfort. I have known the etiquette which exists to be grossly abused, and the services of needy medical men taken by women in affluent circumstances, in what I deem to be a very heartless and unjust manner, even allowing the medical man to pay his railway and cab fares, day after day.

The "etiquette" I believe to have been originally based on very different grounds from that given by Dr. Dutton, namely on this, that, as one medical man attends the family of another gratuitously, so his family in turn will be attended free, it does not necessarily follow by the medical man whose family he has the care of, but if not, by some one else; in fact, it comes to a rough rule of "give and take" in the profession. For myself, I have ever held that, so long as a medical man is living on his professional income, he and his family should be attended gratuitously; but mark how unjustly the "etiquette" acts. I have recently attended a member of the family of an M.D. who never practised. He has a private income of £2,000 a year, but he never pays a medical man one shilling. Doubtless, I never demand a fee, but I know how I would be spoken of if I did.

The whole system of gratuitous attendance on the families of medical men is faulty. I have never in my life taken a fee from a brother practitioner or his widow, but my house is full of presents—clocks, pieces of plate, china, pictures, etc. I have been sent valuable presents by the wives of medical men who could ill afford it, and it pained me to be obliged to receive them; but how could I refuse to accept of these? Some presents were actually of more value than the fee I should have accepted had I attended a stranger; then some of the articles, too, were useless to me. Recently, a medical man gave as a subscription to my hospital the fee he considered was due to me, and which I would not accept. It comes to this, that many, if not every, medical man receives, directly or indirectly, some return for his time and skill expended on the members, or families of the members, of his profession, very often in a most unsatisfactory way; and I believe the "etiquette" is pushed a great deal too far. I do not think the question can be settled in the off-hand way Dr. Dutton supposes.—I am, sir, etc.,

AN HOSPITAL PHYSICIAN.

Sir,—I think no one will deny the readiness of our profession to concede as much as possible to the public in the shape of gratuitous service. No profession is so badly paid by the public for public services, and no class of men do so much work without being paid as we do. A doctor is sent for to a poor man; well or ill, he must go, or some colleague must go, lest he should be accused of inhumanity. Good natured people say, "How kind he is to the poor", but scrutinise their own bill at Christmas none the less narrowly. Any medical man can cite instances of gross ingratiiude, of which he seldom speaks with real bitterness. I think there can be no doubt that, in treating the question of fees from doctors' families, we should charge for our services unless the payment come out of the pocket of a practising member of the profession, or out of the funds left by him to support his wife and children.

I attended, some years ago, the widow of an officer with a good pension, and private means of her own. The case was very troublesome, as it was one of angina pectoris, with great nervous depression in the intervals. I was summoned at all times, and sometimes had to remain an hour or two. I was distinctly told I must charge for the attendance, notwithstanding that this lady had subsequently married a medical man, from whom she almost immediately separated without any loss of income. When the bill was presented, it was objected to because the lady was the widow of a doctor.

Another time, I attended the wife of a doctor who had made a fortune in one of our colonies. Constant care and frequent visits were needed, as the lady had mitral disease and bronchial catarrh. Her husband told me he would not have any practice in England as a gift. He was very rich, and had only one child, married to an officer in the army. I demurred to making any charge, and he calmly dismissed me with a compliment on my highmindedness.

If the time has not yet come for the British Medical Association, through its several Branches, to decide on medical tariffs in general, perhaps some resolution might be arrived at such as I suggest, viz., that no fee should be taken from any members of a doctor's family dependent upon that doctor's exertions, or on the funds left by him for the support of his family.

I do not myself hope to witness the arrival of that golden age when it shall cease to be true, as it was said to be in old time, "Præmia cum poscit medicus, Sathanus est".—Yours faithfully, GALENUS.

THE IMMEDIATE ARREST OF BLEEDING FROM THE NOSE.

SIR,—The objection to my plug mentioned by Mr. Angove is, I infer, purely theoretical, and is not borne out by my experience. The plug is not removed in an inflated, but in a collapsed, state, taking up very little room; and there is no clot attached to the rubber, but the plug comes away quite easily, covered with the secretion of the nose. If any fear of the bleeding recurring be apprehended, let the plug be kept in longer, a week if necessary; there is no objection to that; it is comfortable to the patient, and there is no decomposing blood. If bleeding should recur after removal of the plug, re-insert it by all means, the patient will bear it well enough. Mr. Angove apparently thinks that the application or re-application of the plug is a difficult or painful operation; it is not so; it is most easy and simple; the use of Bellocq's sound or a catheter is not to be compared with it.

The presence or absence of decomposing blood in the nose is, I take it, an important matter. Anyone who has seen a case of nose-plugging with cotton-wool will not soon forget the horribly offensive breath, foul tongue, etc., caused by the decomposing blood acting on the system. If this can be avoided by using any other contrivance, surely it is worth trying.

In introducing the inflating nasal plug to the profession, I believe I have produced an instrument most easy in its application, and effective in its object, and one that will prove to be of great value to the ordinary practitioner called to a case of formidable epistaxis.—Yours obediently, H. C. HOWARD, M.R.C.S.

Clapham, December 31st, 1881.

ANALOGY.

SIR,—A short letter, signed "Cave-at Doctor", published in the JOURNAL of December 24th, is a curious example of false analogical reasoning. A wounded duellist is entitled to aid, like any other wounded man, from the first surgeon he can find, whether upon the ground or elsewhere; but the surgeon who accompanies the party to the ground *prepense* is as much *particeps criminis* as he who should say to the libertine, "Indulge your vice if you will; I stand ready to cure you if you come to trouble in consequence". He is accessory. In so far, I hold Mr. Justice Cave to be right.—Your obedient servant, S. H. S.

THE DENTISTS' ACT.

SIR,—Although unwilling to occupy your space with a discussion on dental matters, I must ask permission to correct an inaccuracy of statement calculated to mislead your readers in Mr. Stevenson's letter in your issue of December 31st, 1881. He says that the Dentists' Act consigns us all to a low position of equality. Notwithstanding the frequency with which this allegation has been made, it really traverses the facts of the case. The Dentists' Act requires that the dental qualification of each registered person should be stated, and they are so stated in the *Dentists' Register* in the following terms: A. B., Licentiate in Dental Surgery of the Royal College of Surgeons of England, Edinburgh, or Ireland, as the case may be. C. D. being without a qualification is registered as: "In practice before July 22nd, 1878". And in the *Register* for 1882, the surgical qualifications held by registered persons will be added to their dental qualification upon application being made to the registrar.

In the face of these facts it is difficult to understand how the statement made by Mr. Stevenson, and by others who are unfriendly to, and desire to discredit, the Dentists' Act, can find justification.—Obediently yours,

JAMES SMITH TURNER, Honorary Secretary British Dental Association.

THE DRY EARTH SYSTEM.

SIR,—In reference to the inquiry in your JOURNAL of December 17th about the dry earth system, it may perhaps be useful to record my experience. I used earth-closets in a public institution for above ten years. They do not suit so well indoors, as it is impossible to prevent smell so effectually as with waterclosets. I saw them within the asylum at Broadmoor about nine years ago. They were said to be working well, but I hear that they have been discontinued there. The reason I kept them up was that the water-supply was so deficient that frequently water could not be had to flush the pipes of the waterclosets and drains, the directors being dull and dilatory about sanitary requirements. Under the circumstances, I found the dry earth system very useful. The arrangements were in two detached brick buildings, and in well-ventilated closets at the entrance of the detached hospital. In the contagious diseases hospital, I found the earth closets useful, evacuations being at once disinfected, carried away, and buried, instead of being washed down pipes to a common receptacle. In ordinary cases the pails were emptied and cleaned every morning. The night-soil was used for manure. The apparatus which we employed, to a certain degree self-adjusting, was, I think, Moule's patent. In a rainy climate like ours, some attention is needed in remembering to take in a supply of dry earth whenever the weather allows this. The earth needs to be riddled, and stored in a dry airy place. I found the fine dust blown into corners in dry weather fit to be stored with scarcely any preparation. I shall be happy to answer any further inquiries from Mr. S. Wellesley Coombs, or any other of your readers.—I am, etc., WILLIAM W. IRELAND.

Preston Lodge, Prestonpans, near Edinburgh, December 23rd, 1881.

DISEASE OF THE SCALP.

SIR,—Will you or any of the readers of your valuable JOURNAL suggest an efficacious remedy for the following cases? A family of five children suffers from disease of the scalp; it commences as a small round scaly patch, which gradually increases in size; then the hairs break off, leaving the patch covered with short stumps of pale hairs. Now and again, a small scaly patch of varying size appears on the neck or forehead, which gradually disappears. I have tried many of the remedies for ringworm - amongst others, chrysophanic acid—without any apparent good result as yet.—I am, etc., A PERPLEXED MEMBER.

AN UBIQUITOUS POISON.

SIR,—Will you allow me to inform Dr. Churton that, had he glanced at me when he was puzzled to find the cause of his patient suffering from lead-poisoning, he would have found silk thread as one of sixteen causes whence lead-poisoning arises. In June next, I hope to show seven others.—Yours truly,

SECTION 288:4 MEDICAL DIGEST.

PROFESSIONAL ADVERTISING.

SIR,—I enclose a specimen of professional advertising which I found attached to a medicine bottle this morning, and which I think may interest some of your readers.—Yours truly, M.R.C.S.Eng.

"Dr. Cresswell Hewett, M.A., M.D., M.R.C.S.E., etc., late Surgeon Royal Hospitals Netley, Haslar, Winchester, and Halifax; Surgeon Cleveland Street Asylum, and St. John's Medical Aid Society; 9, Craven Road, Lancaster Gate, and 101, Drury Lane."

"COLONIAL" can obtain full information as to the working of the Metropolitan Provident Dispensaries Association by communicating with Mr. Allom, Secretary, at the office of that Association, Bedford Street, Strand.

Is Salicylic Acid a Specific in Rheumatic Fever?

SIR,—If you will favour me by allowing me to take part in the debate on the value of salicylic acid in acute rheumatism, I should like to say that, in my opinion, the word "specific" is the right expression for the action of salicylate of soda or salicylic acid in that disease. For many years, I paid a great deal of attention to the treatment of acute rheumatism, and tried all kinds of therapeutic agents, such as alkalies in large doses, lemon-juice, colchicum, and several other remedies. But, until I tried salicylic acid, I must say I had but little satisfaction. My very first case, however, treated with the acid was a quite wonderful success. The patient, a lady aged 40, was in perfect agony, sweating profusely, and unable to move, with a temperature of 104° F. After four doses, of ten grains each, of the salicylate of soda, she was completely relieved of pain, and the temperature was normal. Surely this is as much a specific effect as that produced by iodide of potassium in tertiary syphilis, or by quinine in ague.—I am, sir, yours obediently,

C. R. DRYSDALE, M.D., Senior Physician Metropolitan Free Hospital.

17, Woburn Place, London, W.C., December 28th, 1881.

Coroners' Fees.

SIR,—Can you tell me in your Answers what is my legal position in the following case? A is called upon by the coroner to make a *post mortem* examination, and give evidence in a case of poisoning; I (B) am ordered to help him, and I confirm his evidence at the inquest. We are each paid one guinea. The coroner says he has power to pay neither more nor less than two guineas over the medical evidence. If this be the law, it is very extraordinary, and would prevent my taking such a position in future. Should not both A and B have received two guineas?—I am, etc.,

POST MORTEM.

*** According to Glenn's "Abstract of Laws affecting the Medical Profession", in the *Medical Directory*, every medical practitioner attending an inquest, and making a *post mortem* examination, by order of the coroner, is entitled to a fee of two guineas.

Scarlet Fever.

SIR,—Scarlet fever would at present seem a severe and wide spread epidemic, judging by the cases reported; here it has assumed unexceptional activity, and the situation being low still lurks, and almost defies the resources (in presence of overcrowding, and short of the erection of fever wards) of our treatment of the dissemination of the disease. In the midst of an epidemic we are presented with cases of tonsillitis occurring amongst the protected and unprotected attendants on scarlatinal cases, who never contract the disease; we also meet with cases in both alike in households where the utmost precautions have been adopted against infection, and where subsequently, in spite of such means, the disease breaks out amongst other members of the family hitherto unaffected. Irrespective of the presence of an epidemic, I am inclined to look upon the one as a local expression of the more severe disease, and prognosticate respecting infection accordingly. My further remarks will bear on the more severe features of the anginose form of the disease.

Dr. Cattle's case, noticed in your issue of December 3rd, points out the rarity of fatal hæmorrhage from the tonsils. In the anginose form of the disease, where the tonsils bear the brunt of the poison, and suppuration sets in, it generally does so early, and fatal hæmorrhage, though rare, is not remarkable when one bears in mind the large arterial supply the gland enjoys. Two cases where hæmorrhage followed tonsillar ulceration lately came under my notice. In the first, a child of strumous and asthenic habit, the rash was abundant, the surface of the glands was studded with ulcers, and hæmorrhage took place about the tenth day. It was intermittent, and not violent; and though the child subsequently succumbed to the exhaustion of the suppurating process, the entire gland down to the free border of the superior constrictor was destroyed, and yet death was not due to hæmorrhage; here glycerine of sulphurous acid was resorted to early and constantly as a local application. In case No. 2—a fairly developed lad of 12—the tonsils were greatly congested from the first, there was extreme prostration, a black sloughy appearance of the glands and pillars of the fauces was associated with sordes on the lips and teeth, a dry tongue, and great fœtor of breath. The temperature stood at 103°. There was an absence of the rash until the seventh day, when it appeared in a patchy form in the axilla and groin. These symptoms were, moreover, associated with lividity of countenance and fixity of neck from enlargement of tonsils. Hæmorrhage set in on the eleventh day, but was moderate and easily controlled. Here glycerine of carbolic acid was regularly and thoroughly applied from the first, together with the internal use of ammonia, bark, and stimulants, etc. The patient made an early recovery.

Where the tonsils suffer so severely, it certainly seems that the early use of strong antiseptics lessens the intensity and spread of the ulcerative process and hæmorrhage. Whether the proliferation and decay of the specific micro-organisms is controlled or arrested, and the erosion of the arteries of the gland prevented or assisted by treatment, the gland has the inherent power, by the new inflammatory products acting as compressing agents upon it, of controlling the hæmorrhage, it would be presumption perhaps to say; certain it is that some force is at work to restrain the hæmorrhage where great destruction takes place, assisted or not by remedial means.

Next to the tonsils we find the cervical lymphatics early undergo disintegration, and not the salivary glands, from which nature would seem slow but sure in eliminating by their ducts the materials of the disease. Moreover, the chain of superficial cervical glands in the anterior triangle of the neck generally suffer most, and as generally disintegrate. In the majority of cases of the simple form, I notice that the posterior cervical glands suffer; that they do not break down; and that, from their affection rather than from that of their neighbours anteriorly, proceeds the condition known as "wry-neck".

In the twin affection of the salivary and cervical glands, prolonged induration and delayed relief of suppuration would seem to impede the cerebral circulation, and induce anæmia of the brain (hydrocephaloid disease); furthermore, delay in giving surgical relief to the suppurating gland would appear to increase the area of internal mischief, and prolonging the process of discharge when relieved, sap up the remaining powers of the patient's strength. The affection of the cervical would seem to be the exact converse of that of the tonsillar glands; where the cervical undergo early enlargement and sloughing, tht tonsillar are but slightly affected, and *vice versâ*.

Next to the tonsils, it is the affection of a large chain of lymphatics in the course of the great vessels of the neck with which we are surgically concerned; and it appears to me that an incision directly suppuration is suspected into the most prominent is indicated, in order to relieve tension, and by freeing its fibrous envelope to give "fair play" to the gland. We thereby lessen the area of suppuration and attendant purulent infiltration of the tissues of the neck, relieve the pressure on the large cervical vessels, and coincidently the respiration.—I am, etc.,

Mere, Wilts. H. A. SMITH, M.R.C.S.Eng., L.R.C.P.Ed.

Umbilical Hernia.

SIR,—Mr. L. Thain, in your issue of December 24th, asks for information in treating umbilical hernia in infants. I beg to state that all the cases coming under my care I have cured by means of a long strip of soap strapping, so applied across the abdomen as to pull the skin inwards from both sides towards and over the umbilicus, thus forming a natural pad, and supporting the parieties at the same time. I am sorry I have no data by which I can state how long the treatment is required, but the results have been very satisfactory.—I am, yours faithfully,

Southam, December 28th, 1881. WALTER LATTEY, M.D.

SIR,—In reply to Mr. Thain's query on the above subject, my opinion is that all the belts made for this affection in infants are absolutely useless. In the first place, owing to the continual serpentine movements indulged in by these little patients, they can never long be kept in place, and they invariably become in a few days thoroughly saturated with urine. The most successful plan I have employed is nee shown me by Mr. Pick. Two pieces of diachylon plaster are taken, each about six inches by one inch. They are cut, one with a tongue about three inches long and half an inch wide, and the other with a slit in the centre to receive it. A piece of cork is cut of the size of the hernia, and covered with lint. The projecting tongue of one strip of plaster is passed through the slit of the other; the ends of the latter are pulled tight and made to adhere to the skin, the point of junction being directly over the cork. The external portions of strapping are then pressed down over the abdomen, covering the inner portions, and the hernia is firmly supported.—Yours truly,

J. FOSTER PALMER.

King's Road, S.W., December 27th, 1881.

Has the Duration of Human Life in England Increased during the last Thirty Years?

SIR,—In Dr. Rabagliati's second letter on the above subject in the BRITISH MEDICAL JOURNAL, December 17th, 1881, p. 999, he states that the deaths registered as due to "old age" have been continuously diminishing for the last thirty years. The fact is adduced as an additional argument in favour of a negative reply to the question, although he clearly shows, at the same time, that the term "old age" is very variously used by medical men. No doubt, at the present time, the general practitioners (upon whom the filling up of death-certificates principally devolves) are more scientific as a class than their predecessors of a bygone generation; and, as such, they would hesitate before filling up a certificate in such a simple, and often inaccurate, manner. Thus it would *primâ facie* appear that old age as a cause of death was decreasing, whilst disease as another cause was, *pari passu*, increasing.

Certainly the present generation may congratulate itself on the fact—according to Dr. Rabagliati—of a diminution in the death-rate from zymotic diseases, scrofula, and consumption of the lungs, all of which are diseases of young life. That cancer, which is a death-producer at a rather more advanced period of life, is on the increase is, I fear, what we must expect until medical science has found a prophylactic. The more lives we can pilot safely between Scylla and Charybdis, the more must we expect to lose on the hidden rocks beyond. Men cannot live for ever; as Mr. Biddle says, "it is best for the world that the bill of mortality should be heaviest at its furthest extremity" (BRITISH MEDICAL JOURNAL, December 24th, 1881, p. 1045). Any advance of science that tends to save young life will doubtless, in the long run, be a distinct gain to human longevity.

In my first letter on this subject (December 17th, 1881), a mistake occurs in the last sentence, which I should like to correct; for "although it may be, for a time, accompanied", read "although it must be at the same time accompanied".—Yours faithfully,

W. M. BEAUMONT.

Claverton Street, Bath.

"LET me tell you", writes a correspondent to the *Globe*, "what I do wtth the anti-vaccinators' cards: I just put them in an envelope and send them back, postage unpaid."

COMMUNICATIONS, LETTERS, etc., have been received from:—

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By SAMUEL WILKS, M.D., F.R.S.,
Physician to and Lecturer on Medicine at the Hospital.

THE cases on which I wish to make a few remarks, are examples of a form of disease by no means uncommon, and now holding a well established position in the nosology; yet it is one which is still frequently overlooked, and is altogether unrecognised by some in the profession. I refer to the embolism of Kirkes, or that form of malady which I subsequently styled arterial pyæmia, and which again is now, according to the usage of foreign writers, termed ulcerative endocarditis. None of these appellations can be regarded as good, seeing that they give a too determinate meaning to the nature of a complaint which is by no means perfectly understood. It is a disease full of interest and importance, for not only is its pathology obscure, but the symptoms are often so ill-defined, that it is constantly mistaken for other complaints, and especially for the various forms of fever. During the last two months there have, I believe, been three or four cases of this disease sent to the hospital on the supposition that they were typhoid fever, and certainly, the distinguishing marks between the two maladies are most difficult to recognise. The patient is generally in a highly pyretic state, or in that condition which, in ordinary language, is styled typhoid, without presenting any characteristic symptoms, the only sign present to raise a suspicion of the true nature of the case being a cardiac *bruit*. It is this alone, in many instances, which excites a suspicion as to the nature of the case, especially when the indications of every other form of disease are wanting. The case is really one of blood-poisoning, or a form of septicæmia; the source of the infection being, as it is supposed, in the heart, or in any place near the centre of the circulation, where ulceration and vegetations exist; but whether the septic material be decomposing fibrin, or the *débris* arising from the breach on the endocardium, or whether there be any distinct infectious substance circulating through the system, is still a question.

For some years past, it has now been known that persons have died with symptoms of typhoid fever or pyæmia, and the necropsy has revealed the presence of fibrinous masses, or infarcts in the spleen and kidneys; also that, associated with these deposits, there have been vegetations on the heart; these being usually of recent formation, and situated on chronically diseased valves. But long anterior to the recognition of symptoms attendant upon these pathological conditions, the fact of the association of embolic masses or infarctions with vegetations on the valves was well known. Bright pourtrayed these fibrinous deposits in the kidney more than fifty years ago; and soon afterwards Rokitansky described what he called "capillary phlebitis," of organs in association with heart-disease, especially directing attention to the deposits in the spleen and kidneys, as arising from endocarditis. Kirkes, however, may be regarded as the first in this country who gave a clear account of the effects of fibrinous matter circulating in the system when washed from the valves of the heart; and held that it was productive of symptoms of blood-poisoning. He first of all gave a very lucid account of those cases where portions of fibrine of some dimensions are carried into the larger vessels, and productive of local effects, as for example, gangrene of the leg if the femoral artery be plugged, or softening of the brain if a cerebral artery be blocked; and then proceeded, but more briefly, to describe the present class, where small particles of fibrinous matter are carried into the arterioles and capillaries of organs, and so produce constitutional disturbance and fever. From this time, I have clearly recognised the existence of this disease, although I have not always diagnosed it; my earlier cases (some published) were chronic ones, of some weeks' duration, in which the paroxysms of fever were so marked and regular that these were regarded as the phenomena of ague. Of late, the examples of this disease have been more acute, resembling typhoid, rather than intermittent fever; the temperature remaining very high throughout the course of the complaint. The mistake in confounding them with fever has, no doubt, been mainly due to the late great prevalence of typhoid, which has led us to see this disease in all forms of febrile disorder. You may remember the rule which we lay down as to the method of diagnosis in febrile disorders. We first look for a local inflammation as the cause of the pyrexia; failing this discovery, we consider the possibility of a general or blood-disease, and look out for an exanthem. If this do not appear, we are apt to regard the case as one of typhoid; and unfortunately, we are justified in styling a case typhoid when no characteristic symptoms are present. At the same time, however, we ought to remember the possibility of blood-poisoning from a local source of self-infection, and not forget the condition known as pyæmia on the venous side, or that of ulcerative endocarditis on the arterial side of the system. Tubercle, too, should not be forgotten. In these last-named blood-diseases there are fever, rigors, and pains in the limbs, so that they closely resemble one another; although the veins in one case have taken up the septic material from the surface, and the arteries, in the other case, from the centre of the circulation. The symptoms are either very acute, like those of typhoid, or more chronic and paroxysmal, like those of ague. In the arterial case, softening embolic masses may be found in the organs, more especially in the spleen and kidneys, and vegetations discovered on the valves of the heart. Sometimes the symptoms of blood-poisoning are most profound, and warrant the expression of Virchow, "malignant endocarditis".

The term ulcerative endocarditis implies that an acute change has taken place in the endothelium, whereby the products of inflammation, including the disintegrating membrane with portions of fibrine, are carried into the circulation, and infect the whole system. It might be thought that this affection would be one of the sequences of rheumatic fever when endocarditis has occurred, but such does not seem to be the case, for it does not appear to be a common experience that septicæmia is one of the sequelæ of rheumatism. In the large majority of cases of the disease of which I am now speaking, the affection of the valves has been old, evidenced by thickening of the tissues, narrowing, or adhesions. It is upon these chronically affected valves that the recent action has taken place, and vegetations have formed. Although this has been my usual experience, I have met with instances where no chronic disease of the valves has existed, but, at the same time, there has been no evidence of a recent endocarditis of a rheumatic character. In these cases, I have questioned if the vegetations found on the valves have originated there, and been the source of the infection, thinking, probably, that the deposits on the heart were due to a previous change in the blood, and that both they and the infarcts were due to a profound alteration in the blood itself. Even should it be shown that the blood is primarily affected from the centre of the circulation, it has yet to be proved that there is, of necessity, an inflammation and ulceration of the endothelium, since, in one of the most marked cases of arterial pyæmia which I have ever witnessed, the source of infection was a small aneurysm near the mitral valve in which fibrin was disintegrating. Several years ago, in discussing this subject, I mentioned cases of scarlatina and death from burn, where fibrinous masses were found in the spleen, kidneys, and other parts, but where there was no appearance of endocarditis. It must be remembered that, if endocarditis give rise to blood-poisoning, so, on the other hand, an endocarditis may result from blood-poisoning, as witnessed in pyæmia, scarlatina, etc.

The difficulty indeed, is so considerable, in regarding an endocarditis as a source of infection, that some observers maintain the necessity of the presence of bacteria or micrococci in the vegetations, and have accordingly styled this affection "infectious endocarditis". Indeed, some German physicians have given a description of small granular bodies found in the valvular formations; and during the late congress Dr. Osler, professor at Montreal, communicated an essay in maintenance of this view. He objected to the term ulcerative endocarditis, because he had seen the disease without ulceration, and preferred the term infectious. He did not object to the term diphtheritic, because he thought it probable that analogous changes took place on the valves as are seen in other parts of the body in diphtheria; and if there were adventitious bodies present, the expression "mycosis endocardii" might be allowable. Dr. Osler exhibited drawings from a case where, in the material scraped from the tendinous cords, there were seen a number of spherical bodies which he called "micrococcus balls". If the observation of this professor, and those of others, be correct, a further question arises as to the way in which these parasitic bodies find an entrance into the body.

The disease is one of great interest clinically, for not only may the symptoms be of that general kind which may lead us to confound it with fever, but occasionally, owing to one organ being especially selected for the manifestation of the infection, the inflammation attending it may be regarded as primary, and the real nature of the complaint be overlooked. It is probable that this, in former years, was constantly occurring, as two of my late cases suggest. In the one case, owing probably to the plugging of some of the cerebral vessels, a meningitis was set up; and this, if an incomplete examination had been made, might have been

regarded as the essential disease. In the other case, the patient had empyema, and which, in spite of being treated according to the best methods, appeared to be the cause of her death. The necropsy showed, however, an ulcerative endocarditis of which, probably, the pleurisy was an effect.

I should also mention that, when the symptoms are those only of blood-poisoning, they are not always of the acute kind which we have lately seen, but may continue over a course of several weeks, and then put on the appearance of an intermittent fever. The symptoms are also probably regarded sometimes as rheumatic, especially if the patient have already had rheumatic fever; for example, a patient suffering from known heart-disease is attacked by febrile symptoms, pains in his joints, etc., and from this he recovers. The case is regarded as one of subacute rheumatism, but it is truly one of blood-poisoning, and the proof of this lies in the condition of the organs found after death. In the spleen and kidneys there may be seen infarcts of different ages—some recent, others drying up, and on the surface of the organs indentations and cicatrices indicative of the presence of much older deposits.

The following is the case of a young man supposed to have fever, and where ulcerative endocarditis and meningitis were found.

Thomas T., aged 26. (Reported by Mr. F. Dixon.) Porter in wine and spirit vaults, and a free liver. Eight years ago he had acute rheumatism. On November 8th, he had pain in the back and vomiting; and, becoming very ill, he gave up work on the 10th. The fever continued, together with the sickness, until his admission on the 13th. He was a strong-looking well nourished man, but excessively ill, so that he could not give a very clear account of himself. His tongue was furred, temperature 103.6°, pulse 132, and he said he had had diarrhœa; no maculæ. The liver could be felt below the ribs, and the spleen was thought to be somewhat enlarged. A well marked mitral *bruit* existed. In absence of all other cause for the fever, the case was regarded by the house-physician as one of typhoid. The patient became very delirious towards night, and the temperature rose to 104°. On the 14th he was still very ill, and the question was discussed as to the nature of the case. He was very restless and delirious, temperature varying from 103.8° to 104°; some cough and expectoration. The presence of the mitral *bruit* raised the question about endocarditis; but he had no rigors, nor any symptoms positively pointing to that form of disease. At the same time, the characteristic signs of typhoid were wanting. On the 13th he was worse: pulse tremulous and irregular; stools showed nothing peculiar; temperature 104°, but had been a few hours before as low as 101°. He had been very sick. On the 14th, he was evidently sinking, talking incessantly, picking the bed clothes, and before he died in the evening his temperature had risen to 105.2°. The *post mortem* examination showed chronic thickening of the curtains of the mitral valve, and on these were patches of vegetation. The spleen was large, and contained infarcts or fibrinous deposits. The liver was large, the kidneys were unaffected, and the intestines healthy. The brain was inflamed, with lymph along the sides and in the fissure of Sylvius. He was treated with brandy and opium.

The following case was also regarded as one of fever.

John P., aged 23. (Reported by Mr. E. Wakeland.) Draper's assistant. He had rheumatic fever when a boy. Five days before admission he was seized with a severe headache, accompanied by vomiting; he afterwards had pains in his joints, and then took to his bed. He had no diarrhœa. The sickness ceased, but continuing otherwise very ill he was sent to the hospital as a case of typhoid fever on September 26th. He was a well nourished man, and his illness was quite recent. He looked anxious, skin hot, tongue furred, eyes rather hollow, spleen full three inches below ribs, liver not enlarged, abdomen full, no rash, bowels opened once a day. A loud systolic *bruit* was heard over the mitral area. He was very restless; had pain in the head, limbs, and joints. Pulse 140, dicrotic. Temperature 103.7°. September 27th: All symptoms were somewhat aggravated; no maculæ or positive signs of typhoid. September 28th: Delirious and constantly calling out; other symptoms unchanged. Temperature 104°. Cold was applied to the axilla by means of Mr. Strachan's apparatus, and the temperature fell. September 29th: In the morning he seemed quieter, more rational; temperature 102°, and took nourishment. In the evening the temperature rose to 104.8°, and the ice-bags were again applied during the night. September 30th: He had slept well. Temperature 99. Tongue dry and brown. In the middle of the day, the temperature having again risen three degrees, cold was again applied to the axilla. The temperature rapidly fell and the cold was removed; he gradually cooled down after this until the feet became quite cold, and the patient seemed collapsed. He gradually sank and died in the evening, the temperature having again risen to 103.2°. The *post mortem* examination showed the mitral valve much thickened and covered with vegetations; there were also some on the aortic. The kidneys contained several fibrinous masses or infarcts; the spleen was large, soft, and contained similar deposits. The brain healthy, excepting a clot (apparently *ante mortem*) in the middle of the cerebral artery.

The next case was one of empyema, and this no doubt was a result of infection.

Mary F., aged 26. (Reported by Mr. W. Harris.) Married, with family; seven months pregnant at time of admission on September 2nd. Four days before this she was seized with pain in the chest, and other symptoms of an inflammatory attack. Soon after admission she was delivered of a child. The left side of the chest was dull on percussion below, with loss of vocal fremitus, bronchial breathing above, and other signs indicative of pleurisy with effusion. There was also some bronchitis of the right lung. She was very ill, with much distress of breathing for some days, when she appeared better; but the dulness and other physical signs of pleuritic effusion still remained. She had wine and quinine given, with liniments of iodine and mercury. Subsequently the fluid increased in the chest, and she was tapped. Nine pints of pus were removed, and a drainage-tube inserted. The patient was now for a time better; but after a few days it was evident that she was weaker, and her powers were gradually failing. The chest discharged well, and the dressings were well attended to; and therefore it was by no means obvious, whilst she was improving as regards her chest-complaint, why she should be daily losing ground. At last she became cold and collapsed, and slowly died a month after admission. The *post mortem* examination showed the lungs healthy, but there was acute ulcerative endocarditis of the aortic valves. The kidneys contained small infarcts; and the spleen contained several, which had softened into fluid.

Dr. Fagge has recently had under his care the case of a woman where the cerebral vessels were probably plugged, inducing a partial paralysis, and for which she was admitted. But the patient had, besides, febrile symptoms, making her temperature chart resemble one of ague; and after death she was found to have been the subject of ulcerative endocarditis.

Rebecca T., aged 30. (Reported by Mr. Gleher.) Admitted under Dr. Fagge, September 10th. Housemaid at hotel for fourteen years, mostly occupied in carrying heavy articles up and down stairs. She did not know that she had rheumatism, but was subject to pains in the joints, and for four years had shortness of breath. A week ago, she was suddenly seized with giddiness, and at same time with weakness of the left side of the body. On admission, she had partial paralysis of motion and sensation of the left arm and leg. An examination showed a mitral *bruit*, and also a diastolic *bruit* over the sternum. Liver-dulness was increased. The spleen was large, and was felt considerably below the ribs. She continued extremely ill during the six weeks until her death, with febrile symptoms, continual change of temperature, and towards the last excessive prostration. There was a continuous rise and fall from 97 to 104°. For a few days before death there was weakness, profuse perspiration, and great prostration. *Post mortem* examination showed discoloration of convolutions, but no marked embolus. The spleen had several abscesses, or deposits of a creamy matter. The kidneys contained several infarcts, which were hard. The mitral valve was like a button-hole, and had vegetations on it. The aortic valves were thickened.

CONJUNCTIVAL TRANSPLANTATION.—M. Marc Dufour, in the *Revue Médicale de la Suisse Romande*, reports four cases in which he transplanted the conjunctival mucous membrane of the rabbit to the human eye. He operated in two cases of ocular symblepharon. The adhesion having been dissected away, a fragment of the mucous membrane of the rabbit's eye was applied to the denuded surface, and fixed in place by sutures. In an early case, that of an old woman, the operation failed; the fragment became necrosed, the woman being old. The fragments had been fixed with silk sutures. A little later, the operation was performed on a child, aged 11, and the transplanted fragment was fixed on the eye and the eyelid at the same time. The success was complete, and, two months afterwards, the fragment was quite living. In the case of a man, after the removal of an epithelioma of the eyelid, M. Dufour transplanted mucous membrane taken from a small tumour on the lower lip of the patient himself. This operation was completely successful; nevertheless, it had to be followed a year afterwards by a fresh operation, the disease having recurred. This time, also, a fragment of the mucous membrane of the lip was taken. M. Dufour recommends that the transplantation should not be made too soon after the incision; that the fragment to be transplanted should be previously fixed with sutures to prevent the rolling up of the edges. He recommends that the revivified place and the fragment should be washed with salicylic acid.

THIRD CONTRIBUTION
TO THE
LIFE-HISTORY OF CONTAGIUM.

By PETER MURRAY BRAIDWOOD, M.D., F.R.M.S.,
AND
FRANCIS VACHER, F.R.C.S.Ed.

This Third Contribution to the Life-History of Contagium, the issue of which has, from various causes, been delayed from time to time, is presented in a less complete form than was originally intended. The recorded investigations extended over a period of four years; but they were several times suspended for months together, owing to the pressure of other work or the increasing demands of private practice. As regards the subjects, they were not precisely those primarily selected by us, but such as we had an opportunity of dealing with whenever we found leisure for inquiry. Thus, an abortive attempt was made to investigate the nature and mode of propagation of the contagium of scarlatina; but, after a few experiments, yielding merely negative results, the local epidemic died out, and the inquiry had to be abandoned. Next, a study of the pathology of swine-typhoid was begun; but, after a large number of *post mortem* examinations had been made and drawings executed, an important portion of the material collected was lost on a railway journey, and the lost portion will have to be made good before the remainder can be utilised.

The reports we are in a position to submit are three; viz.:

I. A record of experiments with vaccine lymph exposed to certain gases and vapours. This is an appendix to our previous experiments with vaccine lymph exposed to ozone and certain chemicals.

II. Notes on an inquiry into the morphology of the contagium of measles, its mode of reproduction, and its distribution in the tissues of the infected subject.

III. An account of an experimental research into the nature of induced septicæmia, and of a disease which presents some gross points of resemblance to it.

I.—A Record of Experiments with Vaccine Lymph exposed to Certain Gases and Vapours.

We have already recorded, in our first and second reports, the particulars and results of our experiments with vaccine lymph subjected to the influence of ozone, quinine, salicylic acid and boracic acid, and the ordinary household disinfectants; that is to say, carbolic acid, sulphurous acid, chlorine, chloride of aluminium, liquor potassæ permanganatis, and Dr. Bond's disinfectants, cupralum, ferralum, and terebene. The experiments to which we have now to refer may be considered as supplemental to those previously reported; but they differ from them in this respect, that they have for their object the testing of the effects on lymph of certain gases and vapours not usually termed disinfectants, or used as therapeutical agents in the treatment of zymotic diseases.

In the first place, the undoubted power of ozone to impair, and, if maintained long in contact, to destroy, the activity of lymph, suggested to us that *oxygen* might exert a similar influence; and we accordingly resolved to make an extended trial of lymph modified by being submerged in oxygen for varying periods of time. In ozonising vaccine, we had exposed it in a watch-glass to a stream of ozone generated by electricity, or in a closed vessel containing oxidising phosphorus; but how to introduce vaccine into a vessel containing oxygen was a far more difficult problem, and we were at some pains to arrange an apparatus for effecting the required exposure. An ordinary glass bell-receiver, fitted with a chambered stopper, was provided, and the chamber was carefully lined with cork. Into this lining were stuck three ivory points just charged with fresh lymph, and a piece of glass on the surface of which three tubefuls of fresh lymph were blown. The receiver was then immersed in a pneumatic trough, the stopper replaced (care being taken that the water did not touch the charged points or glass), and oxygen generated into the receiver. The gas was obtained from chlorate of potash; but, there being no black oxide of manganese at hand, it did not come off very freely, and we had to be content when the vessel was barely half-full. After two days (forty-eight hours), the stopper was removed, and the experimental vaccination of two subjects attempted. A child was inoculated in three places with the lymph on the piece of glass; and another child, also in three places, with the charged ivory points. When the children were examined on the eighth day, it was found that vaccination in the first case had entirely failed, and in the second had produced three good vesicles. The child whose vaccination had failed was on the same day vaccinated with fresh lymph collected on a glass slip; and this not only succeeded at the three spots attempted, but developed two supplementary vesicles. These results were somewhat puzzling, especially as all the lymph exposed had been taken at the same time and from one subject. Both infants were proved to be susceptible: why had the experimental vaccination succeeded in one and failed in the other? Could it be that the lymph on the vitreous surface had been wholly within the influence of oxygen, and the lymph on the porous ivory only partially reached by the oxygen? This appeared to us the only possible explanation, and we accordingly concluded henceforth to make use of glass only for exposing lymph. The thin glass discs used as covers for microscopic preparations at once occurred to us as well suited to our purpose; and, in exposing vaccine to oxygen and some other gases and vapours, we made these discs the contagium-carriers. The precise method of procedure was as follows. Slits were cut in the cork lining of the chambered stopper, and into these two or more clean new covers were inserted. Fresh lymph, gathered with capillary tubes, was then blown on the covers. As the covers occupied very little space, when the receiver was plunged in the pneumatic trough, the water was allowed almost up to the stopper, so that the proportion of air mixed with oxygen was inconsiderable. The gas was generated from chlorate of potash as before; but a little black oxide of manganese was added, and care was taken to fill the receiver. Three tubefuls of fresh lymph was the charge for each cover, and each cover was used for the experimental vaccination of one subject. One cover was exposed to oxygen for seven days; four covers were thus exposed for five days, three for two days, and two for one day. In each of the subjects vaccinated, the lymph was inserted at three places; the scarifications were made with a clean lancet kept for the purpose; and the covers were used to apply the lymph, All these experimental vaccinations failed; and, on subsequent vaccination, all but two succeeded. The oxygen being delivered from a heated flask, we wished to be quite certain that its temperature had nothing to do with its effect on the lymph. On one occasion, therefore, when exposing three covers, we inserted in the lining of the receiver-stopper a small clinical thermometer. It stood at a little below 90° Fahr.; and, although the gas was played upon it, it did not rise one degree. Lymph from the same source as that exposed was in each instance tested by being used for vaccinating, so that the activity of every tubeful up to the time when it was immersed in oxygen is beyond dispute. Thus, out of twelve experimental vaccinations with vaccine exposed to oxygen, but one was successful; and in this case, as has been stated, there is reason to believe the exposure was imperfect.

Carbonic Oxide being a gas singularly inimical to even low forms of animal life, its effects on vaccine lymph seemed to us an interesting subject for study. If this type of contagium should prove able to resist the poison, it would be evidence of its possessing a vitality more persistent than the organisms with which it is assumed to be allied. If, on the other hand, the specific properties of the vaccine, as tested by its results when inoculated, were found to be destroyed by the poison, it would be *pro tanto* evidence of its being, if not exactly a protozoon, at least something higher than protoplasm. We do not wish to press this, as we are well aware that facts may be as readily made to appear in favour of one theory as another; but, in any case, the behaviour of vaccine after being exposed to carbonic oxide is deserving of investigation, and forms a necessary part of an inquiry into the conditions of life of contagia.

The bell-receiver used in the experiments with oxygen was again made use of. Into the cork lining the stopper were stuck two glass covers, and three tubefuls of fresh lymph were blown on each *in situ*. The receiver was then plunged into a trough, and the stopper replaced. Carbonic oxide was then generated from yellow ferrocyanide of potassium and sulphuric acid. The vaccine remained in the gas twenty-four hours; and two children were then vaccinated, each at three points. They were examined on the eighth day, when it was found that all the points of insertion had failed. Both children were forthwith revaccinated, and with success. Six tubefuls of lymph were then exposed on covers, in the same manner, for twenty-four hours; and, on vaccinating two subjects from them, one succeeded at all the points of insertion, and the other at two out of three points. Another six tubefuls of lymph were exposed, on two covers, for twenty-four hours; and with this lymph two children were vaccinated each at two points. One child succeeded at one point only; and the other wholly failed, and was forthwith revaccinated successfully. A fourth sample (six tubefuls) of fresh lymph was exposed on two covers as before, but for three days. The vaccination of two children with

this, each at three points, was unsuccessful. Revaccination immediately afterwards was also unsuccessful; but, on being again revaccinated, both children yielded vesicles, five out of six points of insertion succeeding. Thus, out of eight experimental vaccinations of children with lymph exposed to the influence of carbonic oxide, three succeeded; out of twenty-two points at which the lymph was inserted, six produced vesicles. Vaccine may, therefore, endure at least twenty-four hours' exposure to carbonic oxide without losing its specific properties. It comes out of the ordeal weakened and uncertain in action, as lymph diluted with much glycerine or water.

Carbonic Acid appears to affect vaccine in the same way as carbonic oxide, though more feebly. Three tubefuls of fresh lymph were blown on a slip of glass, which was placed at the bottom of a deep beaker, the side which received the lymph being uppermost. Carbonic acid was then disengaged from marble chips by means of nitric acid, and, by a long "down", carried right on the lymph for the space of three hours. A child was then vaccinated with the lymph at three points, and all succeeded. Further, two slips of glass were charged with fresh lymph, receiving three tubefuls each, and retained in carbonic acid, disengaged as above, one for twenty-four hours, the other for two days. Each slip was made use of for an experimental vaccination, and all the points of insertion succeeded. Thirdly, two slips of glass were charged with lymph, three tubefuls each, and retained in carbonic acid two days. This time the gas was specially dried, by being delivered through a long drying chamber containing chloride of calcium. The acid was disengaged from chalk by sulphuric acid. Two children were vaccinated with the lymph thus treated, each at three points, and all the points failed. Our results with carbonic acid are, therefore, that, of five experimental vaccinations with lymph subjected to the influence of this gas, three succeeded. It is curious that, in the children successfully vaccinated, all the insertions succeeded; and, in the children inoculated unsuccessfully, all the insertions failed. The latter were revaccinated at three points each, and produced three good vesicles each. Could it be that the drying of the carbonic acid gave it a sterilising power which it would not otherwise have possessed? In view of two experiments to be hereafter recorded, we incline to think that the drying probably did not influence the results.

Hydrochloric Acid.—This gas, prepared in the usual way from chloride of calcium and sulphuric acid, was collected in a jar, in which slips of glass charged with vaccine lymph had previously been placed. The slips, having three tubefuls of lymph on each, were retained in the gas for four days; and, on vaccinating with them, all the six points of insertion failed. A charged slip exposed in the same manner for two days, and four charged slips exposed in the same manner for one day, were used for experimental vaccination, and not a single vesicle resulted. Lastly: lymph on a slip, immersed for two hours in the gas, was tested, and also entirely failed. In all, twenty-four tubefuls of lymph were subjected to the influence of this gas, and used for the vaccination of eight subjects, each subject being vaccinated at three points, and every insertion failed. They were forthwith vaccinated, and all but two succeeded—one of these being revaccinated successfully. Hydrochloric acid gas is, therefore, like chlorine, a perfectly reliable destroyer of the contagium of vaccine.

Camphor, from its proved power of postponing or arresting decomposition in such a typically putrescible liquid as blood-serum, appeared to us not unlikely to act as a contagicide, if only it could be thoroughly incorporated with the contagium liquid. Certainly it is popularly believed to be efficacious in warding off contagious diseases, and, with that object, is often carried about the person by ministers, nurses, etc. We accordingly made use of the bell-receiver, with the chambered stopper previously referred to. A thermometer and two glass covers were fixed in the lining of the stopper, and on each of the covers were blown three tubefuls of fresh vaccine lymph. The receiver was then placed over a drachm of camphor on a bed of hot sand. The temperature did not at first exceed 110° Fahr., and soon fell to the normal temperature of the room. After fifty hours' exposure, the lymph thus camphorised was used for vaccinating two subjects, the lymph on each cover being inserted at three points. On examining them a week later, one child showed no results, and the other but a single vesicle. Next, we tested the effect of three tubefuls of lymph exposed in the receiver to camphor, but for twenty-fours hours only, and no hot sand being used. The experimental vaccination succeeded at all the three points inoculated. Thirdly, we exposed in the receiver, for two days, three covers, each holding three tubefuls of lymph; and vaccinated a child from each cover. The hot sand was not used. All the nine points inoculated succeeded. Our fourth exposure was for a period of seven days. The covers were charged as before from three tubes each, and the camphor was placed under the receiver, no hot sand being used. The experimental vaccination of two children with this lymph, each at three points, entirely failed. Lastly, we exposed in the same receiver three tubefuls of lymph for four days, and three for five days. In the former, vaccination succeeded at all the points attempted; in the latter, it succeeded at one point only. It should be mentioned that the ground-glass rim of the receiver fitted closely to the marble slab on which it was placed. In the later experiments, the rim was well greased. The gross results, as regards camphorised lymph, are therefore that, out of ten children vaccinated, seven succeeded and three failed; and, out of thirty points vaccinated, seventeen succeeded and thirteen failed. However, on referring to the table of particulars annexed, it will be seen that the experiment (the first in the series), in which lymph exposed to camphor for upwards of two days failed, is unsatisfactory, owing to the age of the subject, and her refusing to submit to a test revaccination. If, therefore, we set this aside, the outcome of the experiments is, that camphor is not a contagicide, except only where the contagium is retained, for at least a week, in an air-chamber saturated with the volatile oil. No better demonstration could be given, than is afforded by these experiments, of the vanity of expecting that a little camphor, exposed in a sick-room, or carried about the person, will "keep off infection".

Chloroform.—Three tubefuls of lymph were blown on a cover stuck in the cork lining of the chambered stopper of a bottle. Half an ounce of chloroform was then placed in the bottle, and the stopper replaced. After four days, the cover was withdrawn, and used for vaccinating a child at three points. All the points failed. A cover, holding three tubefuls of lymph, was exposed for twenty-four hours; and on another occasion a cover, similarly charged, was exposed for twenty-three hours. With each cover, a child was vaccinated at three points, and all failed. A fourth and fifth cover were charged as before, and exposed—one for six hours, the other for three and a half hours. The subjects vaccinated from them, each at three points, wholly failed. Only three of those children were revaccinated by us. In one, revaccination was postponed owing to a smart attack of diarrhœa; and, in the other case, mother and child moved away, and could not be traced. We, however, hold that these experiments show that a comparatively brief exposure to chloroform vapour does entirely sterilise vaccine lymph.

Ether.—The exposure of lymph to anhydrous ether was effected in precisely the same manner as lymph was exposed to chloroform. Half an ounce of anhydrous ether was placed in a bottle having a chambered stopper, in the cork lining of which the covers were inserted. A cover exposed for two days, two covers exposed for one day each, and finally two covers exposed for one hour each, were used for experimental vaccinations. Each cover held three tubefuls, and each child was vaccinated at three points. Not a single vesicle resulted, and all the children were revaccinated with success. Ether vapour is, therefore, a contagicide, so far as regards its action on vaccine lymph, and a brief exposure to the vapour is sufficient to kill.

With reference to the last three groups of experiments, it may be noted that, according to Dr. John Dougall, neither camphor, nor the vapour of chloroform or ether, impairs the action of vaccine.

On two occasions, we essayed to expose lymph to bromine; but a sufficiently low temperature for the purpose could not be readily obtained, and the experiment was for the time abandoned.

We have only to add, that the activity of the lymph used in these experiments was, in every instance, tested on the human subject, and found efficient. The experiments extended over a period of seven months—namely, from January to July 1878.

The age and sex of the subjects operated on, and other particulars, are given in the annexed table.

Experiments with Desiccated Vaccine Lymph.—As a complement to the above experiments with vaccine lymph exposed to certain gases and vapours, it was necessary to test the effects of thorough desiccation; and it appeared to us desirable to allow the desiccating agent to be in operation for at least seven days, the extreme period of time lymph was subjected to the influence of any gas or vapour. Accordingly, three tubefuls of fresh vaccine lymph were blown on the under surface of a ground-glass stopper, belonging to a bottle just filled with concentrated sulphuric acid. When the lymph was apparently dry, the stopper was replaced—the acid in the bottle reaching to within an eighth of an inch of the lymph. After seven days, the stopper was withdrawn; and, an infant's arm being scarified at three points, the desiccated lymph was applied to the points with the stopper. When the infant was examined in due course, it was found that vaccination had succeeded at all the points attempted. This experiment was repeated, and with exactly the same results. Again, three scarified points were inoculated directly from the stopper of the desiccating bottle, and again all succeeded. Both the subjects experimented on were males—one was three months old, the other two years old.

TABLE.

No.	Initials of Subject.	Sex.	Age.	Gas or Vapour in which Lymph was Exposed.	Age of Lymph when Exposed.	Age of Lymph when Used.	No. of Points Vaccinated.	Result.	No of Points Re-vaccinated.	Result.	REMARKS.
1	P. H.	M.	4 y.	Oxygen	Fresh	2 days	3	Failure	3	3 succeeded	
2	G. G.	M.	11 y.	Ditto	,,	2 ,,	3	3 succeeded	—	—	
3	M. N.	F.	2 y. 3 m.	Ditto	,,	7 ,,	3	Failure	3	3 succeeded	
4	J. M.	M.	—	Ditto	,,	5 ,,	3	,,	3	3 ,,	
5	M. M.	F.	7 m.	Ditto	,,	5 ,,	3	,,	3	Failure	
6	J. L.	M.	2 y.	Ditto	,,	5 ,,	3	,,	2	2 succeeded	
7	H. M.	M.	4 y.	Ditto	,,	5 ,,	3	,,	2	2 ,,	
8	M. M.	F.	7 y. 6 m.	Ditto	,,	2 ,,	3	,,	3	3 ,,	
9	T. B.	M.	5 m.	Ditto	,,	2 ,,	3	,,	3	3 ,,	
10	C. C.	M.	2 y.	Ditto	,,	2 ,,	3	,,	3	3 ,,	
11	F. W.	F.	1 y. 4 m.	Ditto	,,	1 day	3	,,	3	2 ,,	
12	T. L.	M.	3 m.	Ditto	,,	1 ,,	3	,,	3	Failure	
13	E. H.	F.	2 m.	Carbonic oxide	,,	1 ,,	3	,,	3	2 succeeded	
14	T. T.	M.	2½ m.	Ditto	,,	1 ,,	3	,,	3	2 ,,	
15	E. D.	F.	11 m.	Ditto	,,	20 hours	3	3 succeeded	—	—	
16	T. D.	M.	7 y.	Ditto	,,	20 ,,	3	2 ,,	—	—	
17	W. C.	M.	11 m.	Ditto	,,	1 day	3	Failure	3	2 succeeded	
18	H. S.	M.	3 m.	Ditto	,,	1 ,,	2	1 succeeded	—	—	
19	E. N.	F.	6 m.	Ditto	,,	3 days	3	Failure	3	Failure	Revaccinated at 3 points, and 3 succeeded.
20	E. W.	F.	2 m.	Ditto	,,	3 ,,	3	,,	3	,,	Revaccinated at 3 points, and 2 succeeded.
21	S. M.	F.	3 m.	Carbonic acid	,,	3 hours	3	3 succeeded	—	—	
22	B. D.	F.	7 m.	Ditto	,,	1 day	2	2 ,,	—	—	
23	G. M.	M.	5 y.	Ditto	,,	2 days	3	3 ,,	—	—	
24	G. G.	M.	11 y.	Ditto	,,	2 ,,	3	Failure	3	3 succeeded	
25	P. H.	M.	4 y.	Ditto	,,	2 ,,	3	,,	3	3 ,,	
26	L. R.	F.	2 y.	Hydrochloric acid	,,	4 ,,	3	,,	3	Failure	
27	J. C.	F.	5 m.	Ditto	,,	4 ,,	3	,,	3	2 succeeded	
28	A. B.	F.	3 m.	Ditto	,,	2 ,,	3	,,	3	3 ,,	
29	J. W.	M.	3 m.	Ditto	,,	1 day	3	,,	2	2 ,,	
30	A. D.	F.	2½ m.	Ditto	,,	1 ,,	3	,,	2	2 ,,	
31	E. T.	F.	3 m.	Ditto	,,	1 ,,	3	,,	3	3 ,,	
32	J. C.	M.	3 m.	Ditto	,,	1 ,,	3	,,	2	Failure	Revaccinated at 2 points, and 1 succeeded.
33	E. J.	F.	4 y.	Ditto	,,	2 hours	3	,,	3	3 succeeded	
34	L. D.	F.	15 y.	Camphor	,,	50 ,,	3	,,	—	—	
35	J. N.	M.	5 m.	Ditto	,,	50 ,,	3	1 succeeded	—	—	
36	J. D.	M.	3 m.	Ditto	,,	1 day	3	3 ,,	—	—	
37	F. D.	M.	3 m.	Ditto	,,	2 days	3	3 ,,	—	—	
38	A. G.	M.	2½ m.	Ditto	,,	2 ,,	3	3 ,,	—	—	
39	C. W.	F.	3 m.	Ditto	,,	2 ,,	3	3 ,,	—	—	
40	J. M.	M.	5 m.	Ditto	,,	7 ,,	3	Failure	3	1 succeeded	
41	S. B.	M.	2½ m.	Ditto	,,	7 ,,	3	,,	3	1 ,,	
42	H. N.	M.	7 m.	Ditto	,,	4 ,,	3	3 succeeded	—	—	
43	H.	—	3 m.	Ditto	,,	5 ,,	3	1 ,,	—	—	
44	J. C.	F.	7 m.	Chloroform	,,	4 ,,	3	Failure	—	—	
45	H. S.	M.	1 y. 1 m.	Ditto	,,	1 day	3	,,	3	—	Success of revaccination could not be ascertained.
46	F. U.	F.	4 m.	Ditto	,,	1 ,,	3	,,	3	2 succeeded	
47	T. S.	M.	3 m.	Ditto	,,	6 hours	3	,,	—	—	
48	L. K.	M.	3 m.	Ditto	,,	3½ ,,	3	,,	3	1 succeeded	
49	M. D.	M.	3 m.	Ether	—	2 days	3	,,	3	1 ,,	
50	C. R.	F.	3 m.	Ditto	—	1 day	3	,,	3	3 ,,	
51	J. D.	M.	3 m.	Ditto	—	1 ,,	3	,,	3	3 ,,	
52	E. P.	F.	2 m.	Ditto	—	1 hour	3	,,	3	3 ,,	
53	M. S.	F.	2½ m.	Ditto	—	1 ,,	3	,,	3	3 ,,	

THE ETIOLOGY OF ENDEMIC GOITRE.

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IT is my lot to live in a locality where goître is of common occurrence. I have lately taken notes of the cases I have seen; up to the present, the number is two hundred and sixty. This fact establishes the endemicity of the disease in the district. It was natural that I should turn to my books for information regarding the origin of this peculiar complaint. To my surprise, the more I looked into the literature of the subject, the more puzzling and perplexing did the matter become. My medical brethren, too, seemed to hold contradictory opinions. For this unsatisfactory state of the etiology of goître, there must be a cause. A great philosopher once said that, if we wish to penetrate the mysteries of Nature, we must observe patiently, experiment cautiously, and generalise slowly. It appears to me that (1) medical men in goîtriferous districts have not observed patiently, if, indeed, they have troubled themselves to observe at all; on the other hand (2), writers on goître have generalised far too quickly; and (3) experiments have not been attempted, except on a very small scale. The result is our present incomplete knowledge of the subject. No doubt there are great difficulties to overcome. The thyroid gland, even in health, presents a puzzle to the physiologist; its function is not yet clearly made out. It is possible that a study of its morbid conditions may throw some light on the question. To add to the general fund of knowledge should be the ambition, if not the positive duty, of every practitioner who resides in a district where goître is endemic. It is important that all his facts should be carefully observed and accurately recorded. It is only by the accumulation of these that, in the course of time, the true etiology will be built up. No single observer can hope by himself to solve the mystery. The rural practitioner especially, who has often the best opportunities for watching and noting obscure diseases, must be content to contribute the raw material, leaving the rest of the work to the skilled hand of the well-trained master. It is impossible for the general practitioner to find time for diving deeply into the sciences of geology and chemistry, without which the true origin of goître cannot be traced to its source. The physician, the geologist, and the chemist must combine in the work. There is no lack of material; the difficulty is to find workers.

From inquiries I have made, I find that goître is endemic in twenty-seven English counties; it is also found in various parts of Scotland and Ireland; in nearly every country in Europe it exists; it is common in many parts of Asia, Africa, and America—in hot and in cold countries, in moist and in dry climates, by the seashore and inland, by lakes and rivers, on plains, in valleys, and on high mountains. It has even been developed, so it is said, in a ship's crew in mid-ocean; it appears alike in the burning Sahara and in the frozen regions of the far North. With such an almost universal distribution, it is the more remarkable that there should still be this vagueness regarding its etiology. I have, during my recent studies, met with nearly fifty different theories of the origin of goître.

Before contributing the facts I have collected, it may not be out of place, with a view to the better understanding of the subject, to refer briefly to some of the principal theories found in text-books and elsewhere. Some have expressed surprise at the idea of goître being pre-

valent in England; they had always imagined it to be endemic only in such places as the valleys of the Alps or Pyrenees. Some well-known works on medicine make no mention at all of endemic goître. There has been from a very early date a popular idea that goître arose in some way from the drinking-water. Hippocrates, Aristotle, Galen, and Celsus blamed coldness of the water. Agricola and others thought that metalliferous waters were the cause. Snow-water, muddy water, water deficient in carbonic acid, oxygen, or iodine, have all been blamed. The favourite theory has been hardness of the potable water. In our day, Dr. Aitken (*Science and Practice of Medicine*) and Dr. F. T. Roberts (*Theory and Practice of Medicine*) maintain that the weight of evidence is in favour of the supposition that water impregnated with salts of lime and magnesia is the cause of enlarged thyroid. I cannot pause here to discuss this theory; but I may say I have before me analyses of two samples of water (known to cause goître) which contain only 4.75 and 7.0 grains of total solids per gallon respectively. On the other hand, many hard waters, notably so hard as to cause purging, are never known to give rise to goître. Dr. McLelland, whose observations (*Some Inquiries in the Province of Kemaon relative to Geology, including an Inquiry into Causes of Goître*, Calcutta, 1833) are a model of painstaking and laborious research, believes that water from certain defined geological strata, and contaminated with certain earthy salts, is the real cause of bronchocele. Dr. Inglis (*Treatise on English Bronchocele*) says that it is always found wherever the magnesian limestone formation prevails. M. Grange (*Sur les Eaux de la Vallée de l'Isère*) says the causes of this affection depend exclusively on the nature of the soil and of the water. Dr. St. Lager (*Etudes sur les Causes du Crétinisme et du Goître Endémique*), whose work I strongly recommend to all who wish for information on goître, argues that the poison is some form of iron, probably in combination with sulphur as a bisulphide. He states, with some reason, that goître is found on all those geological formations which contain iron pyrites. He asserts that he has produced enlargement of the thyroid in mice by adding sulphide of iron to their food for some months. Sir Thomas Watson (*Principles and Practice of Medicine*) says that the deleterious agent has been traced with tolerable certainty to water, and he looks to the chemist to solve the question. Dr. Bristowe (*Theory and Practice of Medicine*), with his usual candour, confesses that the causes of goître are not yet clearly understood; but he inclines, apparently, to the theory of the impregnation of water by earthy salts. Mr. Erichsen (*Science and Art of Surgery*) says that air and locality have more to do with it than water, and that it is nearly always associated with a peculiar form of anæmia. The Sardinian Commission (*Rapport de la Commission Sarde*), charged with the settlement of this question, came to the conclusion that the causes were multiple, and included insalubrity of locality, humidity, absence of sun's rays, want of ventilation, poverty, and insufficient nourishment. There is good reason to believe, apart from other refutation, that these conclusions were for the most part purely theoretical, and unsupported by any series of accurate observations. Some have blamed want of phosphates in the system, owing to malassimilation from improper diet. Many believe that goître only occurs in deep narrow valleys. Humboldt refuted this theory; but the latest contradiction which it has received is to be found in a recent book on African exploration (Thompson's *Central African Lakes*), where the writer observed goître among the Marungus, a warlike tribe inhabiting the lofty peaks, 7,000 feet high, on the mountains which skirt the western bank of Lake Tanganyika. Livingstone, too, that keen observer, mentions in his *Last Journal* that goître and hydrocele are frequent in the Lopere and Kabuirè districts in Central Africa, at a height of 3,350 feet. Shakespeare seems to have connected the disease in some way or other with mountains; for the following passage occurs in the *Tempest*, Act iii, Scene 3.

> "Who would believe that there were mountaineers
> Dew-lapped like bulls, whose throats had hanging at them
> Wallets of flesh?"

There are those who believe that carrying heavy loads on the head or shoulders is the cause of goître; others accuse the violent efforts of parturition. In certain country districts in England, it is attributed to the muscular efforts made in milking cows, the head being firmly pressed against the animal's side whilst the hands are employed. Ackerman and others have confounded goître with scrofula and rickets.

Bramley (*Some Account of the Bronchocele of Nepaul*, Calcutta, 1833) says, that a want of tone in the living fibre, and some defect in the lymphatic system connected with the strumous habit, is the cause of bronchocele. Some have blamed consanguinity and intermarriage. Among agriculturists, the goître, which sometimes appears in cattle of very "pure-blood" stock, is attributed to close breeding—*i.e.*, a breeding "in and in", to keep the stock unmixed. It is looked upon by breeders of cattle as a "scrofula". Heredity has been blamed; and some have sought to prove that the morbid condition of the thyroid is handed down from generation to generation. An interesting fact, in support of this view, is mentioned by Inglis, who relates that goître had become endemic in a locality where a detachment of French prisoners had been stationed; these men formed *liaisons* with the women of the district, and the female portion of the progeny were said to have been goîtrous. At the time of Inglis's visit, almost all the girls bore marks of their descent, in their physical formation and features, exceeding in elegance any similar number of Scotch or English girls of the same class. The men were presumably from a goîtriferous district in France (in which country, it is calculated, there are at least 450,000 goîtrous persons at present). Drunkenness of one or both parents, at the time of conception, is said by some to be the cause. There is a remarkable relation between pregnancy and goître. Many enlargements of the thyroid begin with the first pregnancy—some, indeed, with the first menstruation. It has been said that uterine disease caused goître. Dr. Edward W. Jenks (*New York Medical Record*) has maintained this theory; and says that goître has a close relation with diseases of the female generative organs, the disease being oftener functional than structural. Excessive indulgence in sexual intercourse is blamed by some. In a book of travels (Spix and Martius' *Travels in Brazil*, 1820), referring to the prevalence of goître at Jacarehy, near St. Paul's, the following passage occurs: "Excessive sexual enjoyments may be considered as one cause of goître, as it is at Rio of sarcocele and hydrocele." Bramley, in speaking of this so-called pelvic sympathy, relates a case of the sudden disappearance of a gonorrhœa, synchronously with the development of a goître. Dr. Reid has often noticed the connection between obstructed catamenia and goître. He also states that the custom among the ancients, of measuring the bride's neck the day after marriage, is still followed in some parts of Germany. Enlargement of the neck was formerly considered one of the signs of rape (Laycock's *Nervous Diseases of Women*). Various conditions of the atmosphere have been stated to originate goître. Iphofen says that want of electricity in the air of infected districts determines the endemicity of the disease. Many meteorological conditions have, in turn, been blamed—even hailstones have been pressed into the service. Some have attributed to a cryptogam, or microzöon, the origin of goître. Dr. F. N. Macnamara (*Climate and Topography of Himalayan and Sub-Himalayan Districts of British India*, with reasons for assigning a malarious origin to goître and some other diseases) has recently attempted to prove that the malady is due to a poison of a fungoid character. Billroth and others believe goître to be a chronic miasmatic affection; and attribute the recent increase of goître in Vienna to the introduction of the new water-supply, six or seven years ago; this water is brought from the Kaiserbrunn, in Styria, a district well-known to be affected by endemic goître. Dr. Woakes ("On the Pathogeny and Treatment of Bronchocele or Goître, *Lancet*, March 19th, 1881) has asserted that it is due to a "paresis of the vaso-motor nerves, which mediate the vessel area constituted by the thyroid gland"; but he does not tell us how or why this paresis is produced. He also denies the endemicity of the disease, and says that it is more common in all localities than is generally supposed. From what has been written, it must be evident that a great diversity of opinion exists among the profession as to the origin of goître; and that any local inquiry, which will be of any use, must carefully cover a large amount of ground, and supply details of the locality; its configuration; its geology; the various sources and qualities of the drinking-water, with minute analyses; the habits and customs of the people; their sanitary surroundings, dietary, and other items of a similar nature.

The district from which I have collected my cases is situated on the edge of the eastern moorlands of Yorkshire. It is not easy, without a map, to convey distinctly a correct idea of the position and configuration of the locality. My readers must imagine an inland lake, or estuary of the sea, from which the water has been drained off, leaving a flat fertile plain or "strath", bounded north and south by two parallel ranges of hills, which run at a distance varying from five to ten miles apart. These two ranges rise on the coast—the one near Scarborough and the other near Filey—and extend for nearly thirty-six miles, where they converge. Near this point of convergence, or, in other words, at the head of this antediluvian lake or estuary, is the district from which I have taken the cases. From the northern shores of this ancient lake rise the eastern moorlands of Yorkshire, a breezy expanse of moor and mountain, having, with many town physicians, a high reputation for salubrity. Patients are sent hither to inhale the health-giving atmosphere, and to enjoy the bracing breezes which blow over this wide extent of rock and heather. Here, indeed, is no insalubrity of locality, no absence of sun's rays, nor want of free movement of air. The bed of the lake is now a well-cultivated plain, and presents a marked contrast to the wild and barren moors. The hills, which form the boundary of the "strath", are intersected in many places by valleys and well

wooded ravines, which impart a picturesque beauty to the scene. The highest point in the district is nearly 1300 feet above the sea-level; and here, in a hamlet close by, I have found cases of goître. The villages are met with in three situations: (1) on the mountainous moorland; (2) in the wooded valleys; and (3) on the fertile plain—in all, goître is to be found. The district may be said, geologically, to stand on the middle and upper oolitic formations. The plain consists of alluvium, upon Kimmeridge clay, in which iron pyrites is found. The hills are mostly tabular, and consist of Kellaways rock, Oxford clay, and calc grit. In one valley alone, at the extreme western boundary of my district, is the lias formation met with. The remaining geological details (for which I am indebted to Mr. C. Fox Strangways, F.G.S., of Her Majesty's Geological Survey) are given shortly in the following statement (from *Memoirs of the Geological Survey*, 96, S.E.).

The following are the geological formations which occur in the district:—*Recent and Post Glacial:* Alluvium; warp and lacustrine clay; sand and gravel.—*Glacial:* Boulder clay and gravel.—*Upper Oolites:* Kimmeridge clay.—*Middle Oolite:* Upper calcareous grit; coral rag and upper limestone; middle calcareous grit; lower limestone; passage beds; lower calcareous grit; Oxford clay; Kellaway's rock.—*Lower Oolites.—Lias.*

Those geologists who have studied the distribution of goître have remarked its entire absence on the oolitic formations. Mr. Lebour (*On the Geological Distribution of Endemic Goître in England*, by G. A. Lebour, M.A., F.G.S., Professor of Geology, University of Durham College of Science, Newcastle-on-Tyne) has, among other interesting details, drawn attention to the absence of goître on the oolites. It is said that the Yorkshire oolites differ in composition from, although they are geologically the same as, the oolites of the South of England. Dr. St. Lager, in his work already referred to, speaks also of the absence of goître on the oolitic formations in France. Goître is said to be of rare occurrence on the lias; but in the valley I have just spoken of it is quite common. In justice to Dr. St. Lager's theory, I may say that iron is found in many parts of the district; and at one place there are two iron and two sulphur springs rising together within a few yards of each other. These springs are of great depth, and do not represent the drinking-water of the locality, but are used by invalids for medicinal purposes.

[*To be continued.*]

NEW CONVERTIBLE STETHOSCOPE.

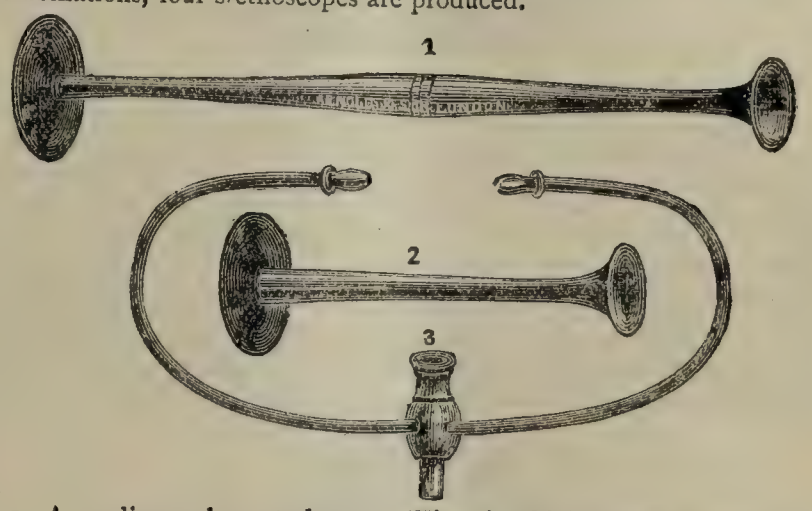
By JOHN WARD COUSINS, M.D.Lond., F.R.C.S.,

Surgeon to the Royal Portsmouth Hospital, and late Resident Surgeon to the City of London Hospital for the Diseases of the Chest.

THE new stethoscope, which I beg to introduce to the notice of the profession, is a very simple contrivance, possessing the advantage of the double and single instruments in combination. The single stethoscope is now made in many forms, and with a variety of materials; still there exists a general preference in favour of the old-fashioned wooden instrument. At the present time, it is almost universally used by practitioners; and, no doubt, it serves, in a vast majority of cases, every purpose for correct diagnosis. But the practical question arises: Why is the single instrument so generally employed, instead of the double stethoscope? The preference, however, appears to me capable of very ready explanation. The double stethoscope, in the form in which it has hitherto been presented to the profession, since its introduction by the late Dr. Leared, is a somewhat costly instrument, and certainly less portable than the ordinary wooden tube. Few medical men are inclined to carry two forms of the same instrument, especially when one has been used habitually and successfully for many years. Moreover, the introduction of the ear plugs of the binaural stethoscope into the auditory canal sometimes causes uneasiness and discomfort, and this is frequently observed when they are supported in position by an elastic band. The external meatus is of very variable capacity in different individuals, and this important fact is often overlooked. It is essential that the plugs be perfectly adapted to the size of the canal: for, when they are too large, they cannot be retained; and, when too small, they occasion unpleasant sensations and friction-sounds in the ears. These inconveniences, however, are only temporary, and can be readily overcome by frequent practice with a well selected instrument.

The double stethoscope presents many special advantages in the physical examination of the chest. Two ears are certainly better than one for discriminating sounds, just as two eyes are better than one for purposes of vision. It is often important, for the sake of accurate diagnosis, to hear sounds emanating from a region of the chest with two ears simultaneously; and the value of the binaural stethoscope is very evident in distinguishing obscure and feeble sounds, and also in defining the precise seat of their greatest intensity. The double stethoscope is certainly the best instrument for the student. It is a good plan to commence the study of auscultation with both ears, for this renders a practical acquaintance with the details more easy. The auditory power is very variable among different individuals, especially an acuteness of hearing for recognising low and feeble sounds; and experience proves that this power of ready discrimination is far more effectively cultivated with two ears than with one. By the same means, too, the faculty can always be improved and sharpened; and, with those who have long confined themselves to the use of the single instrument, and who have hitherto had no confidence in the binaural, it will be a great help to conduct an examination by the aid of both instruments alternately. A comparison between the auditory impressions can be thus readily obtained, the old prejudice will soon be dissipated, and the great advantage of using both ears fully recognised. I have often heard my friends remark, that "they do not like the double stethoscope"; but this dislike has been generally associated with no real effort to learn its great practical value. It is admitted by all accomplished auscultators to possess many advantages; and I am bold enough to express the opinion that it will, before long, take the place now occupied by the old-fashioned tube.

The "convertible stethoscope" is a very simple arrangement for promoting the practical study of auscultation with both the single and the double instrument. It consists of a flat ear-piece; a shaft, nine inches in length, separable into two parts; and a flexible tube, with perforated wooden ear-plugs. These separate parts are all adapted to each other by the same simple joint; so that, by fitting them together in different combinations, four stethoscopes are produced.



1. An ordinary short stethoscope (Fig. 2), which is especially serviceable for the dorsal examination of patients confined to bed.

2. A long single stethoscope, adapted for subclavicular auscultation (Fig. 1). This form of instrument is often very useful in practice; for, by its length, the head is kept away from the face of the patient, and it also prevents uncomfortable stooping over the bed.

3. A double stethoscope (Fig. 3). The shaft of the short single tube completes the instrument. The ear-plugs are retained in position, without pressure, by adapting them to the size of the external auditory canal, and not by fixing them in the ears, as in the ordinary binaural, by means of an elastic band attached to the ear-tubes. This method removes at once some of the most common objections raised against the instrument. It prevents the uneasy sensation of pressure in the meatus, and also the friction-sounds which are often so perplexing to the student. The ear-plugs, moreover, are made in several sizes, to suit the varying capacity of the canal; and this is a little practical matter very necessary to remember in selecting an instrument. This will be found a very handy form of stethoscope. The chest-sounds can be examined with both ears, and then again with either ear alternately, by simply compressing the elastic tubes between the finger and thumb; in this way, the single and double auditory impressions may be conveniently compared and studied.

4. A double stethoscope, with an auxiliary cranial conductor. The conductor is formed by placing the end of the long shaft between the teeth, or on the forehead. In the latter method, the ear-piece is fixed on the shaft, for the purpose of increasing the area of the conducting surface. (Figs. 4, 5.)

The value of this additional channel for the purposes of auscultation can be very readily estimated by experiment. I have employed it for many months; and, it is my opinion, that the sonorous continuity of the cranial bones and auditory nerves may be utilised, as an auxiliary channel, during many kinds of physical examination. It gives a re-

markable clearness and distinctness to the auditory impressions; it assists in the definition of many feeble sounds; and it is particularly useful in the diagnosis of cardiac disease. The utilisation of this channel to increase the auditory impression, is theoretically correct. It is a well-known fact that vibrations, thus conveyed, not only produce an effect independently of the tympanic apparatus, but also that they appear to become intensified by an obstruction to the transmission of sound-waves through the middle ear, caused either by aural disease or by intentional plugging of the meatus. Now, when the double stethoscope is used in conjunction with the auxiliary conductor, the ears are in the most favourable condition for the reception of sonorous impressions in

Fig. 4.

this direction, as the canals are artificially plugged by the instrument itself. The activity of the tympanic apparatus, however, is not interrupted by this condition; for, when vibrations are transmitted through both routes at the moment, they react favourably upon each other; and the artificial obstruction of the canals, while increasing the direct cranial conduction, also intensifies the whole auditory impression. There may be considerable individual differences as to the susceptibility of the labyrinth for feeble vibrations, excited directly through the skull, and these variations may be detected without any apparent aural defect; still instances, in which persons of normal hearing power find a difficulty in appreciating auxiliary conduction, will be extremely rare,

Fig. 5.

and will always be removable by a little trouble and practice. The method of utilising the sonorous continuity of the skull and the auditory nerves, will prove a valuable aid to any who labour under unilateral tympanic disease. Sound, transmitted through the conducting apparatus of the middle ear, produces a greater effect upon the organ than when conveyed through any other medium; still, when the tympanic apparatus is injured, the vibrations of a solid body, in contact with the cranium, are heard distinctly louder on the injured side. This effect, which is constantly observed in chronic aural affections uncomplicated with disease of the nervous structures, is caused by the repeated reflections of the waves of sound in their outward passage from the tympanum towards the meatus. The auxiliary conductor will thus form a very serviceable addition to the double stethoscope, for those auscultators who are unfortunately injured in the conducting apparatus of one ear. Under this condition, the ordinary channel of sound is obstructed, still the vibrations are not lost, but are utilised by direct transmission to the auditory nerve; and, in this way, they materially intensify the sensation received by the sound organ.

5. The convertible stethoscope is capable of another modification. It can be used as a differential stethoscope, by substituting two elastic chest-tubes for the single chest-piece. The double tube, introduced by Dr. Scott Alison some years since, is now used by many experienced auscultators in the diagnosis of cardiac disease. By its aid, sounds proceeding from two distant parts can be conveniently distinguished and examined, and a comparison obtained between any two points on the surface of the chest. Sounds are thus distinguished and separated by the ear, their position defined, and their relation to each other determined, both as regards character and time. It is a good plan to examine both points of the chest simultaneously, and then alternately; and also to obtain single and double impressions of the different sounds. For all the purposes of accurate definition and refined auscultation, the differential stethoscope is a very valuable instrument; but its application requires careful study.

In conclusion, I beg to express the hope that the convertible stethoscope may prove of value to some of my professional brethren. It is a very portable instrument, of few separate pieces, although it admits of many combinations; and I trust it will help the hardly pressed student of the present day to educate his ears, and obtain a practical knowledge of one of the most useful branches of our science. The instrument is made by Messrs. Arnold and Sons, of West Smithfield, and is supplied in a small case, so that it can be carried in the pocket very conveniently, and with more safety than the ordinary stethoscope.

IS SALICYLIC ACID A SPECIFIC FOR ACUTE RHEUMATISM?

By P. W. LATHAM, M.D., F.R.C.P.,
Downing Professor of Medicine in the University of Cambridge; Physician to Addenbrooke's Hospital.

In the courteous replies to the above question given by Dr. Strange and Dr. Lewis Shapter in the JOURNAL for December 24th, some doubt is expressed as to the meaning that should be attached to the word "specific". In my short note of December 10th, I certainly did not refer to the acid as "an infallible remedy for the cure of a disease", but limited its curative powers by the statement, that I regarded it as much a specific for acute rheumatism as quinine is for ague. There are remedies, says Stillé, "which may with propriety be called specifics, because each one presents peculiarities depending upon its essential nature or upon its association with an element possessed of specific powers. The most important article of this class is iron." (Stillé's *Therapeutics*, 4th edition, vol. i, page 448.) He then mentions cinchona and willow barks, saying, that the specific properties of the latter are "very feeble and, indeed, according to some, do not exist at all." In this sense I used the term "specific" in my question. Dr. Strange applies the same meaning to it, and answers the question in the affirmative.

Whilst, however, by no means maintaining that salicylic acid is an "infallible remedy", I regard it as something more than an "antidote". In my opinion it acts, not by neutralising or eliminating the poison (? lactic acid) which gives rise to the symptoms of rheumatic fever, but by actually preventing the excessive formation of the poison. In a communication which I made to the Cambridge Medical Society in November 1880, I forestalled the inquiry with which Dr. Shapter closes his remarks; for I then endeavoured to show that quinine and salicylic acid differ very essentially in their action: the first lowering temperature by simply impeding the carrying of ozone from the lungs to the tissues by the red blood-corpuscles—as in Binz's experiments with ozonised turpentine and guaiacum—and passing out of the system almost entirely unchanged; the other undergoing chemical change in the body, and being eliminated, in part at least, as salicyluric acid. That this is only part of the change is shown by the fact that, when benzoic acid (which undergoes a similar change in the system into hippuric acid) is administered, it produces little or no effect. Salicylic acid, however, can be readily oxidised into formic and carbonic acids, which is not the case with benzoic acid; and this may help to explain the difference in their action.

The theory which I hold with regard to the pathology of acute rheumatism resolves itself into the following points.

1. A nervous centre exists, which controls the nutrition of the muscular and other tissues, and which has been termed the "inhibitory chemical centre".

2. The action of cold, on some individuals, by lowering the power of this centre, modifies the nutrition of the tissues, and leads to the excessive formation of lactic acid and other products.

3. The presence of lactic acid in abnormal amount in the blood produces functional change in the medulla oblongata and the spinal cord (? posterior columns) when brought into contact with them, and developes the local symptoms of acute rheumatism in a manner similar to the production of the symptoms of locomotor ataxy, with its arthropathies, by organic change.

4. If the portion of the medulla oblongata in the neighbourhood of the origin of the vagus is a point of minimum energy, either hereditary or acquired, then, according to the particular fibres involved, may cardiac, pulmonary, or pleuritic complications be developed during an attack of rheumatism.

5. Salicylic acid combines with the antecedents of lactic acid, and so prevents its formation.

6. If the administration of the remedy be suspended after the symptoms are relieved, and before the "inhibitory chemical centre" has recovered its tone, a relapse will certainly take place.

Such a theory explains, moreover, the necessity for giving at the commencement, at least, of the treatment, as much of the remedy as the system will bear.

I hope before long to be able to prove, more conclusively than I did a year ago, the truth of these propositions, and to indicate more accurately the chemical changes which take place in the nutrition and disintegration of muscular tissue. The object of my note, however, of December 10th, was not to raise a discussion on these points, but to suggest that the effects of the true and the artificial salicylic acids are not identical; and that where the head-symptoms have been alarming, or much gastric or intestinal irritation has been produced, or where the remedy has failed, after the administration of a sufficiently large dose, to give relief, these results were due, not to the true acid, but to that artificially prepared, and possibly more or less contaminated with carbolic acid, paraoxybenzoic acid, or other impurities.

CLINICAL MEMORANDA.

NERVE-STRETCHING IN ACUTE TETANUS.

As the real value of nerve-stretching in acute tetanus has yet to be proved, I would remark that a correct estimate cannot be arrived at from such cases as that referred to by Mr. Henry E. Clark in the JOURNAL of January 7th, 1882.

The medicinal treatment adopted by Mr. Clark was too active to permit any conclusion in favour of the operation. Calabar bean has more than once been credited with success in tetanus, and this drug was given in Mr. Clark's case immediately after the operation, in doses of 20 minims of the fluid-extract every twenty minutes, and continued in the same dose every hour through the two following days. Subsequently, morphia suppositories in half-grain doses and chloral-hydrate were administered. It should, besides, be noted that Mr. Clark's case was one which by many would be considered chronic from beginning to end; chronic in its mode of onset, in the mildness of the spasms, and in the duration of the disease. It is true that, after an interval which followed the operation, the spasms were frequent and the temperature rose to 103°. But the acuteness of tetanus is in proportion to the frequency, the violence, and the prolongation of the spasms, not to the frequency of slight spasms; whilst febrile excitement is no essential part of the disease. Dr. O'Beirne (as Mr. Poland repeats) saw 200 cases of tetanus without one being accompanied by fever.

Mr. Clark's patient, however, had only one "severe and prolonged spasm" throughout the attack, and that was just after the nerve-stretching. It was when this occurred that the Calabar bean treatment was commenced, and, after the administration of this drug, there was a cessation of all spasms for twenty hours. Further, there is the objection to Mr. Clark's case which was raised against Dr. Eben Watson's and my own, viz., that all the nerves of the part affected were not derived from the trunk stretched; and the branch which came from another source was not divided.

If I rightly understand Mr. Clark, he now puts forward his case as the first successful one in Great Britain of acute tetanus cured by nerve-stretching. But in his origtnal paper he states: "I am inclined to take a very moderate view of the part taken by the operation in the cure of the patient. . . . Thereafter" (that is, after the commencement of Calabar bean and the lull in the symptoms) "the course of the disease was much the same as if no operation had been performed, and the recovery cannot therefore fairly be attributed to it."

HENRY MORRIS, London.

INTESTINAL STRICTURE.

THE following case well exemplifies the obstacles which the practitioner has to surmount in arriving at a correct diagnosis in cases of intestinal obstruction.

J. M., aged 38, a pale emaciated man, first came under my notice in May 1880, when he was admitted into the St. Marylebone Workhouse Infirmary, suffering from great distension of the abdominal walls. He complained of very little pain, beyond the inconvenience which the considerable distension caused, and at times he had a feeling of sickness with occasional vomiting. The vomit consisted of the gastric contents very much tinged with bile. He defecated every third or fourth day, and then with great difficulty, the evacuations being thin and watery and occasionally coloured slightly with blood, after which he said he always felt better. Abnormal resonance was obtained all over the abdominal area, but no dulness anywhere, neither could any tumour be discovered by palpation. On digital examination of the rectum, the parts were found healthy and normal. Thinking, from the absence of any other symptoms, that a fæcal accumulation existed somewhere, he was given aperients, and an enema of soft soap was administered with very good effect, as he gradually got better and took his discharge some two months afterwards. At this time the distension had almost completely disappeared. In February 1881 he again put in an appearance suffering from the same complaint. The same remedies were again resorted to, but with no beneficial result, although the bowels acted every third or fourth day. It was then thought that there might be some atrophic changes taking place in the muscular walls of the bowels, and tonic medicines were given him, and the following was given thrice daily for some time. ℞ Tinct. ferri perchlor. ♏xv; liq. strychniæ ♏iv; sp. th. chlor. ♏x; aquam ad ℥i. For a short period he made a slight improvement, but it was only temporary. After he had been taking this medicine for about two months I found him one morning in a "tetanic convulsion", which in every way resembled that which would result from strychnia poisoning. From this he never rallied, dying four days after. The *post mortem* revealed a very rare and abnormal condition of the lower part of the sigmoid flexure of colon.

The contracted portion of intestinal canal was so small, that a small probe could only be just passed through it. The surrounding tissues, as well as the intestinal walls, were perfectly healthy, exhibiting no signs of old or recent inflammation, neither were they thickened by any new growth; in fact, there were no apparent signs of any disease beyond the abnormal contraction. The conclusion I arrived at was that it was congenital.

H. BOYLE RUNNALLS, Leavesden Asylum.

THERAPEUTIC MEMORANDA.

THE TREATMENT OF PSORIASIS BY NAPHTHOL-OINTMENT.

A SHORT time since Professor Kaposi of Vienna advocated the advantages of a new remedy in the treatment of skin-diseases, namely, the so-called beta-naphthol. To quote from an abstract from his paper published in the *Medical Times and Gazette* of June 4th, he states that, "in psoriasis a ten per cent. ointment produces the same effect as a chrysarobin (chrysophanic acid) ointment without the discoloration caused by this." Desirous of testing this assertion, I procured some beta-naphthol, and began using it in an extensively spread and well marked case of psoriasis occurring in a boy aged 12, who had been affected with the disease continuously for eleven months.

On September 22nd, I commenced with the use of an ointment of about the strength recommended by Dr. Kaposi, namely a 12 per cent. ointment, but finding that, by October 1st, it had by no means produced the effect that a 12 per cent. chrysophanic acid ointment would have by that time produced, I doubled the strength of the ointment over the tougher parts of the skin, using a 25 per cent. ointment to his back, and a ten per cent. ointment to the other parts. On October 7th, he had scarcely improved at all. I therefore now employed to his back a 35 per cent. ointment, and finding this tolerated, I, on October 8th, used a 50 per cent. ointment; the 10 per cent. ointment being continued as before to the other parts. On October 15th, I found that on some patches, or rather on some parts of some of the patches, the ointment had produced vesication; the other parts of the same patches, and the other patches, exhibited a brighter red colour than is natural to the disease, but were otherwise unchanged. The boy was extremely sore over the various places where the ointment had blistered him. I therefore stopped the use of naphthol-ointment, and ordered a weak acetate of lead ointment.

On October 22nd, the blisters had healed; and where the blisters had been, (but only there) the disease had disappeared; in some places absolutely so, in others nearly so. But as to the eruption generally, it was not perceptibly better than before treatment was commenced. Now this was after a three weeks' course of beta-naphthol ointment, and a good course of it, for the ointment was well rubbed in three times a day throughout the use of it. The boy was under my care as a hospital in-patient, and I can speak securely as to the thorough application of the ointment. On October 22nd, all irritation from the use of the naphthol having subsided, I now made use of a 15 per cent. chrysophanic acid ointment. Within a week after this, a large proportion of the eruption had disappeared; within another week, the greater portion of the eruption had vanished, leaving only two exceptionally obstinate patches on the hips; within a further fortnight these also had completely gone away, leaving him absolutely free from eruption.

I am therefore unable to support the observations of the able Viennese professor. Not only do I find that beta-naphthol ointment is not so efficacious as chrysophanic acid ointment, in psoriasis, but it is also a more inconvenient remedy, regarding its incidental effects. Used of a moderate strength, it appears to me to exercise no appreciable effect on psoriasis; and when employed of such strength as to achieve some result, it only does so at the expense of considerable pain, and then only in a very patchy and unsatisfactory manner. It is true that it does not stain the linen, but then it does worse, it blisters the skin.

BALMANNO SQUIRE, Senior Surgeon to the British Hospital for Diseases of the Skin.

24, Weymouth Street, Portland Place, 12th December, 1881.

CARBOLIC ACID IN HÆMORRHOIDS.

IN the report in the JOURNAL of December 31, of the proceedings of the Surgical Society of Ireland on December 9th, Dr. F. W. Warren alludes to the effect of carbolic acid on hæmorrhoids. It is successful, but not without risk to the patient. About three years ago I also had a case similar to that described by Dr. Mapother. I injected, with glacial carbolic acid, a small nævus on the cheek of a child, which it effectually cured; but the operation proved so nearly instantaneously fatal, that I should not advocate its use again, unless the circulation was first arrested in the tumour. I have found the carbolic acid glycerine of the British Pharmacopœia, diluted with four times its weight of glycerine, a most useful application in small-pox. It should be applied as soon as the pustules begin to fill, and be continued until they desquamate. Such treatment, I think, not alone renders the patient less repulsive to those about him or her, but lessens, to a great extent, the pitting resulting from the disease. CHAS. W. THORP, F.R.C.S.I.

SURGICAL MEMORANDA.

CONTRACTION OF PALMAR AND PLANTAR FASCIÆ.

I THANK Mr. Reeves for his notice of my paper on Dupuytren's contraction, and shall first deal briefly with my own case in answer to his questions. The affection is neither hereditary with me, nor do any members of my family show any disposition to it. The little finger in my left hand is the only one deformed, and was traumatic from the beginning. I received a stab with a knife, after which the fascia began to thicken; and in a year, when I was 17, it reached its maximum, and remains like a butcher's hook.

The little finger in my right hand began to contract about fourteen years ago; eighteen months after that the ring finger commenced, and about four years ago the middle. Before the last began, the tip of my little finger was firmly imbedded in the palm of my hand, and the ring finger rested on its nail; both fingers were not only useless but a constant source of annoyance, and I often wished they were off. Since Mr. Adams operated twenty-two months ago, my fingers are as useful as before the contraction. The tip of the little finger, when extended, is about three inches and a half from the palm; that of the ring finger four inches. The operation, as I formerly remarked, was not completed on account of rupture of the integument, as well as on account of some serious symptoms arising from the long continued inhalation of ether. I have met with scores of cases among men, but not one pure form among women. Occasionally I have seen a woman with contracted fingers, but these always showed rheumatic and gouty conditions of joints and tendons. I am quite ready to admit that others have met with cases, and accept Mr. Reeves' experience as settling the question; still, comparatively speaking, it must be rare in women.

I find Mr. Reeves speaks of five causes; I would confine myself to two—injury and spontaneous hyperplasis. In either case I see no signs of true inflammatory action, and as I gave my reasons for such belief, I need not repeat them. May I ask Mr. Reeves what signs of inflammation he has observed?

Hyperplasis, that is, the mere increase of substance, by addition to a structure already existing of matter identical to itself, is not inflammation; and this is what takes place in Dupuytren's contracted fasciæ. This is certainly not like any gouty or rheumatic action; it is neurotic, but every movement in the living organism is neurotic and, *ergo*, we need not classify this one under that head specially. I discard the theory that occupation has anything to do with the proximate cause, although I grant it may now and again prove the exciting one. Take the occupations named by Mr. Reeves—coachmen and pianists. How many hundreds of thousands of these are there? I ask Mr. Reeves and Mr. Adams how many cases have these two occupations furnished them, and if doctors and bankers and parsons have not sought their aid quite as often as the classes named by Mr. Reeves. If occupation could produce Dupuytren's contraction, most certainly we should find it very common among cavalry soldiers, whose left hands are constantly subjected to interrupted pressure from the reins, and whose right hands are equally tried by the sword-hilt. Army cavalry surgeons can surely enlighten us on this point. I have ridden and driven for forty years, and it is my right hand that has become contracted; the fingers in my left, barring the hooked one, are as straight and as supple as ever. I offer no apology for asking space for this note, as I know that the whole question is little understood by the profession; and many men are suffering a great deal of inconvenience on account of the indifference which this surgical defect has met with at the hands of even the greatest surgeons of the day.

A. S. MYRTLE, M.D., Harrogate.

THE SPRUCE SHAVING-SPLINT, IN CASES OF FRACTURED ARM AND HUMERUS.

IN these progressive times, when comfort is the order of the day, I have much pleasure in bringing under notice the application of the spruce shaving-splint, in cases of fractured arm and humerus.

In January 1881, I had occasion, in a case of fractured humerus near the centre of the shaft, to apply this splint for the first time, and with most excellent results. Since that date, I have used it in several cases of fractured arm as well, and consider it superior to any splint I have had occasion to use in hospital or private practice. It possesses several qualities which recommend it to the profession: 1. Lightness; 2. Pliability, by which it can be moulded to the arm, so as to hug the parts as closely as necessary, and that without loss of time, in the construction of such appliances; 3. In fracture of the arm, complicated with injury of the elbow-joint, it will flex round the joint from the posterior aspect of the arm, and thus form an admirable support to the parts; 4. As the case approaches recovery, shaving by shaving can be removed, as necessary, thus making the dressing as light and convenient as possible; 5. In cases of compound fracture, in which there may be excessive discharges, the splint, both inside and outside, can always be kept clean by the addition or removal of a shaving, as the case may be, without necessitating the change of the entire splint; 6. In disease of the wrist-joint, in which rest and quiet are important factors as to treatment, this splint can be so flexed as to form a trough, in which the parts can be supported most conveniently. Of the various forms of timber, spruce is the only fibre known which possesses the requisite pliability and flexibility to undergo the fine shaving process of manufacture, which has been tested thoroughly in the construction of "match-boxes". From the foregoing facts as to the "spruce shaving-splint," we can always have at hand a light, inexpensive, pliable, and ready appliance, which can be moulded at once, cut with a scissors, and thus reduced without delay; and one which, in time, will be found of great service, both in hospital and private practice. J. A. GRANT, F.R.C.S.Ed., M.R.C.S.Lond., etc.,

Ottawa, Canada.

THERE have been some internal disturbances at the Hospital Saint-André at Bordeaux. A first year's house-surgeon having been dismissed by the authorities, his colleagues took his part, and not only all the house-surgeons, but all the students of the hospital, sent in their resignation. The medico-chirurgical commissioners of the hospital, very much annoyed by these occurrences, interfered successfully. The collective resignation of the pupils was withdrawn; and the authorities, yielding to the representations of the medico-chirurgical commission, did not persist in the dismissal. The house-surgeon was suspended for one month only.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

MIDDLESEX HOSPITAL.

CASE OF PNEUMONIA TREATED BY COLD BATHS: EARLY DEFERVESCENCE.

(Under the care of Dr. FINLAY.)

JOHN D., aged 17, by occupation an errand-boy, was admitted on July 22nd, 1881. His family history presented no points of importance. With regard to personal history, it was noted that he had had measles at the age of three, and been troubled with sore eyelids ever since; and that he had suffered from an abscess on the left knee when seven years old. It was stated that a fortnight before admission he complained of a slight pain in the left lumbar region, which passed up the chest to the left shoulder, but was not constant. He continued at his work up to the evening before admission. On July 22nd, about 6 A.M., he was taken with severe pain of a "catching" kind in the left side of his chest, for which he was brought to the hospital. On the way, he had a severe rigor. On admission, he was described as a strumous-looking lad with sallow complexion, complaining of headache, and of pain on deep inspiration in the left side of the chest. The temperature was 101°; the pulse 102, full and bounding. The respirations were 28. The tongue was moist, and slightly furred. The skin was hot and pungent. The thorax was well formed, and resonance and breath-sounds were normal; the heart-sounds were also normal, as well as the abdominal organs.

At 8 P.M., his temperature was found to have reached 105°; and, as this was the one outstanding symptom in the case calling for active treatment, he was put into a bath, at a temperature of 80°, for ten minutes. In an hour, his temperature had fallen to 103.4°; but at 10 it had risen to 104°, and at 11 to 105°; when the bath, at a temperature of 75°, was again used for ten minutes. In half-an-hour, his temperature had fallen to 103°.

July 23rd. At 1 A.M., his temperature was 103.4°; pulse 120; respirations 38. He was then given ten grains of quinine, which he immediately vomited. At 5 A.M., the temperature was 104.2°; at 8 it had fallen to 101.4°, and two hours later it stood at 105°. On examining the chest then, a patch of impaired resonance, about the size of the palm, was found about the middle of the left lung posteriorly, over which were heard tubular breathing, bronchophony, and some fine crepitation. His urine had a specific gravity of 1027, and was acid and free from albumen; the chlorides were apparently in normal quantity. He now commenced to expectorate faintly rusty sputa. At 1 P.M., the temperature being 105.2°, he was for the third time put into the bath, and allowed to remain for ten minutes. An iced-water coil was also applied to the left side of the chest, and he was ordered three ounces of brandy daily, and a mixture containing ether and carbonate of ammonia. The bath reduced his temperature by three degrees; but by 6 P.M. it had risen again to 104.4, falling by 9 P.M. to 102.2°. In the evening, the pain in the side was much less; but the cheeks were flushed, and the tongue dry and brownish.

July 24th. The tongue was this morning moister, and the cheeks were less flushed. The temperature was 102.6°. At 8 P.M., he was sleeping comfortably; the temperature being 102.6°, and the respirations 32.

July 25th. At 10 A.M., the temperature was 102°; pulse 100; respirations 32. The urine was found to contain a trace of albumen, and the chlorides were considerably diminished. In the evening (6 P.M.), the temperature dropped to 98.6°, and at midnight to 97.2°.

The next morning (27th) his temperature was 99°, respirations 24, pulse 88. The tongue was clean; no moist sounds were audible over the affected patch; the breath-sounds were feeble, and slightly tubular; there was less dulness on percussion; no pain was complained of now. In the evening, the pulse and temperature remained normal, the respirations being 24.

The following day's note shows that the pneumonic patch had all but cleared, there being no crepitation, and but slightly tubular breathing heard; the percussion resonance was almost clear, and the sputa muco-purulent. On two evenings after this the temperature rose, apparently in connection with an attack of earache and conjunctivitis; otherwise, it remained normal or subnormal. The trace of albumen disappeared from the urine n the 30th. Convalescence was completely established by the 10th of August; and the patient was sent to a convalescent home in the end of the month.

REMARKS BY DR. FINLAY.—The use of the cold bath in the pyrexia of pneumonia has been, so far as I am aware, but little, if at all, practised in this country; yet, if we are to believe what we are told by Juergensen, it ought to be looked upon as our sheet-anchor. In his instructive article on this disease in Ziemssen's *Cyclopædia of the Practice of Medicine*, he advances the opinion that the danger to life results from failure of the heart under the additional strain thrown upon the right ventricle, such additional strain being primarily due to the increased resistance in the pulmonary circulation caused by the exudation deposited in the lung. In addition to the increased labour on the part of the heart called forth to overcome this resistance, there is the influence of the pyrexia itself in increasing the pulse-rate and inducing degeneration of the muscular substance. The control of the fever, accordingly, becomes a matter of paramount importance; and this control, he states, may be safely and quickly secured by bathing.

The case above narrated seems one in point. Although none of the more definitive signs of pneumonia were present at first, there could be no doubt as to the pyrexia, and the desirability of reducing it. Hence the use of the bath. The pyrexia lasted exactly three days and a half, calculating from the rigor; and, while defervescence occurs occasionally as early as this in cases otherwise treated, or not treated at all, its occurrence so early here is sufficiently noteworthy to raise the question whether it might not have been due to the use of the bath. In 721 cases tabulated by Juergensen, the defervescence occurred on or before the fourth day in 12.6 per cent. only; and of 81 cases referred to by Dr. Waters of Liverpool, in a clinical lecture on pneumonia published in the BRITISH MEDICAL JOURNAL of 19th November last, no case was convalescent before the end of the sixth day of the disease. Of course, no conclusions of any value can be drawn from a single case, but even single cases may be suggestive; and, looking to the enormous benefit derived from the use of the cold bath in the hyperpyrexia of cerebral rheumatism, and in enteric fever, it seems only reasonable to expect a similar result in the high temperature of some cases of pneumonia.

WESTMINSTER HOSPITAL.

CASE OF TUMOR CEREBRI: DEATH: NECROPSY.

(Under the care of Dr. FINCHAM.)

[For the notes of this case we are indebted to Dr. WM. GRISTOCK, late Medical Registrar.]

THE patient, F. M., aged 35, a Custom-house officer, was admitted on January 11th, 1881. Inquiries as to his family history elicited nothing of importance. He had never met with any injury of the head, and there was no history of syphilis. He had enjoyed good health until two months before admission, when he gradually began to notice an inability to button his shirt-collar, and some weakness of the right hand, so that things often dropped when he tried to carry them. Sensation was unaltered, and his chief trouble had been the difficulty in holding small things. Eleven days before admission, when on his way to work, he had a "fit", but recovered so far as to be able to walk home; speech was impaired, the right hand had become weaker than the left, and the right side of face twitched. From his manner, his wife thought he had been drinking. He went to the National Epileptic Hospital next day; while there he had another fit, but was able to walk home. He kept his bed for three days after this, but was quite conscious, and able to talk. The right arm and the right side of the face twitched. On January 2nd, nine days before admission, he had another fit while in bed, lasting about an hour; and on the 4th, another fit, lasting four hours, during which he was purple in the face, gnashed his teeth, and was generally convulsed. On recovering from this fit, articulation was very defective: from that time he kept his bed until his admission to the hospital. On admission, there was reported loss of sensation and power, especially on the left side. He was ordered a turpentine enema, and subsequently, on that failing, three grains of calomel.

On January 13th the patient was semicomatose; he could whisper "yes," "no," "a little," but could not be persuaded to say anything else: did not obey the written direction, "Put out your tongue", though he seemed to observe the words; directed orally, he immediately obeyed. The pupils were equal, and contracted (they were stated to have been previously unequal). The tongue was protruded to the left, and there was paralysis of the left side of the face, the lower part being much more involved than the upper. There was no discoverable optic neuritis. The right arm and leg were very weak, and he had difficulty apparently in raising the right leg from the bed. The

patellar tendon-reflex was increased, and ankle clonus was marked on both sides. He passed urine into the bed. Bowels confused. The temperature ranged from 98° to 98.6°.

On January 14th, he was more comatose; the right side was somewhat rigid, and the right leg occasionally twitched. The night before, he had had a convulsive attack, during which he breathed stertorously, and clonic spasm of the right side; at the end of the fit he vomited. In the afternoon, he was given two minims of croton-oil. After a few hours he seemed more sensible, and appeared to recognise his cousin.

On January 15th, at 3.30 A.M., the note was "much worse": at 7.30, "completely comatose". When seen at 1 P.M., he was dusky; there was great dyspnœa, and working of the alæ nasi. The respirations were sixty in the minute, and he was evidently sinking.

Post Mortem Examination (forty-five hours after death).—The body was fairly well nourished. In the lungs, the upper lobes were normal, but the lower lobes were consolidated, breaking down under the slightest pressure. The liver, spleen, and kidneys were normal.

Examination of the Brain.—The blood-vessels of the pia mater over the vertex were extremely full, and dilated with dark-blue blood. The convolutions were much flattened; the cerebral tissue was firm, except over an area about the size of a florin, which occupied the region of the left supramarginal convolution. Incisions through the corpus callosum into the lateral ventricles did not show any excess of fluid. In the corpus callosum, and towards its *right* side just in front of the posterior end of the marginal gyrus, was a hæmorrhage about the size of a bean. On the *left* side, and in the centre of the white substance, was a mass about the size of a hen's egg, spherical in shape, of the consistence of jelly, and of a dark bluish-black colour, except at the margin, where it was yellowish. Measuring from the surface, this tumour extended from the left ascending parietal, reaching backwards as far as the angular gyrus; externally, it had nearly reached the surface, being only covered by a thin layer of grey matter, but, internally, it was separated by a quarter of an inch of tissue from the posterior horn of the ventricle. On the right side was a mass of similar character and shape, but of smaller size, only attaining to that of a walnut. Its situation was analogous, as it also had the supramarginal convolution lying over against it. Externally, it was separated from the surface by an inch of tissue: internally, half an inch separated it from the ventricle. In both cases, the margins were sharply defined, and limited from the adjacent nervous tissue.

Microscopical Examination.—Sections (after hardening in Müller's fluid and alcohol) taken from the tissue lying half-way between the centre of the new growth and the normal looking cerebral tissue shows a new growth of a cellular character, and further distinguished by the size and number of its blood-vessels, by the extravasation therefrom, and by the presence of circular structures (average diameter .03 c.m.) bounded by a fibrous envelope made up of fusiform cells. The enclosed area is traversed by trabeculæ of similar construction, and the interspaces contain extravasated blood and cells, similar to those of the tumour. The vast majority of the cells of the new growth are round deeply staining bodies (diameter . 0045—. 0065 mm.) which lie in close proximity to one another, and are distributed irregularly. Some few of these bodies exhibit a feebly staining periphery which is very small relatively to the nucleus. The sections also show cells with a relatively large very feebly staining periphery, and a deeply staining nucleus (diameter of cell . 025 : of nucleus . 0085). The area of infiltration is traversed by many blood vessels which are gorged with blood, the capillaries are very numerous, extremely large and tortuous. The arteries are remarkable for the extraordinary thickness of their coats, especially the outermost, which is made up of an enormous number of concentric layers of cells. The new growth infiltrates the adjacent nervous tissue for a short distance, while towards the centre there is almost nothing but extravasated blood. (N.B. On the right side the tumour shows a thin but distinct investing fibrous sheath.) The new growth is therefore a glioma. We are indebted to Dr. Hebb, Pathologist to the Hospital, for the notes of the *post mortem* examination, and for the description of the microscopical structure.

REMARKS.—The diagnosis of this case was attended by not a little difficulty; no very definite history could be obtained at the time of admission, and the symptoms bore a great resemblance to those of some form of cerebral hæmorrhage, since he presented at that time crossed hemiplegia, combined with marked mental hebetude, and some irregular aphasia. The tumours, when viewed after death, looked extremely like blood-clot, and it was only microscopical examination which rendered their nature certain. There can be no doubt that the tumours must have existed for some considerable time before death, and the case is an instance of the amount of disturbances of relation of the cranial contents which may occur, without production of severe symptoms, when such disturbance is gradually brought about; and in this connection it is interesting to note that the tumour was "sharply defined, and limited from the adjacent nervous tissue," the nerve fibres had, therefore, been gradually displaced, and not, as in hæmorrhage, violently torn and broken up. The absence of earlier symptoms is the more remarkable, as the tumours are stated to have occupied symmetrical areas of the centrum ovale: it is generally held that such symmetrical lesions are especially liable to give rise to definite symptoms.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JANUARY 10TH, 1882.

A. W. BARCLAY, M.D., President, in the Chair.

Three Cases of Tumour arising in Skin-glands of the Dog, showing the connection between Disorder of the Secreting Structure and Function, and Cancerous Invasion of the Connective Tissue. By CHARLES CREIGHTON, M.D.—The author said that the glands in the dog's skin, which were the seat of tumour-formation in three cases, were not sweat-glands; it was only in the sole of the foot that the ordinary glomerular sweat-glands occurred in the dog. The secretion as observed within the glands in section, was sometimes a viscid mucus-like fluid, and, at other times, a compact mass of large spherical cells of yellowish-brown colour and granular substance, obviously transformed epithelial cells. The convoluted glandular tube had a wide lumen, and was distinguished, and always easily identified by the well-known coat of plain muscular fibres forming a close and uniform membrane on which the epithelial cells directly rested. Glands of the same kind occurred in man in the form of a lobulated patch of yellowish substance adhering to the under surface of the skin at the highest point of the axilla; it varied much in its extent, and was often wanting. A homologous gland, of a conglobate form, was found in the ornitho-ahynchus under the skin at the lower end of the humerus; it was erroneously described by Meckel as a lymphatic gland. The glandular stratum of the human axilla might extend towards the pectoral region, and become the seat of a tumour. Two of the tumours from the dog's skin exemplified the infiltration of epithelial glandular products into the spaces of the connective tissue around the glands. In the appearances described and figured from these two cases, the author found support for the doctrine of extraglandular accumulation of solid or cellular products of the secretion, as already put forward by him for the breast. The origin of the tumours was to be referred not to a disorder of glandular structures, but to a disorder of glandular structure and function. The third tumour was a true cancer (scirrhus) proceeding from the same glands in the skin of the dog's back; a coil of intact glandular tube, as figured, was encountered here and there in the sections of the tumour. The cancerous element in the third tumour consisted in the extension of disease to the connective tissue; the connective tissue corpuscles were infected by epithelial cells, in such a manner that they assumed the characters of the epithelial cells from which the infecting influence issued. The epithelial cells exercised that infecting influence both in their normal position on the walls of the glandular tube, in which case the rows of cells next to the basement-membrane were the first to transform themselves into the likeness of epithelium, and the same infecting influence might be exercised by those glandular cells that were carried into the spaces of the connective tissue; in which case the infection did not spread from the margin of the glandular tube outwards; but it broke out at independent points in the stroma. The transformation of connective tissue corpuscles into the epithelial cells was described and figured in detail. A certain condition of the stroma, most usually occurring after middle life, was supposed to be favourable to the establishment of cancerous infection in an epithelial organ or part in which there had been disorder of function.

Mr. BUTLIN said that he had found it very difficult to follow Dr. Creighton's arguments in his paper. To do so, it would be necessary to study it carefully for a considerable time, with the assistance of the author. Some years ago, the view was brought before the Society, that new epithelium could not be produced from previously existing epithelium, but originated in the cells of the part. He was opposed to the opinion that epithelial tissue was formed from connective tissue corpuscles, or connective tissue corpuscles from epithelium. But now it was stated that new epithelium was formed from old. It might be that epithelium was formed in different ways, just as bone was formed sometimes from membrane, sometimes from cartilage.—Dr. THIN had understood Dr. Creighton to say that an accumulation of cells in the glands of the skin sometimes found its way into the connective tissue; and then that the cells, possessing the qualities of the gland, inoculated the connective tissue corpuscles. He agreed with Mr. Butlin in objecting to the view that epithelium might become changed into con-

nective tissue corpuscles, and *vice versâ;* but great difficulty attended the subject, in consequence of the conflicting views which prevailed regarding the growth of cells. That which one observer regarded as indicating endogenous formation of cells, another interpreted as broken-down cells invaded by leucocytes. The term connective tissue cell was a vague one; it was originally applied to the spaces in the tissue, but now to the nuclei lying on the bundles. It was rarely possible to see a real connective tissue cell.—Mr. HARRISON CRIPPS said that, in adenoid tumour of the rectum, cells were found outside the acini, which showed a transition from lymphoid to epithelial as they approached the surface. He believed that leucocytes and epithelial cells were the same thing in different stages. Their character was often indicated by their position; but sometimes this mode of distinction failed.—Dr. CREIGHTON had intended to show that the products of secretion of the skin-glands were not always fluid, but sometimes solid, and might escape into the submucous tissue. This was an important point for investigation; for, if it were true, it ought to be admitted into pathology. Two of the tumours which he had described were largely made up of such matter. This was infiltration; but not in the sense in which the term cancerous infiltration was used. The doctrine of the epithelial origin of cancer was not new; it was held as long ago as 1855 by Virchow, and was opposed by Remak. He wanted to bring out the connection between glandular function and structure, and the formation of epithelium. The solid products of glands were carried out, and had a specific action; this was what took place in cancerous infiltration. Whenever epithelium was formed from connective tissue, it was a departure from the ordinary course. He was pleased to find himself in agreement with Mr. Cripps as to the origin of the cells in cancer of the rectum.

EPIDEMIOLOGICAL SOCIETY.

WEDNESDAY, DECEMBER 7TH, 1881.

GEORGE BUCHANAN, M.D., President, in the Chair.

Filaria Sanguinis Hominis.—Dr. T. SPENCER COBBOLD read a paper by Dr. Wykeham Myers on Filaria Sanguinis Hominis in South Formosa. In it the author gave full details of observations of patients under his care, suffering from filarial disease, and of experiments concerning the effect of different antiseptics and parasiticides on the worms, the results being in the main confirmatory of those of Manson, in China. The periodic appearance and disappearance of the filarial embryos in the blood was especially dwelt upon; and the author was inclined to ascribe their disappearance to a solution and destruction of the parasites, rather than to their retirement into one of the internal organs and resting there during the day. Experiments on monkeys, made to drink water containing mosquitos which had previously ingested filariæ, gave negative results.

Filaria and other Parasites in Relation to Epidemics and Epizootics.—After referring to the labours of Manson, Lewis, Bancroft, Sonsino and others, which were of great importance in their relation to the public health, Dr. COBBOLD alluded to some researches of his own on the parasites infesting the elephant and ostrich, and stated that the facts set forth in his paper led to the conclusion that flukes were not the only entozoa capable of fatally victimising large and valuable animals. The paper by Dr. Myers was valuable as a confirmation by an independent and competent observer of the results obtained by Manson (and first communicated by Dr. Cobbold to the Quekett Microscopical Club, on February 27th, 1880), and of the observations subsequently made by Dr. Stephen Mackenzie, and communicated to the Pathological Society during this year. In consequence of these results, some of the scepticism expressed in relation to filarial questions had already disappeared, and sooner or later the important part played by these parasites in the production of disease would certainly be acknowledged. There was no longer any foundation for the continued incredulity of some observers here and abroad in reference to the question. The remarkable periodic appearance and disappearance of the parasites in the blood, and the adaptation of this cycle to the habits of the mosquito, could not be looked upon as a mere accident. In reference to Dr. Myers' hypothesis—that there was a diurnal solution of the micro-filariæ that escaped the clutches of the mosquito, Dr. Cobbold saw nothing impossible in the disintegration and absorption of the minute dead worms. On the other hand, he thought that such a process of absorption could hardly overtake in a few hours the residual millions left by the mosquitoes. He believed that the micro-filariæ, under ordinary circumstances, steadily increased in numbers when no insects interfered; and that their maximum numerical expression was in strict correlation with the reproductive vigour of the parent worm or worms, which might live for many years. Dr. Cobbold next dealt with several prevalent misconceptions and mis-statements respecting filariæ, referring not merely to matters of inference, but to questions of absolute fact. The statement made by a writer in a recent number of one of the medical journals, that "the young filariæ develope in the mosquito and sexually mature worms," was incorrect. Throughout the whole range of helminthology, nothing of the sort had been recorded; whether we dealt with cyclops as the bearer of the young guinea-worms, with gammarus as the host of a trout's echinorhynchus larva, with melolontha as the bearer of the hog's echinorhynchus, with trichodectes as the bearer of a canine tapeworm, or with molluscs as the hosts of cercariæ—the result was invariably the same. Sexual maturity could not be arrived at prior to the passage of the parasite into the body of its ultimate host. After repudiating several of the incorrect statements wrongly ascribed to him, Dr. Cobbold next took up the question of the true mode of action ot the filariæ and micro-parasites generally in the production of disease. If the victim or bearer of the parasites were regarded, as he ought to be, as the legitimate home or territory of certain parasitic inhabitants, it would be found that, in the case of minute entozoa, the injury to the territory was principally due to overcrowding. In a subsidiary manner, the injury was due to the activity or locomotion of the parasitic inhabitants. A few thousands, or even millions, of trichinæ may have bored their way through the tissues without occasioning the slightest inconvenience to the human bearer. Many millions of trichinæ were necessary to the production of grave symptoms of trichinosis in man; consequently, the presence of a few millions without the production of actual disease or suffering, afforded no proof whatever that the parasites lacked the power of creating mischief. That which obtained in trichinosis obtained also in the case of allied affections, such as filariasis, olulariasis, strongylosis, cestode, tuberculosis, and others. Nearly forty years ago, Gruby and Delafond found micro-filariæ in the blood of five per cent. of dogs examined by them; but they did not settle the question of the origin of the parasites. From 11,000 to 224,000 of them might exist without causing their host the slightest symptom of mischief. In 1867, Dr. Cobbold expressed the opinion that these worms were the larvæ of spiroptera sanguinolenta; a view subsequently confirmed by Lewis and Manson. The latter found that the canine filariæ showed a periodic increase and diminution of numbers in the blood, but, unlike the human parasite, were never completely absent from the circulation. Dr. Cobbold could not share the surprise shown by Manson at the fact of the freedom of these verminous dogs from symptoms; had the parasites, instead of a few thousands, numbered many millions, he should have expected the canine territory to display some of the injurious effects of overcrowding. When the sexually mature and very much larger filariæ were present in the heart, it was easy to see that the immediate cause of pain, followed often by sudden death, was the obstruction to the circulation occasioned by the worms. In the same way, in birds, it requires a great number of the tapeworms, normally present in the intestines, to produce an epizootic. When caused by smaller worms than cestodes, young and old birds alike succumbed to any undue expression of the fauna. In a recent communication to the Linnæan Society, Dr. Cobbold showed that the ostrich epidemic in South Africa was due to a parasite, a species of strongylus, myriads of which, occupying the proventriculus of young birds, set up an irritation which sooner or later proved fatal. Dr. Cobbold next discussed the assumption of the necessity of some pre-existent cachexia or constitutional weakness to account for diseases produced by worms. Cachexia, when produced, is the result of the loss of blood, gastro-enteric irritation, or other disturbance set up by the parasites. In the case of plants, certain morbid states might favour the invasion of parasitic fungi; but helminths attacked the weakly and the healthy with perfect impartiallty, The adult filaria sanguinis hominis was closely connected with the lymphatic system, and had actually been obtained by aspirating the lymphatic glands and dilated vessels. While far from thinking that all chylurias, chyloceles, and other phases of chylosis were exclusively due to parasites, Dr. Cobbold held that all of these affections might directly arise from mechanical obstruction by filariæ to the flow of the contents of the lymphatic channels. Independently of Manson, Lewis, and Bancroft in the East, Drs. F. da Santos, Aranga, Magalhaes, Bourel-Roncière, and many others in Brazil, had acknowledged the causal relation between filariæ and many cases of lymph-scrotum, chylocele, lymph-varices, and fistulæ; and the English physicians in Bahia and Rio had not been behind their foreign colleagues in throwing light on the subject.—In the discussion which followed, the President, Dr. Vandyke Carter, Dr. Stephen Mackenzie and others took part.

THE Oldham local authorities have been severely censured by their coroner for allowing a man to escape from the hospital whilst suffering from small-pox. The man died from exposure, and it was alleged that an improper certificate of death was given.

METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.

FRIDAY, DECEMBER 16TH, 1881.

Sir JOSEPH FAYRER, M.D., K.C.S.I., in the chair.

Clinical Cases.—Drs. LLOYD and THOMSON showed two cases of myxœdema, and two cases of tumour, at present under treatment in the Lambeth Infirmary.—Dr. DOWSE asked if, in the myxœdema cases, albuminuria had been present.—Dr. LLOYD replied that it had, but only transiently.

Acute Traumatic Malignancy.—Mr. BARWELL read a paper on this subject.—Sir JOSEPH FAYRER said Mr. Barwell's cases reminded him of some he had seen in India, in which only the rapidity of the growth indicated cancerous disease. He mentioned a case in which, after removal of a diseased lip, the patient had died within three months. He thought it was difficult to trace any parentage in such cases.—Dr. LLOYD asked if the question of heredity had been fully investigated in the cases narrated; and also, if there was any history of struma or syphilis either in the patients or their relations.—Mr. BRINDLEY JAMES asked if the cancer-cells were of the oat-shape variety.—Mr. BARWELL, in reply, said the cells were oat-shaped, though he did not himself attach much importance to that, nor did he think any very strict line of demarcation could be drawn between cancerous and other cells. He had not been able to trace any hereditary predisposition.

Quackery, Ancient and Modern.—Mr. NELSON HARDY read this paper. He said quackery had existed from time immemorial, and would probably continue to the end of time. Perhaps the most ancient form, the most respectable and successful one, and that which longest held its grasp on the human mind, was astrology—the most sublime and imposing of impostures—the most venial, in some respects, of delusions. Having traced the manner in which, in the earliest times, this typical form of quackery arose and grew, taking its origin, like other forms, as the result of vague experiences, of the misleading use of signs, and of the liberal use of the *post hoc, ergo propter hoc* fallacy, he quoted some lines from Chaucer to show that, in his time, astrology was practised by the eminently respectable doctor of physic who was described in the *Canterbury Tales*. So long did the belief in it continue, that Richelieu is stated by M. Andrien to have had the horoscope of Louis XIV cast at the moment of his birth; and there could not be any doubt that many honest and well-informed individuals might have been found amongst those who practised it. Another form of imposture, which was practised by many doubtless honest and well-informed medical men, during the time that it was patronised by the rich and great, was alchemy, which bore the same relation to chemistry that astrology did to astronomy—the one a false science, the other a true one; the false believed in, caressed, and patronised by monarchs and ministers of State; the true having to battle hard for bare existence in opposition to its rival. It was important to remember how long, in each case, the false science impeded the development of the true; and how, as astronomy and chemistry rose to the dignity of sciences, they shook off all connection, not only with impudent pretenders to, but also with honest believers in, astrology and alchemy. Among modern forms of quackery, homœopathy, hydropathy, mud-bath cures, milk-cures, and whey-cures, deserved to be mentioned. Homœopathy stood first, as Holloway's pills and ointment did among quack medicines—not, he thought, from any intrinsic merit in it above the other forms of quackery, except it were its greater adaptability to all classes of the population (mostly fools, according to Carlyle) everywhere; unlike hydropathy, which required splendid hotel-buildings and beautiful scenery to carry its cures to perfection; or the mud-bath system, which could only be carried out in certain continental towns, the monstrous system of pretending to cure serious diseases by globules without taste or smell, or appreciable effect of any kind on the human body, could be carried out in every house, by rich and poor, learned and unlearned, and better probably by those who knew nothing of scientific medicine, than by the ablest M.D. of London University. Having referred to the advertisements of quack medicines, and quoted a humorous description of one, Mr. Hardy formulated the following propositions. 1. Quackery is more profitable pecuniarily than scientific medicine, but not so profitable mentally or morally. 2. Quackery most readily finds its victims among the highest and lowest social strata, not amongst the more intelligent middle classes; readily also amongst religious people—hence certain quacks always advertise largely in the (so-called) religious periodicals. 3. Various forms of quackery have, in former times, been intimately connected with the practice of medicine; but they have always impeded its scientific progress. If the members present agreed with him on these three points, they would have no difficulty, he thought, in arriving at the same conclusion that he had—viz.: that it was the bounden duty of every honest practitioner, by every means in his power, to discourage and discountenance all forms of quackery, however profitable or plausible, and whether practised by those within or without the profession.—Dr. DOWSE said he was somewhat disappointed at not hearing more about the modern forms of quackery. He thought some reference might have been made to the sly advertising which was done by members of the profession. He would like, too, to have a definition of a quack. The writer of the paper had been, he thought, too sarcastic with reference to certain forms of cures. It did not matter whether it was homœopathy or mud-baths that cured those who came to medical men. They wanted to be cured; and scientific medicine too often overlooks the most important part of its work—therapeutics. Science did not do much for the treatment of disease. So long as they cured their patients, and did not resort to villany, medical men were perfectly at liberty to resort to any system whatever.—Dr. ILIFF agreed that the great point was how to cure patients. He thought the bonesetters had taught the profession a great deal. The water-cure had been spoken of somewhat contemptuously; but he thought hydropathic establishments were great benefits. Faith had great influence in the treatment of disease. He remembered, when a student at Guy's Hospital many years ago, having cupped and bled one hundred and fifty patients in three months, simply because it was the fashion at the time.—Mr. BARWELL thought quackery rather consisted in the manner in which a thing was done, than in the thing itself. Anyone who deceived another for his own pocket advantage was a quack; but the man who believed in the decillionth of a grain was not a quack, he was a lunatic.—The CHAIRMAN, though he confessed he had not previously paid much attention to the subject, was inclined to agree with Mr. Barwell as to the definition of a quack. It was certainly very curious to look back upon the connection, to which attention had been directed in the paper, between astrology and alchemy on the one hand, and astronomy and chemistry on the other.—Mr. HARDY, in reply, said he agreed with the chairman and Mr. Barwell, that a medical man who deceived his patient as to his treatment, for his own pocket advantage, was a quack. He could not agree with Dr. Dowse or Dr. Iliff, that it was a matter of indifference what system was adopted, so long as the patient was cured. He believed many people were cured who took Holloway's pills and ointment, but that did not make it any the less quackery. Dame Nature was very kind to all. But he believed there was, nevertheless, such a thing as scientific treatment of disease, founded upon a knowledge of anatomy and physiology; and that all else was quackery.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

FRIDAY, DECEMBER 16TH, 1881.

J. W. TRIPE, M.D., President, in the Chair.

Report of Medical Inspectors of Local Government Board.—A report from the council was brought up recommending the Society to petition the Local Government Board to cause the reports of the medical inspectors on local outbreaks of disease to be in future printed as parliamentary papers, or be otherwise made available for those who may desire to purchase them. The Council also recommended the Society to send a copy of this resolution to the North Western Association of Medical Officers of Health who were desirous that the Society should co-operate with them in requesting that these reports, as well as the reports of the medical officer to the Local Government Board should be sent free of charge to all medical officers of health.

Hospital Accommodation for Infectious Disease.—The council presented a report on the subjects referred to the Royal Commission appointed to consider the hospital accommodation in the metropolis for infectious disease. The report excited much discussion, it being felt by some members that it was not advisable that the Society should take any step. Eventually, it was resolved that the Society should express its views to the commission, and the report of the Council was then considered. After further discussion, it was resolved not to make reference to any existing small-pox hospital, seeing that several were the subject of litigation; and it was also resolved not to express an opinion on the limits of extension of small-pox from a small-pox hospital; this question still being *sub judice*. The following report was then adopted. The available accommodation for small-pox patients is insufficient to meet the demands which might at any moment be made upon it by a recrudescence of the existing epidemic. So far as respects the number of beds available for the treatment of fever cases, the existing accommodation appears to be fairly sufficient for present wants. The hospitals, however, are few in number, and necessarily remote from many parts of the metropolis. The advantages of a limited number of hospitals for the whole metropolis and under one central authority pre-

ponderate. The authority should make provision for all classes of persons, and admission to the hospitals should not entail pauperisation. Provision for mild cases of small-pox and for convalescent cases should be made outside the metropolis. If this were done, probably eight well-placed hospitals, containing 150 beds each, would suffice for the small-pox cases that must be treated in hospitals within the metropolis, *i.e.*, cases too ill to be removed to any great distance from their homes; and no small-pox hospital should contain more than 150 cases at any one time. To each hospital for fever and for small-pox cases, a district should be allocated; and only overflow cases, in emergencies, should be removed to any other hospital than that of the district properly assigned to such hospital. The adoption of this principle would obviate many objections to the existing system of hospital accommodation. The hospital authority should have the power to acquire sites for hospitals compulsorily and subject to the hospitals being conducted with reasonable care and according to prescribed regulations; the authority should be protected from legal proceedings, so as to secure the public against the loss of the benefits arising from such institutions. The Society wish to submit to the Royal Commission the necessity of legislation to secure compulsory notification of infectious diseases, and compulsory powers to enable the sanitary authority to enforce the removal to hospital of the infective sick, not possessed of lodging accommodation enabling them to be properly treated and isolated.

Sanitary Staff of Large Towns.—Dr. SEATON, of Nottingham, made a few remarks on the constitution of a sanitary staff in large towns, and objected to the duty of "chief scavenger" being undertaken by Dr. Yeld, late medical officer of health to Sunderland, and which the Town Council proposed should devolve upon his successor. Dr. Seaton considered that the medical officer of health of a large town would find his time sufficiently occupied by work in relation to epidemic diseases, and by the preparation of statistical information for the purposes of the Artisans' Dwellings Act, etc., etc.; and that if he were not held responsible for the proper performance of those duties which ought to belong to a scavenging department, he would be in a better position to criticise the work. After some discussion it was resolved to ask the council to consider a report on the subject.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.

TUESDAY, NOVEMBER 29TH, 1881.

BENJAMIN RIX, M.R.C.S., in the Chair.

Principles regulating Taxis in Cases of Hernia.—Mr. CLEMENT LUCAS read a paper on this subject. He said that obstacles to the reduction of the hernia might arise from conditions external to the sac, or be dependent on the sac itself or its contents. Taking first the external causes, these were, the course and direction of the tumour, constriction at the rings, and muscular action. Contrasting next inguinal with femoral hernia, he showed that in the former the rings were large and more dilatable; hence taxis was more often successful; but in inguinal hernia muscular action was a factor which was absent in femoral. A hot bath might be of service in inguinal hernia, by overcoming the spasm of the internal oblique and transversalis muscles; but in femoral it could do no good, and would only add to the collapse of the patient. Chloroform, besides subduing the pain, relaxed the muscles, and was a greater aid in the reduction of inguinal than of femoral hernia. He protested strongly against anything like forcible taxis in cases of femoral hernia, as the bowel was thereby pressed against the margin of rigid fibrous rings, which presented almost knife-like edges. The operation for femoral hernia was almost without danger; that for inguinal more dangerous, on account of its large size; that for umbilical most dangerous, on account of the amount of bowel exposed, and because all drainage went back into the abdominal cavity. Happily, taxis was successful in the reverse order; umbilical and inguinal being more readily reduced than femoral. Obstacles to reduction situated in the sac itself were dependent on the direction of the sac, pouching of the sac, and constriction at its neck or in some part of its course, as in the hour-glass inguinal hernia. Difficulty of reduction from condition within the sac depended on: 1. The bulk of the hernia; 2. The presence of a quantity of fluid in the sac; 3. The presence of omentum; 4. Adhesions. The evil results of taxis were stated to be: 1. Bruising of the tissues outside the sac, causing them to suppurate if subsequently opened; 2. Reduction *en masse*, or rupture of the sac; 3. Ecchymosis of bowel and hæmorrhage of sac; 4. Rupture of bowel, and consequent peritonitis and death. When herniæ were down, but not strangulated, time was not so important a consideration. If the surgeon failed to reduce at once, he might apply ice, give opium, use injection, and even pressure, and wait; then try again. With strangulation, time was of the utmost importance. The fatality of strangulation was due to two causes—the time during which the circulation was arrested in the bowel, and the severity of the taxis employed. He would limit taxis in femoral hernia to the first twelve hours after strangulation; in inguinal, to twenty-four hours; in umbilical, to two or three days. After failing in gentle taxis at first, he advised that the patient should be put at once to bed, with an ice-bag on the tumour; the pelvis should be raised high on pillows, none being allowed for shoulders or head; the legs should be flexed over pillows; the scrotum (if inguinal, in a male) raised by a small pillow between the legs. An injection of a fourth of a grain of morphia might be given once only. The surgeon next collected his friends, being prepared to operate if necessary. Chloroform being given, taxis was again gently applied; but, this failing, operative interference should be resorted to without further delay.

Removal of a Foreign Body from the Bladder by the Median Operation.—The foreign body, which was in a man under Mr. MANSER'S care in the Tunbridge Wells Infirmary, had slipped into his urethra, and it had afterwards passed into his bladder. A few attempts to remove it by a lithotrite *per urethram* having failed, Mr. Manser performed the median operation, and the man recovered in ten days without a bad symptom. Mr. Manser proceeded to advocate the more frequent use of this operation in preference to the lateral, when the foreign body to be removed was small. He expressed his surprise at seeing that the performance of the operation by Mr. Heath, at University College Hospital, a few days before, had been mentioned as somewhat unusual.

Aneurysm of the Transverse Part of the Aortic Arch.—Dr. RANKING read notes of this case. The only symptoms during life were constant expiratory dyspnœa, with paroxysms of inspiratory dyspnœa, and paralysis of the right vocal cord. After death, the trachea was found flattened against the vertebræ, and the right pneumogastric was flattened and reddened below the origin of the recurrent nerve, which was not pressed upon.

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.

THURSDAY, DECEMBER 15TH, 1881.

Purpura, its Varieties and Causes.—Dr. STEPHEN MACKENZIE read a paper on this subject. He commenced by remarking that purpura was determined by—1, simple hæmorrhage, (*a*) *per rhexin*), (*b*) *per diapedesin*); 2, thrombosis (*purpura thrombotica*); 3, embolism (*purpura embolica*). He then proceeded to point out that, in the present state of our knowledge, purpura was best considered under a mixed etiological and clinical classification. In this way, we were led to the clinical associations of purpura, which were frequently of far greater importance than the mere hæmorrhages into the skin. Purpura, in this light, might be considered under the following heads: 1. Occurring in connection with specific blood-diseases, as in small-pox, measles, scarlet fever, typhus, cerebro-spinal fever, ague, pyæmia, syphilis, rheumatism (pilosis rheumatica); 2. Occurring in connection with organic visceral disease, as with disease of spleen, liver, kidney, lung, and cardio-vascular system; 3. Occurring in connection with some primary alteration in the blood, as in (*a*), scurvy, rickets, and idiopathic anæmia; (*b*) excess of some constituent, as water, chloride of sodium; (*c*) the presence of matters foreign to the blood (drug purpura), as phosphorus, mercury, mineral acids, chloral, and iodide of potassium (iodic purpura); 4. Occurring in connection with affections of the nervous system (which, for convenience, are considered apart from Class 2), as purpura following shock, grief, in connection with tubercular meningitis and angina pectoris, plugging of cerebral sinuses, etc.; 5. Idiopathic or essential purpura. Cases illustrating many of the varieties were narrated, and drawings exhibited.

Diphtheria.—Dr. WOAKES read a paper on the etiology of diphtheria; its contagium; the occurrence of sudden death in it—reconsidered. In consequence of the lateness of the hour, the discussion of this paper was deferred. The subject will be brought forward at the next meeting.

MANCHESTER MEDICAL SOCIETY: MICROSCOPICAL SECTION.

TUESDAY, DECEMBER 20TH, 1881.

Micrococci from Fresh Urine.—Dr. WILLIAM ROBERTS showed specimens of micrococci from fresh urine, passed by a patient suffering from hæmaturia. He had succeeded in cultivating the micrococci in beef-tea at a temperature of 100° Fahr. In six to eight hours after the experiment commenced, clouds were seen to collect, which, on removal by a pipette, appeared ropy, like mucus, and on microscopical exami-

nation, proved to consist of an immense number of beaded threads. These threads were of great length ; there were also free micrococci. Further experiments showed that this form of micrococcus was extremely sensitive to carbolic acid, and would not grow in a solution containing as little as 1 in 8,000. The bacterium of putrescence had recently appeared in the urine with an increased irritation of the bladder and pus after the injection of a solution of boracic acid. The patient had refused an injection of carbolic acid. Dr. Roberts believed that no such case had been hitherto described.

Hodgkin's Disease.—Dr. MASSIAH showed sections of lymphatic gland, liver, lung, and kidney, from a case of Hodgkin's disease of seven months' duration. It occurred in a strumous, but otherwise healthy boy, seven years of age at death, one of whose brothers was said to have died of consumption and another with a swollen belly. The case had shown very slight enlargement of the superficial glands, one dorsal and a few cervical were alone affected, and no one of these was larger than a filbert; but the retroperitoneal portal and splenic were much enlarged, and the mediastinal and bronchial moderately so. Many growths were in the liver and spleen, with slight infiltration in the kidneys, and deposits in the upper lobes of the lungs simulating miliary tubercle. There was no leukæmia, but marked anæmia and emaciation, with, during the last month, slight ascites and hypostatic congestion of the lungs. Pyrexia was continuous during the last four months, *i.e.*, whilst the case was under observation, excepting on one occasion for a week or two, when it alternated with a normal or sub-normal temperature. Salicylate of quinine was found the most efficacious drug in procuring an emission. Microscopically, fibrous tissue predominated in the glands, and lymph-cells in the viscera. In the liver there was slight cirrhosis, and in the kidney some fatty change. In the lungs the vascular sheaths were thickened and the bronchi infiltrated ; the nucleus growths had peripheral pneumonia and some central caseation with occasional giant-cells ; a few of these were also found in the hepatic growths.

Staining from use of Nitrate of Silver. Dr. MORITZ showed sections of skin from a case of nitrate of silver staining from the administration of the drug during life. He pointed out that the most distinctive coloration took place in the rete Malpighii, in the sweat-glands and around the hair-roots, whilst the epithelium, the sebaceous glands, and the adipose tissue, remained free. The pigmentation occurred in almost the same situation as in negro's skin and in Addison's disease, sections of which were shown for comparison.

Mr. A. H. YOUNG showed sections of a Carcinoma of the Cerebellum.

REVIEWS AND NOTICES.

A TREATISE ON COMMON FORMS OF FUNCTIONAL NERVOUS DISEASES. By L. PUTZEL, M.D., Physician to the Clinic for Nervous Diseases, Bellevue Hospital, Out-door Department, etc. Pp. 249. New York : W. Wood. 1880.

THE literature on nervous diseases has of late years become so very prolific, that new works on this department of medicine have to show some particular *raison d'être*, if they are to prove acceptable to the profession. With regard to the present book, we find the author stating in the preface that pathological anatomy has exercised such an enormous influence on the advances made in practical medicine, that many pathologists sneer at the term "functional disease", and deny its very existence ; and that the tendency to this disbelief has led to the inconvenience that the clinical study of these diseases has been neglected. On turning to the body of the work, we find that it is chiefly taken up with a description of chorea, epilepsy, and neuralgia ; and it is surely wrong to say that the clinical study of these diseases has been neglected. On the contrary, they have been very thoroughly investigated in their clinical bearings ; and although the study is by no means exhausted, yet so much has been written on them in all countries, that it has for some time past become a matter of difficulty to follow it all. We do not find that in the sections named Dr. PUTZEL has added very much that is new to our previous knowledge of these diseases ; his quotations from other authors being very liberal on almost every page.

We fail to understand why a chapter on peripheral paralysis should have been added to a work on functional nervous diseases ; for this form of paralysis is almost invariably owing to structural changes in the affected nerves. If neuritis and severe laceration of nerves are to be reckoned amongst functional disorders, the sphere of the latter will become immensely enlarged. The author seems himself to have felt this difficulty ; for he says, in the preface, that the forms of peripheral paralysis which have been considered in the final article, cannot be regarded, properly speaking, as functional, and that they have been discussed under that heading in accordance with long-established custom, and for the sake of completeness ! But surely, even supposing that this had been a long-established custom, Dr. Putzel should have broken through it rather than perpetuated an error. We must, however, say that we have never before known inflammation to be called a functional disease ; and as far as completeness is concerned, the four diseases considered by the author do by no means exhaust the list of what we now, for want of a better term, are in the habit of calling functional derangement of the nervous system. There is also singular incompleteness in the description of certain affections. Thus, for instance, in the section on paralysis of the sciatic nerve, nothing is said about other symptoms but loss of power. The sciatic, however, is not a purely motor, but a mixed nerve, under the influence of which are likewise the sensation and nutrition of a large portion of the lower extremity. We therefore find in disease of it, not simply loss of power in those muscles which are supplied by the nerve, but also wasting of the same, anæsthesia, and certain well-marked trophic disturbances in the skin and subjacent tissues, which are highly characteristic of disease or injury of that nerve. On all these latter symptoms, the author does not say a word ; so that the clinical picture he draws of the affection is singularly limited in its contours. We are sorry, for these and other reasons, that we cannot recommend the book, which shows neither much originality nor felicity in the treatment of the subjects chosen.

HANDBOOK OF PUBLIC HEALTH. Edited and arranged by Dr. HERMANN EULENBERG, in Association with many other Authors. First Volume, with Woodcuts. Berlin: August Hirschwald. 1881.

THE object of the present work is avowedly to supply the place of the manual of the late Dr. Pappenheim, the second edition of which appeared in 1868, but which is now out of print. Dr. Pappenheim's work was much esteemed, and has been referred to by some English writers.

The present work and its predecessor are treated in a manner somewhat similar to the now well known Stricker's *Histology* (English translation); the editor and many others contributing articles on those subjects with which each writer may be supposed to be most familiar. Separate articles are devoted to subjects in this new manual which in Dr. Pappenheim's book were as yet undifferentiated, illustrating the principle of the division of labour. We notice, for example, that subjects specially related to what it is now the fashion to term "bacterial pathology", such as bacteria, algæ, cholera Asiatica, diphtheria, etc., receive a separate consideration. This is a department of public health which has grown and developed under the immediate observation of the present generation.

The first portion of the handbook opens with a pretty full historical introduction by the editor. This occupies about forty pages, and goes into the veriest infancy of preventive medicine, reaching further back than the days of famous Nineveh. The subject of the history of epidemics, the care of patients, and the hygiene of hospitals, and many other interesting matters, are treated of. The works of Florence Lees and Florence Nightingale are quoted. At the conclusion of this general part of the work, an abundant reference to the literature of the subject is supplied, chiefly of German authorities. This leads us to mention the fact that the volume deals with the matter from an essentially German standpoint. It was owing to this feature that the American translator of Ziemssen's *Handbuch der Speciellen Pathologie und Therapie* determined not to make use of the first volume of that series, which related to the subject of Public Health.

The scope of Public Health is of the very widest extent. It would be difficult to conceive of anything which would not, directly or indirectly, relate to the health of human and other beings.

In the volume before us, there are no fewer than seventy papers, written by more than thirty contributors. Dr. Eulenberg is the prolific author of eleven articles. Some of these writers have made a good reputation. Dr. Heit is well known in England for his elaborate work on *Diseases of Workmen*. Dr. Lothar Meyer is the author of eight articles in this volume. We may specially notice a few of the subjects separately considered.

The editor writes on Sellar's or the A B C Process, and considers some other methods for the utilisation and purification of sewage. We think many other methods might have received some notice, such as modes of dealing with sewage which have been tried in this country; but this is, perhaps, too much to expect of a work so thoroughly German in character.

The article on Eyes, by Dr. Katz of Berlin, is good, and the subject is a very important one; diseases of the media of the eye, going with myopia and hypermetropia, being decidedly on the increase—this fact

being probably related to the increasing work of the young in these days of competitive examinations. Some good directions for the preservation of a healthy condition of the visual organs are given.

Dr. Birch-Hirschfeld of Dresden writes on the subject of Bacteria, in special relation to the infectious and other closely connected diseases.

There is an elaborate and good article on Mining by Dr. Gurlt of Bonn, in which the sanitary condition of those working in mines and other places in the interior of the crust of the earth are considered. The readers of this JOURNAL will recollect an allusion made by us to the subject of "mountain-disease", which appeared novel and interesting.

The portion of the work on Lead is well done by the editor.

Dr. Lothar Meyer contributes a paper on Syphilis and Prostitution; another on Marriage and on the Feeding of Children.

Dr. Ewald's name has now a wide reputation in connection with the subject of Diphtheria, of which he treats here.

We have not sufficient space to say much more concerning the special articles in this manual. That the work will perform what its editor intends it to do there can be no doubt, if we judge from the contents and manner of this first volume. For English students the work is hardly suitable, though it would repay perusal by any one interested in such important human and animal affairs. The work is most probably meant chiefly for students of the subject in Germany. English professors and teachers may find many new views of various things, and may read the volume with profit, as the articles are written up to date, and the points of view of German sanitary officers are well represented. It is hardly possible to produce a volume of 751 pages of closely printed matter, in its first edition, without many errors of printing and slips of authors' pens passing unnoticed; still, on the whole, the work is well edited. The occasional misspelling of the names of foreign authors must probably be put up with, as must also the scanty and few references made to the work of good men in England. The woodcuts just show what they are intended to do, and no more.

We do not like the introduction of so much small print, especially in matters which should be clearly and neatly stated; as, for, example, the description of the parasites which infest meat and human beings. The work, like Dr. Pappenheim's, has an alphabetical index, which has its conveniences, and possibly also its defects. Dr. Pappenheim's work can be obtained from the library of the Royal Medical and Chirurgical Society, and is in two volumes. It is very interesting to compare these two manuals. Clear evidence of the vast progress made in hygiene during even a period of thirteen years will then be apparent.

NOTES ON BOOKS.

The Handy System of Medical Bookkeeping, etc. By ALFRED SHEEN, M.D., Cardiff. Wm. Lewis, Cardiff, 1881.—We have received from the publisher, Mr. Lewis of Cardiff, specimen copies of a handy medical visiting list, which from its size, can be readily carried in the breast pocket. On the front page will be found an almanac, an obsetric table, and at the end, an epitome of the comparative alcoholic values of spirits, wines, and beer, the doses of the more active therapeutic agents, and their equivalents, the average weight and measurements of healthy organs, and formulas for hypodermic injections; secondly, a temperature chart, etc.; thirdly, a reduced specimen page for a new form of day book; and fourthly, a reduced specimen page for a new form of ledger. At the first glance, this new form appears slightly involved, but a little study of the method suggested by Dr. Sheen will enable the general practitioner to grasp the economy of time and trouble contemplated by its author; indeed, Dr. Sheen himself admits "That the learning of this method involves a certain amount of trouble, but what that is worth anything, does not?" Mr. Lewis will on application forward similar specimen copies. On the whole, we can fairly recommend this new method to general attention.

Demonstrations in Physiological and Pathological Chemistry. By CHARLES H. RALFE, M.A., M.D. Cantab. (London: David Bogue.)—The want of a small but practical work on physiological and pathological chemistry has long been felt, especially by candidates for the university degrees, and those reading for the fellowship examinations of the Royal College of Surgeons. Dr. Ralfe has succeeded in placing before us, in nine demonstrations, a very compact series of lessons in physiological chemistry; those on digestion and the urine being exceptionally good. The last chapter is devoted to quantitative analysis (gravimetric and volumetric), very complete directions for all chemical operations being given in brief but sufficient language. This book, though small, bears favourable comparison with the larger treatises of Lehmann, Burdon Sanderson, Foster, and others; the contents being trustworthy and in a portable form, handy for reference.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1882.

SUBSCRIPTIONS to the Association for 1882 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JANUARY 14TH, 1882.

A GRAVE SOCIAL PROBLEM.

THE difficulty is at all times great, when considering some of those grave social problems on which we ventured to touch a few weeks ago, of steering safely between the Scylla of unmeaning vagueness on the one hand, and the Charybdis of over exuberant and possibly prurient detail on the other. For, whilst the error may leave the reader in doubt as to the real nature of the abuses to which the writer refers, the second is too apt to assume a demoralising tone from the clouding over, in however slight a degree, of the pure scientific atmosphere. Our own object has been to recall the attention of the profession in general terms to evils with which they are perhaps already only too familiar, and to induce the educational section of the laity to reflect very seriously on the "little rift within the lute", which may some time gape widely enough to endanger the stability of the whole structure. Since our article was penned, we have received many communications bearing, some of them with startling directness, on the question now under discussion, and showing such an amount of interest in, and appreciation of, our remarks, as to induce us to return to the subject, with the view of taking up one or two points which space compelled us to omit on a former occasion. But first, in brief recapitulation, we may regard it as an acknowledged fact that a certain form of immorality, which has always been looked upon as one of the most pressing dangers of early youth, attains wider circulation and popularity through the machinery of our public schools; and that its detection and suppression have become a matter of very real and serious difficulty.

In all these institutions, a truly conservative reverence for the traditions of the past prevails among the boys, and affects the bad customs as well as the good, so that the soil, so to speak, becomes impregnated with the diseased spores, which readily impregnate the purest seed placed in its midst; and hence we can readily understand the almost despairing depression of head masters, when they see the failure of their vigorous and well-meaning attempts to stamp out evils which are insidiously working underground, and which have been so frequently established before their own jurisdiction has begun. On this point, again, there can be little difference of opinion, that these habits are often acquired almost in infancy; sometimes, as a correspondent points out, from unskilful or vicious nursery training, sometimes from uncleanness causing irritation, or from the physical inconvenience of an elongated prepuce; but more often they proceed from the direct instruction of companions who in all probability have no very clear conception of anything wrong, beyond a vague suspicion that what they are endeavouring to popularise is in some way a thing to be ashamed of.

And, again, concerning the legacy of suffering and of degeneration which remains behind even after the most permanent cure has been effected, we must also be fully agreed that this is pretty much in proportion to the age at which these habits are contracted; and that, if they be freely indulged in whilst growth and development are going on, a stunting and enfeebling influence is unmistakably exerted both on body and mind. But, at whatever stage the evil is begun, its continuance for any considerable period leaves some mischievous trace, ranging

from a lessening of manly and straightforward vigour and a tendency towards a more womanish type of hysterical irresolution, up to the final stages, when the memory loses its sharpness, and the dull downcast look, the shy solitary ways, the irritable heart, and the impaired digestion display a nervous system shattered beyond repair. To go a step further, there can be little doubt that real insanity is often caused in this way, and that mind-disease short of actual alienation often results from what Dr. Mortimer Granville, in a most interesting article in *Modern Thought*, calls "mental debauchery".

Concerning the remedies, more difference of opinion is natural, the opposite camps being composed of those who expect to find a panacea for this and many other social difficulties in a more widely diffused physiological teaching, and those who are most inclined to trust in a general inculcation of the principles of morality and of what we may here appropriately call muscular Christianity. We have already furnished our reasons for the preference which we have given to the latter of these views, and sincerely hope that the suspicions we have felt it our duty to express of the expediency of warning little boys specifically against dangers of which it is quite possible that they may never otherwise hear, will not be taken as indicating anything contrary to the modern spirit of scientific teaching. To bring up boys and girls without the slightest knowledge of the structure or functions of the human body, or the inexorable laws by which Nature regulates the health and comfort of the world, is to do them a cruel wrong, by depriving their minds, at their most receptive period, of one of the most interesting as well as most improving of all educational influences; but this is a very different thing from attempting to warn and instruct on themes which require the most cautious and delicate handling, and which the rough touch of those who work at second hand and with only partially scientific instruments would inevitably make suggestive rather than deterrent. For a little knowledge might here prove to be indeed a dangerous thing.

Rather would we prefer to depend on the teachings of the highest morality from the school pulpit, aided and re-enforced by the precept and example of the masters, who should be encouraged to mix freely among the boys, and, by constituting themselves their trusted friends and counsellors, fix a standard of life and work to which all would gladly aspire. When mean and immoral actions are looked upon as not only wrong in themselves, but as certain to be followed by evil consequences as any flagrant breach of the law of the land; when it is considered bad form to do anything unmanly or unworthy of the name of an English gentleman; and when it is distinctly seen that the physical consequences of the evils we have been considering interfere largely not only with success in work, but also with that proficiency in games which is the highest ambition of our public schools—then will a barrier be thrown up around impurity, far more effectual than that constituted by more specific and didactic warnings.

But we must not overlook the advantages of varied and absorbing occupation, ranging as it now does from the dry bones of classical literature to modern languages and physical science, and replacing in part the doubtful morality, and occasionally obscene suggestiveness, of heathen mythology, by a careful study of Nature and her works, and the development of history and human nature throughout the world. Good work leads to good play, and the fatigues of the cricket-field or the river encourage that sound and dreamless sleep from which mind and body awake fresh and vigorous and eager for the labours of another day; and under these typical conditions there is neither time nor room for anything beyond the healthful routine which so effectually fills up these twenty-four hours, which seem all too short for what has to be done.

In choosing a school, we would advise parents to look very sharply after sanitary conditions; to see that there is plenty of light and air; that the sleeping accommodation is carefully arranged; the food ample and well cooked; the work neither too much nor too little; and to place a strict enforcement of these conditions even above the glorious privilege of scraping a casual acquaintance with the aristocracy, or being taught the elements of knowledge by senior wranglers or classics.

But, again, we would remind parents of the very serious responsibility they incur in neglecting to continue the moral education of their children during those holidays which come round with perhaps somewhat inconvenient rapidity. The quarterly cheque to the schoolmaster does not relieve father and mother from all active interest in the welfare of their children, but we fear that home-influences too often present a somewhat inharmonious contrast with the best kind of school-teaching. The racketing rapidity of modern life, the feverish struggle for social supremacy, the cynical tone assumed almost as a matter of course both by old and young, and the want of faith in purity and virtue, which are too unmistakably characteristic of the tone of "society", must tend to wash away the foundations on which many a boy may be trying to build up something of a better life. But most dangerous of all is the opinion not unfrequently expressed by medical men, that immorality is to be excused on account of its physiological necessity, and that the disuse of organs constructed to perform a specific function must inevitably be followed by atrophy and decay. We grant the difficulty of leading a continent life when the frame is in full vigour, and the passions under the feeble control of youth; but the supposed necessity simply arises from a habit carefully acquired and confirmed, and which might quite as readily have been directed in an exactly opposite direction.

As Sir James Paget writes (*Clinical Lectures and Essays*): "Many of your patients will ask you about sexual intercourse, and expect you to prescribe fornication. I would just as soon prescribe theft or lying, or anything else that God has forbidden. Chastity does no harm to mind or body; its discipline is excellent; marriage can be safely waited for; and amongst the many nervous and hypochondriacal patients who have talked to me about fornication, I have never heard one say that he was better or happier for it." But, indeed, the nervous and hypochondriacal are to be found principally among those who have early given themselves up to habits of debauchery, who form the pigeons to be so readily plucked by quack doctors; whose depression and misery occasionally lead to suicide; and whose fancied or real incompetence for the duties of matrimony is, beyond all doubt, the cause of much of the unhappiness and infidelity of wedded life. We strongly recommend, therefore, that older schoolboys and young men should be told that continence is perfectly compatible with the soundest health; that indulgence in vice at their age must be injurious, because restraint is difficult and excess easy; and that in hard work and moderate living will be found the solution of the problem, how to live a chaste life in the midst of temptation.

As an addition to the scanty literature of this subject, we welcome the interesting little treatise on "Morality" by Dr. Hume, Head-Master of Foyle College, Londonderry, whose experience in actual educational training give his opinions that weight which always belongs to specialised knowledge. The first section of his book deals with the assertion that "immorality is natural"; and he devotes somewhat laboured metaphysical arguments to refute this proposition, which, from the strictly physiological standpoint, no doubt is absolutely correct. We will, I think, pursue a safer line by admitting that, although function is the natural destiny of organs, in this particular instance, as already pointed out, considerations, both of morality and expedience, and even of health, concur in the advice that it is better to hold over the formation of a certain habit until the bodily frame is thoroughly consolidated, and the practice can be indulged in a legitimate manner. Dr. Hume discusses with much lucidity the question whether "continence endangers health", summing up entirely in favour of the opinion already quoted from Sir James Paget; and he finishes a well written and carefully argued treatise by the enumeration of four safeguards against immorality, which are well worthy of the attention of all those who are in any way responsible for the up-bringing of boys.

THE OFFICE OF CORONER.

I.

THE time is, perhaps, not far distant when a renewed effort will be made by the Legislature to alter the law relating to coroner's inquests, and to redeem from popular and professional contempt that which is too often a farce—"crowner's quest law." None, not even the most conservative of coroners, is, we imagine, prepared to retain the position and duties of coroner as they at present exist; on all hands the necessity of some change is admitted. How, then, the inquisitions into the causes of uncertified deaths, deaths where there is a suspicion of non-natural causes, and the like, are to be conducted, is a matter which it behoves our profession to take into serious consideration. When next a coroner's bill is introduced into Parliament, the medical profession must be prepared to state what are their demands, and what modifications of the existing state of affairs will afford them satisfaction.

Whenever the question of an alteration of the existing law does come to the fore, there will no doubt be a contest between the legal and medical professions as to the hands into which the new coronerships, or whatever the name of the office may be—shall fall; and unfortunately the appointments made of medical men to the coronerships of large districts by the efforts of their *confrères*, have not been in all cases such successes as were anticipated. The interests, too, of the legal profession in the matter are so considerable, and its power in and out of parliament so great, that it will be no easy matter to wrest any power from the hands of what solicitors consider to be their legal and vested rights.

And indeed there is much to be said on the lawyer's side of the question. The post of coroner is a semi-judicial one; legal is almost as requisite as medical knowledge on the part of the coroner. It is doubtful which is the more deplorable spectacle in an inquiry of importance—a legal coroner destitute of medical knowledge; or a medical coroner all at sea for want of the necessary legal knowledge to conduct a case with dignity. Hitherto it has been too hastily taken for granted by the legal profession that a coroner ought to be a solicitor; and by the medical profession, that its members alone are qualified for the performance of the functions of coroner. These two opposing views will in the future, as in the past, cause much acrimonious controversy.

We hope that at this juncture our insular self-sufficiency will not prevent us from looking abroad, and observing what is done in other countries—those which, like the United States, have adopted the office of coroner, following pretty well the lines of the mother country, and those which, like France and Germany, have systems of inquisitions of their own, not perhaps, in all respects, adapted to our national habits. In doing so we must acknowledge our indebtedness to an address delivered by Mr. Clark Bell, of New York, before the Medical Society of the State of New York, on Proposed Reforms in the Coroner's Office. Mr. Bell speaks with authority, as a first president of the Medico-Legal Society of New York. In France, the officer corresponding most nearly to our coroner is the procureur or attorney of the Republic, who is also a sort of local public prosecutor. He is of course, a lawyer. On receiving information, he proceeds to the place where a dead body is found; makes the necessary investigation; summons and examines witnesses; reduces their evidence to writing, which is subscribed by them; and then draws up a report. He is, however, responsible for the case as a legal inquiry, and for all the legal questions involved. He has power to make use of the detective police, to employ experts, to seize articles, and to restrain suspected persons from leaving the premises or neighbourhood. Indeed, he is a legal officer endowed with larger powers than our coroner, and more directly responsible to the higher executive. But supreme as to the medical examination, and all medical questions involved, is a medical officer, chosen for his superior medical and surgical knowledge, who acts as medical assessor to the procureur of the republic. He is also associated with the subsequent prosecution of the criminal, when the legal officer decides that a crime has been committed. For this purpose, he draws up a report, which has to be signed by the commissary of police, or other police official; and this is submitted to the inquisitorial magistrate. If a violent death have taken place, or a death from unknown causes, or under suspicious circumstances, the procureur is required to be assisted by one, or, in some cases, two physicians, who have to make their report as to the cause of death, and to this they have to depose on oath before the procureur, and give their opinion upon the case. The procureur, in the event of a crime, calls upon the inquisitorial magistrate to order an inquiry, and even, if necessary, to proceed to the spot, accompanied by the procureur, in order to draw up the necessary official reports; and the inquisitorial magistrate holds an investigation. In all cases reported as *flagrante delicto*, the inquisitorial magistrate may himself directly perform all the acts of a procureur; but, except in cases of *flagrante delicto*, he can take no proceedings without informing the procureur thereof. Should the inquisitorial magistrate consider the evidence against an accused person sufficiently established, an indictment is prepared for the Cour d'Appel, and the trial takes place at the assize court before a jury.

The French system of inquests is effective. Whilst the directing and presiding officer is a lawyer, medical testimony is obligatory in every case; and the interests of the public and of the medical profession are sufficiently cared for. Medical testimony is at once put into formal shape, and that offered at the inquest forms part of the exhibits at the trial at assize of an accused person. There is, moreover, concert, and not clashing, between the representatives of the medical aad legal professions. The novels of M. Emile Gaboriau, and especially *Lecoq the Detective*, give interesting descriptions of the workings of this system. The large, and almost irresponsible, powers of an inquisitorial character entrusted by the French law to the hands of the examining or inquisitorial magistrates would, however, never be tolerated in this country; and are utterly repugnant to our British free institutions and notions of fair play. In *Lecoq the Detective*, M. Segmuller, the magistrate, after bullying the prisoner in a private examination, conducted by himself in the presence of his clerk and a detective, and endeavouring in every possible way to convict the unhappy accused out of his own mouth, says: "I will not torture you any longer; when I return to the charge, I shall have proofs enough to crush you." This frightful examination, in the words of the author, had lasted no less than seven hours. No doubt, there is here some exaggeration; but, having ourselves witnessed a trial at assize in France for murder, we can bear witness to brutal attempts of a French judge to extort criminatory admissions from an accused person.

In another article, we shall return to this subject; and show the evils of the French and English systems of inquisition on dead bodies may be avoided, and the interests of justice be served, in a way little likely to excite opposition.

WITH a view to the erection of a convalescent home, Messrs. Dunn and Seman have purchased for St. Bartholomew's Hospital fifteen acres of land at Swanley.

HOSPITAL Sunday is said to be becoming increasingly popular in New York. On Christmas Day the collection amounted to 44,000 dollars, as compared with 26,000 dollars in 1879, when the movement was originated.

AT the last sitting of the Communal Council of Saint Josse-ten-Noode, in Belgium, a resolution was carried approving the establishment of a crematory apparatus in the local cemetery, and recommending the subject to the attention of the superior authorities.

AN outbreak of enteric fever amongst the troops at Bennett's Drift is reported by the *Natal Mercury*. It is supposed to be due to a bad water-supply; and there are about one hundred and twenty-one cases in hospital.

THE *Allgemeine Medicinische Central-Zeitung* of Berlin has just completed the fiftieth year of its existence.

A CHAIR of Nervous Diseases has been erected at the Faculty of medicine of Paris, to which M. Charcot has been transferred, at his own wish, from the Chair of Pathological Anatomy, which he has filled up to this time.

AT the last monthly meeting of the Blandford Local Board, the medical officer reported that the slight epidemic of scarlatina which had lately existed in the town was fast disappearing. Special attention was drawn to the report, as it would tend to check the injury likely to be done to the town by the exaggerated reports as to the existence of epidemic disease there.

SMALL-POX is very prevalent in the United States, and, in consequence, the President and Secretary of the National Board of Health have advised the Secretaries of the Treasury and the Interior and the Postmaster-General to have all the *employés* in their respective departments vaccinated. The Board believes that small-pox is disseminated through immigration and transportation by sea and rail.

ACCORDING to the *Medical Directory*, the only county in England which does not possess a hospital or dispensary is Westmorland. In Wales, no county is unprovided for, and the same holds good for Ireland; while in Scotland the sixteen counties of Clackmannan, Fife, Haddington, Kinross, Kirkcudbright, Linlithgow, Peebles, Selkirk, Wigton, Dumbarton, Kincardine, Argyle, Bute, Caithness, Nairn, and Sutherland appear not to have any hospital or infirmary in any of them.

A SPECIAL inquiry has recently been held, by direction of the Home Secretary, into the alleged discharge of a man from Strangeways gaol, Manchester, whilst suffering from fever. It appears that the man, an engineer, made no complaint on being admitted; but on the 1st of October he was entered on the casual sick list, and treated for catarrh by the prison surgeon. On the 14th October he was seen by the deputy surgeon, who was of opinion that he was suffering from common cold. At the termination of the period of his incarceration (one month), he was discharged personally by the governor, who saw no indication of sickness, and no reason for giving him a railway pass to Bolton. An opinion has been expressed that the case was one of latent typhoid fever, and that the walk to Bolton had a considerable share in accelerating the man's death.

A SPANISH HOSPITAL IN PARIS.

THE *Siglo Medico* of Madrid states that steps will shortly be taken to open a hospital in Paris for the relief of necessitous Spaniards. The Spanish colony in that city already exceeds thirty thousand, many of whom are in indigent circumstances, and dependent entirely, in case of sickness, on public benevolence. The new hospital will owe its inception mainly to Duke Fernan-Nuñez, the Spanish Ambassador, and will be modelled, as far as possible, on the plan of the French Hospital at Madrid.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON.

THE lectures and demonstrations for 1882 will be given as follows, on Wednesdays, at 4 P.M.:—February 1st, 8th, and 15th, Dr. Reginald Thompson; February 22nd, Dr. Fowler; March 1st and 8th, Dr. C. Theodore Williams; March 15th, 22nd, and 29th, and April 6th, Dr. Green; May 10th, 17th, and 24th, Dr. Douglas Powell; May 31st and June 7th, Dr. Mitchell Bruce; June 14th, 21st, and 28th, Dr. Tatham; October 18th and 25th, and November 1st, Dr. Symes Thompson; November 8th and 15th, Dr. William Ewart; November 22nd and 29th (not yet settled); December 6th and 13th, Dr. Percy Kidd.

GUY'S HOSPITAL.

THE managers of the nursing system so strenuously upheld by the governing body of Guy's Hospital are at least unfortunate beyond all precedent. The last nursing misadventure, resulting in the death of one of the patients in Guy's Hospital, appears to have arisen immediately from the disregard by the ward-sister of one of the ordinary rules in the management of the wards, namely, keeping all the poisons in the poison-cupboard. In each ward, there is a poison-cupboard where all poisons are kept. In the present instance, the sister had neglected this necessary measure of safety, and left a basket on the table, in the middle of the ward, containing four packets, each of ten grains of morphia. A night-nurse came on duty in the evening, was told nothing of the powders by the sister, and mistook them for quinine powders. Why were the powders of forty grains of morphia, enough to kill forty people, not placed in the poison-cupboard? For this, the ward-sister is, we presume, responsible. The nurse who gave the powders is responsible, in a less degree, for not having noticed the poison-card lying among them. The dispenser would also have acted, to say the least of it, with more discretion, had he labelled each powder, sufficient as it was to destroy ten people, with a poison label. We cannot, however, approve the practice which was going on, of allowing the ward-sister to prepare the solutions of such large doses of poison. Where it is necessary to employ poisons in such quantities, special precautions should be used. In the unfortunate case in question the reverse seems to have taken place.

DEATH FROM CHLOROFORM AT BRIGHTON.

AN inquest was held last week at the Sussex County Hospital on the body of a man aged 27, who died from the effects of chloroform administered for the purpose of rectifying the defective position which his leg had taken after a compound fracture, on the 11th August last, owing to rapid inflammation of the limb. Messrs. Giles, Humphry, Blaker, Turner, and Couling, surgeons to the hospital, were present at the time the operation was being performed by Mr. Humphry properly and with due care. It could not have been effected without resorting to chloroform, and otherwise the man could never have again had the use of his leg. Mr. N. P. Blaker, one of the surgeons to the hospital, deposed to having witnessed the operation, which was almost completed, when the patient became suddenly livid, and the heart ceased to act. Respiration continuing for a considerable time, every means was resorted to, including artificial respiration, galvanism, and injections of brandy to stimulate the heart, but without effect. As far as it went, the operation was most successful. A *post mortem* examination showed the liver to be somewhat fatty, and the heart was in a most advanced stage of fatty degeneration. Under the microscope scarcely any healthy fibres could be recognised. Such a state of the organs could not correctly be ascertained during life. The jury returned a verdict that death resulted from the effects of chloroform acting upon the weak heart of the deceased.

THE NOTIFICATION OF INFECTIOUS DISEASE.

AT a recent meeting of the Metropolitan Asylums Board, attention was called by one of its members to a sad case, by which six children of the same family, all unvaccinated, were brought to the Stockwell Hospital, the whole of them suffering from hæmorrhagic small-pox. The father was a journeyman tailor, in the parish of St. James's, in the employment of a highly respectable West-end firm. It was discovered that he made up clothes for customers in the house whence the children were removed; and, to make the machinery for the dissemination of small-pox more complete, a laundry was carried on at the same house to wash clothes for the outside public. Other cases of the same disease were also stated to have occurred in the same house, and to have been nursed at home. Surely it would be difficult to find a stronger argument for the compulsory notification of infectious disease, than is furnished by such a state of things in one of the richest parishes in London. There would also seem to have been some *laches* on the part of the sanitary authorities, in failing to take some steps for the removal of the earlier cases from this terrible scene of small-pox.

CLINICAL SOCIETY.

THE following gentlemen are proposed for election as officers and Council of the Clinical Society of London for the year 1882:—*President:* Joseph Lister, D.C.L., LL.D., F.R.S. *Vice-Presidents:* William Henry Broadbent, M.D.; Andrew Clark, M.D.; *Frederick William Pavy, M.D., F.R.S.; *John Croft; George Lawson; Thomas Smith. *Treasurer:* Christopher Heath. *Council:* Thomas Barlow, M.D.; John Cavafy, M.D.; James Frederick Goodhart, M.D.; William Richard Gowers, M.D.; *William Miller Ord, M.D.; *George Henry Savage, M.D.; *Frederick Taylor, M.D.; Edmund Symes Thompson, M.D.; Alfred Wiltshire, M.D.; J. Burney Yeo, M.D.; *Rickman John Godlee, M.S.; Henry Greenway Howse, M.S.; F. Howard Marsh; Edward Nettleship; *Herbert William Page; *Robert William Parker; William F. Teevan; *William J. Walsham; Edwin T. Watkins, M.D.; William Spencer Watson. *Honorary Secretaries:* *Sidney Coupland, M.D.; J. Warrington Haward. The gentlemen whose names are marked with an asterisk (*) were not on the Council or did not hold the same office during the preceding year.

HERBALISTS VERSUS SURGEONS.

Mr. WIGHTMAN, the coroner for Sheffield, lately inquired into the case of a little child, Eliza Moloy, who died of measles while under the care of a herbalist. The child was evidently ill. The mother took it to a druggist, who advised her to send for a medical man. But, instead of doing so, she took the advice of Mr. Garbutt, medical botanist, of Attercliffe. He saw the child, gave his instructions, and desired that the parents should let him know if it got worse. But the same day the little patient died. Mr. Garbutt gave a certificate to the effect that the child died of measles. This certificate was, of course, declined by the registrar; and thus the case came before the coroner. Such cases are far from uncommon; and there is nothing in this particular instance which calls for special comment. But it is not always that coroners show as much energy and good sense in dealing with these cases as Mr. Wightman appears to have done. He said that he did all he could to put down such people of the class to which Mr. Garbutt belonged, but whilst people would go to them with their eyes open, and well knowing what they were doing, all his work was in vain. He acted with a certain amount of diffidence in such matters, for once, when he thought he was rendering great service to the people of Atterclifte by exposing one of these men, he found that he got into disgrace, and the man, who was not a surgeon, was publicly presented with a testimonial. At the same time, nothing would prevent him from doing what he considered his duty when occasions like the present demanded it.

PAROCHIAL MEDICAL ATTENDANCE.

THE public papers have given currency, in a paragraph headed "Gross Inhumanity", to a complaint against the Cowes guardians that an aged relieving-officer, who had fallen into great poverty, recently fell and broke his leg, he being very heavy and infirm. The statement is, that he sent for several doctors resident at Cowes, telling them of his accident, and praying them to come to his help. One after another, however, it was said, refused to come, because he was a bankrupt, and they saw no means of getting their fees, and he was left lying with the broken leg about forty hours before any medical man came to his assistance. At length, he sent for the relieving officer, and asked for an order on the parish doctor, replying, on being reminded that it would pauperise him, that it did not matter. It is said that the announcement of these facts was greeted with cries of "Shame! shame!" The matter was deferred for future consideration.

SURGICAL TRIUMPHS.

PROFESSOR NUSSBAUM has just published a very interesting address delivered on the anniversary of the hundredth birthday of Philipp Franz von Walther, who was born in 1782 and died in 1849. After an interesting account of his life and work, Nussbaum makes a rapid survey of progress since Walther's day. Anæsthetics, antiseptics, and bloodless operations, are all advanced as surgical triumphs. Of ovariotomy he says "About 40,000 years of life have already been gained for women by successful ovariotomies"; and he believes that lives will be saved and much suffering prevented by Hegar's operation of removing the ovaries to anticipate the climacteric age in women, the subjects of bleeding uterine fibroids. The cure of reflex epilepsy by nerve-stretching he regards as a great advance in therapeutics. Excision of a kidney, or of the spleen, of parts of a cancerous bladder or prostate, of the rectum, and of the pylorus, he also regards with confident hope of improving results; and he believes it "not quite impossible that diseased portions of lung may be successfully excised." Our German colleagues are certainly not behind us in courage and adventure.

INTERNATIONAL MEDICAL CONGRESS.

ACTING under the powers delegated to them at the final meeting of the Congress, the executive committee of the late Congress have addressed an invitation to Professors Hannover and Panum, vice-presidents of the Congress, to arrange for holding the next International Congress in 1884 in Copenhagen. This invitation has been promptly and cordially accepted, and the next International Congress will accordingly be held, in the year 1884, in Copenhagen.

BODY-SNATCHING.

A CORRESPONDENT of the highest credibility sends us the following statement, as to which he alleges that the facts are within his personal knowledge. Body-snatching is not, perhaps, so utterly unknown in England now-a-days as some people would suppose; and it would seem that it is occasionally even possible to carry it out under legal sanction. A case is likely to come before the law-courts shortly, in which the widow of a gentleman of position is sued for the cost of cremating his body at Milan, at a time when she supposed he was lying interred in a metropolitan cemetery. The gentleman had expressed a decided preference for cremation as a means of disposing of his mortal remains; but his family would not, on his death, consent to act on what they regarded as a whim, and he was buried in the usual way. Some friends, however, not of his own household, determined that his wishes should be respected; and so, without the knowledge of his relations, had his body exhumed and conveyed to Italy, where it was cremated. The deceased's family heard nothing of this extraordinary proceeding, until they received a very heavy bill for the costs of the removal to Milan and cremation. Naturally enough, they refuse to pay for what they regard as an outrage on their feelings; and the trial is likely to lead to some curious revelations. It seems almost incredible that a body could be openly removed from a family burying-ground in a metropolitan cemetery, without the sanction or even knowledge of the relations of the deceased and proprietors of the ground; but truth is often stranger than fiction.

AMBULANCE STATIONS.

A SMALL ambulance station has been established at the General Post Office, and it is intended to attach to the iron railings in the Post Office yard (next Cheapside) a weather-proof case, containing a stretcher, splints, tourniquets, roller and triangular bandages, lint, and other useful appliances, all of which will be kept in readiness for immediate use in case of emergency.

SMALL-POX AND VACCINATION.

AT the last meeting of the Metropolitan Asylums Board, Surgeon-General Bostock, C.B., chairman of the Fulham Hospital Committee, stated that the value of vaccination was shown, at that institution, by the fact that the staff of officers and nurses had numbered 295, and only a small number of these had had small-pox before entering on service at the hospital. They were all revaccinated; and, with the exception of four, who had slight attacks of the disease on first entering upon their duties, and before the vaccination had taken effect, the whole staff had been free from disease. The important fact had also been noted,

in connection with the visiting of patients, that unprotected persons were attacked. In all, 1391 visits had been paid by 683 persons to 710 patients notified as "dangerously ill", and fourteen of the visitors were subsequently admitted, all of them coming from infected houses.

THE STAFFORDSHIRE MUTILATION CASE AND CONFESSION.

DR. F. W. WARRINGTON of Congleton, who was the medical attendant of Isaac Brooks, has forwarded to us a statement which is published on another page. It will be remembered that, in this case, two men named Johnson and Clewes were sent to penal servitude for an attack upon Brooks, as to which he has recently, when on the point of death, made a statement that the injuries were self-inflicted. The case is still under the consideration of the Home Office. It appears that the medical details of the second attack have never been known, inasmuch as Brooks would never prosecute, and frequently denied that he had ever received the injuries. This, Dr. Warrington thinks, might occur from a feeling of shame, and he is also persuaded that Brooks had some idea that, if he informed, he might even again be the subject of an attack. The case is one of considerable psychological complication, for no doubt Dr. Warrington is justified in assuming that it is highly improbable that the man would inflict the first injury on himself; but, on the other hand, anyone accustomed to deal with peculiarities of erratic and temporary forms of mental disease, will probably say that it is just possible that, a man of such eccentric, solitary, and reserved habits, under a morbid impulse, may have inflicted such injuries on himself. Contrary to what has been generally stated, it appears to be certain that he never attempted to make money out of the matter. His confession is singularly incomplete; he does not repeat how the injury was inflicted, nor does he say in his confession that he did not know who did it, as first expressed to Dr. Warrington. He merely states in the confession that the two men Johnson and Clewes are innocent.

VIVISECTION.

THE Executive Committee of the International Medical Congress recently appointed a deputation to wait upon the Secretary of State for the Home Department, to present to him the following resolution. "That this Congress records its conviction that experiments on living animals have proved of the utmost service to medicine in the past, and are indispensable to its future progress. That, accordingly, while strongly deprecating the infliction of unnecessary pain, it is of opinion, alike in the interests of man and animals, that it is not desirable to restrict competent persons in the performance of such experiments." The deputation was instructed to offer any explanations which the Home Secretary might desire, and to impress upon him the importance which the profession attaches to a question of such vital interest to the progress of scientific and practical medicine.

DEFECTS OF CLINICAL TEACHING IN LONDON.

THE lamentable deficiencies in method and completeness of our London system (or often no system) of teaching in the hospitals has been the frequent theme of reproach in these columns. Dr. Belfield, an American physician recently studying for some months in the London hospitals, has had a good opportunity of observing them, and he writes home to a Chicago medical paper: "The medical teaching here presents great advantages, combined with glaring deficiencies. I will abstain from discussion, and content myself with remarking that, while the student has here opportunities for clinical observation unequalled at any school, American or Continental, of which I have personal knowledge, there is, nevertheless, such imperfect individual instruction in methods of diagnosis as to permit a man to remain quite unacquainted with microscope, ophthalmoscope, laryngoscope, and even stethoscope. The students in a certain large hospital here call all adventitious sounds in the lungs 'crepitations'. A careful study as to what a 'crepitation' was revealed to me, under that name, sometimes the moist *râle* of bronchitis, sometimes the dry *râle* of asthma, again the crepitant *râle* of incipient pneumonia, but especially the gurgling *râle* of advanced phthisis. Whether any distinction is made as to the pathological significance of these various 'crepitations', I am unable to say." The fact is, that while, in a few hospitals, a small proportion of physicians systematically teach their pupils how to observe and what to observe, and consider the clinical training of their students a part of their duty, to which they are more or less bound to give up a more or less scanty and irregular part of their time, there are others, not a few, who practically repudiate any such duty. Physicians of the latter class hurry along their wards, and linger over a particular case or class of cases, according to their personal interest at the time in such cases, and irrespectively of the teaching value of the cases. Nor do they seem to consider the daily clinical grounding of the students in the arts of diagnosis and treatment a main factor in their visit to the wards. Many only become in-patient physicians after being worn out with years of "drudgery" in crowded out-patient departments, when the love and habit of teaching have been extinguished or never cultivated, and when the "claims of private practice" overwhelm the claims of public duty. It is a sad but unquestionable confession, that a considerable number of our most eminent clinicians arrive so late in the charge of beds that they leave it under the pressure of advancing age and a crowd of consultations at the dead level of an uniform guinea fee, just when their clinical power and experience have reached maturity, and might be most advantageously devoted to a daily two hours' teaching in the wards, such as the most eminent continental physicians and surgeons carry on till advanced age and seniority retire them. More system, more completeness, more regularity, greater devotion to clinical teaching, would bring London to its rightful place of pre-eminence among clinical schools—a place which it now is confessedly far from occupying. There are a few notable exceptions to this observation; but it would be invidious to name them.

CHEAP FOOD.

AN interesting and instructive report on the nutritive value of various kinds of food just issued by Professor Atwater, of the Agricultural College of the State of Connecticut, is referred to by the *Echo*. The conclusions arrived at, it is observed, should be welcome to the poor, seeing that, as a rule, the cheapest foods are the most nutritive. The professor takes as a basis medium—neither over fat nor over lean—beef, as having a nutritive value of 100; and of meat, game, and fowl, he finds that, excluding smoked ham and beef, fat pork, the common food of our rural population, is the most nutritive. His next group consists of various kinds of animal produce, milk, butter, cheese, eggs; and of these skimmed cheese heads the list, being of the nutritive value of 159.0, as compared with 103.0 for cheese made from milk with cream added, and 124.1 from butter. Turning to fish, the professor concludes that, of fresh fish, salmon and Spanish mackerel are the most nutritive; but of prepared fish, smoked herring is the most nutritive, being as 163.2 to 21.8 for oysters. It is deduced from these figures that the foods which may be obtained for the smallest price, fat pork, skimmed cheese, smoked herrings, salt mackerel, etc., are far more nutritious than high-priced luxuries which find favour with the wealthy and the fashionable. On the other hand, considered as daily staples of food, few digestions would prove equal to a long course of fat pork and smoked herrings, and cheese so hard as to have received the ordinary nick-name of "cartwheels".

EXTENSION OF THE REGISTRAR-GENERAL'S WEEKLY RETURN.

THE Registrar-General, from the beginning of 1882, has permanently enlarged the list of towns for which he publishes vital and mortal statistics in his weekly returns. Up to the beginning of 1865, the Registrar-General's weekly return dealt exclusively with London, but in the first return for that year the late Registrar-General, under the advice of Dr. Farr, began to publish birth and death statistics for Liverpool, Manchester, Salford, Birmingham, Leeds, and Bristol, in addition to those relating to London. Later in the year Hull was added to the list. On the commencement of 1866, Sheffield and Newcastle-upon Tyne were added; and Bradford was further added in the first return in 1868. With the beginning of 1870, a considerable extension wa

made in the scope of the return. Not only were Portsmouth, Norwich, Wolverhampton, Leicester, Nottingham, and Sunderland, added to the list, raising the number of towns dealt with to 17; but for the first time important details relating to the deaths, including the number of fatal cases of the principal zymotic diseases, were published in the returns for the provincial towns. Oldham, at the beginning of 1872, and Brighton and Plymouth in the first return of 1876, were subsequently added to the list, raising the total number of towns dealt with in the return to 20; this number remained unchanged until the close of last year. In the first return for 1882 a further addition of eight towns has been made to the list. The list, as now constituted, includes 27 provincial towns as well as London, and as the Registrar-General explains, "all those municipal boroughs in which the enumerated population, in April last, exceeded 70,000 persons." Croydon and West Ham are both urban sanitary districts which had populations exceeding this limit at the recent census, but both these towns are included in Greater London, forming part of what is called the outer ring. Up to the close of last year, the list of 20 large towns in the weekly return omitted several towns having larger populations than Plymouth and Wolverhampton, which were the smallest towns in the list. This anomaly has now been removed. The towns now first added to the list are Bolton, Blackburn, Preston, Cardiff, Birkenhead, Huddersfield, Derby, and Halifax. The Lancashire manufacturing towns have not, hitherto, shown the sanitary progress which has been generally so well marked in the English urban population. It is to be hoped that the addition of Bolton, Blackburn, and Preston to the Registrar-General's list will stimulate sanitary progress in those towns.

REMOVAL OF THE ENTIRE UTERUS.

On January 3rd, Sir William Mac Cormac removed the entire uterus, on account of epithelial cancer of the cervix, in a woman, aged 34, who had been admitted into St. Thomas's Hospital under Dr. Ord's care with serious intestinal obstruction. An incision was first made through the abdominal parietes from the umbilicus tc the pubes. It was then found that the cavity of the pelvis was completely filled by a tense thick-walled cyst, which flattened the rectum against the sacrum, and was the cause of previous severe obstruction. The uterus and its appendages were at first completely concealed by the tumour; and until it was evacuated, no room could be obtained to perform the necessary manipulations. The cyst, which afterwards proved to be ovarian, contained very offensive pus, and it was impossible to prevent partial escape of its contents into the peritoneal cavity. On the cyst being partially emptied, it was separated from the almost universal adhesions it had contracted, and removed along with the uterus. On the completion of the operation, the large double-barrelled T-shaped drainage-tube recommended by Bardenheuer was inserted, and the two ends projecting from the vagina were utilised for frequent irrigation. No attempt was made to suture the pelvic outlet. The abdominal wound was closed in the usual manner. On the fifth day, there was evidence of some suppuration opposite the lower part of the wound, which was therefore reopened. Some pus escaped, and the cavity was washed out. The temperature, which had risen to 102.6°, fell soon afterwards; and the patient is now (ten days after the operation) making rapid progress towards recovery. Eucalyptol was the antiseptic agent employed for irrigating, as well as for the spray and external antiseptic dressings.

LIABILITY OF WATER-COMPANIES.

On the subject of water-companies, Dr. Alfred Carpenter writes a letter to the *Times*, in which he contrasts the liability of a water-company with that of a railway company, and of a milkman or other trader. If a railway company, he says, injured a passenger, that passenger had a right of action against the company, and could recover damages; if any other trader distributed impure articles (a milkman, for instance, who distributes watered milk), he was liable for penalties; but a water-company might and did distribute water mixed with the elements of sewage without compunction, and the poor poisoned people had no means for obtaining redress. A railway company who booked a passenger became liable for the non-fulfilment of its engagement, but a water company claimed and obtained payment for water in advance; if the company failed to perform their part of the contract, there was no ready way for obtaining redress on the part of the poor people deprived of their water-supply; while the power of the magistrates' courts was put in force against the unfortunate occupier if the water-rate was not paid, even although that occupier was not the party liable for the rate. There was much injustice, he thought, in this kind of arrangement, and contended that it was high time for the Legislature to call upon the water companies to perform these duties, and not to shirk their responsibilities; and yet they asked for payment from the public as if they were really performed. The water-supply to London was, he observed, unsafe under certain conditions. If it were placed in positions which raise the temperature to a point between 60° and 70° Fahr., and kept so for a few days, there was a development of material which rendered it unsafe as a drinking water. The Nemesis of the water-companies would come when those conditions applied to the general water-service of the metropolitan district, which, he feared, was not very far off.

CUCUMBER OR CARBOLIC ACID.

America is suffering in a very marked degree from the pollution of drinking-water, which is apt to be the Nemesis of the accumulation of great city populations, unless primary regard be paid to scientific sanitation, and especially to the supply of pure drinking-water, as well as the preservation of purity in the soil and air. The drinking-water of the great cities of America appears to be in some instances little better than sewage-water; and in numerous cases the pollution of potable water in great cities is such as to cause, at the present moment, considerable disgust on the part of residents, and to call for government intervention, which is unfortunately slow, and not always satisfactory in its action. From comparative results which have been published by Dr. A. R. Leeds in the *Chemical News*, it would appear that the water at Newark, Jersey City, and Hoboken, had become suddenly noticeable for the highly marked flavour of carbolic acid, indicating that the pollution of that particular water-supply was at that moment of an especially chemical nature. When the board was made aware of the nuisance, it was ingeniously urged that water was all the better for being polluted with carbolic acid, inasmuch as it served to disinfect the other kinds of filth which got into the drinking-water. This plea, however ingenious, was not held to be good in law, and so for the moment, the inhabitants of Newark, Jersey City, and Hoboken have to drink their potable water without the preliminary disinfection, which made it more unpleasant to the taste, if less noxious to health. Boston is suffering from what is described as a striking and interesting scientific peculiarity. Its drinking-water shows albuminoid ammonia to the extent of 0.0605, a statement which analytical chemists and medical officers of health will read with grim surprise. It is stated, however, that the peculiar interest is, that this is due, first, to the pollution by a few manufacturing towns, and, secondly, to the growth of algæ. There is especially an extremely interesting and rare fresh-water sponge, the *Spongilla fluviatilis*, which accounts for the peculiar "cucumber taste". It is thought that the Boston people would be more reconciled to the "cucumber taste" if they took a little more scientific interest in the *Spongilla fluviatilis*, which is accordingly elaborately described and figured, and recommended as an object of interest under the microscope. Another source of pollution of the Boston water is Pegan Brook, which flows through a town of ten thousand inhabitants, almost entirely engaged in the dressing of leather and manufacture of shoes, the outflow from which factories is supposed to complicate the "cucumber flavour". Philadelphia and New York also it appears receive their water from polluted sources. The feeders, which empty themselves into Croton Lake, the principal reservoir of the New York water, pass through a settled country, with numerous tanneries, factories, etc., along their banks. Wilmington and Delaware also rank among the towns supplied with polluted water. Under these circumstances it is

satisfactory, that an energetic effort is promised to maintain the public interests and to protect the public health by improving the sources of water-supply, and guarding them against contamination; and, meantime, it is not surprising that Apollinaris water is stated to have become so general a favourite in the United States, that its consumption there as a daily table-water equals that of Great Britain.

A NAVAL COURT-MARTIAL.

By the *Japan Weekly Mail* of October 1st, 1881, we have received a full report of the trial by court-martial of the surgeon of one of Her Majesty's ships, on charges of conduct unbecoming an officer and a gentleman, in drinking intoxicating liquors to such an extent as to produce an attack of delirium tremens. The prisoner denied the charges; and, although the court found them not fully proven, but that he had been guilty of an injudicious use of intoxicating liquors when in a weak state of health, the sentence was, to forfeit two years of seniority and be dismissed from his ship. This sentence must be admitted to be a severe one, as, in addition to loss of pay, the officer is debarred from the rank of staff-surgeon before fourteen instead of twelve years, and from that of fleet-surgeon before twenty-two for twenty years of full-pay service. The case stands thus. He had suffered from fever on the coast of Africa, and again from *malarious fever*, for which he had been sixty-six days in Hong-Kong Hospital within the last five months; he had, immediately previous to his offence, been suffering from mental trouble of a domestic character, for which he had treated himself with laudanum up to the day of the charge (August 23rd); and, when medically surveyed on the 24th, he was labouring under nervous debility, tremulous tongue, and want of sleep, with "hallucinations of having killed a stoker, for which he was to be hanged"; but he was free from "any of the muscular tremors that characterise the disease (delirium tremens)". It was shown that, between the 12th and 22nd of August, his wine account included a very varied assortment of liquors, judged sufficient to produce the disease in a person in a weak state of health, but not in a robust person. In his defence, he stated that, having been sick with fever, he had, perhaps, injudiciously taken a little too much wine, etc., afterwards. In his favour, he adduced the evidence of a naval lieutenant, a lieutenant of Marine Artillery, and a naval chaplain. who had been his messmates for three years, each of whom swore that he had never seen him intoxicated, nor had ever known him guilty of conduct unbecoming an officer and a gentleman. The captain, who, under the orders of the commander-in-chief, had brought the charges, admitted that he had acted on the report made by the chief of the police of the ship as to his hallucinations and incoherent manners; but that, on the morning of the charge, he (the surgeon) had reported to himself, in the usual way, the state of the sick in the ship; that he had never seen him under the influence of drink, or conducting himself in any way unbecoming the character of an officer; and that, never having occasion to find fault as to the manner in which he had conducted his duties, he should not (of himself) have brought the most serious charge, "unbecoming an officer". There may have been undivulged circumstances; and the case seems to be of a complicated character as to its predisposing and immediate causes, which are extenuating, even in the least favourable view of them; so that, with the finding of "not fully proven", we are disposed to consider that the unfortunate officer has been severely dealt with in the sentence of the court-martial, which is the more to be regretted in the existing want of medical candidates. There is one point, however, on which stress may be laid; and that is, that the medical profession is not represented on the judgment-seat when a medical officer is undergoing trial by court-martial; for we can imagine that, with such an organisation, the court would find its deliberations elucidated. The plan is found to work well in the United States Navy, where, by Order of March 2nd, 1861, "whenever any officer of the corps of surgeons, paymasters, or engineers, is arraigned for a trial before a court of inquiry or court-martial, the court shall consist in part of the officers of the corps to which the accused belongs". Experienced officers in the Royal Navy have known instances in which such would have been advisable; and in this instance we see grounds in favour of such a constitution of the courts by which accused civilian officers are to be tried. A combatant officer is tried by his peers; and we confess to knowing no reason why, in order to obviate the suspicion of class prejudices biassing a sentence, civilian officers may not have the protection of a senior of their department as an assessor in the court of justice before which they are arraigned.

SMALL-POX IN THE UNITED STATES.

A TELEGRAM from Washington, under date of January 5th, reaches us, to the effect that the officers of the National Board of Health and of the Government Hospital Service have had interviews with President Arthur with regard to the alarming prevalence of small-pox, at which they urged the necessity for immediate legislation with a view to its suppression, aud the compulsory vaccination of all immigrants arriving in the country. President Arthur, in reply, stated that he would probably make the question the subject of a special message to Congress.

SICKNESS AND TAXATION.

DR. KELLOGG read recently at the Michigan Health Board a paper on the Relations of Preventable Sickness to Taxation, showing, by the reports of the Board of Correction and Charities, the abstracts of reports of county superintendents of the poor, the abstracts of statistical information relating to the insane and the deaf, dumb, and blind, and the vital statistics reports, that more than 3,000 persons in Michigan are annually dependent on the State for support, to a greater or less extent, in consequence of diseases preventable by the adoption of proper sanitary measures. The cost to the people of the State for the support of these persons is over 40,000 dollars annually, a portion of which is paid by every taxpayer. This is but a small part of the actual loss to the State. The number of deaths from preventable sickness in 1880 (estimated from returns by supervisors and assessors) was 4,585. Placing the value to the State of each human being at the low estimate of 1,000 dollars, the aggregate loss by deaths from preventable sickness is over 4,500,000 dollars. But to this must be added a further loss from sickness which did not terminate fatally. The statistics of the benefit societies of England show that, for every person who dies, two persons, on the average, are sick throughout the year. This indicates a total annual loss of time from preventable illness on the part of more than 9,000 persons, to which should be added the expense of living, etc., certainly more than 1,000,000 dollars. This gives about 5,666,000 dollars as the total loss to this State from diseases generally conceded to be preventable. These figures are regarded as much too small, because of the few diseases included in this estimate as preventable (though it is generally conceded by sanitarians that at least nine-tenths of all ailments may be readily prevented), and because only sickness and death directly traceable to preventable causes have been included, while a large amount of sickness and many deaths are directly due to these causes. It is probable that preventable sickness might justly be charged with an expense to the State of not less than ten million dollars. Estimating the loss in other States in the same ratio to the population, the aggregate loss to the whole United States is not less than three hundred million dollars annually, an amount which would pay the national debt in six years. If similar calculations were undertaken by our local health-officers, they could not fail to be instructive to sanitary authorities and to ratepayers.

IMPURE CHLOROFORM.

M. LUCAS-CHAMPIONNIÈRE has lately read a paper at the Paris Société de Chirurgie entitled Researches on Chloroform (*Etudes sur les Chloroformes*). In it he states that Sédillot, who took great trouble to obtain pure chloroform, never had any accidents during its use. M. Perrin, in 1878, called the attention of the Academy to the changes in chloroform. Wishing to remove hæmorrhoids with the *écraseur*, M. Lucas-Championnière anæsthetised his patient. All went well; but an hour afterwards a violent rigor supervened; in the evening, the

patient was doing well. Four days afterwards, M. Championnière undertook the removal of a subcutaneous lipoma near the scapula; the patient was chloroformed, and had a rigor like the one above-mentioned. All the patients operated upon under chloroform at that time suffered from rigors. When the chloroform was changed, this symptom no longer appeared. In lying-in women, with certain kinds of chloroform it is impossible to produce hemianæsthesia. It becomes, then, a question, What are the substances which change the chloroform? On the 5th of July last, M. Lucas-Championnière performed the operation of radical cure of a very large right inguinal hernia in a woman. Chloroform was administered; the respiration stopped. The patient was inverted, and artificial respiration applied; respiration returned at the end of four minutes. The chemist to the hospital declared that the chloroform was pure. Later on, in the same hospital, a youth, eighteen years of age, could not be anæsthetised; respiration stopped and necessitated inversion. Three days afterwards, with another kind of chloroform, the same patient could not be anæsthetised; but this time he became cold. On the next day, he was anæsthetised with another kind of chloroform. The first chloroform was examined by a distinguished Parisian chemist; the boiling-point was found to be modified; this chloroform was, therefore, impure, although the ordinary re-agents testified to its purity. Permanganate of potash passes from red to green, if chloroform contain organic substances. With these re-agents, M. Lucas-Championnière has found that throughout Paris there was no pure chloroform, although some specimens were almost pure.

RECREATION GROUNDS.

THERE is every reason to hope that the site of the well known Horsemonger Lane Gaol will be secured to the inhabitants of the neighbourhood as a recreation ground, the grand jury at the County Sessions having made a presentment to hand the ground over to the local authority or to the Metropolitan Board of Works for the purpose named, and further expressed the opinion that such a recreation ground was urgently needed for the densely packed and poor population.

MARRIED WOMEN IN FACTORIES.

AN article by Mr. W. Stanley Jevons, bearing this name, has appeared in the January number of the *Contemporary Review*. The medical aspect of the question is but too well known to us. Mr. Jevons proposes legislation. He quotes a Privy Council report made by the late Dr. H. J. Hunter, wherein it was demonstrated how infant mortality had increased in a marshy agricultural district immediately after the land had been drained and cultivated, so as to render quite healthy a neighbourhood previously malarious. The explanation of this apparent paradox was, that the mothers, working in the fields during the local improvements, had left their infants to the care of old women. Damp air with a mother's constant nursing is less deadly to infants, than the most salubrious atmosphere accompanied by systematic "farming", with soothing syrups, foul milk-bottles, and other inevitable disadvantages. The mortality of Salford and Nottingham depends, not alone on unhealthy slums, but to a great extent on the employment of women away from their homes—a system which, as at present conducted, involves the artificial rearing of their infants. In the districts named by Dr. Hunter, druggists, in the zeal of competition, sold "Godfrey's Cordial" at cost price, as the best means of inveigling improvident mothers. In Manchester, almost as many children are killed off, through artificial nursing, at the present date, as there were ten or twelve years ago. Mr. Jevons sees no remedy but in the complete exclusion of mothers of children under the age of three years from factories and workshops. Whatever employers might lose from the lessened supply of labour during the first ten years would be amply repaid by the supply of vigorous young mill-hands which would then begin to be available. As for objections to legislation in this direction, Mr. Jevons points out that all sorts of objections were made, time after time, to the Factory Laws, as they gradually rose, step by step, from their first small beginnings in 1802; now all recognise the wisdom of the laws already passed for the protection of factory hands and their families. Certain reactionary philosophers will, as usual, object to Mr. Jevons's proposed extension of such legislation; but even these gentlemen, so stubborn against conviction, cannot deny that in this case the law would have to deal directly with the infant. The "liberties" of a baby would not be infringed upon, as the freedom of careless housekeepers and of social outcasts is certainly touched, for the good of the community, in sanitary inspection and contagious disease regulations. On the contrary, the Government would insist on the infant having its right, and that right is its mother's breast. Infants cannot raise a public agitation; and their private complaints are soon stilled by syrups, when they are put out to nurse whilst their mothers are at work. In short, they are the very class that must be helped by laws, and that at the same time need not and cannot be consulted as to their desire for such legislation.

SCOTLAND.

SMALL-POX AT DUNBAR.

WITH regard to the case of small-pox reported in our issue of December 31st last (p. 1067) as having occurred at Dunbar, Dr. Leith Napier writes to us to say that, although the sufferer worked at a rag-store in connection with a paper-manufactory in that town, the results of a careful inquiry which he has made into the circumstances of the case have convinced him that its origin cannot definitely be attributed to infection from the rags. An important point in this connection is that no other woman has taken variola, although many are and were employed on identical parcels of goods. The house in which the patient lives is a self-contained one of four rooms. The number of inmates was eight in all, five being young children. The healthy members of the household were all vaccinated, and all did well, except the mother, who had been inoculated in childhood. The patient has now recovered, and, as no fresh case has appeared, the disease may fairly be assumed to have been stamped out.

UNIVERSITY OF EDINBURGH: ANNUAL RETURNS.

A STATEMENT, published at the close of the year, shows that the number of matriculated students in the University of Edinburgh for the year 1881, was 3,237, as compared with 3,172 in 1880. Of the entire number, 1,638 (or over 50 per cent.) were students of medicine. The 1,638 medical students are contributed in the following proportions: 638 were Scotch, 585 were from England, 30 from Ireland, 120 from India, 202 from the Colonies, and 63 from other countries. As to graduation in 1881, 35 graduates received the degree of M.D., 133 the degrees of M.B. and C.M., and 4 the M.B. alone; while 14 graduated B.Sc., some of them in public health. During the year two "Anderson Bursaries" were founded from a sum of £2,286, bequeathed for that purpose by the late Mrs. Ronald, of Liverpool. The University General Council shows an increase of 87, and now numbers 4,525 members, as compared with 4,438 in 1880. The southern portion of the new buildings is nearly completed, and is already to a considerable extent occupied. To the building fund the sum of £200, bequeathed by the late Mr. Ainslie, of Stirling, has been paid, as well as a sum of £150 from the executors of the late Dr. Stark of Auchtermuchty.

HEALTH OF GLASGOW.

FROM the report of the medical officer of health for the week ending December 24th, 1881, we find that there were 477 deaths registered, representing a death-rate of 24 per 1,000 living. In the corresponding fortnight of last year, there were 41 fewer deaths; this year being in excess in all departments of disease, but especially the zymotic, owing to the fatality of measles. Pulmonary diseases caused 151 deaths, representing a death-rate of 7.6, and constituting 31½ per cent. of the total deaths. There were 6 deaths from fever—viz., 5 from enteric, and 1 undefined. The number of deaths from infectious diseases of children was 70—viz., 33 from measles, 22 from whooping-cough, and 15 from scarlet fever. The leap from 6 to 22 fatal cases of whooping-

cough is merely an incident in the increased fatality of pulmonary diseases, owing to the cold and fog; while the rise from 17 to 33 fatal cases of measles confirms the anticipation previously expressed, owing to the rapid extension of the disease. The weather has also probably favoured the mortality. There are at present in the hospitals, Belvidere, 126 cases of scarlet fever, 89 of enteric fever, 37 of measles, and 16 of typhus—in all 269, as compared with 261 in the previous fortnight, and 320 at the corresponding period of last year.

LAST WEEK'S MORTALITY.

IN the eight principal Scotch towns, last week, the death-rate was 22.9 per 1,000 of the population; this is 3.0 below the rate at the corresponding period in 1881. The lowest mortality, 14.0 per 1,000, was at Leith, and the highest, 27.5, at Paisley. Zymotic diseases caused 3.6 deaths per 1,000, and chest diseases of an acute nature 135 deaths. The mean temperature, 41.1, was 5.7 degrees higher than in the same week in 1881.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending December 31st, 1881, it appears that the death-rate in the eight principal towns was 24.7 per 1,000 of estimated population. This rate is 2.2 above that of the corresponding week of last year, and 0.2 above that of the previous week of the present year. The lowest mortality was recorded in Edinburgh—viz., 19.5 per 1,000; and the highest in Perth viz., 34.8 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 3.6 per 1,000, or 0.5 below the rate for last week. This rate was considerably exceeded in Glasgow, where measles and whooping-cough prevailed. Acute diseases of the chest caused 144 deaths, or 2 more than the number registered last week. The mean temperature was 44.6°, being 9.7° above that of the week immediately preceding, and 12.0° above that of the corresponding week of last year.

IRELAND.

THE Treasurer of the Belfast Royal Hospital has received a sum of five hundred guineas from Sir Edward Coly, J.P., of Merville, making his donation in all one thousand guineas to the funds of the charity.

THE Local Government Board have sanctioned a retiring allowance of £100 *per annum* to Dr. Toole, late a medical officer of the Bandon Union, on the understanding that it is not to be made a precedent in granting superannuation in future.

SMALL-POX IN BELFAST.

AT a meeting of the Belfast Dispensary Committee held last week, it was reported that the spread of small-pox was alarmingly on the increase in this town. The medical officer of No 4 dispensary district stated that he had no fewer than twenty-six cases on hand at present, but that this did not by any means represent the number of private sufferers from the malady in that district. There were last week one hundred cases of small-pox under treatment in the union hospital, thirteen new cases having been admitted during that period, and the guardians have directed the master, in the case of any sudden emergency to have the medical cases in the hospital removed to the infirmary, so as to afford every accommodation for those suffering from small-pox.

MEMORIAL TO THE LATE DR. REUBEN HARVEY.

WE do not remember any occasion that has elicited so much widespread and genuine regret in Dublin as that caused by the melancholy death of Dr. Reuben J. Harvey, an obituary notice of whom we published last week. This feeling was practically shown by the large attendance at a meeting of his lay and professional friends held last Monday at the King and Queen's College of Physicians in Ireland, and summoned to consider the suggestion that a memorial to him should be established. In the absence of the President, the Vice-President of the College, Dr. J. W. Moore, was moved to the chair. Dr. Robert McDonnell, F.R.S., moved, and Mr. R. W. Boyle, J.P., seconded, the following resolution, which was unanimously agreed to: "That, in recognition of the eminent scientific ability of the late Dr. Reuben J. Harvey, and of his services to the advancement of the study of physiology and to the improvement of medical education, a fund be now raised to establish a memorial to him." The appointment of a committee to carry out this object was moved by Dr. Banks, Regius Professor of Physic in the University of Dublin, and seconded by Dr. Cruise. The committee consists of the following gentlemen, with power to add to their number: Dr. Apjohn; Dr. Atthill; Dr. Banks; Dr. Barton; Dr. Bennett; Mr. R. W. Boyle, J.P.; Dr. Corley; Dr. Cruise; Dr. C. E. Fitzgerald; Mr. G. F. Fitzgerald, F.T.C.D.; Dr. Gordon; Rev. Dr. Haughton; Dr. Kidd; Dr. James Little; Mr. Nicholas Lynch; Dr. Lyons, M.P.; Dr. Robert McDonnell; Dr. MacDowel; Dr. J. W. Moore; Dr. Ormsby; Rev. Canon Travers Smith, B.D.; Professor Gerald F. Yeo; with, as Honorary Secretaries, Professor E. P. Wright and Dr. C. J. Nixon. Other resolutions were proposed and seconded by Rev. Canon Travers Smith, B.D., Professor Thornley Stoker, Drs. Apjohn, Jacob, Wharton, and Atkins. A subscription-list was opened, and a sum of £100 was subscribed in the room. The Treasurers appointed are George F. Duffey, M.D., 30, Fitzwilliam Place, Dublin, and R. W. Boyle, J.P., 35, College Green, Dublin, to whom contributions to the fund may be sent. The committee will hold a meeting next Monday, to consider what form the memorial should take.

TRANSACTIONS OF THE CONGRESS OF 1881.

THE transactions of the International Medical Congress of 1881 are now issued complete in four thick royal octavo volumes. They comprise 2,548 pages of closely printed matter, together with 180 illustrations. The preface informs us that the communications are 450 in number, and each communication is printed in the language selected by its author. The reports of the speeches made by members taking part in the discussions, of which there are 858, appear in English.

The first volume, which alone contains 648 printed pages, is taken up with an account of the general meetings, the general addresses, the list of members and committees, and the rules, together with the reports of the work done in the museum, and in the sections of anatomy, physiology, and materia medica.

In the first 100 pages of this volume are contained the speeches of the opening meeting, and the memorable addresses of Virchow, Féréol, Billings, Volkmann, and Huxley; and a table showing the number of members of each nationality, from which we gather that the United Kingdom supplied 2,085 members; the English colonies, 62; America, 220; France and provinces, 201; Germany, 203; Italy, 73; Austria, 33; Hungary, 26; Russia, 33; Sweden, 12: Norway, 20; Denmark, 15; Finland, 2; Holland, 61; Luxemburg, 1; Belgium, 55; Switzerland, 36; Spain, 9; Portugal, 2; Turkey, 4; Egypt, 4; Roumania, 3; Bosnia, 1; Greece, 1; Madeira, 2; Persia, 1; China, 5; Mexico, 1; Brazil, 1; Peru, 1; Argentine Republic, 6; Uruguay, 1; Colombia, 1; Canary Isles, 1; making a total from all places of 3,182.

From the list of multiple representatives of foreign medical societies and associations, we find, among others, the American Medical Association represented by upwards of 42 delegates; the Medical Society of the County of New York by 11; the Royal Society of Medical Science, Brussels, by 7; the Société Syndicate Odontologique by 6; and the Royal Academy of Medicine, Rome, by 5.

The second volume (616 pages) includes reports of the sections of medicine, surgery, and military medicine. The third volume, which comprises 680 pages, is devoted to the reports of the more special sections of ophthalmology, diseases of the throat, skin, ear, and teeth, and mental diseases.

The fourth and completing volume of 604 pages adds the reports of the more special sections, ophthalmology, diseases of children, obstetric medicine and surgery, and State medicine.

A table of contents will be found at the commencement of each volume, and at the end of the last volume is a general index of the subjects of communications, and a complete list of the names of contributors of papers or speeches.

The executive committee, under whose direction these volumes have been prepared for publication by Sir William Mac Cormac, Honorary Secretary-General, assisted by Mr. G. H. Makins, and secretaries of the sections, have, they state, holding in view compres-

sions into reasonable bulk, found it necessary to exclude some few communications as not being strictly suitable, and to shorten others. This has been done with due consideration for their relative importance and the extent of the business transacted in each section.

The mechanical execution of the volumes is excellent, and reflects great credit on the printers, who have, we believe, placed the resources of their establishment freely at the services of the committee. The simultaneous issue and rapid passing through the press of such volumes implies considerable strain on the good-will and resources of any printing establishment, and the promptitude with which these 4 important volumes has been issued reflects credit upon Messrs. Ballantyne, Hanson, and Co., the printers.

As they stand, the four volumes which are now issued to subscribers form a splendid monument of the meeting.

Fronting the title-page of the first volume is a beautifully engraved fac-simile of the commemoration medal, struck in honour of the occasion, representing on the one side a profile of Her Majesty the Queen, and on the obverse a special design in character with the objects of the Congress, designed by Mr. Tenniel.

UNIVERSITY OF LONDON.

WE regret to note strong indications of an apparent intention on the part of some active members of the arts and law section of the graduates of the University of London, to set aside the precedent that has hitherto ruled the proceedings of the graduates in the nomination of candidates for the senate of the university. There has been a well understood and well observed understanding, that the arts and laws graduates on the one hand, and the medicine and science graduates on the other, should alternately nominate a candidate for the senate. On the present occasion, the vacancy is one which should be filled by a graduate representing the medical and science sections. The friends of Dr. Newth have brought him forward, and it will be generally admitted that, in his turn, Dr. Newth is a highly eligible candidate to represent the arts and law section; but this is not his turn, and it is not the turn of that section of the graduates. If the nomination of Dr. Newth is to be regarded as an announcement of the polling intentions of this section of the graduates on the occasion of the next vacancy in the senate, there is not a word to be said against anything which has hitherto been done in the matter; and this, we believe, is understood to be the state of the case by the medical graduates generally, and by a considerable number of the arts and law candidates. Nothing, however, could be more unfortunate than an effort to run Dr. Newth as a fighting candidate on this occasion. It will, we feel sure, be generally felt that, in the best interests of the university, it will be deplorable if the very effective and satisfactory understanding hitherto observed should in any way be departed from, and if the elements of disunion and discord should be introduced by an unwise rupture of the existing agreement. Should this unfortunately occur, the nomination of candidates for the senate will stand upon a very different footing from the dignified and excellent basis on which it now exists; and future elections would degenerate into contests between the faculties—a result which could not but be deplorable. The medical graduates should very seriously consider their present position, in running a junior as well as a senior candidate on the medical side, and should consult with the supporters of Dr. Newth, to ascertain how far his candidature is intended on this occasion to be hostile to that of the medical candidates.

ROYAL COLLEGE OF SURGEONS.

A QUARTERLY meeting of the council of the Royal College of Surgeons was held on Thursday the 12th. The minutes of the Ordinary Council held on the 8th ultimo, were confirmed. Signatures to the by-laws of members elected to the fellowship were received. Reports were received from the several annual committees, and from the committee on further examinations for membership and fellowship. From the museum committee was submitted to the council a series of regulations, defining the conditions of the admittance of women to the museum, which were adopted. Upon the recommendation of this committee, it was also resolved that the second part of the catalogue of the vertebrated animals contained in the museum be printed. This part will contain a list of all the mammalia, recent and extinct, in the college museum.

The committee on further examinations reported that they had taken into consideration the following resolution of council, dated the 9th December 1880, viz.: "That it be referred to the committee on the arrangements for further examinations for the diplomas of member and fellow of the college to take into consideration the curricula of professional education for these diplomas, especially in reference to the irregularities existing in them, as compared with the curricula of other institutions, and to report thereon to the council;" and that, having examined the curricula of professional education of other surgical institutions in the United Kingdom, they do not recommend to the Council that any alteration should be made in the curricula of professional education for the diplomas of member and fellow as laid down in the existing regulations.

The committee further reported that in pursuance of the resolution of the Council of the 9th June last, they had taken into consideration the following resolution of the General Medical Council of the 30th April, 1881, and contained in Mr. Miller's letter of the 11th May last, viz., "That it be recommended to the several licensing authorities under the Medical Act to consider whether they can separately or conjointly take steps to promote the establishment of a preliminary scientific examination, and to require of all candidates for their respective licenses that after passing the preliminary examination in general education, and either before commencing the purely medical curriculum or at the latest before the end of the first year thereof, they shall pass such a preliminary scientific examination as is proposed". They recommended to the Council that the following reply should be sent to the resolution, viz., that in the opinion of the council it is desirable that candidates for the diploma of member and fellow of the college should be required to pass a preliminary scientific examination, in addition to the preliminary examination in general education, provided that such examination be passed by them before the commencement of the purely medical curriculum, so as to avoid any curtailment of the present too limited period of four years now required for professional study; and that it is not in the province of the college to take any steps, either separately or conjointly, in the establishment of the proposed preliminary scientific examination. The report was adopted.

It was intimated that five essays had been received for the Jacksonian Prize. Mr. Spencer Wells was appointed Hunterian Orator for 1883, when the next Hunterian Oration will be delivered. Mr. F. G. Hallett was appointed assistant-secretary to the college.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A MEETING of the Committee of Council will be held on Wednesday, the 18th day of January next, 1882, in the Council Room, Exeter Hall, Strand, London, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, London, December 13th, 1881.

NOTICE OF QUARTERLY MEETINGS FOR 1882: ELECTION OF MEMBERS.

MEETINGS of the Committee of Council will be held on Wednesday, January 18th, April 12th, July 12th, October 18th. Gentlemen desirous of becoming members must send in their forms of application for election to the General Secretary not later than 21 days before each meeting, viz., March 22nd, May 22nd, September 27th, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

November 4th, 1881. FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

DUBLIN BRANCH.—The annual general meeting of this Branch will, by the kind permission of the President and Fellows, he held on Thursday, January 26th, at 4 o'clock P.M., in the Hall of the King and Queen's College of Physicians, Kildare Street. The officers and Council for the ensuing year will be elected by ballot, and any other necessary business transacted. Owing to the lamented deaths of the President and President-elect, the Council has nominated Dr. Kidd, Vice-President, for the presidency of the Branch, and he has kindly consented to deliver an address on the occasion. The annual dinner of the Branch will be in the College Hall, at 7 o'clock P.M., the incoming President in the chair. Dinner tickets for members who purchase their tickets on or before Tuesday, the 24th instant, 17s. 6d.; for members purchasing their tickets after that date, and for guests, £1.—GEORGE F. DUFFEY, M.D., Honorary Secretary and Treasurer.

METROPOLITAN COUNTIES BRANCH: NORTHERN DISTRICT.—The next meeting of the District will be held on Thursday, January 19th, at 8.30 P.M., at the house of Dr. Cree, 2, Pemberton Villas, St. John's Park, Upper Holloway. Dr. Woakes will re-introduce the discussion on the Etiology of Diphtheria; its Contagium; the Occurrence of Sudden Death in it—reconsidered. Dr. George Ogilvie will read a paper on Electricity as a Therapeutic Agent.—GEO. W. POTTER, M.D., Honorary Secretary, 12, Grosvenor Road, N.—January 2nd, 1882.

BATH AND BRISTOL BRANCH.—The third meeting of the session will be held at the Grand Pump Room Hotel, Bath, on Thursday, January 19th, at 4.15 P.M.; D. Davies, Esq., President.—R. S. FOWLER, E. MARKHAM SKERRITT, M.D., Honorary Secretaries.—Bath, December 1881.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting of the above District will be held on Thursday evening, January 19th, at 8.30 P.M., in the Library of the London Hospital Medical College; Dr. Bridgwater, President-elect of the Metropolitan Counties Branch, in the chair. Dr. Sansom will read a paper on the Best Means of Providing for the Medical Wants of the Poor who are above the Ranks of Pauperism.—FREDERICK WALLACE, Honorary Secretary, 96, Cazenove Road.—December 22nd, 1881.

THAMES VALLEY BRANCH.—The next meeting of this Branch will be held on Thursday, January 26th, at 6 P.M., in the Board Room of the Richmond Hospital. Dinner at the Station Hotel at 7 P.M.—EDWARD L. FENN, M.D., Honorary Secretary, Richmond.

GLOUCESTERSHIRE BRANCH.—The adjourned meeting will be held, under the presidency of J. P. Wilton, Esq., on the evening of Tuesday, January 17th, at 7.30 P.M., in the Board Room of the General Hospital, Cheltenham. Business of the meeting: 1. Dr. Bond, to introduce the subject of Medical Defence Associations, and the desirability of establishing one in connection with this Branch. 2. Dr. J. Stewart to propose the following resolution: "That this Branch hereby records its entire disapproval of the views expressed by the readers of addresses at the annual general meeting of the Association at Ryde, in reference to consultation with homœopathic practitioners." 3. Dr. Bond: The late Epidemic of Scarlatinal Sore-Throat. —RAYNER W. BATTEN, Honorary Secretary.

SOUTHERN BRANCH: ISLE OF WIGHT DISTRICT.—An ordinary meeting will be held at the Young Men's Literary Society Rooms, Newport, on Thursday, January 26th. The chair will be taken by the President, Dr. J. G. Sinclair Coghill, at 4.15 P.M. Agenda—The President's Address: Notes on the Pathology of the Blood. The Use of Nitro-Glycerine in Heart-Disease: W. E. Green, Esq. Puerperal Convulsions treated with Nitro-Glycerine: W. E. Green, Esq. Subject proposed for discussion: The Treatment of Hæmoptysis. The discussion will be opened by Dr. Williamson. Gentlemen who are desirous of introducing patients, exhibiting pathological specimens, or making communications, are requested to signify their intention at once to the Honorary Secretary.—W. E. GREEN, Honorary Secretary.

SOUTH-WESTERN BRANCH: QUARTERLY MEETING.

THE quarterly meeting was held at the South Devon and East Cornwall Hospital, Plymouth, on Saturday, December 31st, 1881, the chair being taken by the President, Dr. HUDSON.

New Members.—Mr. E. Scudamore Angove (Camborne), Mr. C. H. Gamble (Barnstaple), Mr. G. Carter (Plymouth), Mr. J. W. Cooke (Barnstaple), Dr. A. Fernie (Barnstaple), Dr. J. MacCarthy, Surgeon R.N. (Plymouth), and Mr. J. D. Stamp (Ridgway, Plympton), were elected members of the Association and Branch. Mr. H. Jackson (Barnstaple) was elected a member of the Branch.

The recent Prosecution of Professor Ferrier.—It was proposed by Dr. ALDRIDGE (Plympton), seconded by Dr. HUDSON (Redruth), and carried unanimously:

"That this meeting desires to express its sympathy with Dr. Ferrier in the painful position in which he was lately placed, by his prosecution for alleged breach of the Act for the regulation of experiments upon animals, commonly known as the Vivisection Act."

It was proposed by Mr. SWAIN (Plymouth), seconded by Dr. ROLSTON (Mayor of Devonport), and carried unanimously:

"That this meeting, seeing that the working of the Act for the regulation of experiments upon animals, commonly called the Vivisection Act, has hitherto been injurious to scientific progress, and feeling that its continuance is likely greatly to retard physiological advance in this country, requests the Committee of Council of the Association to take steps to procure its repeal. That copies of this resolution be sent to the members of Parliament for the various divisions and boroughs of Devon and Cornwall, with a request that they will give their assistance in procuring a repeal of the Act."

Homœopathic Practitioners, and their Relations with the Association. —It was proposed by Dr. CLAY (Plymouth), seconded by Mr. BUTLER (Camborne), and carried unanimously:

"That this meeting desires to express its entire disapproval of the views, in relation to consultations with homœopathic practitioners, expressed by the readers of addresses in medicine and surgery, at the annual meeting of the Association at Ryde in 1881."

It was proposed by Mr. SQUARE (Plymouth), seconded by Dr. ALDRIDGE (Plympton), and carried unanimously:

"That this meeting desires to direct the attention of the Committee of Council of the Association to the resolutions, in regard to homœopathic practitioners, passed at the annual meeting of the Association in 1852, and reaffirmed at the annual meetings of 1858 and 1861; and now calls upon the Committee of Council to put in force, as speedily as possible, By-law III, against homœopaths and all members of the profession, who assume designations implying the adoption of special modes of treatment."

Communication.—Dr. BAMPTON (Plymouth) described a case of Anuria, of ten days' duration.

THE dignity of State-Councillor has been conferred by the Emperor of Austria on Dr. Alexander Rollet, Professor of Physiology in the University of Graz, in recognition of his long services in the cause of science.

CORRESPONDENCE.

SHIP-SURGEONS.

SIR,—The majority of men who have written on the position of the ship-surgeon are men who have sailed in the best lines. One speaks of the Peninsular and Oriental service fifteen years ago, when it was almost a Government undertaking; and another of the New Zealand emigration service. I have no hesitation in saying that the Peninsular and Oriental service has altered much since then, especially since the Orient line came into competition. Dr. Irwin, surely, is discussing the present ship-surgeon and his position; and men who have sailed both East and West must know that he thoroughly understands what he has written about. I may mention here, that many medical men invest heavily in the different companies' shares; this I add to show that there will be a partiality in correspondence on this subject, as in others.

As one who has sailed for nearly three years, I wish to add my experience to that already given. I went to sea in 1877, and left in 1880, so that many changes cannot have taken place since in the service. I have sailed to America, China, the Cape, and Australia, and I have been in the best lines and in the worst.

I shall speak of the companies and their ships, their captains, their officers, and their surgeons; and, before I do so, I shall add that, from what I know, we need not expect many surgeons who go to sea to contribute much to the pages of your JOURNAL on this subject. This will be partly owing to some not taking the slightest interest in this important matter; but more especially will it be due to the fear of getting dismissed from the companies they serve.

1. The companies and their ships. We have only to look at the daily London and Liverpool papers, to see what a number of these there are. Some have good ships, and some have very bad ones. I know a company who bought a ship twenty-three years old, painted her up, and sent her across the Atlantic with passengers. She foundered at sea; she was insured. Other companies have beautiful ships, and for comfort cannot be surpassed. Here the surgeon is comfortable. Some companies give their captains and officers good pay and good quarters; while, as regards the latter, some companies make no show, or pretence about giving to the surgeon stated quarters. I know a case where the surgeon, who occupied a spare cabin in the first saloon, had, when his ship called at an intermediate port and filled up with passengers, to go amidships and sleep in the hospital, and, when the hospital was full, had to ask the chief mate to allow him to sleep on the sofa of his cabin. In this case, the surgeon got no extra fees. Some companies, when their ships' cabins are all filled up, allow the captain, mate, and purser to let their rooms to passengers on certain conditions; the surgeon, if he be lucky enough to have a surgery or hospital to sleep in, may also let his room. The captain, when he lets his room, sleeps in the ship's chart-room. Speaking of this subject reminds me of a book, *The Captain's Cabin*, written by Mr. Jenkins, M.P. Anyone who has not read it should do so, and those especially who have not acted as ship-surgeons, and who want an insight to ship's routine and life on board. It is a vivid and true picture.

Some companies pay their captains and officers well. These captains may have wages, varying from £500 to £800 yearly. Other companies pay their captains so small a sum as £200 a year. In cases such as this, generally "all hands" have a try at smuggling; and, sir, it is hard for the captain, who has a wife and large family to support, to resist this temptation; and the surgeon, who gets £4, £6, or £8 a month, as the case may be, tries his luck also.

Most companies give their captains and officers a bonus. This bonus may be paid yearly, or at the end of a voyage. It is given to those who navigate safely, who do not disobey the company's orders, and who carry their cargoes safe and land them in good condition. The first and second mates usually get a small bonus, so may the purser; but the surgeon, as a rule, gets neither bonus nor thanks. Usually, a company retains a captain's first year's bonus, to make him invest it in the company; if perchance he has an accident during his second voyage, he loses the first and second year's bonus. All companies do not act in this way. Some companies give their captains a free wine-supply, and an allowance to the purser; other companies give no wine. A company may allow the surgeon wine-money; this may range from one shilling, to one and sixpence, or two shillings per day. The majority of surgeons get no wine-money, the companies saying that their surgeons were drunk so often that they had to do away with it. This is a regular "yarn", for all things connected with shipping have been cut down to the finest point within the last few years; the fact being

that the companies only make this an excuse for their meanness. For I hold that the surgeon who loves drink can get it in many other ways, and be drunk as often as he wishes. He can take it with him, he can order it as medical comforts, he can get it at foreign ports, or the stewards will only be too happy to supply it. All ship-surgeons must know how the sailors and firemen save up and lay by their biscuits until they run into a foreign port, and then have the opportunity of exchanging for rum. What surgeon, who, during a long voyage, has looked into the forecastle locker, and has not found it more than half full of biscuits? So I think, while the sailor can get his rum, the drunken surgeon can get his also. Some companies pay their surgeons when on shore: this is called short pay. This short pay may be either full or half pay. The majority of companies who give full pay require that the surgeon, while his ship is in port, shall sign his name each morning in a book kept on board his ship, stating his time of arrival and departure. Other companies, who give half pay to the surgeon while on shore, let him do as he likes. This matter, of being on duty when in dock, is one that has its evils. It is hard for the surgeon to go down to his ship and sit in his cabin for hours with nothing to do; and it is at this time that the greatest temptation comes for him to forget his status and profession. Captains, mates, engineers, stewards, all are more or less on the Jack a-shore tack, and it is well for the surgeon if he can resist. He would be better away from his ship at this time; for, if accidents do occur, the patient never remains on board, but is sent off to hospital at once. Most companies give the surgeon a gentle reminder, when the ship is clearing for a voyage, that the ship is on no account to be quarantined. Some say this plainly; others, with a mock Christianity, tell you a story of a surgeon who quarantined his ship, and of the awful doom that befel him. Of course, if the surgeon fail to quarantine his ship if infectious cases are on board, he runs the risk of being arrested, imprisoned, and struck off the medical register, and the company have no pity for him; for I venture to say that, had he done his duty and quarantined his ship, he would have been dismissed from the company's employ, or so severely reprimanded that he would see it was his duty to resign. I know a case where a surgeon attended fifteen cases of measles, and landed them all safely. Shortly afterwards, he took measles. His cabin was so small and close, that he lay on a sofa in the saloon. He recovered, came back with his ship, called at the company's office, but he never got thanked for his services, nor in fact congratulated on his recovery. The saying of Jack when up aloft, "One hand for myself, and the other for my master," expresses well the feeling between paid and payer throughout nearly the whole service. All companies, so far as I am aware, have printed rules for the conduct and guidance of captains, officers, and surgeons; these rules may or may not be carried out. There is a want in all these collections of rules. If they defined more accurately and plainly, if they took into consideration all the little things that regulate the action of the captain to the surgeon, and *vice versâ*, they would be worth a lot more than they are at present. The rules, for the most part, refer to duty, the wearing of uniform, etc. As regards uniform, some companies insist on their officers wearing it; while others go about much as they like. I know a company where, if the mate or surgeon went on the quarter-deck without uniform, he would have a message conveyed to him by a quarter-master from the captain, stating that he must observe the regulations. I think that all companies should make it imperative that all officers and surgeons should wear a distinctive uniform. While speaking of uniform, I must mention that all captains and officers have the greatest dislike to wear their uniform ashore; they say it is the livery of the company. I do not know why all have this dislike to it, for it is a tidy and cheap dress for the man who stays in the same line, and for some years at sea.

Most companies allow their surgeons to prescribe medical comforts to the officers and crew, also to the third-class and steerage passengers. Some companies reprove their surgeons when the medical comfort bill is above 7s. 6d. or 15s., while others allow up to £20. I know a good line, where all the medical comforts ordered by the surgeon had to be countersigned by the captain. This is a nasty state of affairs. I was surgeon to this line, but I took good care never to order a medical comfort during my two voyages, each voyage being of four and a half months' duration. Some companies also allow their surgeons to have their meals at the first saloon table; other companies will not allow them this. This order is trying to a gentleman, and gives rise to an amount of whispering among the saloon-passengers; for they cannot make out why the doctor can come and chat with them on deck, and then be forbidden the saloon-table. How many surgeons sail under this rule? A good many, I know; for this rule exists in one of the best lines sailing out of Liverpool.

All companies have their ships surveyed by a Board of Trade surveyor. Everyone who has visited a steamer will have noticed over each cabin, "Certified to accommodate" so many seamen—two, three, or six, as the case may be. All the officers' cabins, and the surgeons' as well, are marked so. This means, for example, that, if the surgeon occupied a room with "certified to accommodate three seamen" stamped on the woodwork over the door, two more souls could be put into his room along with him. He might grumble, but this can be done to him or to any other of the officers.

Another point: when captain, officers, crew, and surgeons take on hands to fill up vacancies on board-ship, they sign articles, and it is to be observed that these articles say nothing about quarters. The officers may go and look at the ship and accommodation set apart for them. If they do not like them, they need not go. These articles that they sign have, however, a bill of fare attached, and, if the captain wished it during the voyage, he could give an order that all hands were to have this diet only. This bill of fare mentions bacon, biscuit, water, sugar, tea, lime-juice, etc.

These remarks, sir, on the companies and their ships will, I hope, go to show that there is no good, when speaking of reform, to confine our attention to the best lines, leaving out the middle-class and third and fourth-rate ones.

2. The captains or masters. Various are our experiences of these men. Seldom, however, has it been my good fortune to meet them gentlemen. Three-fourths of them had come out of the forecastle, and had had their time at being roughly handled while ordinary seamen; and so, when placed in authority, abused it. There are gentlemen in some lines, but these are generally half-pay naval officers, midshipmen, or our modern apprentices; but the captain we meet with oftenest has come from before the mast. Some captains do not interfere with the surgeons; others continually offer insults to them, making rude remarks to them before the officers, crew, or passengers, and sneering at any suggestion the surgeon may make regarding the health of those on board. I know one captain, who, on being told by the surgeon that the forecastle was in a dirty state, said to him before the mate: "Well, go and clean it out." A disagreeable fashion that captains have when introducing the ship's surgeon, is, to say: "This is my doctor", without even pretending that the surgeon has an individual name. Everything on board ship is "my" with these captains—"my ship", "my surgeon", "my boy"; so that at sea they are very important men; but when they are in dock, or when the director or owner comes on board, he finds his true level, and "Yes, sir", or "No, sir", is all we hear. To an intellectual surgeon, this is trying, for it must lower the captain in his estimation. The captains in some lines have supreme control on board-ship. In emigrant ships, the surgeon is placed before the master, and in good lines each department has a "head", and he is accountable to the owners for anything that may go wrong. I may state that I have known captains to be so "supreme", that they have refused the surgeon liberty to go on shore, this, perhaps, being the surgeon's last and only chance of seeing some foreign place of interest.

3. The officers. These include the mates, engineers, carpenters and boatswain. These are divided into senior and junior. Senior officers are the first and second mates, first engineer and purser. The remainder comprises the other mates who mess by themselves; the remaining engineers, who mess by themselves; the boatswain and carpenter having their boys, tea and mess together. The senior officers generally dine at the first saloon table. When the surgeon comes in, with whom or behind whom, I can give no definite information; and I must say that the well known ship advertisement, "We carry an experienced surgeon, stewards, and crew," will not give us much in finding him a place. As a rule, the officers, senior or junior have little in common with the surgeon, except when passengers are few, though he and the first mate, purser, or first engineer, are great friends. It seems to be a rule, that the surgeon cannot be a general friend, that is, that he and the captain will associate, or else he will go with the officers. Senior and junior officers are much better paid than the surgeon, even the carpenter getting higher wages than the surgeon. The first mate is the hard working man, and like the other officers, spends most of his watch below in sleep.

4. The Surgeon. "As you make your bed so you lie on it." So says the old proverb. This seems to be the text taken by almost all your correspondents, but I am far from thinking so. Many a man goes on board, and has to stand snubs from even his inferiors, until he has time to show them what he really is. The surgeon may be senior or junior on board, for some ships carry two, and in many cases do not display a very amiable spirit towards one another. To become appointed to a ship, he only requires to be registered as a surgeon. If he have a director or shareholder as his friend, he is almost sure to get an appointment at once. If he be less fortunate, he will go round the different offices and leave his testimonials. Perhaps he may be in luck,

but most likely he will have to wait, and at last getting anxious to go away, he leaves by an inferior line. I have heard it stated, that in the emigrant service, the appointment rests chiefly with the chemists, who as a rule give the appointment to the highest bidder. As a general rule, the surgeon goes to sea fresh from the dissecting-room, just having passed his final examination; he knows little or nothing of society, or of the duty and respect he owes to his position as a medical man, or anything about ship life. He goes into the chest-room, on the bridge, or into the wheel-house; at last he is in a kind of way kicked into his proper room, or into his natural one. It is a pity that the surgeon has nothing to guide him, as to how he should act, where he should go, what are his duties and position; and surgeons must make up their minds to agitate this question, that is, unless they wish to occupy the low level that they generally do with the world at large. As regards the surgeon's pay, it is miserably small in some lines, while in others it is quite enough. Extra fees in good lines make up his annual income to between £300 and £500. Surgeons often do themselves an injury by sneaking, or demanding fees. Most companies have it a rule, that surgeons are at liberty to make their own fees on all those patients who contract diseases outside the ship. I always acted in this way, and was never reproved for so doing. I can scarcely credit the statement of a correspondent, that he knows a line where the surgeons have to hand over all the fees to the company. It is a pity that such lines can get men to go. The surgeons' quarters vary in comfort, and in their position; in one line a little square box, where his bunk, trunk, drugs, splints, and bandages are all huddled together, into which he creeps; in another line something better, while in the best he will have his private room, hospital and surgery, all separate, and exclusively his own. His quarters may be aft or amidships, on deck or below. This question of accommodation has given rise to a good amount of correspondence in your JOURNAL in connection with surgeons of the British Navy.

We all know how the surgeon there who, although provided with good quarters, has to give them up for the first lieutenant; and if he insist on having his proper cabin, he has taken the best way of making all the mess do the disagreeable to him. As regards the surgeon's position on board, he must wait and see—for all lines have different rules and customs. The surgeons may dine in the saloon; they may have to touch their cap to the captain, or be given directions to by the chief steward; or, as in some of the cross Atlantic ships, salute the flag when they come on the quarter-deck! Surgeons have generally to accompany and follow the captain, first mate, and purser, and chief steward during inspection. This is a printed rule with some companies, only they neglect to state who the surgeon should follow, and this is the rub. We often hear it said on board, You must "toe the line" on this ship. I can only say, I like to toe the line; but I do wish that, in all cases, there was a real line to toe. The vast majority of surgeons drink, and so bring disgrace on themselves and on the profession. As an illustration of this, I may mention a case that occurred in my own experience. I was talking to a lady one day on the position of the ship's surgeon. She told me that it was the parting advice of one of her lady friends, who had been several voyages, not to speak to the doctor as they were generally drunkards—and this is the prevalent opinion. How many surgeons fall down the ladders or into the holds when drunk? How many of them have stated, and stated falsely, that a person suffered from a disease which rendered it imperative that he should quarantine the ship; and then, when sent a thirty or forty-dollar bill, said it was all right. I know a case of this in an Atlantic steamer. How many surgeons play cards, smoke, and drink in the smoke-room?—take their share at telling and coining filthy stories of the vilest hue, may be, about passengers on board? A great many, I am afraid, look on the smoke-room as a place where the surgeon should not he allowed to enter. My experience of smoke-rooms is, that they are floating public-houses; and certainly the amount of drink consumed, and the number of drunken men who come out of them, is in excess of what we see on shore—£900 worth of alcohol in different forms, was drunk during one voyage I made. Even now, companies are seeing that they must hide this great drinking—for in their latest built ships there is a lift direct from the bar to the smoke-room, so that the outside passengers may not see.

If the surgeon conduct himself as a gentleman, he, in the long run, will be treated as such, though he may have some difficulty in teaching the officers and stewards their duty towards him. If he degrade himself in the eyes of captain, officers, crew and passengers, he cannot expect to be looked up to or his advice respected. If he try to force fees from passengers, and be reported to the company, and is then dismissed: if he gets drunk, goes to the smoke-room, and leaves his work undone, finding card-playing more congenial—then he must take the consequences. If he order medical comforts and drink them himself with the help of his friends, all must despise and pity him. If the surgeon sing, read, or play—if he try to make the long voyage pleasant for the passengers, and smoothes over the many little squabbles that crop up, he will have his reward.

I hope, sir, I have not drawn too black a picture of any one in the mercantile marine. I have only given my experience. Brighter days are in store for the ship-surgeon; and the day when he was looked on as a necessary evil will, I trust, soon be forgotten. We can all recal the days when non-qualified men were engaged to act as surgeons on board-ship. Our present rules point to a little improvement. I would suggest that we should get the Board of Trade to fix definitely the size and position of the surgeon's quarters, and to engage none but doubly qualified men, the Board alone appointing the surgeon; that we should get the different companies to give their surgeons definite and clear rules as to their pay, duty, uniform, position on board, where they shall mess, whom they shall salute, and when they can go ashore; that we should get all surgeons to conduct themselves as true gentlemen. Society would then take a friendly interest in them. —I enclose my card, and am, sir, yours sincerely,

M.D., L.R.C.P., M.R.C.S.

SIR,—Having read several letters on the "grievances" of the ship-surgeon in the BRITISH MEDICAL JOURNAL, I beg to give a few of my experiences during the period I served as surgeon in three different companies. In the first place, I must state that I never had the least fault to find with the owners or managers of any of the companies; I always found them courteous and civil, and was granted leave from time to time, my pay continuing during my absence from duty. Indeed, on one occasion, during alterations to my ship, I was three months on shore without any duty to perform. Regarding the accommodation for surgeons on board, there is much need for improvement; in some of the more modern ships, this accommodation is forthcoming.

I have sailed in a large Atlantic liner capable of carrying fifteen hundred people (on that occasion we carried seven hundred), and the room allotted to me was simply not fit for a dog to inhabit; its dimensions were about six feet by four; no window, unless the dead light in the deck above might be called one; and the stench at times from the water-closet in the ladies' cabin adjoining was enough to cause a pestilence. On my return from the voyage, I reported this to the manager; he said, very civily, that he was not aware of the facts, and would "see about it." I did not sail again in that ship. With regard to drugs, I never had the slightest difficulty, ordering whatever I wanted. I have sailed with nine captains, and, with two or three exceptions, have found them gentlemen.

On one occasion, a man being very ill, there being no regular hospital on board, I ordered the man into an unused mess-room. The captain asked me what right I had to give orders on *his* ship. I replied that I had a perfect right to give orders in my department. With this class of man, who undoubtedly suffered from a disease called "captain" on the brain, I always requested a written document stating his refusal to carry out my orders. I invariably had the best of it.

There is no doubt that there have been, I am sorry to say, very many surgeons who have done anything but keep up the prestige of the profession on board ship, and of course this does not improve the position of the ship-surgeon. As to the position of a surgeon on board-ship, he is always treated as an educated gentleman, and looked up to by everyone as a friend; at least, it is his own fault if this be not so.—I am, sir, yours, etc.,

M. B. M. A.

SIR,—Having been a ship-surgeon for two years in the Allan line of steamers, sailing from Liverpool to Canada and America, perhaps you will permit me to give my experience during that time, as it varies in almost every particular from that of Dr. Irwin. In the first place, the position of the ship-surgeon, in my opinion, is one very much of his own making. So long as he conducts himself as a gentleman, and performs his varied duties to the best of his ability, he is treated as a gentleman, and his opinions, on many points, professional and otherwise, are valued and respected.

The usual pay for a surgeon sailing from Liverpool, is from nine to ten pounds per month—but, all he can claim legally is pay at the rate of one shilling per month; as in the Allan company, and other lines, he signs articles before sailing, for that sum. On inquiring the reason for this; I was informed that the large steamboat companies had to do it in self-defence; so as to ensure the good behaviour of their medical officers for the voyage. This, I consider, must be looked upon as a very humiliating state of affairs for gentlemen to submit to. I can only trust that in time confidence may, once more, be placed in the medical officers by the different owners of ocean steamers, and that the surgeon

of the ship will sign articles on the same conditions as the other members of the crew, even though his pay should be on a par with that of the chief cook. My cabin was similar to those allotted to first-class passengers; and, as regards size, was certified to accommodate three seamen. As medical officer of the ship all things pertaining to sanitary matters were completely under my direct supervision. The steerages were inspected by me every morning, and any complaints (which were few) I had to make as regards the condition of them, were speedily rectified by simply informing the chief steward. If there was a want of air in them, all I had to do was to acquaint the officer on the bridge of the fact, and weather permitting, a windsail was immediately rigged up, and a free current of air sent through the steerages. Any special diet to passengers I chose to order was always complied with, and never refused if it could be got. Sick passengers were removed to the hospital at my discretion, and once each day I reported to the captain the health of the ship and number of patients in the hospital, and nature of their disease.

The Government scale of medicine is certainly deficient, but in the company in which I served this need not be considered as a grievance, as I had full liberty to order whatever additional medicines I required. This is not the case in every company; for I remember a friend of mine who was surgeon on board one of the other ocean steamers, telling me that "he was not allowed to order a dozen pills more, over that of the Government scale."

The emigrants travelling by the Allan steamers are inspected previously to embarkation, by the surgeon of the ship, so that any case of which he is suspicious is put to the one side, till the inspection takes place by the Government officer previously to sailing. In this way it is almost impossible for a case of infectious disease to pass unnoticed; and I may state, that during two years I was at sea, in which time I made twenty-eight trips across the Atlantic, I never had a case of infectious disease occurring during any voyage. I have sailed with several captains, and I do not remember ever having received at their hands anything but extreme kindness and courtesy; and in any trouble or difficulty they were always ready and willing to give me the best advice and assistance.

I will always look back (with pleasure) to my seafaring experience as a time in which I made many pleasant and lasting friendships, and I would advise every surgeon, after getting his degree, to endeavour to enter the service of a good ocean steamboat company for a short time, and I am certain he will corroborate my statement when I say all the rough corners about him will be polished off.—I am, sir, yours faithfully,

WILLIAM J. SHAW, M.R.C.S.

HOSPITAL AND DISPENSARY MANAGEMENT.

REIGATE COTTAGE HOSPITAL.

THE fifteenth annual report of this admirable institution gives evidence of much useful work thoroughly well done. The Reigate Hospital, owing to the energy of Dr. Walters, and to the admirable management of Mrs. Walters, has long been recognised as a model institution. The regularity and method with which the administration is carried on greatly impress a visitor, and it is not too much to say that the whole work is as systematically and carefully done as at any of the best clinical hospitals. For fifteen years Dr. Walters has filled the post of medical officer (*i.e.*, of house-surgeon). This has necessarily entailed a great amount of work upon one man, and to obviate it for the future the committee have, at Dr. Walters's suggestion, appointed four gentlemen as an honorary medical staff to act in rotation as medical officer for one month each. This change is an useful and necessary one, and is calculated, if possible, to increase the popularity this charity has already earned. During the year 185 in-patients have been under treatment, of which, including 25 accidents, 101 were surgical (nearly half of which were cases of operation), and 69 medical cases. The mortality was 3.9 per cent., and 71 per cent. of the completed cases were discharged cured or convalescent. The average duration of each case was 27.7 days, and the average cost of each in-patient, including all the expenses, was £4 7s. 6d., or £1 1s. 9d. per week.

LEWISHAM SELF-SUPPORTING DISPENSARY.

THE Charity Organisation *Reporter* of Dec. 22nd, gives the following notice of the Lewisham Self-supporting Dispensary. "We have before us the first annual report of this institution, which was established under the auspices of the Metropolitan Provident Association. During the year 260 cards, representing 696 members, have been issued; of these members 520 remained on the books on September 30th. The receipts have been £98 10s. 6d., 25 per cent. of which has sufficed to cover the fixed and miscellaneous expenses, leaving 75 per cent. for the remuneration of the medical staff. At the same time, as the honorary secretary points out, one must not be too sanguine over the first year, the expense of the whole of the printed matter and various other items, which will in future be charged to the general fund, having been borne by the preliminary fund, which amounted to £36 9s., including £25 given by the trustees of the Lewisham Parochial Charities. Owing, however, to the removal of the chief office to Lee Bridge, where the use of a room has been placed at the disposal of the committee, the honorary secretary trusts that next year 90 per cent. of the receipts will be available for the medical expenses."

MILITARY AND NAVAL MEDICAL SERVICES.

THE ARMY AND NAVY MEDICAL SERVICES.

SIR,—A correspondent of the *United Service Gazette* reviews the relative prospects of candidates for the Army and Naval Medical Services from a novel standpoint. He traces the careers, as shown in the official records, of those who joined during a period of five years—from 1871 to 1875. He states: "The period selected was taken at haphazard, but it is very suitable for the purpose of a true comparison, as all the young men were drawn from the same sources, passed the same entrance examination, and underwent the same course at Netley before being drafted to various appointments.

	Army.		Navy.
Numbers entered from January 1871 to December 1875	126	....	120
Of these, there—			
Resigned voluntarily	10	....	18
Resigned to avoid court-martial	0	....	1
Were tried by court-martial	0	....	6
Were dismissed for misconduct	1	....	11
Retired on account of ill-health	0	....	4
Died while serving on full-pay	6	....	8
Were promoted to higher rank	1	....	1
Number removed from the Lists for various reasons	17	....	42
or, per cent.	13.5	....	35
Number remaining in each Service on January 1st, 1881	109	....	78
or, per cent.	86.5	....	65

Having taken the trouble to test the accuracy of the results here tabulated, I have found them substantially correct, but there can be no doubt that the retirements from the army on account of ill-health are included amongst the voluntary resignations, so that the proportion of these latter should be 10 to 22, or 7.9 to 18.3 per cent. of the number who joined. It is also somewhat curious to observe how frequently in the navy those who passed the best examinations were also amongst the first to quit the career of their choice. Evidently ability and professional knowledge are at a discount in the Naval Medical Department. "Surtout, point de zèle." Perhaps the new School of Hygiene at Haslar may thus faithfully fulfil its object of leaving at rest the dormant intellects intrusted to its care. For the clear and telling exposition, in your last number, of the loss sustained by young medical officers in being withdrawn from the great advantages of the excellent school at Netley, the members of the profession owe you a debt of gratitude.

Another source of dissatisfaction in the Naval Medical Service is the uncourteous, unsympathetic, and unprofessional manner with which medical officers are received by the heads of the Department.—I am, etc.,

MEDICUS NAVALIS.

NAVAL MEDICAL SERVICE.

SIR,—In answer to "Teredo's" inquiries in your issue of the 31st ult.—1. Leave is only allowed at their lordships' discretion; in the course of a year, a surgeon can obtain forty-two days; but in cases of emergency, or very urgent "private affairs", the authorities are most considerate. 2. Surgeons on board ship belong to the ward-room mess; on shore, when doing hospital duty, to the medical mess. A surgeon on appointment ranks with lieutenant R.N.; his social position depends entirely upon himself; in fact, as he chooses to make it. 3. I am not aware of any special roster for regulating service in unpleasant stations, or in small ships. From my experience of nearly eleven years, all appointments are made with the greatest possible care, and with due regard to ability and services. Surgeons on entry after completing a special course of instruction at Haslar, are sent to sea-going or harbour ships. It would be impossible to lay down a hard-and-fast rule as regards service on shore and in harbour ships; but, roughly speaking, it would average nearly one-half of the period of service as surgeon (twelve years). 4. A surgeon when in charge has to comply with the printed instructions for medical officers; he has to visit the sick at least twice each day, and make a morning report to his captain of their state and condition; to keep a journal in which is recorded all important cases, a brief history of the movements of the ship, including topographical remarks, observations on physical geography, climatology, natural history, etc., and all other matters relating to the health of the crew; he has also to send to the Medical Director-General a quarterly nosological return, which is compiled from his daily note-book. 5. When under a senior medical officer, the junior renders his senior every assistance, and in his absence, or in the event of his invaliding, he is held responsible for the various medical returns; altogether, the duties are light, pleasant, and as independent as they can be with due regard to the discipline which is necessary on board ship.

Hoping I am not trespassing too much on your space, I remain, yours obediently,

SURGEON R.N.

THE Registrar-General's report shows that during last week the annual rate of mortality in twenty large English towns averaged 25.2 per 1000. In London 2,799 births and 1,858 deaths were registered, and the annual death-rate declined from 28.3 per 1000 in the preceding week to 24.9. The deaths included 20 from small-pox, 53 from measles, 44 from scarlet fever, 13 from diphtheria, 103 from whooping-cough, 21 from enteric fever, and 12 from diarrhœa.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

SMALL-POX AT NOTTINGHAM.

THE spread of what might easily have proved a serious epidemic of small-pox at Nottingham has, it may be hoped, been effectually stopped by the prompt and energetic measures taken by the health-officer, Dr. Seaton, to stamp out the disease. It appears, from reports with which Dr. Seaton has furnished us, that a woman suffering from a complaint which was undoubtedly unrecognised small-pox, was admitted into Nottingham workhouse, on November 5th. She left the workhouse on November 10th, and went to a public house at Newark. On the 18th of that month, her infant of nine months was found to be suffering from small-pox, and the mother and child were therefore removed to the Newark infectious hospital. Subsequently, two other cases (one fatal) were sent to this hospital, both having originated at the same public house. On November 24th, fourteen days after the woman left Nottingham, a case of small-pox was admitted to the Nottingham infectious hospital from the workhouse; and, thirteen days later, four other cases were removed. On visiting the workhouse, on December 7th, Dr. Seaton was informed that at the date when the first case (namely, that admitted on November 24th) occurred, there were fourteen persons in the ward, and of those, four were persons afterwards attacked by small-pox. Another case subsequently admitted was also one of the fourteen exposed to infection on November 24th; and a sixth was a woman who had been in the ward on that day to see what was the matter with the child then attacked. On December 12th, a child was admitted to the hospital from a house in Radford. This child, which had been ill for five days, although medical assistance had not been sought till the 12th, was also one of the fourteen exposed to inspection on November 24th. It had been taken out of the workhouse a week afterwards, and its illness commenced on December 7th. Since then other cases, bringing up the total to twenty-three, have occurred in the borough; and Dr. Seaton has had to deal with, at least, seven centres of infection. It will, of course, be necessary to watch each of these, as, though the cases have been promptly removed, and other measures taken to confine the disease within the narrowest possible limits, it can hardly be hoped that further trouble will not arise. Dr. Seaton has, however, exerted himself strenuously to stamp out the infection. He has not only secured the vaccination of the invaded households and their neighbours, but has convened meetings of the workpeople, and has urged upon them the importance of taking precautionary measures. With the cordial co-operation of the employers of labour in the district, one of whom set the example of being revaccinated, much has been done towards the protection of the invaded locality. It is greatly to be hoped that these energetic measures may be found sufficient to check the threatened epidemic; though it will, of course, be impossible to speak definitely on this point for several days yet.

THE SCARLET FEVER EPIDEMIC AT HULL.

SCARLATINA still continues very prevalent at Hull. No fewer than fifty-three deaths from the disease have already happened, and a large number of additional cases have been reported. Most of the Sunday schools are closed, and the School Board have been requested to shut up their schools for an additional fortnight. A deputation of the Sanitary Committee to the school authorities having been unsuccessful in altering the original decision, a special meeting is to be held to decide whether or not the request for extension of closing shall be acceded to.

MEDICAL ATTENDANCE ON THE POOR.

A VERY painful case has recently been inquired into by a coroner's court and jury at Tottenham. A poor woman of the name of Watson, near her confinement, having fallen ill, applied for and obtained the aid of a Mr. Whiffen. For his week's attendance he charged and obtained the sum of 10s. 6d. Having been asked to attend the woman in her confinement he refused so to do unless his fee of £1 1s. was prepaid. This it would appear her husband could not do, as he was in distressed circumstances from want of work. She was confined on Christmas-day, but secured no attendance save that of her mother-in-law, who acted as nurse and midwife. She progressed favourably for a few days, when she suddenly became faint, and her husband went for Mr. Whiffen, who, it is alleged, declined to go unless the husband brought him a fee of 2s. 6d. He returned to get the money only to find that his wife was dead.

At the inquiry, some not unnatural remarks were made by the jury as to the apparent harshness of the medical gentleman in refusing to attend the unfortunate woman without prepayment, which the coroner questioned, stating that, according to the law, it was not compulsory on a medical man to attend any case if he was not minded so to do—a principle which, correct though it unquestionably be, might have been better carried out in its occasional breach than in its strict observance—in this case notably, as the poor husband had already paid what he could for Mr. Whiffen's attendance, which was an earnest that he was honestly inclined.

On thing came out at the inquiry, and that is the difficulty experienced at Tottenham in getting the attendance of the parish doctor. Does it arise from indisposition to grant orders on the part of the relieving officer, or from unreadiness to attend on the part of the medical gentleman?

REPORTS OF MEDICAL OFFICERS OF HEALTH.

JARROW.—Dr. Bradley has made an excellent beginning, and presents a report of considerable merit. The report, which is compact in form and methodical in arrangement, shows a state of things by no means creditable to the Town Council. In many cases, Dr. Bradley has found faulty drainage arrangements, insufficient and unsuitable midden accommodation, and an abominable system of contract refuse removal. Towards the close of the year an inspection was held by an official from Whitehall upon the proposal to borrow money for converting the old ashpits and privies into box or earth closets. The report does not show whether the application was successful, but it is evident that the town will be much benefited by the change, since the scavenging can be systematically and regularly performed. Jarrow possesses no hospital accommodation for the isolation of infectious diseases. Notwithstanding Dr. Bradley's praiseworthy efforts to secure such provision, the borough is still deficient in this important respect, and indeed seems likely to remain so until some fatal epidemic decimates its population. The health-officer aptly illustrates the pressing need for a hospital when, in alluding to the prevalence of scarlet fever in one family, he states that "in an adjoining room a woman was daily expecting her confinement. Every precaution was made to prevent the scarlatinal virus from entering the room, and it is satisfactory to learn that the lying-in woman made a rapid recovery, and that neither she nor the infant took the fever." Dr. Bradley adds: "Knowing the danger of exposing the puerperal woman to the scarlatinal virus, as was apparent and almost unavoidable in this case, my feelings are better imagined than described. Had the sanitary authority shared my anxiety of mind in this and in a somewhat similar case, they would not hesitate to provide a hospital for infectious disease." In 1880, the population of Jarrow was estimated at 25,000 souls, and the birth- and death-rates were 40.52 and 19.76 per 1,000 respectively. Of the total deaths, 100 were due to diseases of the respiratory organs—an increase of 16 upon those of 1879. Phthisis was fatal in 40 cases, and heart-disease in 21. One hundred and thirty-seven deaths were attributed to zymotic diseases. Measles were generally prevalent throughout the year, and were epidemic towards its close. During the year the sewers are reported as having been thoroughly ventilated, and the common lodging-houses systematically inspected.

BELPER RURAL DISTRICT.—The reports in this district by Messrs. Gaylor and Allen are upon the whole remarkably good specimens of reports on rural districts. In the Alfreton district, which is under the charge of Mr. Gaylor, the population is estimated at 18,710 persons, spread over an area of 23,243 acres, and living in 13 parishes. The total number of births last year was 567, and the total number of deaths 273, equal to rates of 30.30 and 14.59 per 1,000 respectively. The infant mortality ran rather high, the deaths under five years of age numbering 120, or 43.95 per cent. of the whole, a proportion which Mr. Gaylor admits is much higher than it should be. Of the total deaths in this district, 15 were due to zymotic causes, scarlatina being responsible for 10 deaths, measles for 3, and whooping-cough for 1. Fourteen deaths were registered as due to diarrhœal causes, a mortality which Mr. Gaylor attributes to improper feeding and nursing. Mr. Allen, in his report on the Belper portion of the district, estimates the present population at 17,056 souls. Amongst these he reports a birth-rate of 33.1, and a death-rate of 16.3 per 1,000 respectively. The zymotic rate was equal to 2.1 per 1,000, a decrease upon that reported for 1879. Of the 36 deaths from these causes, 5 were registered from measles, 10 each from scarlet fever and diarrhœa, and 3 from whooping-cough. Scarlet fever and measles were "almost" epidemic in many portions of the district, a fact which affords Mr. Allen ground for urging upon

his authority the necessity of establishing a hospital for the reception of cases of infectious diseases. Phthisis causes 17 deaths, heart disease 24, and diseases of the chest 46. Mr. Allen has little to report in the matter of sanitary improvement; but he thinks there is much to encourage himself and the officials in their uphill work. In a portion of the district by-laws are in force, and there is some promise of an extended water-supply.

BOLTON.—Mr. Sargeant's report consists largely of a series of elaborate statistical tables; but he has not neglected to give in the body of his report sufficiently ample information as to the sanitary condition of the borough. The present report is for the fifteen months ended December 31st, 1880, with the view of making future reports uniform in point of date with those of medical officers of health generally. During the period reported on, there were 4,644 births and 2,835 deaths in the borough, giving a natural increase to the population of 1,809. The population at the middle of 1880 was estimated to be 106,700, or 109 less than the natural increase, and considerably below that which would be arrived at according to the rule laid down by the Registrar-General. This is accounted for by the late depression in trade, which caused the population to fluctuate largely. The mortality was at the rate of 20.58 per 1,000, being the lowest rate of mortality ever reported for Bolton. It was 0.62 per 1,000 lower than 1879, and nearly 5 per 1,000 below the average for the preceding ten years—equivalent, in fact, to an annual saving of more than 500 lives. Of the total deaths, 692 were due to zymotic diseases—equal to 24.4 per cent. of the entire mortality, and 4.5 per 1,005 of the population. As compared with 1879, the zymotic death-rate was more than doubled, and showed an average higher than that recorded for the preceding ten years. This mortality is readily accounted for by the fatal prevalence of measles, scarlet fever, and diarrhœa; the latter malady alone causing 245 deaths, whilst measles terminated fatally in 216 cases, and scarlet fever in 112. Small-pox was also more or less prevalent in Bolton, though only one death was registered from this cause. Great value is attached by the health-officer to the system in force requiring the compulsory notification of infectious diseases, which, he states, "has given every satisfaction, and has proved of immense value in limiting the spread of contagion." During the year no less than 1,646 cases were reported. The sanitary work of the borough was carefully carried out, and many minor improvements are noted. The slaughter-houses appear to have been satisfactorily conducted; but many of them are objectionable on account of their overcrowded situation; and the Town Council would do well to seriously consider Mr. Sargeant's recommendation for the provision of a public *abattoir*.

BOARDING OUT OF PAUPER CHILDREN.

SIR,—Could you or some member kindly put me right in the following case? I am parish surgeon, and am told that I am not entitled to the fee of 2s. 6d. for visiting and filling up the form for each out-boarding pauper child for the first time, that is, for the first quarter, but only for the subsequent visits, and am paid accordingly. Ought I not to be paid for my first visit and for filling up the form?—I am, sir, yours faithfully, PARISH MEDICAL OFFICER.

*** We are very sorry for our correspondent; but, unfortunately, the wording of the order is against him, for there it is implied that it is the duty of the medical officer to make the visit and fill up the form. This is another illustration of the ill results that spring from the absence of unity in the medical body politic. Neither the church nor the law would allow any order to be issued, or Bill to be introduced, saddling them with fresh obligations without additional payment. Our correspondent and his brethren have only themselves to thank for the melancholy plight in which they frequently find themselves. Why do they not recall the lesson taught in their youth, that "Union is strength?"

T. H. T.—The Public Health Act and the Rivers Pollution Prevention Act may, in common with all other Acts of Parliament, be obtained of the Queen's Printers, Messrs. Eyre and Spottiswoode, East Harding Street, Fleet Street; or through any bookseller. There are several annotated editions of the Acts in question, such as Lumley's, Glen's, Chambers's, and Fitzgerald's. The cheapest is a handy little book which is, we believe, published by Messrs. Knight and Co. for three shillings and sixpence.

SIR,—I wish to ask if I should be justified in applying for the appointment of medical officer of a district under the following circumstances. My predecessor, being an L.S.A. only, never held the appointment, although he practised here forty years. Neither the present medical officer or myself are resident in the district, and he holds it as an annual appointment. It is not advertised. Although I am not resident, I consider the district mine, as I reside three miles nearer, and my practice extends over the whole district.

Should I be acting according to "etiquette" if I made application, although it is not advertised?—I am, etc., H. A. H.

*** We consider that our correspondent would, under the circumstances named in his letter, be quite justified in intimating to the board of guardians his readiness to take the office, if the board decide on offering it to him. Under existing orders of the Central Department, boards of guardians are bound to submit every non-resident medical officer's appointment to annual re-election. Their neglect to advertise the vacancy accruing at a certain date could not bar a qualified outsider from applying for it.

OBITUARY.

JOHN FLINT SOUTH, F.R.C.S.

THE senior members of our profession, especially those educated at the formerly united hospitals of Guy's and St. Thomas's, will be sorry to hear that this well known, and with many, most popular man, expired at his residence in Blackheath Park, on Sunday last the 8th instant, in his 85th year.

Mr. South was a son of a well known and highly respectable apothecary in an extensive and lucrative practice in Lant Street, Borough, who gave him, in common with all his children, a first rate classical education. The eccentric Sir James South, the well known astronomer royal who forsook medicine, as the subject of this notice said, for "star-gazing," and built the well-known observatory in his grounds at Kensington, was an elder brother. On the completion of his preliminary education he was apprenticed to Mr. Henry Cline, junr., surgeon to St. Thomas's Hospital, on February 18th, 1814, who received with him the large premium of £500 to board and lodge out of the house, resident pupils at that time paying £1000; but in "those good old days when George the Third was king," this meant in most cases, as in his, an appointment on the staff of the ancient hospital at the proper time. On the completion of his professional education, he underwent the usual examination and was admitted a member of the Royal College of Surgeons on August 6th, 1819; and when the charter was granted to that institution, he was of course elected one of the honorary fellows December 11th, 1843. After a long visit to Germany, he settled down to practice, and whilst waiting for patients amused himself in literary pursuits, translating Otto's *Compendium of Human and Comparative Anatomy*, with notes and references—a text-book well known to students. He also wrote a *Short Description of the Bones*. His principal work was, however, a translation of Chelius' *System of Surgery*, with copious and most valuable notes. For many years, he held the office of surgeon to St. Thomas's Hospital, where he also lectured on surgery. Mr. South was elected a member of the Council of the Royal College of Surgeons in 1841, with his senior colleague Mr. J. M. Arnott, who still survives. In 1844 he delivered the Hunterian Oration, the following year he was appointed Arris and Gale professor of human anatomy and surgery. In 1849, he was elected, with Mr. C. H. Hawkins, a member of the court of examiners, and as such, kept a record of every candidate he examined, where educated and the result, a work of great labour, with little or no good. In 1851, he obtained the highest collegiate honour, that of president, and again in 1860. Mr. South was twice married. By his first wife he leaves a son and daughter, and by the lady who survives him two daughters. He was a member of many learned societies abroad, and in constant correspondence with scientific men in Germany, France, and Stockholm, many of whom, at the recent International Medical Congress, visited their venerable friend at his beautiful residence in Blackheath Park. The simple act of introducing our vegetable marrow obtained for him the large Linnæan medal, and the fellowship of the society.

To Mr. South is due the credit of causing the remains of John Hunter, discovered by the late Mr. F. P. Buckland in the vaults of St. Martin's-in-the-Fields, to be removed to the most appropriate resting place in Westminster Abbey. The inscription on the tablet marking the spot was from his pen.

For some years past Mr. South had been engaged writing a history of the Royal College of Surgeons, which extended to such a length that it became a history of the profession. He had previously completed a history of St. Thomas's Hospital.

LIVERPOOL MEDICAL INSTITUTION.—The list of Officers and Council for the ensuing year adopted at the annual meeting, January 10th, 1882, is as follows. *President:* *T. Shadford Walker. *Vice-Presidents:* Robert Gee, Benjamin Townson, *Edgar A. Browne, *Henry G. Rawdon. *Hon. Treasurer:* W. Macfie Campbell. *Hon. Gen. Secretary:* Rushton Parker. *Hon. Sec. to Ordinary Meetings:* *Frank T. Paul. *Hon. Librarian:* J. M. Howie. *Council:* J. E. Burton, D. Dunlop Costine, J. N. Cregeen, J. Sibley Hicks, Arthur E. Hopper, *Alexander Dunbar, *James Lambert, *E. Mason Sheldon, *J. Kellett Smith, *Samuel Spratley, *John H. Wilson, *Arthur Wiglesworth. *Microscopical Committee:* W. Alexander, P. M. Braidwood, Henry Briggs, T. R. Glynn, Karl Grossmann, J. Sibley Hicks, John Newton, Rushton Parker, *William R. Parker, Frank T. Paul, *W. Whitford, William Williams. The asterisk (*) relates to newly elected members.

THE CASE OF ISAAC BROOKS.

We have received the subjoined statement from Dr. Warrington, the medical attendant of the late Isaac Brooks.

Isaac Brooks, single, aged 29, a small farmer and stonemason, was seen by me, at his own home at Rushton in Staffordshire, on December 5th, 1879, nine hours after he had received the following injury. The left testicle, with its more immediate covering, lay completely outside the middle of the left side of the scrotum, suspended by the cord, which was untouched. The testicle itself was uninjured. The wound through which it protruded appeared very small, and its edges clean cut. I returned it within the scrotum with some difficulty, without enlarging the wound. I then could observe that the wound was about one and a half to two inches in length, and had been made across the front surface of the scrotum. After replacing the organ, he had great pain in the left groin, extending upwards to the left loin, which lasted for half an hour, and was much relieved by hot fomentations. I inserted three sutures, and applied wet lint compress.

Three days afterwards I removed the sutures, and the wound had healed. He had no pain, but the testis was swollen for some time afterwards. He soon regained his usual health, which was not robust, owing to valvular disease of the heart, which had existed since an attack of rheumatic fever fourteen years previously.

His account to me was, that three men had committed this outrage on him, in the highway, about a quarter of a mile from his house. One pinned him from behind, pressing the knee into his back, and taking him off his legs; another man blindfolded him, and pressed strongly over his mouth; the third man operated on him. At first, he struggled very much, but soon he began to think more about getting his breath than anything else. He did not feel the cutting so much as when the organ was pressed out.

To me he denied any identity of his assailants. At Leek, and at the Stafford assizes, he swore to the identity of two out of the three men. These men, Johnson and Clewes—farmers, and neighbours of his—were sentenced to ten years' penal servitude. Neither before the magistrates nor at the assizes were any questions asked me, as to whether it was possible the injury could have been self-inflicted.

On February 13th, 1881, I was sent for again to see Brooks, which I did fifteen hours after he had sustained another injury to the genital organs, but very different in character from the last. I found him lying in bed, bleeding from a wound which was very open, fully two inches in breadth at the lowest part of the scrotum, at right angles to the raphé, which divides it into two equal parts. The wound was deep, and the tissues around filled with clotted blood, the scrotum looking much swollen and dark-coloured. He told me that four men had attacked him in the same road as before. He tried to escape over a stone wall, but they caught him on the top of it. They stripped his trousers down, and inflicted the wound by a stab with a knife, or some sharp instrument. He bled very much at the time, but, by putting his handkerchief and pressing well, he managed to walk home. He found the bleeding had stopped. He went to bed, and during the night awoke finding that he was bleeding considerably, lying in a pool of blood which had run through the bed on to the floor. He called up his aged mother, who slept in an adjoining room. They applied cobwebs and tobacco, with pressure of cloths, etc., to the part; but, finding these did not stop the flow, they inserted a long pin through the tissues and twisted worsted round each end of it. This for the time stopped the hæmorrhage. During the day, bleeding recurred, and I was sent for. On February 14th, I was again summoned, as hæmorrhage had occurred again; they had inserted another pin in a similar manner during the night. Finding him in a very exhausted state from loss of blood, I persuaded him to become an in-patient of the Cottage Hospital at Congleton, under my care. He consented with reluctance, because I insisted upon having his permission to inform the authorities of the hospital as to the exact nature of the injury, and the cause of it. He wished it kept quiet. He had suffered so much mental distress in prosecuting in the first case; he was ashamed that it should be known he was injured in the genitals at all. To neither police, hospital committee, or myself would he ever vouchsafe any further information about the attack. No prosecution could, therefore, take place. He expressed to me a feeling of regret that he had prosecuted in the first affair, and considered that the men had been too heavily punished.

He remained in the hospital about a month—the wound never bleeding again. It healed up slowly.

After this second attack, owing partly to his loss of blood, etc., he never regained his average strength. I heard he was ill, and that he had become an in-patient of the North Staffordshire Infirmary last November.

He sent for me again to visit him in December last, and I saw him for the last time on December 26th, 1881. He was very anæmic, had some slight amount of congestion of the lungs, and a little œdema of the legs. He was perfectly sensible. I informed his friends he was on his deathbed, and would not live many days.

He died on December 31st, 1881. A few hours before death he confessed to an old friend of his, a neighbouring farmer, named Harrison, that he could not die comfortably, because the two men, Johnson and Clewes, were innocent of the crime for which he transported them, and he wished them to be liberated. Harrison reduced this statement to writing, and Brooks signed it in the presence of his mother and brother, who were greatly astonished. This confession has naturally caused great sensation in the neighbourhood in which he lived; and as the public generally did not know of the exact nature of the injuries, and had never heard any details whatever of the second one, a very common impression had got abroad that both of them must have been self-inflicted.

Brooks was a young man of reserved habits, in fact very reticent. He was fond of music and reading, frequently consulting an old fashioned encyclopædia which he possessed, and sometimes trying to surprise people by the use of very long words. He was in the habit of dancing well when he went from home, and his neighbours perhaps thought he aped the manners of his superiors too much. He was deliberate of speech and of action; he was rather better educated than his neighbours, and this, along with some of his habits, caused him to be quite an exceptional character amongst the rather rough, unmannered, hill-country farmers, amongst whom he dwelt. He was not by any means a favourite amongst them. His house was situated in a most lonely place and five miles from a town. I have heard since his death that he occasionally consulted fortune-tellers, and was even guided by them in his actions sometimes. I may mention that some of the farmers in the neighbourhood are in the habit of castrating their own cattle. As to the manner in which Brooks and his mother ingeniously attempted and succeeded in stopping the hæmorrhage with a pin and worsted, such a practice is common when bleeding occurs in the wounds of cattle. I am not aware that Brooks had any morbid ideas with regard to his sexual organs. He once had a slight gonorrhœa about ten years ago. He did not seem more anxious about the matter than such persons usually are.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen passed their primary examinations in Anatomy and Physiology, at a meeting of the Board of Examiners, on the 5th instant, and when eligible will be admitted to the pass examination.

Messrs. William Thorburn and William S. Pratt, students of the Manchester School; F. John Freeland and Henry E. Shadwell, of King's College; Walter G. Axford, of the Westminster Hospital; Charles H. Maher, of the Dublin School; Jogendra Nâth Mitra, of the Calcutta School; George A. L. Bowling, of the London Hospital; Vincent H. Harcourt, of St. Bartholomew's Hospital; Augustus H. Dubourg, of St. George's Hospital; Thomas W. Bullock, of St. Thomas's Hospital; and Frederick M. Holman, of University College.

Twelve candidates were rejected.

The following gentlemen passed on the 6th instant.

Messrs. Francis R. B. Bisshopp, of the Cambridge School and Guy's Hospital; Arthur E. Price, George P. Wornum, Arthur A. Jayes, H. St. G. Standish Hore, of Guy's Hospital; Alfred M. Page, Arthur E. Lyster, and Edward Morris, of St. Bartholomew's Hospital; G. Sydney Gent and Arthur W. Howard, of University College; Sidney Plowman, of St. Thomas's Hospital; C. M. Wigram Castle, of King's College; and Leonard B. Diplock, of St. George's Hospital.

Eleven candidates were rejected.

The following gentlemen passed on the 9th instant.

Messrs. George A. P. Litle, Harold L. Cummings, Bingley G. Pullen, Charles E. Morris, and Arthur Trower, of St. Bartholomew's Hospital; Elsey F. Ross, Rowland Hill, John B. Graham, and John S. H. Roberts, of University College; Thomas B. Jacobson and John W. Harris, of Guy's Hospital; Arthur Roberts and Robert W. Bateman, of the London Hospital; Harry Colman, of the Charing Cross Hospital; James Swain, of the Westminster Hospital; James R. Collyer, of St. George's Hospital; Malcolm A. Nicolson, of the Toronto School; and Henry W. W. Aubrey, of the Bristol School.

Six candidates were rejected.

The following gentlemen passed on the 10th instant.

Messrs. Francis Freeman, Osmond P. Brown, Herbert E. Powell, Clement Alsop, and Herbert F. Jackson, of St. Bartholomew's Hospital; L. Frederick Childe and George E. Palmer, of Guy's Hospital; Domingo A. de Montbrun, of St. Mary's Hospital; John Murtow, of University College; and Francis W. S. Le Maistre, of King's College.

Fourteen candidates were rejected.

The following gentlemen passed on the 11th instant.

Messrs. Pedro L. de Montbrun, Julian P. S. Hayes, and Sidney G. Allen, of St. Mary's Hospital; Charles W. J. Bell, Charles N. Foley, and William J. V. Rowe, of St. Thomas's Hospital; V. H. Wyatt Wingrave, John E. E. Jones

and Robert S. Bowker, of the Middlesex Hospital; Robert A. Bindley and George H. H. Fuller, of Guy's Hospital; Adolphus T. Field and William A. A. Cheves, of King's College; Edmund W. Emtage and Hugh G. Shaw, of University College; Avery C. Waters, of the London Hospital; Arthur J. N. Smith, of the Westminster Hospital; and Francis H. Preston, of St. Bartholomew's Hospital.

Six candidates were rejected.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, January 5th, 1882.

Stephens, Lockhart Edward Walker, Emsworth, Hants.
Roberts, Thomas, 81, Tredegar Road, Bow, E.

MEDICAL VACANCIES.

THE following vacancies are announced :—

BEDFORD GENERAL INFIRMARY.—Resident Surgeon. Salary, £100 per annum. Applications by 26th January.

CARNARVONSHIRE AND ANGLESEY INFIRMARY, Bangor—House-Surgeon. Salary, £100 per annum. Applications by 11th February.

CHARING CROSS HOSPITAL, West Strand, W.C.—Assistant-Physician. Applications by 28th instant.

CITY OF DUBLIN HOSPITAL—House-Surgeon. Salary, £100 per annum. Applications to Surgeon Wheeler, 27, Lower Fitz William Street.

CITY OF LONDON LYING-IN HOSPITAL, City Road—Consulting Physician. Applications by 17th January.

CORK UNION—Medical Officer for Ballygarvan Dispensary District. Salary, £120 per annum, with £15 per annum as Medical Officer of Health, registration and vaccination fees. Election on the 17th instant.

CRAIGLOCKHART HYDROPATHIC, near Edinburgh.—Resident Physician. Applications to the Managing Director, Craiglockhart Hydropathic Company, Limited, 40, Frederick Street, Edinburgh, by 6th February.

CUMBERLAND AND WESTMORLAND ASYLUM, Garlands, Carlisle—Assistant Medical Superintendent. Salary, £100 per annum. Applications to Dr. Campbell.

DROGHEDA UNION—Medical Officer for Duleek Dispensary District. Salary, £110 per annum, with £20 per annum as Medical Officer of Health, registration and vaccination fees. Election on the 23rd instant.

EVANGELICAL PROTESTANT DEACONESSES INSTITUTION AND TRAINING HOSPITAL, Tottenham—House-Surgeon. Salary £150 per annum. Applications to M. Laseron, Esq., M.D., The Green, Tottenham, by the 23rd instant.

GREAT WESTERN RAILWAY.—Medical Officer. Salary, £600. Applications by 26th January.

HUDDERSFIELD INFIRMARY—Senior House-Surgeon. Salary, £80 per annum. Applications to F. Eastwood by January 21st.

HUDDERSFIELD INFIRMARY—Junior House-Surgeon. Salary, £40 per annum. Applications to F. Eastwood by January 21st.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST AND THROAT, 26, Margaret Street, Cavendish Square, W.—Visiting Physician. Applications by January 28th.

LEAMINGTON AMALGAMATED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION—Resident Medical Officer. Salary, £200 per annum. Applications to the Secretary, Mr. C. Wildman, 6, Woodbine Street, Leamington.

LONDON LOCK HOSPITAL, Male and Out-Patient Department, 91, Dean Street, Soho, W.—House-Surgeon. Salary, £50 per annum. Applications by January 21st.

MEDICAL MISSIONARY DISPENSARY, Liverpool—Medical Officer. Salary between £200 and £300 per annum. Applications to Dr. H. Taylor, 1, Percy Street, Liverpool, by January 15th.

NORTH ORMESBY COTTAGE HOSPITAL, Middlesborough. House-Surgeon. Salary, £70 per annum. Applications to the Honorary Secretary.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, 191, Marylebone Road, W. Resident Medical Officer. Salary £60 per annum. Applications by the 18th instant.

ROYAL COLLEGE OF SURGEONS IN IRELAND—Professor of Practical and Descriptive Anatomy. Application to John Brennen, Registrar, by January 21st.

ROYAL CORNWALL INFIRMARY—House-Surgeon. Salary, £120 per annum. Applications by 26th January.

ROYAL SURREY COUNTY HOSPITAL—House-Surgeon. Salary, £75 per annum. Applications by January 30th.

ST. ASAPH UNION—Medical Officer. Salary, £83 per annum. Applications by 25th Instant.

ST. MARYLEBONE GENERAL DISPENSARY, 77, Welbeck Street, Cavendish Square, W.—Honorary Obstetric Physician. Applications by January 16th.

ST. MARYLEBONE GENERAL DISPENSARY, 77, Welbeck Street, Cavendish Square—Resident Medical Officer. Salary, £105 per annum. Applications by January 16th.

ST. OLAVE'S UNION.—Resident Assistant Medical Officer and Dispenser. Salary, £100 per annum. Applications by 20th January.

SUSSEX COUNTY LUNATIC ASYLUM—Junior Assistant Medical Officer. Salary, £100 per annum. Applications by January 18th.

UNIVERSITY OF EDINBURGH—Examinerships in Clinical Medicine, Surgery, Physiology, Materia Medica, and Pathology. Applications to the Secretary of the University by January 16th.

UNIVERSITY OF LONDON—Assistant Registrar. Salary, £500 per annum. Applications to A. Milman, Registrar, University of London, Burlington Gardens, W., by January 31st.

WEST HERTS INFIRMARY, Hemel Hempstead.—House-Surgeon and Dispenser. Salary, £100 per annum. Applications by 1st February.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton. Honorary Physician. Applications by January 30th.

MEDICAL APPOINTMENTS.

FLEMING, Christopher, L.K.Q.C.P., appointed Medical Officer to the Worksop Union, and Medical Vaccination Officer for the Worksop District of the same Union.

LEAHY, Albert W. D., F.R.C.S.Eng., appointed Surgical Registrar to the Charing Cross Hospital, *vice* H. R. Whitehead, F.R.C.S.Eng.

PORTER, W. S., M.B., appointed House-Surgeon to the Sheffield General Infirmary.

SHORT, W. H., L.R.C.P.Ed., appointed Assistant House-Surgeon to the Reading Amalgamated Friendly Societies Medical Association, *vice* C. S. Heap, L.K.Q.C.P.I., resigned.

STONE, A. W., M.R.C.S., appointed Junior House-Surgeon to the Royal Albert Edward Infirmary and Dispensary, Wigan, *vice* J. A. Webster, M.R.C.S., promoted.

WATTERS, George T. B., M.D., appointed Medical Officer and Public Vaccinator for the Stonehouse District of the Stroud Union, and Medical Officer and Public Vaccinator, and Medical Officer of Health, for the Haresfield District of the Wheatenhurst Union, *vice* D. W. Eshelby, M.D., resigned.

WEBSTER, John A., M.R.C.S., appointed Senior House-Surgeon to the Royal Albert Edward Infirmary and Dispensary, Wigan, *vice* Joshua Lytle, M.D., resigned.

WRIGHT, C. St. John, M.B., appointed Assistant Medical Officer to the Islington Workhouse, and Infirmary, *vice* A. G. Mickley, M.B., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

KEOGH.—On December 11th, at Cedar Park, Prospect, Bermuda, the wife of Surgeon A. Keogh, M.D., C.M., Army Medical Department, of a son.

DR. DENIS J. MCVEAGH has been placed on the Commission of the Peace for Coventry.

DURING December the quality of the Thames water furnished by the companies drawing their supply from that source was inferior to that delivered in recent months, and the water sent out by the West Middlesex and Southwark Companies was "much polluted by organic matter". The Grand Junction water contained "moving organisms". The Lea water supplied by the New River and East London Companies was inferior to any which had come from the same source since March.

THE POPULATION OF PARIS.—The census taken on the 18th ultimo in the department of the Seine shows an increase of population on that of 1876, when the last census was taken, of 237,100. The total population of Paris is now 2,225,900, against 1,988,800 and 1876, in 1,851,792 in 1872. The increase is distributed over all the arrondissements except two, but has been greatest in the outlying industrial quarters, where there was and is a large surface of ground still available for new buildings. The 11th arrondissement shows an increase of as much as 26,870, the 13th of 20,000, the 14th of 16,280, the 15th of 21,570, the 17th of 26,500, the 18th of 24,050, and the 19th of 18,400.

MANCHESTER MEDICAL SOCIETY.—At the annual meeting of the above society, held at the Owens College, January 11th, the following office-bearers were elected for 1882. *President:* Edward Lund. *Vice-Presidents:* John Broadbent; *Arthur Gamgee, M.D.; James Hardie, M.D.; George Stevenson, M.D. *Treasurer:* *David Little, M.D. *Secretary:* Charles James Cullingworth, M.D. *Other Members of Committee:* *John Augustus Ball, M.B.; Julius Dreschfeld, M.D.; Charles Edward Glascott, M.D.; *Francis Hepworth; Thomas Jones, M.B.; *Daniel John Leech, M.D.; John Dixon Mann, M.D.; Siegmund Moritz, M.D.; *George William Mould; *James Ross, M.D.; *Henry Merrill Williamson; William Yeats, M.D. (The above, with the past presidents of the Society and two representatives of the council of the Owens College, form the committee.) *Library Committee:* *Judson Sykes Bury, M.D.; *Siegmund Moritz, M.D.; *Frederick Armitage Southam, M.B.; *Thomas Windsor; *William Yeats, M.D. *Auditors:* *Frederick Morrish Pierce, M.D.; *George Arthur Wright, M.B. *Librarian:* William Dykes.—Those marked (*) did not hold the same office the previous year.

PRESENTATION TO DR. W. G. SMITH.—A well-attended meeting of students, past and present, and staff of the Adelaide Hospital, Dr. Head in the chair, took place on the evening of December 23rd, to present Dr. W. G. Smith with a clock and illuminated address, on his leaving the hospital to undertake the duties of professor in the school of physic, with which office that of physician to Sir Patrick Dun's Hospital is invariably combined. The presentation was from students, past and present, of the hospital, and was set on foot directly the ap-

pointment was made known, Dr. Smith's popularity as a teacher being shown by the number of signatures the address carries, the rapidity with which it was completed, and the great regret, expressed by each speaker, caused by his (Dr. Smith's) departure from the hospital on the one hand, and the joy, on the other, that an appointment so important had been entrusted to Dr. Smith, whose father for many years filled the post. Dr. Smith's special dispensary for diseases of the skin was by far the best attended in the city, both by students and patients, and will be a great loss to the former, who delighted in his instruction, and to the latter, who reaped the benefits of it. His popularity was so general, that the nurses also presented him with a token of their regard and esteem in the shape of a handsome table-requisite. Dr. Smith's connection with the Adelaide Hospital dates fifteen years back, when he was appointed assistant-physician; and he last held the position of physician and pathologist to the institution. His amiability and the unvarying courtesy he paid to all students were only exceeded by his ability in teaching, not alone theoretically, but also practically, as for example, in the uses of laryngoscope, ophthalmoscope, etc., which he was most zealous in showing the value of as aids to diagnosis. The address was admirably executed by Mr. Hopkins, illuminating artist, of Brunswick Street, Dublin, and has upon it, amongst other embellishments, a fine water-colour drawing of the hospital; the highly artistic clock has a suitable inscription upon its front, and is from the establishment of Messrs. Waterhouse, of Dame Street.

HEALTH OF FOREIGN CITIES.—A table in the Registrar-General's last weekly return supplies the following facts and figures, affording fairly trustworthy indications of the recent health and sanitary condition of various foreign and colonial cities. According to the most recent weekly returns, the annual death-rate in the three principal Indian cities averaged 37.2 per 1000; it was equal to 29.3 in Bombay, 37.9 in Calcutta, and 39.5 in Madras. Cholera caused 65 deaths in Calcutta and 14 in Bombay, while 7 fatal cases of small-pox occurred in Madras; "fever" fatality showed the usual excess in each of these three cities. The death-rate in Alexandria, during the last ten days of December, averaged 38.6; the 224 deaths included 19 fatal cases of typhoid fever and 12 of whooping-cough. In eighteen European cities, the death-rate averaged 30.1, and exceeded by 4.9 the average rate prevailing last week in twenty-eight of the largest English towns. The death-rate in St. Petersburg was equal to 49.9, showing a further increase upon the rates in recent weeks; the 641 deaths included 27 fatal cases of "fever", 22 of diphtheria, and 20 of scarlet fever. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate did not average more than 24.7; measles caused 24 more deaths in Christiania, and 5 deaths from scarlet fever occurred in Copenhagen. In Paris, the death-rate further rose to 33.5; 68 deaths were referred to diphtheria and croup, 25 to typhoid fever, and 19 to small-pox. The rates of mortality in Geneva and Brussels did not exceed 16.7 and 22.3. The death-rate averaged 25.5 in the three principal Dutch cities, and was equal to 20.3 in the Hague, 23.5 in Rotterdam, and 28.1 in Amsterdam; "fever" caused 7, and whooping-cough 6, deaths in Amsterdam. The Registrar-General's table includes returns from seven German and Austrian cities, the death-rate in which averaged 27.6, and ranged from 24.9 in Berlin to 31.0 in Munich and 32.7 in Breslau. Small-pox caused 10 deaths in Vienna, and 8 in Prague; and diphtheria fatality showed a marked excess in Berlin, Dresden, and Munich. In two of the principal Italian cities, the death-rate averaged 26.6, and was equal to 20.8 in Turin and 29.5 in Naples; typhoid fever showed fatal prevalence in both these Italian cities. In four of the principal American cities, the death-rate averaged 26.0; it was equal to 20.4 in Philadelphia, 24.8 in Brooklyn, 27.6 in Baltimore, and 29.6 in New York. Small-pox caused 16 deaths in Philadelphia, and 12 in New York; scarlet fever and diphtheria showed fatal prevalence in New York and Brooklyn.

BEQUESTS AND DONATIONS.—The Clothworkers' Company have given 100 guineas to the Scarlet Fever Convalescent Home, 50 guineas to the British Home for Incurables, £50 to the Herbert Convalescent Home at Bournemouth, 20 guineas to the Eastern Counties Asylum for Idiots at Colchester, 10 guineas to the Richmond Hospital, and £10 to the St. Mary Magdalene Home in connection with Queen Charlotte's Hospital.—The Fishmongers' Company have given 25 guineas to the Chelsea Hospital for Women.—The Sadlers' Company have given 20 guineas to the Royal Free Hospital.—The Carpenters' Company have given 20 guineas to the Poplar Hospital.—Mrs. James Packe has given 50 guineas to the Middlesex Hospital.

A REMARKABLE diminution is reported in the number of deaths from small-pox in the North-West Provinces of India and Oudh during the year 1880, when the rate was as low as 0.1 per 1,000 of population against 1.7 and 3.9 respectively for the two previous years.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.20; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. The Discussion on the Salicylate Treatment of Acute Rheumatism will be resumed. Dr. Broadbent (the President), Dr. Gilbart Smith, and Dr. Douglas Powell, will give further Statistics.

TUESDAY.—Pathological Society of London, 8.30 P.M. The following specimens will be shown. Mr. A. P. Gould: Bones from Genu Valgum. Dr. Sharkey: 1. Simple Cyst of Liver; 2. Simple Cyst of Cerebellum; 3. Gummata in Spleen. Dr. Norman Moore: 1. Abscess of Pancreas; 2. Perforation of Large Intestine in Typhoid. Dr. Carrington: Hour-Glass Contraction of Stomach. Dr. Harbinson (of Lancaster): Hereditary Cerebral Sclerosis. Mr. H. Morris: Unreduced Dorsal Dislocation of Hip (living specimen). Mr. Symonds: Rupture of Liver. Dr. S. Mackenzie: Congenital Xanthelasma (living specimen). Mr. Shattock: Congenital Tumour of Neck.

THURSDAY.—Harveian Society of London, 8 P.M., Election of Officers. 9 P.M., President's Address. Conversazione.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

Fees for Attendance on Families of Medical Men.

Sir,—The question of fees from wives and widows of medical men threatens to become a "burning question". To attend gratuitously on the families of our *confrères* has ever been the custom in Scotland; but Scotchmen gave only their time and not their physic, as they were not qualified in pharmacy. There is a good story in the life of the great Dr. Gregory, who, having heard that another professor had taken a fee from a student, got this professor face to face, and when the student offered the fee, exclaimed, "How dare you insult me! Was ever an Edinburgh doctor so base as to accept a fee from a member of his own profession?" The other professor returned his fees—quietly.

Probably this custom of gratuitous attendance came from Scotland with the great influx of Scotch doctors during this last half-century, and is still an exotic in England. But, however this may be, the custom exists among Scotchmen; and it might be well, therefore, if those who uphold this friendly feeling were marked out, and others who preferred to consider members of their profession as strangers were equally distinguished. "Dog don't eat dog", said the corn-cutter, who refused to accept a fee from Sir Astley Cooper, "as each was a member of the profession".—Your obedient servant,

A Scotch M.D.

Experiments on Animals

Sir,—A letter in a recent issue asks how I can reconcile our appeal against "the infliction of agonising torture and death on the unoffending and the dumb", with the fact that many animals subsist by preying upon others. In reply, let me call upon your correspondent to say whether he is of opinion that any justification can be found for human beings who perpetrate such tyranny as "the infliction of agonising torture and death on the unoffending and the dumb"? That the belly-pinched wolf preys upon the sheep, and the hungry tiger on the deer, is no argument that man should torture animals to death. Death, and death by horrible and lingering tortures, are very different. Moreover, man is not a wolf or a tiger, but should have pity. Ought man to follow the practice of the wild beasts of the forest? Even they, however, do not kill for amusement, but from necessity.

"In his breast no pity dwells,
Strong necessity compels"—

wrote Burns of the eagle; and of the human race:

"Man glories in his heart humane,
And creatures for his pleasure slain."

We do not take your correspondent's view of Nature; she is a beautiful, a kind mother. In the myriads of wild animal life—and to which man is almost but a unit—there is, to all appearance, a preponderance of health, happiness, and enjoyment. The earth is wronged by man's oppression. Man does not learn injustice, tyranny, and cruelty from his mother.—Believe me, sir, your obedient servant,

George R. Jesse.

Society for the Abolition of Vivisection.

Insurance Companies and Medical Fees.

Sir,—I would be obliged by your kindly stating who should pay the fee for filling up the certificate of death for an insurance company—the company insuring, or the representatives of the person insured. These forms appear to be furnished by the companies, and some of them are extremely troublesome to fill up. A while ago, I was asked, several months after death, to state how long a person deceased had been confined to bed; which, I need not say, might sometimes, after that period, require a considerable effort of memory to state precisely. However, if these certificates are necessary to the safe conduct of the insurers' business, is it not as proper that they should be paid for by the insuring companies, as the original examination certificates? It seems absurd to expect the representatives of an insured person to pay for a certificate which might upset the insurance, while the information might be well worth the companies' obtaining at the cost of an ordinary fee, which I see you state, in the Journal, vol. ii, 1881, p. 885, should be a guinea.

Your answer to the correspondent there, however, leaves it to be paid by a solicitor, which, I suppose, means the insured; but, as the question appears not to have been asked as to the party liable, I would like to know, as I have had sundry disputes with offices.—Yours faithfully,

A Member.

*** The fee ought to be paid by the company.

Salicylate of Soda as a Local Application in Acute Rheumatism.

Sir,—I have read with interest, in the British Medical Journal for January 7th, Dr. Orton's valuable note as to the efficacy of the local application of a solution of salicylate of soda to painfully swollen joints in acute rheumatism. As this treatment has, in Dr. Orton's hands, been followed by speedy and great relief, might I suggest that, before trying a similar treatment, it would be very desirable, in order to ensure success, to know exactly the strength of the solution of salicylate of soda employed, and the frequency with which it is necessary to change the lint.—Your obedient servant,

Arthur G. Blomfield, M.B.,
House-Surgeon, Devon and Exeter Hospital.

Devon and Exeter Hospital, Exeter.

Sir,—Is the possessor of a medical degree, not deriving his income from practice, but from land, entitled to gratuitous attendance during his illnesses? His name does not appear in the *Medical Register* or *Directory*.—Faithfully yours,

A Subscriber.

Can a Man have Syphilis Twice?

Sir,—Mr. Jonathan Hutchinson asks this question in your issue of January 7th, and replies categorically that a patient can occasionally be found who has had syphilis twice, just as cases occur where there may be small-pox twice in a lifetime, or measles, scarlatina, or whooping-cough. This was also the experience of the late Mr. Gascoyne, and is that of Mr. Henry Lee, I believe. We must, therefore, admit that syphilis may be twice contracted during a lifetime. Having, however, gone so far as to allege that the dictum "Non bis in eodem" admits of some rare exceptions, we must not allow it to be supposed that this is anything more than a most extraordinary event. For my own part, I have been on the look out, for the last twenty years, for a case of a second attack of syphilis, and must candidly say I have only once seen such a thing. I have had patients over and over again who have said that this was a new chancre which they had contracted, when nothing more was present than some tertiary ulceration or induration of the prepuce. I would strongly urge that the belief that syphilis can be contracted only once, which has for so many years held sway among the best writers on the disease, is as true as any physiological truth can be. The word never is not admissible in pathology; but, in this case, it is a very near approximation to the truth.—I remain, sir, your obedient servant,

Charles R. Drysdale, M.D.,
Physician to the Rescue Society of London Lock Hospital.

7, Woburn Place, W.C., January 7th, 1882.

The Chemistry of Death.

Sir,—It is well known that the processes of decomposition and decay commence immediately after dissolution. Then, according to Sir Henry Thompson, the body displays more activity than even before life had quitted it. The mortuary changes vary in kind and degree, being influenced by the character of the soil, the nature of the climate, the activity of those lower organisms which prey on the dead, and, though last not least, the mode of sepulture adopted. The products of decomposition embrace a variety of gases, such as carbonic acid, carburetted and sulphuretted hydrogen, ammonia, nitrous and nitric acids, besides other compounds and vapours. The non-volatile substances become absorbed by the roots of plants, or are washed away by water passing through the pores of the soil. The osseous framework is the longest to linger, owing to being the least destructible. Hence it offers the greatest obstruction to disintegration.

That the public health is seriously menaced when cemeteries are situated close to dense centres of population, cannot be too strongly affirmed. The constant disturbance of the soil for the admission of human remains naturally dissipates abroad noxious vapours; for it is impossible to determine by our perverse system of burial how long the *materies morbi* may continue to live underground. Hence the lapse of time which ought to be allowed before a grave is twice used varies with the character of the soil and the method of burial. One strong recommendation of Woking Cemetery is, that a fresh grave is given to every tenant.

Most of the evils resulting from the ordinary system of interment in solid coffins and alluvial soils would be averted, provided the earth-to-earth burial were generally adopted. Indeed, Mr. Seymour Haden affirms that, if the dead were only properly buried, we should have no cause for complaint of any kind. By this means, "not a single dead body would remain to infect the soil". By properly committing "poor mortality" to its natural element—the earth—effective burial is realised. The process of putrefaction thereby becomes arrested, and natural resolution takes its place. This latter process is perfectly inoffensive, and is attended with no danger to the living. Mr. Haden contrasts the two modes of sepulture. He shows that, by the use of indestructible coffins, the condition of putrefaction is rendered permanent; while, acting on the earth-to-earth process, "resolution at once takes the place of putrefaction". Surely, it is a crass and unreasoning sentiment which induces persons to favour a mode of interment that tends to keep up an ever-augmenting condition of disintegration. The earth has a claim upon the dead, but is defrauded of this right by a vicious cemeterial system. The dangers to the living, however, consequent upon the like barbarous custom, are so menacing, as urgently to call for governmental interference.—I am, etc.,

Sanitas.

A Member.—Curare is not used to any extent in England as an anæsthetic: indeed, we believe, not at all. In the evidence on experiments on animals, taken before the Royal Commission in 1876, there was a general agreement that curare only paralysed muscular power, and did not annul pain; and, in the Cruelty to Animals Act, it is expressly provided that curare shall not be regarded as an anæsthetic. When physiologists in this country speak of using an anæsthetic, they do not mean curare.

Volunteer Ambulances.

Sir,—Having had an exceptional experience of ambulance work during the past four years, and being, as a soldier, anxious that our volunteer force should be as complete a factor as possible in the national defence, I hasten to endorse the admirable and practical letter from Dr. Platt, which appeared on December 24th in your columns. I intend to bring the question before the Central Committee of the St. John Ambulance Association, and I hope that their extended organisation and powerful central executive may be of use in achieving the desirable results aimed at by Dr. Platt.

In the course of my visits to our ambulance centres, while I have always found that commanding officers of volunteers were ready to encourage ambulance instruction among their men, they displayed the reluctance, mentioned by Dr. Platt, to have their combatant ranks weakened. I have also found many who felt it an anomaly to have men bearing arms, and wearing the Geneva Cross. Dr. Platt's scheme will remove these objections. I trust you will allow me to return to the question in a subsequent issue.—Your obedient servant,

F. Duncan, R.A., Director of Ambulance Department, Order of St. John.

Woolwich, December 28th, 1881.

Medical Etiquette.

Sir.—E. is medical officer of health for the district X. B. is E.'s qualified assistant. B. attends a case of anæmia and roseola for seven days, which E. sees once during that period. S., another practitioner, is then called, and attends the case without the knowledge or consent of E. or B.; and S. reports the case to the local sanitary authority X. as one of measles. E. and B. are astonished to find anyone attending their case, and amazed at the opinion expressed. B. writes to S. to show the latter that he (S.) has been misled. E. calls at the house, inquires into the case, and finds that it is not measles, or any other infectious disease, and consequently does not order the usual disinfectants to be supplied to the premises. E., as medical officer of health, has never inquired into the nature of any case reported as infectious by any medical practitioner to the local sanitary authority, but orders the usual disinfectants to be supplied, as a matter of courtesy. This case, however, being his own, was inquired into, and disinfectants were found to be unnecessary. S., who is a member of the board X., tried in vain to get a vote of censure passed by the board on the medical officer of health and nuisance-inspector. Was E. justified in not ordering the disinfectants to a non-infectious case, or should he have ordered them, in deference to S.'s opinion, though that opinion was wrong? No case of measles has been seen in the district X. for sixteen months. This alleged case occurred November 19th, 1881, and no other case has yet appeared, though no precautions have been taken.

The enclosed correspondence will indicate why this letter has been written. Please record your opinion of the style and matter of S.'s correspondence with me, and in regard to his conduct at the meeting of the local board of district X.—Yours obediently,

S. D. B.

*** The conduct of S., in this matter by bringing E.'s decision before the local board as to the non-supply of disinfectants was, in our opinion, discourteous, and contrary to professional rules. As B. and E., both qualified members of the profession, asserted that the case was not one of measles, S. was not justified, on his own opinion alone, in taking such a step. Disinfection is rarely practised for measles, as the disease does not appear to spread by fomites, in the same way as typhus, scarlatina, and small-pox; or by discharges from the body, as in scarlatina and typhoid. There was, therefore, the less reason for S. laying a complaint against E. in a disputed diagnosis, and thus making himself the judge as to E.'s diagnosis, and his duty as medical officer of health.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

THE TREATMENT OF PEMPHIGUS.

SIR,—Mr. Jonathan Hutchinson, in his interesting clinical remarks, published in the current number of the JOURNAL, on empirical medicine with reference to the treatment of pemphigus, says: "Five-and-twenty years ago, I believe the case of pemphigus you have seen cured would have been found incurable in all the medical institutions of the world, with one single exception." When I was clinical clerk to Dr. George Budd, in the early days of the old King's College Hospital, I saw a case of pemphigus treated and cured by him with arsenic. Dr. Budd dwelt repeatedly, with his usual genial earnestness, on the supposed incurable character of pemphigus, and the general ignorance of its amenability to arsenic, and congratulated the patient on his admission to an institution where the right method of treating his malady was known. This, I regret to say, was not twenty-five, but more than forty, years ago. Mr. Hutchinson must admit a second exception to his statement. —I am, sir, your obedient servant,

S. H. STEEL, M.B.Lond., M.R.C.S.E., Associate of King's College, London.

Abergavenny, January 9th, 1882.

THE DENTISTS' ACT.

SIR,—In your issue of this date, the "Honorary Secretary British Dental Association" has challenged "Mr. Stevenson and others who are unfriendly to, and desire to discredit, the Dentists' Act" to find justification for the statement (for which I only am responsible) that that Act consigns us all to a low position of equality. If, like the honorary secretary, I entertained the opinion implied in his apology for introducing the subject, that dental matters are unworthy to occupy your space, I should not again trouble you; but as I still look upon my speciality as a branch of surgery, I have less hesitation in submitting discussions in its interest to your pages.

Mr. Turner says: "The Dentists' Act requires that the dental qualification of each registered person should be stated", etc., but he does not mention the equally true fact, that each person so registered (whether he be "A. B., Licentiate in Dental Surgery of the Royal College of Surgeons of England, Edinburgh, or Ireland", or "C. D." without a qualification, "in practice before July 22nd, 1878"), is entitled by that Act to style himself Dental Surgeon or Surgeon Dentist. Neither the public nor the medical profession take the trouble to consult the *Dentists' Register* (even when they know of its existence), but they are all equally misled by these assumed titles; therefore, whether as "Members of the Royal College of Surgeons", "Licentiates in Dental Surgery", or "In practice before July 22nd, 1878", we are all surgeon dentists, without practical distinction, and so most unfairly "placed on the same low position of equality".—Faithfully yours,

NATHANIEL STEVENSON.

51, Wimpole Street, Cavendish Square, W., January 7th, 1882.

A QUESTION OF TREATMENT.

SIR,—Will any of your correspondents suggest a line of treatment for enlargement of the capillary vessels at the tip of the nose? My patient is a gentleman over fifty, moderately stout, and of fair complexion. He is extremely regular in his habits, and a total abstainer. A patch, about the size of a sixpenny-piece, at the end of his nose, is covered by the fine red interweaving vessels. Apart from the disfigurement, which is so far not very great, the nose is extremely sensitive and bleeds upon very slight provocation. Collodion has been applied without benefit, and hamamelis, he thought, made matters worse. He finds the greatest comfort from keeping the hairs in the nostrils closely cut, and the application of oxide of zinc ointment at night when going to bed. The skin on the affected part appears to be somewhat coarser than it was some time ago; otherwise there has been no alteration for a long period. The patient is of gouty habit. Is the trouble liable to increase, or can it be arrested in any way?—Your obedient servant,

DOUBTFUL.

SCARLET FEVER.

SIR,—I should be glad to learn from Mr. H. A. Smith what he means by "protected and unprotected attendants upon scarlatinal cases". He surely does not wish us to believe that a person having had one or two attacks of scarlet fever is not liable to another attack!—I am, yours faithfully,

M. B. M. A.

SIR,—In permanent dilatation of the pupils from using atropine, what strength of a solution of Calabar bean should be used?—I am, etc.,

A MEMBER OF THE B. M. ASSOCIATION.

LE PETIT MAL IN OPERATIONS.

SIR,—The following case is, I think, quite analogous to the case of *petit mal* occurring in conection with vaccination, which is described by Dr. C. Dixson in the JOURNAL of December 17th. A few days ago, a stout country woman, who stated she had never had a day's illness, consulted me on account of epiphora in her left eye. Like many perfectly healthy people who have never had anything to say to doctors, she was nervous to an almost ludicrous degree; the mere approach of a probe to her eye making her throw back her head with a jerk, as if she anticipated some horrible proceeding on my part. The canaliculus was narrow, and the punctum almost impervious, so that it was only with considerable difficulty I succeeded in introducing the smallest of Bowman's probes. Just as, after reaching the sac, and elevating the probe to the vertical position, I was preparing to pass it down the nasal duct, a tremor came over her. Mistaking the nature of it, I told her not to be so foolish, but a glance at her face showed that she had become quite insensible. The tremor became a slight general convulsion, the limbs becoming rigid when it ceased; the head bent backwards over the chair, towards her right side, the muscles of the neck being rigid; the pupils dilated widely; eyes at first turned strongly upwards and to the right, which position was immediately followed by a strong convergent squint. Breathing became somewhat stertorous, and jaws clenched; face ashy-pale. All this took place in the space of about twenty-five or thirty seconds. A few drops of water dashed on her face restored her instantaneously, with merely the result of her looking a little bewildered, and feeling weak. I should say that, during the attack, her pulse was quite imperceptible; I could scarcely feel a flutter. This is in consonance with Dr. Moxon's observations with respect to stoppage of the heart's action during an epileptiform paroxysm; and goes far to sustain his view that this latter phenomenon is a much more probable cause of the convulsion than a general contraction of the arteries of the brain, it being almost inconceivable that such contraction could occur in an infinitesimal portion of time, and with equal suddenness cease.—I am, sir, yours obediently,

THOMAS DRAPER, M.B.

Enniscorthy, Ireland, December 27th, 1881.

NASAL CATARRH.

SIR,—At this season of the year, when coryza is prevalent, it may interest some of the readers of the JOURNAL to know that this very common and exceedingly troublesome complaint may be cured in a few hours if taken at the onset, or at least twelve hours afterwards, by the inhalation of the spray of a solution of sulphate of quinine.

The mode of administration which I generally adopt is as follows. A solution of the sulphate (four grains to one ounce of water), prepared with just sufficient dilute sulphuric acid to dissolve the quinine, and scented with any agreeable perfume, is injected up each nostril in succession by the ordinary hand ball spray-producer, which can be procured at any chemist's for one shilling. The patient can use it himself, and he should be directed to inhale the vapour, so that it may reach the posterior nares; this may be known by the taste of the alkaloid in the mouth. The inhalations should be carried out at least every hour, or oftener, according to the urgency of the symptoms.

The remedy has been tried in hay-fever with success; and if, as I strongly suspect, nasal catarrh is of parasitic origin, and not, as we have been taught to believe, as the result of sudden change of temperature, exposure, etc., the action of the drug becomes at once apparent; this, however, is a point that will have to be decided by further research. One thing is evident, that the old explanation is, to say the least, unsatisfactory, and will not be accepted without further proof in this age of scientific medicine.

Any member who may not have already tried the remedy, and should wish to do so, will confer a favour by publishing the result of his experience in the JOURNAL. —I am, sir, yours truly,

N. FFOLLIOTT, Surgeon-Major A.M.D.

Cork, December 31st, 1881.

SIR,—Would any of your readers kindly inform me what parts of the island of Jamaica are most suitable for a phthisical patient?—I am, etc.,

NEUROSIS.

DISEASE OF SCALP.

SIR,—In answer to "A Perplexed Member", I have always found painting the patches with acetum cantharidis very efficacious (one application being sufficient usually).—I am, etc.,

NORMAN LAWRENCE, L.R.C.P., etc.

26, Dee Street, Aberdeen.

SWALLOWING ARTIFICIAL TEETH.

SIR,—As another warning to the careless, I send you the enclosed. Miss P., on the night of December 7th, 1881, being awoke by a choking sensation, found her artificial teeth from the upper jaw missing. When brought to me, she was in great distress, and described them as in the œsophagus, but examination proved that they had passed down into the stomach. She was plentifully fed on porridge and thick puddings, and, as the bowels had not acted, had a mild aperient on the third day. She went on day after day without any urgent symptoms. Her sensations seemed to locate them still in the stomach until the night of the sixth day, when it appears she had some uneasiness, like indigestion pains. On the seventh day after they were swallowed, the uneasiness was felt on a level with the umbilicus, with a pricking pain, probably caused by the sharp hooked condition of one end of the plate. On the morning of the 16th, nine and a half days after the accident, the teeth passed away imbedded, without any difficulty.

The plate was one inch and three quarters long by one inch wide, having three lateral incisors on one end, and one on the other. One end of the plate had lost the hooked portion which attached it to the adjoining tooth, and which seems to have been soldered on, instead of forming a portion of the plate itself.—Yours faithfully,

M. WILLETT, M.D.

Bristol, December 17th, 1881.

HONORARY MEDICAL ATTENDANCE.

ON the subject of the proposed appointment of an honorary staff of medical officers to a rate-supported borough hospital for infectious diseases at Sheffield, Sir Chas. Trevelyan writes:—"In every way the eleemosynary system of medical treatment has been carried too far. It pauperises and degrades the working class, and lowers the standard of popular medical relief by crowding, hurry, and impossibility of permanently individualising the cases; and it also exercises a depressing effect upon the medical profession itself, by requiring medical men to make personal sacrifices unheard of in any other calling, and making it difficult for the younger men to get a proper professional footing without going into lines in every way to be deprecated."

COMMUNICATIONS, LETTERS, etc., have been received from:—
Mr. George Jones, Birmingham; Mr. S. H. Steel, Abergavenny; H. A. H.; Mr. J. Bisshopp, Tunbridge Wells; M.B., M.A.; Yorkshire Student; Dr. E. West Symes, Halifax; Mr. W. G. Walford, London; Dr. H. Aubrey Husband, Edinburgh; Mr. Thomas Dutton, Chichester; Mr, H. Boyle Runnals, Watford; Mr. Norman Lawrence, Aberdeen; Mr. A. Tayler, Hanley; Mr. Henry Morris, London; Mr. E. L. Grant, Paisley; Dr. Atkinson, London; Dr. C. Fleming, Worksop: Mr. W. E. Green, Sandown; an Old Member; Mr. J. P. Chadwick, Southport; Mr. John Scott, Manchester; Mr. Jonathon Hutchinson, London; Dr. Warrington, Congleton; etc.

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REPORTS
TO THE
SCIENTIFIC GRANTS COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION.

THIRD CONTRIBUTION TO THE LIFE-HISTORY OF CONTAGIUM.

By PETER MURRAY BRAIDWOOD, M.D., F.R.M.S.,
AND
FRANCIS VACHER, F.R.C.S.Ed.

II.—Notes on an Inquiry into the Morphology of Measles Contagium, its Mode of Reproduction, and its Distribution in the Tissues of the Infected Subject.

"The first indisputable records of true epidemics of measles are furnished, according to Fuchs, by Fouss (1563), Lange (1565), Ballonius (1574-5), and Schenk (1600); accurate knowledge of them, however, has been more especially furnished by Sydenham and Morton (1670-74), though even they have not distinguished it with sufficient accuracy from scarlet fever."* Under the name of Lhasbah, it was recognised and described by Rhazes; and, under the names of morbilli or blacciæ, by many early writers; but only since the middle of the last century has it been regarded as an unquestionably specific and independent disease. It used to be confounded with scarlatina and some other diseases, or viewed simply as a catarrh modified by atmospheric influences, and only affecting subjects having highly developed catarrhal constitutions. Measles is unanimously considered to be contagious; but the nature of the contagium has not as yet been determined. It does not appear to be generated spontaneously, and the period of incubation is held to be about a week, or from that to fourteen days; according to Bristowe, it may be extended to twenty-one days. One of the latest writers on the subject (Thomas) pronounces the contagium volatile, and says we must expect it will become adherent to material objects; and Meyer gives negative evidence that it is not excessively tenacious, as the mere airing of clothes sufficed to disinfect them.

From some not very constant results obtained by inoculation, it has been stated that the contagium is present in the blood of the affected, the contents of the sudamina, the tears, nasal secretion, sputa, and saliva. Hallier found in the blood and sputa of measles patients large numbers of free cocci, most having a tail-like end. They were movable and colourless, and smaller than the cocci of typhus, and he succeeded in cultivating them in various substances and fluids. Vogel says those observations cannot be proved. Salisbury inoculated subjects with a fungus-spore found upon decaying straw, and produced a disease closely resembling measles; and he asserts that several persons in the neighbourhood of those upon whom measles had thus been generated manifested the same disease, after a period of incubation of from one to two weeks. Pepper, however, inoculated twenty-two persons, who had not yet had measles, with this fungus, and without any results. Coze and Feltz found active bacteria in the blood and nasal mucus of measles patients; and they noticed that the blood which was richest in bacteria came from the spots where the exanthem was most pronounced.

In 1758, Home, at the suggestion of Munro, inoculated measles by means of the blood. Rags soaked in blood, taken from cuts through measles spots, were laid upon cuts in the upper arm of a healthy person, and kept in contact for three days. The affection resulting was very mild. Wachsel is reported to have successfully inoculated a patient with the fluid of a miliary vesicle of measles. Speranza was himself successfully inoculated with measles blood, in 1822. Bonfarini inoculated measles successfully in 1854, and reports similar experiences on the part of five of his countrymen. Perhaps the most important experiments in this connection are those published by Katona, in 1842—viz.: 1122 inoculations, 93 per cent. of which were successful, producing a mild disease during the prevalence of an epidemic of full severity. The inoculations were made mainly with a mixture of blood and the contents of miliary vesicles—sometimes with tears, in the same manner as vaccination. No inoculated person died. The eruption appeared on the ninth or tenth day after inoculation; on the fourteenth day, the fever usually disappeared; and on the seventeenth, the patient was well. In 1848 and 1852, Mayer also inoculated measles successfully. Fresh nasal mucus, and some which had been preserved in a glass tube, were placed upon the mucous membranes of two children. The first child manifested catarrh on the eighth day, the second on the ninth. The eruption in both cases made its appearance on the thirteenth day, and the disease ran a regular course.

In opposition to these experiments, numerous others have been recorded by equally competent observers, in which inoculations wholly failed. Again: Jörg, Wendt, and others, maintain that measles produced by inoculation does not run a lighter course. Inoculation with portions of epidermis from children in the stage of desquamation has been frequently tried and failed.

The contagium may be conveyed for short distances by means of the air, or on any subject to which it can attach itself. How long this contagium may retain its vitality is not known. Doubtless, in most cases, measles is corrupted by association with the infected. People of all ages, not protected by a previous attack, appear to be equally susceptible, except infants under a year old, in whom the susceptibility is diminished. The opinion once held, that infection occurred especially or solely during desquamation, is now entirely given up, as there are many recorded cases where contact with a subject during the first period of the disease has sufficed to communicate it.

Mayr and Hebra, who distinguish divers forms of the disease (*morbilli læves, vesiculosi, confluentes*, etc.), considered the virus of the measles papule was an inflamed sebaceous follicle, and that this caused superficial capillary injection of parts contiguous. Later investigations afford no support to this view. G. Simon examined a measles papule, with a small portion of the subjacent cutis. The epidermis and cutis were not separated and unaltered, except that the latter was swelled out at the site of the papule, and contained between its fibres small roundish molecules, unaffected by acetic acid. There was no swelling of the sebaceous glands. The papules, which may be entirely or nearly pale, appeared to be due to the increased fluid in the cutis. The site of hyperæmia appeared to be the deeper strata of the rete Malpighii. After the termination of the rash, its site is usually occupied for some days by a yellowish stain. This is quite independent of the points in patches of ecchymosis occasionally seen, and which are, of course, due to actual extravasation. There is usually congestion of the mucous membrane of the nose, throat and larynx, and of the conjunctiva; but there is no special resemblance between this and the skin-eruption. Sometimes, dense red points and spots are seen upon the uvula and palatal arch, and sometimes there are congested patches on the buccal mucous membrane. The congestion may extend from the larynx to the trachea and bronchi. Weber, Eisenmann, and Fuchs, besides many earlier authorities, mention a measly eruption of the small intestine, and sometimes of the stomach. Steiner noticed a blotchy redness of the intestinal membrane of children who died of the disease during florescence. Fuchs, Hensch, and Chomel relate cases in which the genital mucous membrane was the seat of an eruption. Stiebel cites four cases in which he found the pulmonary pleuræ covered before and behind with red spots, isolated or in groups. They were plainly not due to extravasations.

It has been noticed that the spleen and lymphatic glands are often swollen; and that the blood is thin and dark, and deficient in fibrine. It is alleged that the red corpuscles are diminished, and the white increased.

Original Observations.—The prevalence of a local epidemic of measles, several cases of which were admitted into hospital, and the opportunity of making *post mortem* examinations of the bodies of two children who died of the disease, afforded us some facilities for the study of the intimate pathology of the disease. We examined microscopically the breath, the lungs, skin, and other tissues of patients suffering from measles, or preparations from the bodies of those who had died from it.

As it seemed to us we had sufficient evidence for concluding that the most active mode of transmission of measles is through the breath, we commenced our inquiry by carefully examining the breath of children in the acute stage of the disease. To this end, we coated over with glycerine the inside of several clean glass tubes having a diameter of from half to three-quarters of an inch. As soon as the eruption was diagnosed, the patient was required to breathe through one or more of such tubes, and again each day till the eruption faded he was required to repeat the experiment. The glycerine was then subjected to careful examination with an one-eighth objective, and every specimen showed numerous sparkling colourless bodies, something like those found in vaccine, but larger. Some were spherical; others were elongated, with sharpened ends. They were seen in greatest abundance in the breath from patients during the first and second days of the eruption. As a

* *Cyclopædia of the Practice of Medicine*: Ziemssen. Vol. ii, p. 75.

control experiment, healthy children were made to breathe into similar glycerine-coated tubes, as well as patients suffering from scarlatina and typhus. No sparkling bodies were, however, found in any of these specimens.

In the first fatal case of measles we had an opportunity of examining, death took place on the sixth day after the appearance of the eruption; in the second, on about the fourteenth day. The necropsy was in each case within twenty-four hours after death. Portions of the skin, on which the eruption during life had been well marked, were removed; as were also portions of the lung, liver, spleen, and kidneys. These were at once placed in strong alcohol, and, when hardened, sent to Messrs. Cole and Son for section-cutting. The preparations of sections thus obtained, several dozen in number, were then subjected to microscopic examination. All the sections were studied with great care, and many of them separately. The following is a note of the results.

Case of M. D., who died on the Sixth Day after the Appearance of the Eruption.—Skin: A low power showed considerable swelling of the corium and thickening of the rete Malpighii. The sweat-glands appeared larger than usual. The hair-follicles, lymphatics, and sweat-glands and ducts had all taken the tinging well (carmine). A high power showed great proliferation of the cells of the rete, and this extended along the hairs and the sweat-ducts into the glands. In the portion of the true skin lying next the rete, and in immediate proximity to the sudoriparous ducts and lymph-spaces, were sparkling, colourless, spherical, and elongated bodies, similar to those seen in the breath in measles patients. There were also many spindle-shaped, staff-shaped, or canoe-shaped bodies, all of which would not take the colour. They were in groups, or scattered. The spherical bodies were like the particles found in vaccine lymph, but larger; and, like them, they tended to form groups of threes and fours. None of these bodies were noticed in the hair-follicles, sweat-glands and ducts, or in the lymph-channels. We could detect none in the *deeper* layers of the true skin. *Lung:* Under a low power, the tissue was seen to be infiltrated in parts, to the obliteration of the air-vesicles; while here and there two or more air-vesicles seemed to have broken into one another. An exudation covered the lining of the bronchial tubes. Under a high power, the infiltration was seen to consist of blood-corpuscles, greatly altered, and accompanied by an excessive proliferation of cells. Some of the air-vesicles were filled with granular amorphous exudation. Here and there were sparkling spheroidal bodies, most of which were left untouched by the carmine. Near these were bodies sparkling and but slightly tinged, of various shapes, fusiform, ovate, or staff-shaped. Some of the fusiform cells had granular contents. *Liver:* Under a low power, the tissue appeared healthy, but the lobules were imperfectly defined. Under a high power were seen sparkling staff-shaped and fusiform bodies; the latter having granular contents, similar to those noticed in the lung. No sparkling bodies nor anything abnormal was noted in the sections of the kidneys, spleen, and mesenteric glands examined.

Case of E. M., who died on the Fourteenth Day after the Appearance of the Eruption.—Skin: A low power showed less marked thickening in the rete Malpighii than in the previous case. The proliferation of cells was also less marked. In the upper part of the corium, close to the sudoriparous ducts and lymph-spaces, but not in them, were the sparkling colourless bodies seen in the breath of measles patients, and the staff-shaped, or canoe-shaped, or fusiform bodies noted in the tissues of the previous case. They did not take the colour, and therefore stood out in relief in the tinged section. *Lung:* This was seen to be distinctly pneumonic with a low power. In large portions of the lung, the air-vesicles were obliterated, and there was abundant evidence of bronchial catarrh. Under a high power, the infiltration was seen to consist, for the most part, of the same elements as in the last case. Specific organisms, presenting the same characters as those noticed in the last case, were scattered through the tissue. *Liver:* A low power showed the lobules ill-defined, and the substance of the liver granular and fatty. Under a high power, the tubules were distinguished with difficulty. Clusters of fat-cells were seen here and there. Spherical and elongated bodies, as before, were noted. For the most part, they were found in the immediate neighbourhood of blood-vessels, but occasionally elsewhere. The favourite situation appeared to be just outside the capillary walls. *Spleen:* The substance was friable, and in parts broken down. Under a low power, the walls of the Malpighian corpuscles appeared thickened. The spleen-capsule was thickened and infiltrated with blood. Under a high power were seen yellowish patches from hæmorrhagic extravasation. The *kidneys* appeared quite healthy. Neither in them nor in the spleen were there any of the specific organisms noted in the skin, lungs, and liver.

Our observations led us to conclude that the small spherical bodies, first discovered in the breath, are probably the active agents by means of which measles is propagated. They appeared to be albuminoid in character, and were so like the contagium-particles of vaccine lymph that we cannot but believe them to be an allied organism—their size (almost double that of vaccine particles) alone serving to distinguish them. These germs, from their occurring in the lungs and liver, in connection with other larger forms, we were led to believe bore a definite relation to the latter. The little ovoids, often seen among the groups of spherical particles, seem as if they had grown from them, and showed how a spherical particle became transformed into a fusiform. The last, as having cell-contents, it may be inferred, represent the mature particles. The canoe-shaped and spindle-shaped bodies, etc., were obviously merely modifications of the fusiform. From our observations, it would seem that the lungs are the favoured breeding ground of the contagium. The most common position of the early and late forms of the particles, close to the walls of the capillaries, would indicate that they are carried and sown by the blood. The greater abundance of particles in the breath, when examined just after the appearance of the eruption, points to this being the most infective time and medium. The particles, not taking the carmine, as in the skin, or taking it very imperfectly, as in the lung, showed that they were foreign bodies introduced from without, and not mere elements of the tissue. We may mention that, latterly, we used another staining fluid for our sections, and with the same results.

A selection of our slides was exhibited, at the Pathological Society, in May 1878.*

III.—An Account of an Experimental Research into the Nature of Induced Septicæmia, and of a Disease which presents some Gross Points of Resemblance to it.

Nomenclature.

It is probable that the forms of illness included at the present time under the above names were recognised at a very early date, perhaps even by Hippocrates. We find Ambrose Paré (1582) discussing the supposition of systemic infection or a poisoning of the blood with pus under the title of "purulent diathesis". Boerhaave (1737) regarded this state to be induced by absorption of pus through veins; Solly (1851) considered that both veins and lymphatics took part in the process; while Morgagni (1740) traced this condition to broken-down tubercles arrested by the capillaries and acting therein as local irritants. The theory of the absorption of pus or other diseased secretion has received support in variously modified form from De Haen (1761), Horne (1810), Montezzia (1813), Carmichael (1818), Quesnay (1819), Gendrin (1820), Maréchal (1828), Legallois (1829), Dumas (1830), Carswell (1836), Tessier (1838), Dupuytren (1839), and others. Some writers (as Aretæus, in the second century) speak of the disease as a "metastasis"; others regard it as a "purulent infection": *e.g.*, Berthelot (1780), Hodgson (1815), Velpeau (1826), Sédillot (1849), Panum (1863), etc. "La fièvre jaune" was the term applied by Baron Larrey (1812).

Those who regard pyæmia as principally a nervous affection are: Desault (1794), Travers (1818), Rose (1828), Barthez (1843), Copland (1858), etc.

The intimate relationship of phlebitis with pyæmia as cause and effect, or as one and the same affection, we find noted by Hunter (1793), Ribes (1816), Carmichael (1818), Breschet (1819), Sir A. Cooper (1827), Cruveilhier (1829), Tessier (1838), Nélaton, and others.

The term pyæmia, first given to this disease by Piorry ("pyohémie", 1828), continues at the present time its current designation; but some writers have aimed at more correctly indicating the constitutional or pathological characters of the affection by adopting other names. Boyer (1814) termed it "la suppression de la suppuration"; Guérin, "surgical typhus", tracing its origin to miasmatic influence; Sir J. Y. Simpson (1860) termed it "surgical fever"; Virchow, "septhæmia"; Sir W. Jenner, "pyogenic fever"; Braidwood (1868), "suppurative fever", and so on.

The subjoined list does not pretend to be exhaustive, but contains merely a selection of works likely to be useful to those who desire to study the subject.

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* Dr. Ransome, of Manchester, as appears in a paper "On the Organic Matter of Human Breath", published in the *Transactions of the Literary and Philosophical Society of Manchester*, 1869, and in the *Journal of Anatomy and Physiology*, May 1870, observed bodies bearing some points of resemblance to those noted by us in the aqueous vapour of the breath in measles.

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[*To be continued.*]

SELECTIONS FROM

CLINICAL LECTURES,

Delivered at the London Hospital.

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PEMPHIGUS IN INFANTS.

GENTLEMEN,—The infant before us has been sent over by Mr. Ilott of the Whitechapel Infirmary, and we are much indebted to him for the opportunity of seeing a case of so much interest. Although infantile pemphigus is often talked about, I do not, for my own part, see a really well characterised case more than once a year; and it is very seldom, indeed, that I have the chance of demonstrating one to you. Our patient is, as you see, a well developed baby nine days old, and its hands, feet, and face are covered with bullæ. More usually, indeed, I think, in all the examples of the disease which I have previously seen, the eruption is confined to the extremities, and the face is free. It is, however, quite in conformity with what we know of certain other eruptions usually restricted to the hands and feet—that, if they do occur elsewhere, the face is the place. The eruption, in this instance, differs in another feature from what is common; the bullæ, although plentiful, and some of them of considerable size, are entirely destitute of the lividity at the base, and turbidity, or even sanious character of contents, which are almost invariable characters in infantile pemphigus. On the face, the bullæ and vesicles are remarkably delicate, and many of them are not round, but arranged in lines or panicles like herpes. The infant shows no indications of inherited syphilis excepting doubtful snuffles; but has a clear red skin, and healthy aspect. As usual, there is not a single vesicle on the trunk. I know nothing of the infant's mother, and can give you no facts for or against syphilis, excepting those which are under our eyes. The result of what little experience I have had of this peculiar malady has been to lead me to believe that it is almost invariably syphilitic. It occurs, however, under very peculiar and exceptional conditions. In the first place, it almost always shows itself soon after birth, within the first week; whilst, as you well know, the other syphilitic eruptions are seldom seen until the child is a month or six weeks old. This fact of early appearance perhaps explains some other peculiarities: for instance, its subjects rarely show other signs of inherited taint; they are not emaciated; they do not snuffle; there is no inflammation of the mouth, nor any soreness at the anus, or eruption on the nates. All these symptoms occur at a latter period, and the pemphigus infant rarely lives long enough to exhibit them. It is seldom that infantile pemphigus does not end fatally, and that, too, very

quickly. The explanation of the cause of death is not easily given: for the child dies before any very obvious signs of exhaustion have had time to show themselves. Sometimes, but not always, convulsions occur. These exceptional features have naturally led to much discussion as to whether the disease is really syphilitic or not; and, in France especially, the one and the other opinion have each had its zealous supporters. All admit the peculiar features of the disease; and, excepting those who assert that it is to be cured by mercury, all admit that it is usually fatal. Not only is there usually an absence of ordinary syphilitic concomitants in the child, but the history of the parents is often very difficult to interpret. Such, at least, has been my experience. There is often an indistinct history of the disease in one or other parent; but it may be at a very long distance. Yet, in spite of these failures as to clear evidence, my own opinion is, as I have already said, to the effect that the disease is really almost always specific. I well remember a case in which, some years ago, I was consulted, at the suggestion of Dr. West, chiefly in reference to this very point. The parents, both of whom appeared quite healthy, had lost child after child within the first fortnight, with pemphigus on the hands and feet. The husband admitted that he might possibly have had syphilis before marriage; but his account of the course of his symptoms made it very doubtful. The infant which I saw had the usual conditions—blebs on the hands and feet, with dusky areolæ round them. It, like all its brothers and sisters, was a well grown infant, but, like them, it died at ten days old, after convulsions. Some years later, the surgeon who attended the family, and whom I met in consultation, was kind enough to inform me that conclusive evidence that the father was syphilitic had been obtained. Several almost similar occurrences have happened to me, in which, although at first we were obliged to doubt, all doubt was subsequently removed. Whilst, therefore, I am far from wishing you to believe that all pemphigus or bullous eruptions on the hands and feet of infants are syphilitic, yet I think that all ought to be suspected, and that, in the severe cases, those which threaten to end fatally, the suspicion will be found to be correct. As you are aware, it is a favourite doctrine of mine, that syphilitic forms of disease have their counterparts or types which are not so; that syphilis is an imitator rather than an originator. So, probably, there is the non-syphilitic prototype of infantile pemphigus; but the examples of it are so rare, that, if anyone should have the opportunity of investigating any such case in which the disease is well characterised, and ends fatally, he would do well to record them. Special attention should be given to the state of health of other children in the family. Often infantile pemphigus shows itself in several children in succession. As regards treatment, the evidence is, I think, quite sufficient to make it wise to at once give mercury. Although, as I have said, in my own experience, and in that of most who have written upon it, this form of pemphigus is very dangerous, and usually rapidly fatal, yet it is possible that our impressions are exaggerated on this head. A little fragment of evidence on this point fell to my lot this very morning. A married gentleman, who is under my care for a very slight manifestation due to syphilis many years ago, mentioned casually that his wife had been recently confined. "Is the baby well?" I, of course, asked. "Yes", he replied; "it seems thriving now, but it has had what the doctor calls pemphigus on its hands and feet". So far as was ascertainable, the pemphigus had not been supposed to be specific, and was disappearing without specific treatment. In reference to the peculiarities of infantile pemphigus, its occurrence on the extremities, and its tendency to end soon in death, we must remember that, of all the forms of skin-disease, common pemphigus is the most serious as regards risk to life, and that it almost always affects, though not exclusively, the hands, feet, and face. Unless its specific, arsenic, be given, it usually causes death. In the case which we have now in the wards, the man was rapidly failing in health before we gave him arsenic, and now he is cured of the eruption everywhere, excepting the hands, where a few of the bullæ, exactly like those of this infant, still persist in coming out. If the non-specific form of pemphigus be so severe, we cannot wonder that its syphilitic counterpart is so likewise. Probably in each instance the fact that a bullous eruption is produced, rather than any other type, reveals a peculiarity in the individual, an idiosyncracy to which the danger must be held to attach. I cannot for a moment agree with the opinion of Diday, that the pemphigus of syphilitic infants is due rather to the cachexy produced by syphilis, than to the syphilis itself; for I have seen it repeatedly in children who otherwise seemed to be quite well.

Postscript.—A few weeks after these remarks were made, I was able, December 17th, to continue the history of the case by reading a note from Mr. Ilott, who had the mother of the child under his care. In answer to my inquiries, Mr. Ilott wrote: "The infant, now sixteen days old, is doing well, and there has been no fresh eruption for some days. The forehead and nose are in a state of crust and scab. The hands and feet are nearly clear. The mother is a woman of bad character, who has borne two children to different fathers. She denies syphilis, but has many scars of specific ulcers in her legs. Her first child, two years ago, had syphilitic symptoms, and died at eight months. The treatment, in the present instance, has been by small doses of grey powder, but only once a day."

On January 12th, Mr. Ilott again kindly sent us the child. It was now puny, emaciated, with bad snuffles, and pain and swelling over several bones at their epiphyses. The pemphigus had long ago disappeared. There can be no doubt that it is the subject of syphilis.

[*To be continued.*]

THE ETIOLOGY OF ENDEMIC GOITRE.

By R. BRUCE LOW, M.D.Edin., S.Sc.C.Camb.,
Medical Officer of Health, Helmsley Rural Sanitary District, Yorkshire.

[*Concluded from page 45 of last number.*]

THE people who inhabit this part of Yorkshire are descendants of the ancient Britons, with a "dash" of Scandinavian blood in their veins. Until very recently, there was practically no railway communication in the district; consequently there was very little intermingling with others at a distance, or infusion of new blood. The people are, as a rule, hardy and robust. Their *physique* will compare favourably with that of other districts. For example, on the muster-roll of the local Volunteer corps are inscribed 176 names. The average height of these men is 5 feet 9¼ inches; the chest-measurement is 37 inches. Now the average height of the average Englishman is a trifle under 5 feet 8 inches, and the chest-measurement 35¼ inches; so that these men, typical specimens of our locality, are considerably above the standard of the ordinary Englishman. Another illustration will suffice. Seven men met a short time since in a country lane. One of them discovered that he, although measuring 6 feet 2 inches, was the smallest man present, the tallest being 6 feet 7 inches. We are told by writers on goître that the people where it abounds are stunted both in body and mind. So far as the males are concerned, this fact seems to be contradicted by my observations in this neighbourhood. These same authorities assert that the women of goîtrous districts are ugly, ill-formed, yellow, and unattractive; and that their sexual activity is almost suppressed, if not altogether absent, causing barrenness. I have asked the opinion of unbiassed visitors here regarding the females they have seen, for example, coming out of church on a Sunday. These critics have told me, what I had already noted, that there is a large amount of beauty and natural grace among the young women, the fairness and purity of complexion being very marked. The birth-rate of the district is 35 per 1,000. I know of many goîtrous women with large families (numbering as high as fifteen and even seventeen). So far from sexual impulses being suppressed, I regret to say that they are too exuberant among the young unmarried females of the poorer classes; our illegitimate births have been over 10 per cent. of the total for the last eleven years. Early caries of the teeth is of very common occurrence. There are a number of stammerers to be met with; but I have never seen an albino nor a deaf-mute in this neighbourhood. The house-accommodation much resembles that of other rural districts; it is deficient in quantity and quality. The cottages are often strikingly picturesque outside, but inconvenient and ill-ventilated within. I do not consider them, however, any better or worse than those found in districts where goître is not endemic. The people are chiefly engaged in agricultural pursuits. The proportion of inhabitants to acreage in our sanitary district is about fifteen acres to each person. The dietary is much the same as in other rural parts. The poorer classes live on bacon, bread, and tea, with occasional additions. Many adopt the pernicious custom of drinking tea at every meal. The amount of drunkenness is not excessive, and I am told by the clergy that it is diminishing. The rainfall I do not consider great; last year (a wet one), it measured 34·43 inches. The wooded valleys are often full of mist when the high ground is clear and bright. This mist in the valley is called a "roke", by which name the same condition is known in Norway at the present day. The rainfall, for the most part, owing to the configuration of the surface, soon runs off, leaving the roads dry, and swelling the water-courses rapidly. In the wooded valleys, there is greater dampness, owing to the trees, which hold down the moisture, and prevent drying of the ground by the wind and sun.

Speaking generally, the drinking-water supply is pure and plentiful. It is mainly derived from three sources: 1, the running brooks; 2, the springs on the hillsides; 3, wells sunk in the rock or in the alluvium of

the plain. After careful consideration, I have selected six samples from the plain, the valley, and the hill, as typical representatives of the water-supply of the district. These samples have been analysed for me by my friend the well-known Yorkshire analyst, Mr. James Baynes of Hull, who has taken great interest in the inquiry, and has even repeated the analyses to verify the results. Below will be found, in a tabular form, the details of Mr. Baynes's analyses. In addition, I have several reports by different analysts on various waters; but, as each chemist has a system of his own, it is impossible to tabulate, for comparison, these combined results. I may, however, mention that, in one parish where goître existed, the water-supply contained only 4·75 grains of total solids per gallon. This water was brought in pipes from a distant moor, and had deposited part of its mineral constituents *en route*. The water contained a small quantity of iron. The first specimen, marked A in the table, is taken from a parish situated at the extreme end of the plain, where the hills converge, shutting it in on three sides. The water-supply is derived from a spring which issues from the solid rock (lower calcareous grit) in a narrow wooded valley one mile distant. The water runs from the spring for a quarter of a mile in an open pebbly channel; it then flows into a small reservoir, from which it is piped to the houses. The supply is constant. I have notes of one hundred and twelve cases of goître occurring in persons who drink this water. The specimen marked B is taken from a well twenty feet deep in the alluvium (clay, flints, etc.) of the plain. The village is wide and open. Each house has its own shallow well. I took this sample from the well of a house in which a goîtrous woman lived. She was the mother of five goitrous grown-up daughters. The specimen marked C is taken from a well twelve feet deep in a goîtriferous village, situated on the crest of a high ridge which commands a splendid view of the country. This village is exposed to winds blowing from all points of the compass. The rock from which the water is obtained is the lower calcareous grit. The specimen marked D is taken from a village situated in a romantic valley, in which stand the ruins of one of the finest abbeys in Yorkshire. I may remind my readers that the monks of old took especial care to secure salubrious sites as well as lovely localities for their monasteries; yet, in this beautiful and healthy spot, goître prevails. The sample was drawn from a spring in the centre of the village, and, therefore, in general use. The rock from which the water issues is the Oxford clay. The specimen marked E is taken from a lonely hamlet, on a bleak high ridge which overlooks the plain, and is swept by every wind. This water comes from the open moor, and runs in a channel about a mile long. The ground where the small stream begins is composed of "estuarine sandstones and limestones". The specimen marked F is taken from a spring issuing direct from a hillside where the rock is the calcareous grit. There is no village here; but persons living in a cottage close at hand, and using this water, are affected with goître, as also are others dwelling in the scattered farms round about, and drinking water from the same source. The hill here mentioned forms the termination of the valley before referred to as being in the lias formation.

Analyses of Goîtrigenous Waters by Mr. James Baynes, F.I.C., F.C.S., etc., Public Analyst for the City of York, the Borough of Hull, etc.

	A	B	C	D	E	F
			Grains per Gallon.			
Total solid residue ..	16.00	38.75	40.8	21.9	7.0	15.00
Chlorine	·70	2.30	3.5	1.3	1.2	2.00
Equal to salt	1.12	3.80	5.76	2.14	1.97	3.20
Silica	·76	1.60	·56	·56	·26	·56
Oxide of iron and alumina	·36	·46	·16	·76	·36	·26
Carbonate of lime	11.66	22.66	26.66	12.56	2.86	9.76
Sulphate of lime	Trace	6.40	5.80	4.05	Trace	1.90
Magnesia.....	·61	·83	·90	·65	·25	·50
			Parts per Million.			
Free ammonia	None	·012	·012	·026	·04	None
Albuminoid ammonia .	None	·030	·020	·030	·02	·02
			Degrees.			
Total hardness	15.00	37.00	34.50	18.00	6.00	14.50
Permanent hardness..	5.50	13.00	10.20	7.70	2.50	5.00
Temporary hardness..	9.50	24.00	24.30	10.30	3.50	9.50
Geological source of the water	Calc. grit	Alluvium	Calc. grit	Oxford clay	Estuarian sandstones and limestones	Calc. grit
Situation of source ..	Valley	Plain	Hill	Valley	Mountainous moorland	Hillside
The water taken for examination from ..	Tap fed from a reservoir which is supplied by spring	Well, 20 feet deep	Well, 12 feet deep	Spring	Brooklet	Spring

From a glance at the preceding table, it will be seen that the waters vary considerably in point of hardness, the minimum being 6 degrees, and the maximum 37 degrees. It is evident that, as goître is found equally prevalent under both conditions, the hardness cannot be the cause of the disease. The sulphate of lime, too, varies very much, from the merest trace to 6.40 grains per gallon. This, also, cannot be the noxious ingredient. I need not refer in detail to each constituent, as the table gives a very good idea of the comparative qualities of the different waters. There is, however, a larger proportion of oxide of iron and alumina in all the waters than is usually found. This fact tends to support Dr. St. Lager's views of the etiology of goître; but it is difficult to understand how iron can be the deleterious element, since we are accustomed to give it so largely and so constantly in daily practice, with the best results. I have often given it when treating goître, with perceptible benefit, especially those goîtres associated with profound anæmia, as is often the case.

As a supplement to the facts already given, I propose briefly to add an analysis of the 260 cases of goître which I have collected. I do not suppose that I have seen all the goîtres which exist in my district. The large proportion are those met with in my own patients; but some of the cases are from notes kindly supplied by several of my neighbouring medical brethren. Out of the 260 cases, nine came into the district with the thyroid body already enlarged (three from Derbyshire, two from Wilts, one from Cumberland, one from London, and two from the West Riding of Yorkshire). Sixteen were males, and two hundred and forty-four females. One hundred and forty were dark, and one hundred and twenty were fair. In one hundred and forty-two cases, other relatives suffered from the same swelling; but, in one hundred and eighteen, this family predisposition did not exist, or, at least, it could not, from special circumstances, be traced. Ten cases were children under five years of age. Fifty-nine had a marked hæmorrhagic diathesis. I have already pointed out, in a short paper in the BRITISH MEDICAL JOURNAL (Goître and the Hæmorrhagic Tendency, June 29th, 1878), that, in this district, there are a large number of flooders in childbed. At the time when I published the paper in question, I was not aware that the connection between goître and *post partum* hæmorrhage had been noticed. Since then, however, Mr. Lawson Tait has kindly sent me a copy of his paper on Enlargement of the Thyroid Body in Pregnancy (*Edinburgh Medical Journal*, May 1875), in which he states that "there was a marked tendency to uterine hæmorrhage" in the majority of the twenty cases of goître which he had noted. Frequent loss of blood is also a common complication of other diseases in this locality. I have noticed this particularly in enteric fever, where death has occurred in several instances from uncontrollable bleeding from the bowels. I had recently a convalescent from enteric fever, who spat and vomited blood, and passed it from his bowels and kidneys; the mother of this patient had a goître, and was a flooder; and although his sister in her one confinement had not flooded, yet her recovery was much retarded by frequent bleedings from the gums, and also *per rectum* and *per vaginam*. With the greatest care, severe *post partum* hæmorrhage does occasionally occur in this district. For example: I have kept the uterus of a goîtrous woman firmly contracted for three hours after delivery; but, on retiring to an adjacent room to rest my cramped hands, I have been hastily summoned, after a few minutes' interval, to find my patient fainting, and the bed full of blood. The flooding tendency, as well as goître, is endemic in this district.

To return to our cases. In thirty-nine, there was a distinct family history of phthisis, several of the goîtrous persons being affected with consumption at the time when I observed their goîtres. Some authors have stated that phthisis is not found among goîtrous people; but this opinion is not now generally held. In sixteen cases, there were distinct manifestations of the scrofulous habit, and in one family I found four young persons both goîtrous and rickety. This last fact is contrary to what is held by some writers. Maffei (*Der Cret. in den Norisch. Alpen*) has written: "Where goître and cretinism are endemic, scrofula is remarkably seldom found, and rickets almost never." In one of the scrofulous cases, the thyroid suppurated. Nineteen persons had heart-disease along with goître. In thirty, there existed neuroses. Two became insane; thirteen were very hysterical. In six cases, some member of the same family was insane. Four were more or less imbecile. I have seen only one "véritable cretin", a goîtrous idiot, in this district. Although I believe that cretinism results from the concentration of the goîtrigenous poison, yet I have seen no marked manifestation of its presence in this locality; and, with the exception of the one case just mentioned, I have not been able to verify the awful description of cretins given by French authors. "La face est hideuse, leur physionomie aune expression de stupidité indescriptible. Ils ont les pomettes et les mâchoires saillantes, le lèvres épaisses, flasques et retenant mal la salive, la bouche énorme, le nez écrasé, les narines élargies, les

cheveux rudes et grossières, les oreilles mal conformées, la peau épaisse, de couleur jaune terreux, les organes génitaux atrophiés. Les dents carient de bonne heure; les membres inférieurs sont grêles, les jambes cagneuses, les pieds plats et larges." No one who knows the people who inhabit this part of the country will accuse them of abating one jot of the proverbial sharpness of Yorkshiremen; and all the world knows that the "Yorkshire tyke" is no cretin in driving a bargain, or in turning over the honest penny.

I have not seen an infant born with an enlarged thyroid gland; but a medical friend, recently practising in the West Riding, about six miles from the Derbyshire border, has sent me notes of three cases, in which goîtrous women gave birth to goîtrous infants. I have, however, seen bronchocele at as early an age as eighteen months. Most of my cases traced the commencement of their swelling to the first menstruation, or to pregnancy; in only one case was the enlargement said to have been first noticed at the climacteric period. In many cases, profound anæmia coexisted. It is affirmed by physiologists, that the blood of women has a larger proportion of leucocytes; and that, in pregnancy, these white blood-corpuscles are still more abundant. Now, it is believed by some that the function of the thyroid gland is concerned in the manufacture of the young blood-corpuscles. In pregnancy, there is increased work for the blood-forming organs; and, when the individual lives in a locality where goître is endemic, if she have hitherto escaped, she develops the swelling so soon as the blood-corpuscle-forming function of the thyroid gland is overworked. With enlargement of the gland, there is apparently diminution in the formation of corpuscles—hence, perhaps, the anæmia and other symptoms. Thus, pregnancy is only a predisposing, not an exciting, cause of goître. This hypothesis of the blood-forming function of the thyroid explains, in some respects, the greater immunity of males from this disease. The blood of males contains relatively more red corpuscles than that of females. The system of the male is not called upon to undergo the extreme tension and alteration of normal condition, which is the lot of the female in menstruation and pregnancy. This share of the subject offers a fertile field for future investigation.

To conclude the *résumé* of my cases: five suffered from exophthalmic goître. I made a careful inquiry into three of the cases who came under my own immediate care (the remaining two being contributed by a friend practising in the district). The first was a married woman, who had hypertrophied heart, extreme exophthalmos, and a very large goître. Her mother and four sisters were goîtrous. Contrary to the usual experience, she was much benefited by treatment with iron. The second case had a hypertrophied heart, great anæmia, a small goître, and marked exophthalmos. Her sister was goîtrous, and her mother a flooder. She also improved under the use of iron. The third case had very severe heart-symptoms, a moderately large goître, and very marked protrusion of the eyeballs. Her daughter and her nieces were goîtrous. No treatment availed, and she succumbed to an attack of diarrhœa. It must be understood that these statistics are only approximative. There may be a larger proportion under each of the classes I have alluded to than stated; but those who have collected family histories among unlettered or uninterested people will recognise the difficulty which exists in getting precise and trustworthy facts. I cannot recall to my mind any case of a person, coming to live in this district out of a non-goîtrous neighbourhood, contracting this disease. All the sufferers, so far at least as my observations go, have been born, or brought up from infancy, in the district. This is not in accord with the observations of some, who have seen goîtres got after a period of from three weeks to six months' residence in an infected locality. The deduction from this is, that the poison, or source of the swelling, exists in a less degree here than in those other districts. Indeed, the enlarged thyroid gland here seldom attains a larger size than that of a melon; and we do not see any of those frightful swellings hanging far down on the breast, which are common enough on the continent.

This paper has already exceeded its original limits; I must, therefore, leave the rest of my material until another time. It may be asked: Why trouble ourselves so much about a disease which is rarely fatal, and one which is only confined to certain localities? This question will answer itself to those who have seen the distress and suffering to which goître gives rise. It aggravates all respiratory diseases, adds to the difficulties of tracheotomy, and increases the dangers of administration of chloroform. By its pressure on the great blood-vessels of the neck, it may cause, and it certainly complicates, cardiac affections; and, for the same reason, obstructs the cerebral blood-supply—thus interfering with the nutrition of the brain.

In conclusion, it may be asserted that all the evidence points to potable water as the most probable source of the poison. This is well known to the crafty French conscripts, who, in order to avoid the hated military service, flock to the well-known goîtrigenous springs in the Briançon and other districts (St. Lager, page 191). A three weeks' course of these waters will enlarge their thyroids; and, anticipating their rejection, as the goîtrous are exempt, they present themselves before the medical board; while their less cunning companions are marched away, possibly to swell the list of those whose bones are bleaching in the fiery glare of an Algerian sun.

The ancients blamed water; popular belief points chiefly to water; and the weight of medical opinion, with the results of recent research, plainly lead up to water. Having these indications before us, the investigator's course is clear; and time, together with patience, is alone needed to dispel the darkness which has so long enshrouded the etiology of goître.*

THE CEPHALIC MURMUR OF ANÆMIA.

By G. A. GIBSON, M.D., D.Sc., F.R.S.E.,
Fellow of the Royal College of Physicians of Edinburgh, and Lecturer on Medical Anatomy and Physical Diagnosis in the Edinburgh School of Medicine.

In the early part of last year M. Tripier, of Lyons, published an interesting memoir† upon an important phenomenon which he observed in many cases, more especially in conditions of anæmia.

By means of an abstract in the *London Medical Record*, I brought his investigations before the notice of the profession in this country soon after the appearance of his paper.‡ In anæmia, and certain associated states, Tripier found that a murmur could be determined by auscultation over the cranium. He described it as always systolic in rhythm, never continuous, not modified by change of posture, but altered by pressure on the carotid arteries, and varying with the general condition of the patient. In a subsequent contribution§ he has reconsidered the conclusions at which he previously arrived. He finds most of his statements fully supported by the evidence which he has accumulated, but sees reason to modify his former conclusion regarding the position of the maximum intensity of the murmur.

In his first paper, he described it as being most distinct over the temporal region, especially of the right side. But it had not then occurred to him to investigate the state of the orbit; and, since writing that memoir, he has discovered that on auscultation of the eyeball the murmur can be heard more clearly in that position, than in any other part of the cranium. He points out that the murmur is clearly of local origin, as it not unfrequently exists apart from any cardiac murmur, and cannot, therefore, be transmitted from the heart. It gradually gains intensity as the anæmic state becomes more profound, and when the patient improves it steadily diminishes.

The murmur over the orbit is heard at an earlier period than that in the temporal or other region of the head, and, as health is regained, it is longer in disappearing than that heard elsewhere.

Tripier regards this murmur as arising in the terminal portions of the internal carotid artery, and thinks that its maximum intensity over the orbital region is a strong argument in favour of such an hypothesis.

I am of opinion that the explanation given by Tripier of the mode of production of this murmur is inadequate, and I wish to advance another hypothesis which appears to have more evidence in its favour. Such is my reason for entering into a consideration of this question at present; and, in order to explain the phenomenon with greater advantage, I propose, in few words, to narrate an illustrative case.

Margaret A., aged 36, married at the age of 16, and now mother of nine children, consulted me lately at the New Town Dispensary. She complained of palpitation, with swelling of the legs and feet towards evening; she had but little appetite, and suffered from menorrhagia and leucorrhoea. There was no history of rheumatism nor of other antecedent malady, and the family history was good.

The patient's face was extremely pale, and the conjunctivæ, lips, gums, and tongue, were blanched in the highest degree. No impulse was visible in the precordial region, and there was no swelling or oscillation of the cervical veins. The apex-beat occupied the fifth intercostal space, two inches from the mid sternum. In the mitral area a loud blowing systolic murmur was heard, and there was an independent systolic murmur in the tricuspid area. Over the left auricle, the auricular murmur of Balfour was very distinct. A loud *bruit de diable* was audible over the jugular veins. It had a systolic augmentation of intensity,

* Since this paper was written, the woman first-mentioned among the exophthalmic cases, and whose mother and four sisters were goîtrous, has given birth to a *son*, with an enlarged thyroid occupying both sides of the neck; the child is otherwise healthy.

† Recherches Cliniques sur le Souffle céphalique chez l'Adulte (*Revue de Médecine*, vol. i, Nos. 2 and 3, February and March 1881).

‡ *London Medical Record*, April 1881.

§ Note sur le Souffle Céphalique de l'Adulte considéré au niveau des Régions Orbitaires (*Revue de Médecine*, vol. i, No. 10, October 1881).

and, on the application of greater pressure, was easily converted into a distinctly musical note.

This is an ordinary clinical picture of anæmia in an advanced stage, such as affords probability of the presence of the cephalic murmur. On auscultation of the cranium, the murmur could be determined in three positions. When the stethoscope was applied to the closed eyelid, a low murmur was easily distinguishable. In rhythm it was somewhat later than the apex-beat, and slightly followed the carotid pulse. It was accompanied by the dull continuous rumble caused by the muscular contraction of the orbicularis palpebrarum in its closed state, by the irregularly intermittent noise produced by the sympathetic movement of the eyelid when the opposite lid winked, and by the respiratory murmur propagated through the cranial bones. These three acoustic phenomena are pointed out by Tripier as likely to mislead the unwary observer. The continuous muscular sound cannot be got rid of, but the irregular noise of winking can be stopped by placing a finger upon the opposite eyelid, and the respiratory murmur necessarily comes to an end when the breath is held. When the stethoscope was applied over that part of the occiput corresponding to the torcular Herophili, a systolic murmur was also heard, but less distinctly than that in the orbital region; and, lastly, on auscultation over the mastoid prominence a very faint murmur of systolic rhythm could be made out. No murmur could be detected over any other part of the head. The murmur was not perceptibly influenced by change of posture, but slight pressure on the carotid arteries diminished its intensity, and forcible compression of these vessels entirely abolished it.

Such is the usual condition, according to my experience, when the anæmia is tolerably well marked. In all cases the murmur is most distinct in the orbital region; in the other situations it is comparatively faint. My students at the dispensary can always hear the former with ease, but the latter can only be detected by those of them who have undergone considerable training in auscultation.

In cases of anæmia, it is not uncommon to find a continuous murmur over the part corresponding to the torcular Herophili; sometimes this murmur, like the venous hum in the neck, presents a systolic accentuation. Since reading Tripier's earlier paper, I have not been able to determine the presence of this continuous hum over the occiput, and have only observed the faint systolic murmur as in the case above recorded. It is only in very severe cases that the occipital murmur is continuous.

If the murmur originated in the terminal parts of the internal carotid system, it should be found to wane in intensity with distance from that system. It is not so, however; as above remarked, the occipital is usually more distinct than the mastoid murmur.

The position of the greatest intensity of the murmur is of great importance. It is most clearly heard over the orbit, the mastoid eminence, and the occipital protuberance. This fact furnishes a key to the question. These three situations are closely related with the cavernous sinus, the torcular Herophili, and the lateral sinus; and I am of opinion that the murmur is produced by fluid veins within these sinuses: in other words, the murmur is of venous origin. It will at once be said that the murmur ought to be continuous, like the *bruit de diable*, if it arise from vibrations of the fluid contents of these venous channels. But, as in the case narrated, the venous hum is frequently found to have systolic augmentations of intensity. These are caused by the pressure of the large arteries upon the venous trunks, during the distension of the arterial walls, consequent upon the cardiac systole. This pressure creates additional waves in the contents of the veins, and the acoustic expression of these waves is increased intensity of sound. The internal carotid artery is in very intimate relationship with the contents of the cavernous sinus, being practically surrounded by the venous blood. When the anæmic condition is present, therefore, with its predisposition to the generation of intravenous ripples, the pulsations of the artery excite fluid veins in the blood contained within the sinus. In this, I think, we have a sufficient cause for the production of the orbital murmur. And similarly we may account for the occipital and mastoid murmurs. The internal jugular vein, at its origin and in its upper part, is so closely connected with the internal carotid artery, that the shock of the arterial pulsation is always communicated to it. Hence, in the anæmic state, fluid waves are transmitted upwards to the blood within the cranial sinuses, and cause a murmur in situations where the vibrations come to a focus.

It may pertinently be asked, Why is the murmur louder over the occiput than in the mastoid region? And why is it more distinctly heard over the eyeball than in either of these positions? The answer is not difficult to find. The structures lying between the cavernous sinus and the closed eyelid are of somewhat similar density, or to put the fact in different language, there is a continuity of soft tissues from the cavernous sinus, where the sound is generated, to the surface of the globe of the eye, where it is perceived. On the other hand, a murmur arising within the torcular Herophili must cause vibrations in the osseous structure of the occiput, in order to give acoustic manifestations. Physical laws tell us that sound is better transmitted through media of similar density, than where it is propagated through media whose density differs considerably. This is the reason why the orbital or cavernous murmur is more distinct than the occipital. And in the same way the murmur arising at the bend of the lateral sinus has to pass through the temporal bone; but this is broken up by the mastoid cells containing air, so that there is a physical reason for the greater weakness of the vibrations in this position. From the occurrence of a continuous hum over the torcular Herophili, we should expect to find a similar murmur over the orbit and mastoid region. That there are continuous vibrations, I most firmly believe; but, except in cases of profound anæmia, these are too feeble to reach the ear, and only the systolic augmentation of the sound is heard. Further observations will probably prove that there is a continuous hum in very severe cases.

As regards the place occupied by the cephalic murmur, in the order of development of the physical signs of anæmia, it may be remarked that it is the latest to appear. As far as my experience goes, the following is the sequence of phenomena: venous hum over the cervical veins; accentuation of the second sound in the pulmonary area; systolic murmur over the left auricle, with impurity of the first sound at the apex; systolic murmur in the mitral and tricuspid areas; and, lastly, cephalic murmur.

INTESTINAL OBSTRUCTION EXISTING FOR NINE MONTHS, CURED BY COLOPUNCTURE.*

By JOHN McGOWN, M.D., Millport.

I HAVE brought this case under your notice because it presented some peculiar features which I have not seen noticed in any of the recently published cases of intestinal obstruction; also on account of the remarkable change that took place in the condition of the patient immediately after the operation, and because the patient, being resident in my own house, was under my constant observation during the whole period of the disease. The patient in this case is a gentleman who has been resident with me for the last eighteen years. During all that time, he has enjoyed excellent health. His habits are very regular; and, being a gentleman of independent means, he has not been subjected to the mental or physical strain of most men who have reached forty-five years of age. The first symptom noticed was about the month of March 1879. At that time, he began to refuse his food, had slight diarrhœa, and the abdomen was somewhat tympanitic. He complained of no pain at this period, nor at any time during the whole course of the disease. The diarrhœa continued, more or less, during the nine months he was ill. Thinking that the illness was owing to some slight derangement of the stomach, I tried all the medicines usually given in such cases; still the diarrhœa continued, and the distension of the abdomen increased. He still complained of no pain. He had no vomiting, unless when forced to take more food than he liked. The constant diarrhœa, and taking little food, produced great emaciation. A remarkable feature of the case was that, about five minutes after he took any food, a loud click-clicking sound was heard; the sound was such as can be produced by a quart bottle full of fluid being laid on its side and allowed to empty itself in that way. The sound was produced by the fluid passing through the obstructed part, wherever that might be. The mechanical pressure of the gas on the kidneys and blood-vessels of the abdomen produced a whole train of peculiar symptoms. The legs became very œdematous three months after the disease was first noticed; and at the end of nine months they were greatly swollen, and the skin was blistered in several places, from which fluid oozed. The heart's action was very feeble; the pulse had gone down to 40 in the minute. No trace of albumen was found in the urine during the whole course of the disease. There was no difficulty of breathing unless he attempted to exert himself in any way. The great pressure on the bowels produced a very large inguinal hernia on the left side. This could be easily reduced; but no truss could keep it up, on account of the great pressure. About the month of June—the disease now going on for five months, and having failed to relieve the distension, which was now very great—I passed the tube of the stomach-pump up the descending colon for nearly two feet, and let off a large quantity of flatus. After the gas was let off, I injected a gallon of tepid water into the bowel through the long tube. I continued to do this every eight days for about two months; but latterly it required to be done every three or four days. I had great difficulty in introducing the tube at first, both on account of the unwillingness of the patient and from the contraction of the sphincter

* Read before the Glasgow Medico-Chirurgical Society.

ani; but latterly I introduced the rectal speculum first, and then passed the tube through it with the greatest ease to myself and the patient. During the month of August, I had the advice and assistance of several medical friends who were spending their holidays here. Dr. Kirk of Partick suggested that I should give extract of belladonna a fair trial, which I did, without any good effect. Opium had been given in large doses at an early stage of the disease, with a similar result.

I now sought the advice of Professor Gairdner of Glasgow, who came and saw the patient. He suggested my asking Dr. Cameron to see the case. Dr. Cameron and Dr. Grieve saw the case eight days after Dr. Gairdner. Dr. Cameron suggested puncturing the bowel; but, as I had been taught that that was a very dangerous operation, and one that should not be performed until all other things had failed, I did not consent to its being done. I was still able to partly relieve the distension with the long tube passed *per anum*.

In the BRITISH MEDICAL JOURNAL of September 27th, 1879, several cases of intestinal obstruction were published; and, as they had a direct bearing on my case, I read them very carefully. I was very much struck by what Dr. Goodhart said to his students in a lecture delivered at Guy's Hospital, when speaking about the operation of colopuncture. Here are his own words, taken from the JOURNAL just referred to. "You may, perhaps, think that some less hazardous means of relieving the distension than that of colotomy might be adopted; and another operation has been practised with that end in view, viz., paracentesis. The distension is due partly to gas and partly to fluid fæces; and it has been thought that, by withdrawing the former, the severity of the case might be relieved. One of the distended coils has, therefore, been tapped by a fine trocar and cannula. But there can be no doubt that this is an exceedingly dangerous thing to do; and I do not, from what I have seen and from what others have told, feel in the least inclined to recommend it to your notice. The danger is this: that the distension is, in the majority of cases, but little relieved—that alone is an objection fatal to its adoption; and, the bowel remaining full, and its walls tightly stretched, fæcal matter, which you remember I told you is always liquid, leaks out into the peritoneum after the withdrawal of the cannula from even the smallest puncture. I have myself seen the operation performed; and fæcal matter came out by the cannula at once; no relief followed; and the patient died not long afterwards of acute peritonitis. So do anything rather than this. You are taught, and quite correctly so, that small wounds of the intestine are comparatively dangerless, because the mucous membrane becomes everted, and so closes the aperture; but this only applies to a contracted intestine; but we are dealing with an overfull one. All the coats are in such a case distended probably to their utmost, the rugæ obliterated, and there is nothing to evert; and the smallest hole, under such circumstances, becomes a vent; and a vent, however small, in such a position, is fatal."

I called Dr. Cameron's attention to the articles published in this number of the JOURNAL. After he had read them, he told me he would come and see the patient, and do whatever might be considered best under the circumstances. Notwithstanding Dr. Goodhart's teaching, colopuncture was agreed upon. The patient was placed on his back in bed, the position in which he always lay since his illness. No chloroform was given — wisely, I think, as you will hear shortly. Dr. Cameron thrust the trocar and cannula into the middle of the transverse colon. The gas blew off for a few minutes, and the bowel was about half emptied of it, when the bowel was strongly drawn to the left side by its own peristaltic action. The cannula was laid down on the walls of the abdomen, and liquid fæces began to escape from the cannula. Dr. Cameron placed his thumb on the mouth of the cannula, and then injected a small quantity of tepid water through the cannula into the bowel. He now withdrew the cannula, and placed a small piece of adhesive plaster over the wound; and we left the patient in bed. We did not consider the operation very successful, as the gas was only partially liberated.

But now comes the wonderful part of the case. Three hours after the operation, the patient had a very copious discharge from the bowels of dark clayish liquid fæces, followed by a second one hour after the first. Seven hours after the operation, a large quantity of gas was passed *per anum;* and by next morning the abdomen was quite flat, and the distension completely gone. The kidneys now began to act vigorously. The ordinary chamber-utensil was filled three times in sixteen hours, and at the end of three days all the œdema in the limbs had disappeared. The heart's action was now greatly increased; the pulse rose from 48 to 70 per minute. The patient has improved every day since the operation, and is gaining flesh rapidly. Wherever the strangulation existed, I am of opinion that the bowel liberated itself at the time of the operation. Had chloroform been given, the peristaltic action of the bowel might have been reduced, and the operation might not have terminated so well. Had the operation been delayed much longer, the patient could not have lived many days. I look upon this case as another of the triumphs of surgery; and, should a similar case present itself to any of my medical brethren, I hope they will not hesitate to give their patient immediate relief and the chance of complete recovery by the operation of colopuncture.

This paper was read before the Glasgow Medico-Chirurgical Society on February 6th, 1880; and, from the discussion that followed, it was evident that no one suspected the true nature of the disease.

The history of this case since this paper was read is very interesting; and, for the benefit of the profession, I will briefly state the condition of the patient from that date till the present time. Colopuncture was performed on October 30th, 1879. He remained quite well till the month of September 1880. At that time, he took a rather long walk over a hill. The day following, I heard the click-clicking sound which was often heard in his previous illness. All the symptoms previously described began to show themselves. I did not allow the distension to become so great as it was at the time of the operation. I passed the long tube *per anum* at the end of eight days, and let off a large quantity of gas. From that date till the present, I have been under the necessity of letting off the gas every eight days, either by passing the long tube or performing colopuncture. I have punctured three times since the month of November 1880. At the beginning of the year 1881, I began to pass a rectum-bougie every second day. I had to use the smallest size (about the size of the ordinary stomach-pump tube). I had an idea that the cause of obstruction might be at the upper part of the rectum. It was almost impossible to get the finger introduced into the rectum, on account of the violent contraction of the sphincter ani. I introduced the rectal-speculum, and distended the sphincter ani as much as I could. I inserted my finger as far as I could, and thought I found something like a fleshy mass at the upper part of the rectum. I diagnosed the case as one of intussusception. I now adopted a somewhat novel plan to cure my patient, and the result was most successful. I got the ileo-cæcal portion of the bowel of a sheep. To a portion of it six inches long, I inserted a small ivory tube three inches long; to the one end I tied the intestine of the sheep; to the other I tied an elastic tube one foot long; to the end of the elastic tube I tied a small stopcock. I introduced the long tube, and let off the gas. I now put in the intestine of the sheep through the speculum. As soon as it was completely within the cavity of the rectum, I blew it full of air, and turned the stopcock. This at once pushed the prolapsed bowel up, and I could feel the distended bag taking the direction of the descending colon. I allowed the distended bag to remain in for half an hour; then opened the stopcock, and cautiously withdrew the bag from the rectum. Next morning, all the distension was gone, and the click-clicking sound was heard no more. The following day, the patient had a very natural motion of the bowels, the first of the kind since the month of September last. He is now quite well. It is now easy to understand what took place at the time of the first operation of colopuncture. The violent peristaltic action of the bowel withdrew the intussuscepted portion, and consequently got rid of the obstruction.

DUPUYTREN'S CONTRACTION OF THE FINGERS IN WOMEN.

By WILLIAM ADAMS, F.R.C.S.,

Surgeon to the Great Northern Hospital, and Consulting Surgeon to the National Orthopædic Hospital.

DUPUYTREN'S contraction of the fingers is, according to the testimony of all surgical authorities, of extremely rare occurrence in the female; and the communication of Dr. Carter of Leamington, published in the BRITISH MEDICAL JOURNAL of December 24th, 1881, is therefore of great interest, as he records two cases of this affection occurring in the female; one, now under his own observation, in a lady aged 88; and the other a sister of this lady, said to have been similarly affected, who died at the age of 70.

From Dr. Carter's description of the cases now under his observation, more especially from his remark that "there is much puckering of the skin of the palm", I have no doubt that the case he records is a genuine example of Dupuytren's contraction; *i.e.*, a contraction described by Dupuytren as essentially depending upon a thickened condition of the palmar fascia and its digital prolongation, by which the fingers are drawn towards the palm of the hand, and contracted independently of the flexor tendons.

In all probability, the second case referred to by Dr. Carter may

also be accepted as a genuine case of Dupuytren's contraction; but the first case referred to is a valuable contribution to our knowledge.

When I published my little work on *Dupuytren's Finger-Contraction*, in 1879, I stated that "I have never seen it in women"; and since that time only one case has fallen under my observation, and that occurred in a lady aged 66, who consulted me in October 1880, in whom both hands were similarly affected, but the right in a more severe degree than the left. The little finger of the right hand was flexed towards the palm by a prominent fascial band. Contraction of the ring-finger was only just commencing. In this hand, also, a fascial band passing to the thumb was distinctly prominent, and the thumb was slightly drawn towards the palm. In the left hand, the first phalanx of the little finger was not flexed by a prominent band; and in this finger the chief contraction was between the first and second phalanges. In both hands, the skin over the entire palm was dimpled, depressed, and puckered in folds, showing the extent to which the palmar fascia was involved, and the close adhesions between the skin and fascia. In this case, of which models have been preserved, as some improvement in the right hand followed gradual mechanical extension by an instrument, the operation has been deferred. I may add that this lady had been the subject of gout, and belonged to an extremely gouty family. Her father and brother had both suffered from contracted fingers.

Another case, of a somewhat doubtful character, which might be described as a spurious Dupuytren's contraction, occurring in a lady aged 48 (a single lady), was brought under my notice by Dr. F. M. Mackenzie in September last. The ring-finger of the right hand was drawn nearly halfway towards the palm, as a result of a wound in the palm of the hand from a broken glass bottle fourteen years previously; small fragments of glass remained impacted, and were taken away three years afterwards, since which time the contraction had been gradually increasing. A prominently contracted band of fascia played a more important part than usual in this class of cases of traumatic origin, in which all the tissues are generally implicated; and, after its subcutaneous division, the finger was immediately straightened more than we could have anticipated.

My experience, therefore, agrees with the opinion generally expressed, that this affection very rarely occurs in women; and Dr. Myrtle's large practical experience coincides with this opinion. Dr. Myrtle's valuable paper on Dupuytren's Contraction of the Fingers, published in the BRITISH MEDICAL JOURNAL of December 3rd, 1881, is full of practical observations. His views as to the traumatic and idiopathic varieties, also as to the cause or causes and mode of production of the contraction, its connection with gout, etc., are of the greatest interest; but at the present time I wish to refer chiefly to the frequency or unfrequency of the occurrence of this affection in women.

Mr. Reeves, in his communication to the BRITISH MEDICAL JOURNAL of December 31st, 1881, differs from other authorities as to the rarity of the occurrence of Dupuytren's contraction of the finger in the female, and observes: "I can clearly recall five cases, and I am sure that I have seen at least seven or eight in females.....These cases prove not only that Dupuytren's contraction does occur in females, but that it may be regarded as not very uncommon in them."

Two of these cases are mentioned as occurring in young ladies, one aged 17, the other 25, devoted to piano-playing, the strain and irritation of which Mr. Reeves regards as the starting-point of the pathological change which produces the contraction. Mr. Reeves observes: "The younger patient has the ring-fingers of both hands affected, and the little finger of the right is also contracted. The fascial bands are not strongly marked as yet, although the disease has lasted two years. .....The second and older patient has only the ring-finger of the left hand affected." No allusion is made to prominence of fascial bands, nor to the condition of the skin in the palm of the hand, in this case; and no description whatever is given of the other cases referred to. Hence it may be asked, Were all these cases genuine examples of Dupuytren's contraction? Did they all present the clear evidence of fascial contraction, with dimpled depressions and puckering of the skin in the palm, and prominent fascial bands leading to the fingers?—characters essential to the class of cases described by Dupuytren. Such cases should, I think, at the present time, when professional attention is directed to the subject, be described accurately in detail, so as to avoid any possibility of error; as we know that contraction of the fingers may take place from a variety of causes, and the pathological conditions will be found to vary according to the nature of the producing cause.

Possibly the affection may be of more frequent occurrence in females than has been supposed, and an unusual number may have fallen under Mr. Reeves's observation; but many cases of supposed Dupuytren's contraction have been sent to me, which I have at once rejected from the class. Within the last fortnight, a young lady aged 16, having the ring and little fingers of both hands contracted, so as to interfere with her playing the piano-forte, was sent to me; but I at once observed that the fingers were bent at the phalangeal articulations, and that there was no evidence of contraction of palmar fascia. The first phalanx could easily be extended beyond a straight line with the metacarpal bone. The father of the young lady then showed me his hands, in both of which the ring and little fingers were contracted, but to a less extent than his daughter's. In him, there was no evidence of contraction of the palmar fascia; but the phalanges of the fingers were a little flexed upon themselves, and could not be straightened. Care must, therefore, be taken to detect undoubted evidence of fascial contraction, before the cases can be grouped in the class described by Dupuytren.

CLINICAL MEMORANDA.

ON CONJUGATE LATERAL DEVIATION OF THE EYES DIRECTLY AFTER EPILEPTIC FITS.

Conjugate lateral deviation of the eyes, away from the paralysed side and towards the side where the lesion occurs, is well known in the apoplectic coma preceding hemiplegia, but I have not found any record of this deviation occurring in epileptic fits.

Through the kindness of the physicans of this hospital, I have noticed that, supposing that a fit begins with rotation of the head and face to the right (and I believe the tonic stage of epilepsy nearly always begins with rotation of the head to one side or the other), and that this is followed by the clonic spasms affecting both sides apparently equally, instantly the clonic stage is over, and the limbs are relaxed, the eyes will be seen to roll slowly to the other side—in this case the left—and to remain conjugately deviated for half a minute to two minutes; and then they often roll slowly from side to side, but remaining parallel. I have noticed the conjugate deviation in eleven out of the last thirteen fits that I have witnessed; and I should think that this might be explained by the theory that the side on which there was the greater motor discharge—as shown by the initial rotation of the head—becomes at the end of the fit the more exhausted, and suffers more paralysis than the other side; and I look upon the slow parallel movement of the eyes from side to side, as probably due to the recovery from exhaustion in the two halves of the brain not being uniform, but one side preponderating over the other in turns. The head does not rotate with the deviation of the eyes, after bilateral fits, because there is not, I believe, sufficient difference of power to cause this; but I have seen rotation of the head accompany the deviation of the eyes in unilateral fits, when the paralysis was severer and lasted for some hours and affected the convulsed side.

The above symptoms, coupled with the knee-reaction (patellar tendon-reflex) and ankle-clonus being more marked on the side to which the head turns in the initial tonic stage, and with the temporary absence (in one case for 30 minutes) of the superficial reflexes (sole of the foot, etc.), on the convulsed side in unilateral fits, which I have observed, tend, I think, to show that the nervous system is temporarily reduced by violent motor discharges to the same condition which is more permanently produced in hemiplegia, viz.:—paralysis, excessive action of the (so-called) tendon-reflexes, diminution of the superficial reflexes, and conjugate deviation of the eyes.

CHARLES E. BEEVOR, M.D. Lond., Res. Med. Off. to the National Hospital for the Paralysed and Epileptic, Queen Square.

REMARKS ON PEMPHIGUS.

THE numerous readers of the BRITISH MEDICAL JOURNAL have, no doubt, read with much interest the graphic description of the cure of pemphigus by arsenic, as given by Mr. Jonathan Hutchinson in an abstract of a clinical lecture recently published. At the same time, if the treatment therein advocated be invariably adopted, it cannot but lead, I think, to dissatisfaction and discouragement.

The idea undoubtedly conveyed by Mr. Hutchinson is, that pemphigus is invariably amenable to a course of arsenic. This I most certainly dispute. Were the disease, in all cases, due to "simple" constitutional causes, then, no doubt, arsenic would be an infallible remedy; but, seeing this is not the case, the logical inference must follow that it is not. That pemphigus is frequently connected with the syphilitic taint, no one, I think, acquainted with syphilis will gainsay. In such a case, arsenic could be of no avail; and the only remedy would be to remove the cause, viz., the syphilitic taint. A case of this kind, treated by my much respected teacher Professor McCall Anderson, in the cutaneous disease wards of the Glasgow Western Infirmary, made upon

me, as a student, an indelible impression. This case was a marked one, the body being covered with bullæ from the crown of the head to the sole of the foot, and the patient himself in an extremely weak condition. Acute inquiry and observation left no doubt on the mind of Professor Anderson that the disease was of syphilitic origin; and that his diagnosis was correct was most satisfactorily proved by the anti-syphilitic treatment adopted. In the course of a few weeks, by the hypodermic injection of a solution of the bichloride of mercury, this man was perfectly well. That it was syphilitic in origin there could be no doubt, as, had it not been so, the mercury, in his weak constitutional state, would have been sure to make him feel worse, whereas the patient expressed himself daily as being "much better". Seeing that pemphigus, where for some reason or other the system has become reduced below par, is not an uncommon form of cutaneous disease in connection with syphilis, it would be well to bear in mind, I think, that such an anomaly exists, requiring treatment *per se*.

JOHN S. MAIN, M.D., C.M.

Chorlton Union Hospitals, Withington, Manchester.

THERAPEUTIC MEMORANDA.

TREATMENT OF NASAL CATARRH.

IN the JOURNAL of the 14th instant, I observe that Surgeon-Major Ffolliott recommends the inhalation of the spray of a solution of quinine for the cure of coryza. None but those who, like myself, have suffered for a long time from frequently repeated attacks of coryza can know the extent of the misery caused by it; and I trust that this treatment will be more successful than the many other remedies which have from time to time been recommended in the medical journals. I may state that I have obtained comparative freedom from this troublesome affection during the past winter by the expedient of lubricating the mucous membrane, when an attack is impending, with vaseline, by means of an ordinary camel's hair brush passed into the nostrils. If this simple proceeding bring to others the relief it has, or appears to have, brought to me, it is well worthy of being generally known.—I am, sir, yours truly, JAMES ROSS, M.D.

26, King Street, Manchester, January 16th, 1882.

SURGICAL MEMORANDA.

CONTRACTION OF THE PALMAR FASCIA.

IN an interesting paper on Dupuytren's Contraction of the Palmar Fascia, published in the BRITISH MEDICAL JOURNAL, of December 31st, 1881, Mr. Reeves draws attention to the not uncommon occurrence of this affection in the female sex—a fact which is quite opposed to what has been observed by Mr. W. Adams; for he, in an article on this subject, based on twenty years' experience at the Royal Orthopædic Hospital, writes: "I have never seen it in women."—BRITISH MEDICAL JOURNAL, June 29th, 1878. I have myself been struck by the fact to which Mr. Reeves has drawn attention; for, of five cases of this affection which I have met with during the last six months in the out-patient department of the Manchester Royal Infirmary, and of which I have taken particular notice, two occurred in middle-aged females: in one case, the ring-finger only of the right hand was involved; while, in the other, the ring and little fingers of both hands were affected. Mr. Adams says, in the same paper: "I have seen but very few cases of Dupuytren's contraction in the labouring class; and the cases that did present themselves generally occurred in butlers and in-door servants. It seems, however, to be an affection of common occurrence in the middle and upper classes of society." Now the five cases to which I have referred all occurred among the lower classes, namely, in a labourer, a cabman, and a wheelwright; while, of the two females, one was a fustian-cutter and the other engaged in ordinary house work. The affection is, I believe, much commoner than is generally supposed; for in many instances, the subjects of it (at any rate, among the labouring classes) do not seek medical advice until the deformity begins to interfere with their occupation. In two of the above cases, the condition of the hand was only accidentally discovered as the patients were attending the hospital for other causes, and in both instances they were unwilling to undergo any operation for the relief of the deformity, as they did not find that it caused them any trouble. I agree with Mr. Reeves that some cases are due simply to local causes; though no doubt, in the majority of instances, there is either an hereditary tendency, or some evidence of a rheumatic diathesis. In two of the five cases, the affection appeared to be due to a local irritation, the result of the occupation followed by the patient; while in the other three, there was a history of chronic rheumatism, the symptoms of which were extremely well marked in one case, the metatarso-phalangeal joints of both great toes presenting characteristic evidences of rheumatoid arthritis.

F. A. SOUTHAM, F.R.C.S.,
Assistant-Surgeon to the Manchester Royal Infirmary.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

UNIVERSITY COLLEGE HOSPITAL.

PROSTATIC CALCULI: MEDIAN LITHOTOMY: CURE.

(Under the care of Mr. CHRISTOPHER HEATH.)

[FOR the notes of this case we are indebted to Mr. STANLEY BOYD, F.R.C.S., Surgical Registrar.]

The patient, a man aged 58, a lime-burner, residing at Chalkhill, Bushey, Herts, was admitted on November 2nd, 1881. He had had gonorrhœa when eighteen years of age. For the last seventeen years, he had been in the habit of passing catheters (Nos. 4 and 6), and had undergone an operation for dilatation of the urethra on several occasions. After using the catheter, he frequently passed large quantities of blood. At one time, an abscess formed in the perinæum, and discharged, leaving a fistula; this healed in about a month. His urine had been thick and offensive for twenty years. When admitted, he was a stout, healthy-looking man. He complained that he had to pass urine every hour or oftener night and day, of some scalding during micturition, and of shooting pain afterwards in the perinæum, but not at the tip of the penis. Blood was rarely present, and then generally appeared merely as a few drops at the end of micturition, after much straining. His symptoms were not aggravated by exercise or jolting. He passed urine in a stream (equal to about a No. 6 catheter), which was projected well, and never stopped suddenly. There appeared to be two strictures; one in front of the bulb, admitting No. 9; another somewhat further back, admitting No. 6. The catheter struck a calculus, probably of large size, and fixed. The urine was full of ropy mucus, and was ammoniacal.

The structures were systematically dilated by the passage of catheters of gradually increasing calibre on alternate days; and a mixture consisting of 15 minims of dilute nitric acid, 30 minims of tincture of hyoscyamus, and an ounce and a half of infusion of buchu, was ordered to be taken every six hours.

On November 8th, catheter No. 12 having been passed on the previous day, Sir Henry Thompson saw the patient in consultation with Mr. Heath. The opinion was expressed, that there were several stones imbedded in the prostate. After this examination, the temperature rose to 102° Fahr.; but on November 9th it had again become normal. On this day, Mr. Heath performed median lithotomy. A median staff having been passed, and the stone felt, the left forefinger was introduced into the rectum so as to feel the apex of the prostate. A bistoury, with the edge upwards, was then introduced in the middle line of the perinæum, and made to cut upwards for about one inch, and entered into the groove in the staff. A steel-handled director was now passed into the groove and pushed on into the bladder; the staff was then withrawn, and the finger introduced into the bladder along the director, which was withdrawn also. The finger was now in contact with a stone lying in the floor of the prostatic urethra. The stone was seized with polypus-forceps, and removed; and subsequently two smaller calculi were got away. Mr. Heath then introduced a small vulcanite speculum, and through it swabbed out the bladder with a pledget of cotton-wool soaked in a strong solution of nitrate of silver (one drachm to one ounce); and the operation was completed by tying in a petticoat-tube. The calculi were three in number; they were all smooth on the surface, and of a red-brown colour. The largest stone and one of the smaller ones had one facet each; the other small stone had two facets. The three stones together weighed 110 grains, and were composed of phosphate of lime, with a trace of carbonate.

The patient passed a better night after the operation than on any previous occasion while in the hospital. The temperature rose to 102.6° Fahr.; on the following morning, it had sunk to 100.6°. He felt well and free from pain. The urine was slightly alkaline, but blood-stained, and containing mucus. On the morning of November 11th, the temperature had risen to 101.6.°, and he had passed a restless night. It was found that the petticoat-tube had become blocked. On passing a

catheter along it, fourteen ounces of acid urine were drawn off. On the following morning, he was rather better; the urine was clear, acid, and contained only a trace of albumen. There was some tenderness on pressure above the pubes; and in the evening, from some unexplained cause, he had a rigor. On November 16th, the temperature was still a little raised (100° Fahr.), and he had some slight bronchitis; otherwise, his condition was satisfactory, and the urine remained clear and acid. On November 18th, the perineal tube was withdrawn; the urine was still acid when passed. On the following day, he complained much of pain above the pubes, caused by coughing. His temperature ranged from 101.4° to 103° Fahr., and his tongue was furred and rather dry. On November 22nd, the urine had again become ammoniacal, and cough was very troublesome; but, on the whole, he was improving. A week later, he was decidedly better; the temperature had returned to the normal. The bladder, from this date, was washed out with a solution of sulphate of quinine. He steadily improved. On December 9th, it was noted that the urine only occasionally came through the wound, and in small quantities; when fresh, it was pale, clear, acid, and contained no albumen.

He was discharged on December 23rd, 1881. The wound was not quite healed; but the urine was passed *per urethram*, and he could hold it for three hours at a time. The urine was clear, acid, and contained no albumen.

The removal of calculi from the prostate is unusual, although examples of much larger prostatic calculi are recorded. The treatment of the bladder by mopping out with a strong solution of nitrate of silver was both novel and successful; and Mr. Heath said that he was led to its adoption by the success which had followed similar treatment in the female, where, of course, the bladder is much more easily reached through the urethra. He had twice employed the same plan after performing lithotomy in private, and in both cases the results were satisfactory.

KING'S COLLEGE HOSPITAL.

VESICAL, PROSTATIC, AND SCROTAL CALCULI: MEDIAN LITHOTOMY: CURE.

(Under the care of Mr. LISTER, F.R.S.)

[Reported by Mr. W. J. PENNY, Surgical-Registrar.]

H. G., aged 23, was admitted on June 4th, 1881. The patient was a farm labourer, residing in Sussex, a strumous, unhealthy-looking individual. Scattered over his body were numerous scars, the result of abscesses. His right hip was contracted from old hip-disease, and he had had also extensive necrosis of the left tibia and fibula.

In September 1880, after hop-gathering, he suddenly passed a small stone, *per urethram*. For four or five months before this, he had passed his water frequently, but had experienced no pain. After this event, however, he had occasional slight attacks of pain, but never passed blood with the urine. In October 1880, he first noticed a swelling in the scrotum, at its junction with the penis; this burst a week after its appearance, giving exit to some small stones, which were soft, and crumbled under his fingers. The opening closed in six weeks, but after some time reopened; since that time, a little urine had continuously passed through it.

On admission, he complained of difficulty in micturition; the urine dribbled away from the urethra and also from the scrotal sinus. In the scrotum, stones could be felt grating on each other. In the prostate, a hard mass could be made out both by the sound in the urethra and by the finger introduced *per rectum*. The sound was not passed into the bladder, being partly prevented by the stones in the prostate, the position of which Mr. Lister was anxious not to alter. The urine was strongly ammoniacal, of specific gravity 1017, containing mucus, pus, and about one-fourth of albumen. The temperature before the operation ranged between 100° Fahr. and 102.6° Fahr.

Operation on June 10th. The patient was put under the influence of chloroform. Mr. Lister then passed a grooved central staff down to the prostate, cut down on it through the centre of the perinæum, and, running the knife along the groove, cut into the prostate. He then introduced his finger, and found the gland excavated in the form of a sac containing the stones; these he removed with a small pair of lithotomy-forceps. The staff was then passed into the bladder, and a large calculus discovered. The incision was extended into that viscus, a large pair of lithotomy forceps introduced, and the stone seized. Owing to its large size and the contracted state of the pelvic outlet, it was impossible to remove it entire; consequently Mr. Lister, using the same forceps, and exerting considerable force, crushed it and removed it piecemeal.

The cut surfaces were then swabbed with a solution of chloride of zinc (forty grains to an ounce). A lithotomy-tube was introduced, and secured in position. Mr. Lister then cut down and removed the stones in the scrotum. This wound was also swabbed with the chloride of zinc solution, and left open.

The patient, after the operation, made a rapid recovery without a bad symptom. The temperature, high before the removal of the calculi, ranged between 98.4° Fahr. and 99.6° Fahr. after.

The lithotomy-tube was removed on June 12th, and on that day he said "I feel happy now." On June 19th he first passed urine by the urethra, and on June 28th all the urine was passed by the urethra. He got up on July 8th, and was discharged on July 18th completely healed and cured. A very slight trace only of albumen persisting in the urine.

All the calculi were composed of triple phosphates; that from the bladder weighed when dry 1,010 grains, and was about the size of a hen's egg. The calculus material from the prostate weighed 244 grains; that from the scrotum, 24 grains; making a total of 1,278 grains. The prostatic calculi were irregular in form, and on section presented a mottled appearance, some parts being dark grey and more dense in texture, the greater part being of a lighter colour.

The whole of the vesical calculus (with the exception of a distinct nucleus) was quite white. Externally it presented a smooth surface, and did not show any appearance of having lost fragments. The nucleus, however, in size and appearance like a small tuberculated date-stone, presented on section a mottled surface like that of the prostatic calculi. The scrotal calculi, white in colour and about three-quarters of an inch each way, looked like the segments of a large circle.

Judging from these facts, Professor Lister was of opinion that the calculus originated in the prostate; either one or more were formed; if one, then it underwent spontaneous fracture, a fragment passed back into the bladder, and formed the nucleus round which the vesical calculus rapidly grew; also that the scrotal calculi were probably fragments from the prostatic stones, one of which, of the size of a small walnut, presented an uneven surface, and fitted into the concavity of the scrotal stones.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, JANUARY 17TH, 1882.

SAMUEL WILKS, M.D., F.R.S., President, in the chair.

Penetration of Internal Organs by Ears of Grass and Wheat.—The PRESIDENT read a letter from Dr. Francis Darwin, which related to a case brought before the Society by the President, where an ear of wheat, which had entered by the mouth, had found its way out by the shoulder, where an abscess had formed. The letter alluded to the not uncommon occurrence of ears of grass and wheat penetrating the sheep of South America, and perforating many internal organs.

Bones from Genu Valgum.—Mr. PEARCE GOULD showed this specimen. The case came under his notice in the Westminster Hospital in August last, in the person of a man aged 43, whose right knee became valgous at eighteen years of age, and the deformity had gradually increased up to that time. There was no other evidence of rickets. The deformity was very marked, the two ankles being eleven inches apart when the limbs were straight. The foot was in a position of moderate equino-varus. The limb was amputated by Mr. C. Macnamara for synovitis of the knee-joint, which rendered it an incumbrance to the man at his work. The inner condyle of the femur was an inch and a quarter lower than the outer, and the inner condyle of the tibia an inch and a quarter higher than the outer. This deformity was in each bone due, not to any alteration in thickness of the epiphysis, but entirely to obliquity of the line of junction of epiphysis with diaphysis. The patella was small. The bones also showed the characteristic changes of chronic rheumatoid arthritis; but the absorption of cartilage and bone was entirely limited to the outer condyle of the two bones, while the nodular bony outgrowths were equally distributed. The tibia was almost cylindrical, chiefly owing to filling out of the normally concave outer surface of the shaft. The fibula was rather larger than usual. In the foot, the head of the astragalus and the scaphoid were found shorter from side to side, and flatter, than normal. Mr. Gould pointed out that this case was an example of a purely local deformity, and of one coming on later than usual, and also progressing very late in life; and he remarked that the obliquity of the diaphysis of the two bones of the knee supported the views of Mr. Barwell, and justified the operation he performed for this deformity. The genu valgum had caused increased pressure to be borne by the outer condyles of the femur and tibia; and, as a

result of this, the absorption-changes of rheumatoid arthritis were most marked there, and the outer surface of the shaft of the tibia had been strengthened to transmit the weight of the body to the foot. The foot was not flat, as had been asserted by Mr. Brodhurst to be the case in genu valgum; and the raising of the heel and inversion of the sole were explained by stating that the shortening of the deformed limb was thereby corrected. Although the talipes had come on so late in life, the bones of the foot showed changes in shape.—Mr. C. J. SYMONDS thought that the condition in genu valgum was one of irregular overgrowth of the epiphysal line. He did not see what claims such a local change had to be called rickets. He had failed to make out any increased lengthening of the inner condyle, which was said to be present in cases of genu valgum.—Mr. R. WILLIAMS thought the appearances were more than could be accounted for by mere epiphysal changes.—Mr. WALSHAM asked if there were any signs of inflammation in the tibia, and whether any other joints were affected.—Mr. WAREN TAY wished to know whether any measurement of the other tibia was made, in order to compare with the affected limb.—Mr. GOULD, in reply, thought that the irregular overgrowth of the epiphysal line was sufficient to permit him to use the name of local rickets. The appearance of the bones was due to the nodules laid on by the chronic rheumatoid process. No other joints were affected; there were signs of inflammation about the tibia; the other tibia had not been, but should be, measured.

Cyst of Cerebellum.—Dr. SHARKEY exhibited this, and said it was taken from a man aged 32, in St. Thomas's Hospital. There was a four months' previous history. The patient had had a carbuncle at 18 years of age, and since 12 years of age had had severe headaches, not localisable, but of "bursting" character. There was paresis of the right arm and leg. He had received a blow on the head whilst putting up shutters. There was no vomiting till a week or two after this accident. He had passed less urine lately, since he had given up stimulants. His eyesight had been becoming dim; he had a convulsive attack before admission to hospital; there was no history nor sign of venereal disease. On admission, there was headache, and vision was impaired. Percussion of the skull gave no indications; there was no thickening or irregularity of the skull; the pupils were equal and acted to light; there was marked optic neuritis with swelling of discs. Mr. Nettleship detected slight paralysis of the right rectus muscle; otherwise, in the recumbent posture there was no muscular paralysis; but the patient could not walk. The urine contained a small quantity of albumen; temperature normal. On November 4th and 5th, the patient became much worse. Convulsive attacks and coma supervened; and the patient died. On *post mortem* examination, the cerebral ventricles were found distended with serum. There was a large cavity in the right lobe of the cerebellum, and on cutting this open a mass, which looked like a hydatid cyst, was seen, but it turned out to be a mere mass of fibrin showing minute interlacing fibrillæ, in whose meshes were a few granular cells, but no hæmatoidin crystals or granules could be found, and the walls of the cyst showed no fibrous thickening, so that the cyst had not been the outcome of a hæmorrhage. The case was shown as being of great rarity and corresponding interest.

Simple Cysts of Liver.—Dr. SHARKEY showed two specimens. One was larger than an orange. The patient, a female, aged 38, was under Dr. Bristowe's care for cerebral hæmorrhage, the result of fracture of the skull. There were a cyst in the right ovary and a few small insignificant ones in the left ovary. The kidneys showed incipient interstitial nephritis. The liver-substance was pale and firm. The cyst was large and round, with thin and smooth walls, in which vessels could be seen. Septal cords and membranes were found traversing the cavity of the cyst; one thickish cord was attached to the walls by fine threads. The fluid contained was alkaline and of a straw colour; there was much albumen, and chlorides. The wall of the cyst was made of firm fibrous tissue, and was lined by a single layer of flat epithelium-cells, which cells had undergone colloid degeneration. The capsule of the liver passed over the cyst, and between the capsule and the cyst-wall was a layer in which cavernous spaces could be made out, these being probably of vascular nature. The site of origin was in the substance of the liver. This case was interesting and extremely rare. None of the kind had been reported in the Pathological Society's *Transactions*, but Drs. Wilks, Bristowe, and Pye-Smith, had alluded to such cases. Most usually, the cysts in the liver were associated with cystic disease of the kidneys, and were much smaller in size than the one here shown. The cysts probably originated in obstructions of some parts of bile-ducts, and were situate close to the surface of the liver. Dr. Sharkey showed a small cyst of the liver from a child eleven months old, which died of pneumonia. The cyst was situate near the centre of the upper surface; it was probably congenital.—Mr. ALBAN DORAN thought that there was most assuredly a homology between cysts immediately under the capsule of the liver and the cysts found around the Fallopian tubes. These latter cysts were not in the substance of the wall of the tube, nor in any part of the parovarium, but were developed in the folds of the broad ligament. Mr. Doran believed that cysts in the deeper substance of the liver might be due to arterial changes as well as to other causes, as was the case in the ovarian cysts.—Dr. SHARKEY, in reply, maintained that the cysts were most certainly situate in the first instance in the substance of the liver; he knew nothing of the possible effect of vascular changes in originating cysts.

Gummata in Spleen.—This specimen was also shown by Dr. SHARKEY. There were four large masses of opaque gummatous material, with hard fibrous capsules in the substance of the spleen and one in the capsule. The liver and testicles also showed gummata. The man was past middle life. Dr. Wilks had published a case in the twelfth volume of the Society's *Transactions*. Drs. Greenfield and Buzzard had recorded other two.—Dr. NORMAN MOORE said that he had seen lately two cases of gumma, one in a boy aged 16, who died after relapse of typhoid fever. There was no history of syphilis in this case. The liver was full of gummata and fibroid indurations. The spleen showed a single small gumma. The kidneys were amyloid; there was general dropsy. The other case he had seen in a man aged 70, who had a scar on the penis. The liver showed many fibroid scars, which were deeply pigmented. The spleen showed a large recent gumma.

Perforating Ulcer of Colon from a Case of Typhoid Fever.—Dr. NORMAN MOORE said that the patient had died of peritonitis following the perforation. The large intestine contained a great number of ulcers, some as large as a sixpence. Two, in the upper part of the descending colon, had perforated. The ulcers in the small intestine were almost healed; and the patient's history indicated that death occurred somewhat more than forty days after the onset of the fever. Perforation of the large intestine was very rare in typhoid fever, though ulcers of it were, of course, common. In the epidemic of the past autumn, eighteen cases were examined *post mortem* at St. Bartholomew's. In six of these, the large intestine was ulcerated. The causes of the fatal result were shown in a table, and were: perforation, 5; hæmorrhage, 1; pyrexia, 2; syncope, 2; bronchitis, 4; morbid changes existing before onset of fever, 4. Ulcers of the larynx were found in 5; a much enlarged spleen in 16. In one case, death was on the twelfth day; in six before the sixteenth; in four, after the fortieth day.

Cases of Abscess of Pancreas.—These speciments were also shown by Dr. NORMAN MOORE. In the first case, an abscess was found occupying the head of the pancreas, and in the vena portæ there was a very small adherent clot. The abscess contained much altered blood, as well as pus. The second was from a man aged 25, who died a few days after admission to St. Bartholomew's, with symptoms of peritonitis. The head of the pancreas was destroyed, and there was a large diffuse abdominal abscess; no other organ, however, being implicated. The third was from a man aged 24, who had been for several weeks under the care of Dr. Church, with symptoms of typhlitis. The vermiform appendix was bound by inflammatory adhesions to the back of the cæcum. The tip of the vermiform appendix was destroyed by ulceration, and a large abscess lay behind the cæcum. This had perforated the cæcum from without inwards. The abscess had been followed by pylephlebitis, with multiple abscess of the liver. The pancreatic veins were occluded by adherent, and in some parts softened, thrombi, and the pancreas contained several small abscesses, and one large one. Abscess of the pancreas was extremely rare; only two more cases had been found at St. Bartholomew's Hospital since 1867. In the last, the thrombus was clearly the cause of the abscess; and in two of the others the broken-down clots found in the abscesses seem to point to a similar origin. It seemed probable that this was the most frequent cause of abscess of the pancreas; and the cases mentioned by A. Petit and by Portal, in which abscess of the pancreas followed suppuration due to operations on the spermatic cord, were most likely of this nature.—Dr. WILKS said that there was a case recorded in the *Archives Générales*, of an abscess of the pancreas with obscure symptoms. This was really a case of Addison's disease; and the morbid process had involved the suprarenal capsule as well as the pancreas.—Dr. GOODHART asked how often Dr. Moore had found ulcer of the larynx in his typhoid cases; he thought that the nature of typhoid fever epidemics varied at different times.—Dr. MAHOMED said that the last epidemic of typhoid at the London Fever Hospital was not severe; and he had not found ulceration of the larynx. An American physician had published nine cases of stenosis of the larynx, the result of typhoid ulceration.—Dr. MOORE, in reply, said that the laryngeal ulcers were small and not severe, and were situate at the posterior extremity of the vocal cord. In typhoid fever, he had seen severe diarrhœa when only the small intestines had been ulcerated; so that he did not agree

with Dr. Addison, that severe diarrhœa was indicative of ulceration of the colon.

Sclerosis of the Brain.—The SECRETARY showed, for Dr. HARBINSON of Lancaster, specimens of hereditary cerebral sclerosis. These were referred to a committee to be investigated.

Rupture of the Liver.—Dr. SYMONDS showed a specimen of rupture of the liver, almost complete; the direction being antero-posterior. The man died an hour and three-quarters after the accident, and was so violent as to need restraint. The mechanism of rupture of the liver was doubtful.—Mr. JOHN WOOD thought that it was the result of two opposing forces doubling the liver on itself. Dr. Symonds held that the liver was ruptured by being jammed against the spinal column.

"Xanthclasmoid" Disease.—Dr. STEPHEN MACKENZIE exhibited two living specimens. The patients were brothers, aged 44 and 46; the disease was congenital; a sister and paternal grandfather were said to have had the same morbid change. The condition presented the appearance of tubercles arranged in linear fashion, having yellow wash-leathery look, not well seen by gaslight, and occupying a varying extent of the body-surface; in both brothers it was well marked about the necks and axillæ. The cases were unique as a congenital affection. There was no palpebral change, nor disease of any other organ. Dr. Church had shown that the disease had occurred in two generations.

Hour-glass Contraction of the Stomach.—Dr. CARRINGTON brought forward three specimens. The condition was well marked in all. There was no sign of disease, either inside or outside the stomach, capable of explaining the constriction. Five cases had been recorded in the Society's *Transactions*. Dr. Carrington considered that, whilst ulcers did in some cases give rise to the constriction, yet many were due to congenital malformation, and were a sort of reversion to a type found in ruminants and rodents.—Dr. STEPHEN MACKENZIE thought there was some fibroid tissue on the surface of the stomach in one of the cases.—Mr. R. WILLIAMS had taken some interest in cases of the kind.—Mr. MORRANT BAKER said that, in the case which he had brought before the Society, there was no trace of pathological lesion either outside or in the stomach, and he considered that the change was due to a congenital malformation.

Acute Yellow Atrophy of the Liver in a Child.—Dr. GOODHART showed this as a recent specimen. There was a history of one month's jaundice. The child, aged 2¼ years, had grown worse, and died comatose.

CLINICAL SOCIETY OF LONDON.

FRIDAY, JANUARY 13TH, 1882.

JOSEPH LISTER, D.C.L., F.R.C.S., F.R.S., President, in the Chair.

Adjourned Discussion on Myxœdema.—The adjourned discussion on myxœdema was resumed by Dr. HERON, who brought a patient presenting many of the characteristic features of chronic Bright's disease and of myxœdema. The man was a publican, aged fifty-four, who had been subject to gout. When about twenty he had typhus fever, and ever since had been troubled with palpitation. He looked the subject of chronic albuminuria, but had none; his eyelids were puffy, his face swollen and pallid; his arteries thick, and the left side of his heart enlarged. His hands and feet were also very puffy; but there was no albumen in the urine, and he had no retinal patches in the eyes.—Dr. GOODHART thought there were certain points in Dr. Mahomed's case, mentioned at the former meeting, which should be emphasised. The patient was a male; and, though the symptoms were well marked during life, there were no indications of myxœdema after death. The heart was diseased, and the viscera Indurated or india-rubber-like, especially the brain. The connective tissue was full of a jelly-like fluid, but it contained no excess of mucin; the characters were rather of chronic œdema than of myxœdema. Chronic œdema, therefore, seemed to give rise to some of the characters of the latter disease, but not to all. The nervous symptoms, for instance, might be due to a variety of causes. Certainly all the symptoms of myxœdema were not due to chronic Bright's disease.—Dr. MARCET considered myxœdema to be a special malady, and not chronic Bright's disease. It occurred mostly in women. The skin had not the same appearance as in chronic œdema; the nervous symptoms were marked; the illness was protracted, and albuminuria only appeared at the end. Through the characteristic imbecility, it was allied to cretinism. The *post mortem* appearances were those of malnutrition and ill-formed connective tissue. It was rather a malformation than a degeneration. Mucin was not so very characteristic a constituent, but there might be others, and the mucus-like fluid might be due to Dickinson's altered fibrin or waxy material. The urine seemed to contain less urea than normal, but that was of little importance. Chloride of sodium was commonly diminished in œdema, and the quantity should be tested here. The temperature was lowered in myxœdema; perhaps there were some modifications in respiration.—Dr. F. TAYLER mentioned the case of a female, aged thirty-five, who presented the usual symptoms of myxœdema, with deafness and cramps in the thighs. The tendon-reflexes were normal. There was some menorrhagia. She was the mother of two children, and she dated her illness from the birth of the last. There was a strongly neurotic history on the father's side, and her mother had died of what he (Dr. Tayler) considered must have been myxœdema.—Dr. HADDEN said that in these cases there was slowness of mental processes and of bodily motion. Probably this was due to some lesion of the sympathetic. There were both diminished heat and tissue-change; probably, also, there was disease of the thyroid. He had removed some parts of the sympathetic for examination. Probably, however, the medulla oblongata also was affected, as in some cases there had been symptoms indicating this.—Dr. SEYMOUR TAYLOR thought there was a marked change in the appearance of the brain. Generally, the disease occurred in people who had been much worried and troubled. All the symptoms showed a nervous origin. Often there was no change in the kidneys, either fibrous or epithelial.—Dr. DYCE DUCKWORTH considered Dr. Mahomed's remarks rather pathological than clinical; and, for his own part, he was not prepared to accept the views advanced by Dr. Mahomed. Degenerations were not always produced in the same way; and certainly the malady was not chronic Bright's disease, for albuminuria occurred only at the end, when the kidneys became affected by the disease. Certainly, it would be curious if, out of the vast number of cases of chronic Bright's disease, so few cases of true myxœdema should be recorded.—Dr. ORD, in reply, proceeded to sum up the clinical and pathological characters of myxœdema. Thus, the subjects were generally women; there was never albuminuria in the early stages; nor, in some cases, at all; there was general swelling of the integuments, which were semi-transparent, rough, and non-perspiring; the hair was scanty; the teeth bad; the temperature low; the thyroid small; the speech slow, imperfect, and nasal: thought and perception slow, but perfect. The patients were apt to become irritable and timid, sometimes demented, and finally comatose. Occasionally death arose from general debility, sometimes from uræmia. Throughout the body, the interstitial tissue was swollen and nuclear, increased in quantity, and containing mucin; it encroached on all the normal structures, which became atrophied, as in the case of the hair, the sebaceous and even the sweat glands, the heart, liver, and other internal organs. The idea that this was Bright's disease without albuminuria was soon negatived, though Dr. Mahomed would extend the term even to myxœdema, thus amplifying even Gull and Sutton's views respecting arterio-capillary fibrosis. This would surely be carrying the idea of Bright's disease too far. The theory of sympathetic origin did not commend itself to him, for there was no evidence that the sympathetic had trophic functions. Probably, as regards the nervous system, the central organs were affected in the same way as were the peripheral, as suggested by Dr. Goodhart. He did not think, however, that the change was due to a degeneration, but rather to a malformation of tissue. The question of heredity was new. He was not prepared with any special theory to explain the disease in its totality.

EPIDEMIOLOGICAL SOCIETY.

JANUARY 4TH, 1882.

GEORGE BUCHANAN, M.D., President, in the Chair.

Is the Climate of Indian Hill Sanitaria beneficial in Scrofula, Tuberculosis, and Phthisis?—Dr. JOSEPH EWART read a paper on this subject. In a short paper communicated to the Society during the last session, the author endeavoured to demonstrate the ineligibility of the plains of India as a residence for Europeans tainted with scrofula, or affected with tuberculosis or phthisis. In the present paper, the inquiry was extended to an examination of the hill-stations as temporary or permanent resorts for the scrofulous or phthisical. These mountain refuges ranged from over 3,000 to 7,000 or 8,000 feet above the sea-level, and were considered to be beyond the height at which malaria was generated. In order that a just conception of their climate might be formed, the latest information regarding altitude, barometric or air pressure, thermometric range, humidity, and rainfall was necessary; and facts bearing on these points had been gathered from the *Report of the Meteorology of India in* 1878, by Henry F. Blanford, F.R.S.; *The Imperial Gazetteer of India*, by W. N. Hunter, LL.D., C.I.E.; *Health Resorts*, etc., by W. J. Moore, Deputy Surgeon-General, and Honorary Surgeon to the Viceroy of India; supplemented by the author's own experience. Thus were passed in brief review the cli-

matic characteristics of Abbotabad (elevation 4,100 feet), Murree (7,507), Simla (6,952), Kussowlie (6,322), Subathoo (4,500), Chakrata (7,051), Mussoorie (7,433), Ranikhel (6,068), Nainee Tal (6,409), Almora (5,404), Darjeeling (6,912), Cherrapoonjee (4,588), Shillong (4,900), Pachmari (3,564), Chikalda (3,656), Mount Aboo (3,945), Mahableshwur (4,500), Nilgherries (6,500), Ootacamund (7,000), Coonoor (6,500), Wellington (6,200), Kotagiri (6,500), Newara Eliya, Ceylon (6,150). An attempt was made to estimate the influence of these stations (1) upon persons who had inherited or acquired the scrofulous diathesis; (2) upon those who had been diagnosed, after careful scrutiny, to be the subjects of tubercular growth; and (3) upon those who were affected with phthisis or confirmed pulmonary consumption. 1. *Influence upon inherited or acquired scrofulous diathesis.* Almost all the hill sanitaria enumerated were sufficiently elevated, temperate, and drained, to be free from the generation of malaria. They were all above 3,000 feet high, beyond which altitude, according to Parkes, the malarial poison did not appear to be reproduced in India. Permanent residents of all races, at these elevations, enjoyed immunity from paroxysmal fevers. Persons suffering from these diseases contracted on the plains, provided no enduring organic mischief had resulted, were cured by residence in these climates. There would appear to be sound reasons for believing that the tendency to repetition, characteristic of this class of fevers, especially after exposure to damp, vicissitudes of temperature, and great privation, did not always of necessity imply a fresh imbibition of the malarial poison. It often happened that individuals who had never had ague at all, or, having had it, had not been attacked with it for many years, were, after having gone to the hills or returned to this country from malarious districts, liable to suffer from primary or secondary paroxysms of the quotidian or tertiary type. Then, in all the hill-stations, the temperature in the shade, modified according to altitude, latitude, fog, clouds, humidity, and other agencies, was seldom extreme and exhausting during the summer; and though, in many of them, the rainfall was considerable, in only a few—such as Cherrapoonjee and Mahableshwur—was it ever so continuously excessive, even during the monsoon, as to prohibit, at some period of nearly every day, daily open-air exercise. In the hot months, at all the stations of the higher altitudes—Simla, Mussoorie, Darjeeling, and the Nilgherries—it was always needful to have the head thoroughly shielded from the direct rays of the sun; and at all those of much lower elevation, such as Pachmari, Chikalda, and Mount Aboo, the same indispensable precaution must also be enforced during the winter months. The cold weather of these sanitaria, though in some, and particularly at those situated on the spurs of the Himalayas, accompanied by ice, frost, and snow, proved, to those in moderately fair health and in a position to be much out in the open air, bracing, exhilarating, and healthy. The thermometric range, in the hot and cold months, though much greater than would be beneficial in organic disease of a serious nature in any of the prime organs, was not sufficiently forbidding to warrant an adverse opinion of these climates in the case of persons regarded as labouring simply under the taint of the scrofulous diathesis. Their elevation above the sea necessitated increased expansion of the chest-walls and pulmonary cells, in order that the required amount of oxygen might gain free and uninterrupted access to the blood. At high altitudes, the air was attenuated or rarefied; and that the blood circulating through the lungs might be furnished with the requisite quantity of oxygen to meet the physiological demands of the system, a greater volume must be passed into these organs at each inspiration. Whether, *cæteris paribus*, more oxygen actually entered the lungs in high than at low altitudes, had not, so far as Dr. Ewart's knowledge extended, been definitely determined. If, however, the comparison were made between these temperate elevations and the plains of India, the legitimate presumption would be that, as residence at hill-stations was conjoined with the capability of enjoying augmented physical exertion, the supply of oxygen would be proportionately increased. The scrofula-breeding diseases of childhood and youth were not very prevalent in the stations—a gain of much importance to the young. With the exception of Mahableshwur and Cherrapoonjee, most persons who had inherited or acquired scrofula might live at these places with a fair chance of deriving some benefit all the year round. If the monsoon season appeared to be prejudicial to some at the Himalayan stations, the injurious effects might be modified, mitigated, or prevented, by a judicious selection of a health-resort on the Nilgherries. 2, *Influence upon the subjects of tubercular growth.* Provided there was no pneumonic inflammation in the vicinity of the growth at the upper part of the lungs, there had been no prior structural disintegration, and no great amount of bronchial irritation or discharge, the summer season, up to the beginning of the rains, might be viewed as beneficial at all the sanitaria. It was most useful in cases where the tubercle was quiescent. The expansion of the lungs from altitude, and the consequent rarefaction of the air, and the increased power of taking exercise in the open air, were highly advantageous. None of these stations were, according to the author's experience, suitable in the rainy season. The very small range then prevailing was more than neutralised by the extreme atmospheric humidity. Persons belonging to this group bore badly the much augmented range in the winter months. For cases of simple tubercular growth or the taint of scrofula, a voyage to India and back, to escape the rigour of an English winter and spring, might often prove far more serviceable than any of the marine sanitaria on either of the shores of the Mediterranean. The long sea-voyage in any of the comfortable steamers now available, in mild, warm, and genial weather, amid ever changing surroundings and associations, and, after arrival, easy travelling to visit places of historic interest on the plains, were calculated to improve and preserve the general health. The journey should be commenced in October, the arrival in India timed to be in November, and the reembarkation from Calcutta or Bombay about the beginning of March. The time intervening between the return to Europe and June might be passed in some of the congenial resorts in Italy or France. 3. *Influence upon those affected with confirmed consumption or phthisis.* From the earliest times, when soldiers were sent to the hills with phthisis, it was noted that the disease became aggravated and the end expedited. The rule had long been to avoid the transfer of all phthisical invalids of the European army, and others of the various services in India, to any of the hill sanitaria. A few years ago, on reports being received of the favourable influence of high altitudes in consumption, some Calcutta physicians ventured to advise patients to try Coonoor in the Nilgherries. The result was always disappointing. In phthisis, superadded to the scrofulous diathesis or tubercular deposit in a somewhat inactive state, were acute or chronic pneumonic and bronchial inflammation, tending to, and eventually terminating in, disorganisation and disintegration of the structures immediately involved. In such cases, the earliest effect of high altitudes was to cause the inflamed, irritable, and struggling lung to do more work than it was, at lower levels, called upon to perform. The consequence was increased irritation and inflammation around the tubercular growth and in the associated bronchial mucous membrane, and an aggravated tendency to repeated attacks of hæmoptysis. According to Dr. Theodore Williams, the circumference of the chest had been known to increase to the extent of three inches during the season at Davos. A lung in the condition above mentioned did not require any movement that could be averted. This would be in accordance with the principle of rest, which guided the surgeon in the management of injuries and disease, and the physician in the treatment of pleurisy, pericarditis, or pneumonia. Doubtless, there were cases of chronic tubercular affection of the lungs in which prior inflammatory action had subsided, and the patients were much in the same condition as the subjects of simple tubercular consolidation. There was a rarer set of cases in which cicatrisation or cretification—or it might possibly be slow but progressive absorption—had advanced towards the repair of the damaged lung. In such cases, Indian hill climates were suitable in the summer months, not so much on account of the greater expansion of the pulmonary cells, as from the immensely increased facilities for living an open-air life, and for obtaining invigorating exercise in a warm, mild, genial, pure, and antiseptic atmosphere. The conclusions arrived at were these. 1. The hill sanitaria of India are beneficial to persons afflicted with scrofula only. 2. They are useful, in the warm months of summer (*a*) in uncomplicated and simple tubercular consolidation, (*b*) in tubercular affection in which previous inflammation of the adjacent lung and the bronchial mucous membrane has subsided, and (*c*) where this is proceeding in the direction of repair by absorption, cicatrisation, or cretification. 3. They are injurious, probably at all seasons, but in an aggravated degree in the cold season and rains, in all cases of active and advancing pulmonary consumption—In the discussion which followed, the President, Sir Joseph Fayrer, Dr. Norman Chevers, Dr. Douglas Powell, Dr. Makuna, and others took part.

M. CAPITAN has announced to the Paris Société de Biologie, that the pathological laboratory of the Paris Faculty of Medicine has received, from Dr. Monard, tubes containing culture-fluids obtained from subjects suffering from yellow fever. The microscopical examination has revealed the existence in these liquids of very numerous microphytes, formed of isolated micrococci, or constituting double points (small rods). The tubes also contained a retractile albumen. Cultivations made with the liquid of the tubes received from Dr. Monard have succeeded perfectly; and inoculations have been made, the results of which will be communicated to the Society.

REVIEWS AND NOTICES.

A MANUAL OF DISEASES OF THE THROAT AND NOSE, INCLUDING THE PHARYNX, LARYNX, TRACHEA, ŒSOPHAGUS, NASAL CAVITIES, AND NECK. By MORELL MACKENZIE. M.D. Lond., Senior Physician to the Hospital for Diseases of the Throat and Chest, etc. Vol. I.—Diseases of the Pharynx, Larynx, and Trachea. Pp. 601. London: J. and A. Churchill. 1880.

THIS is the first volume of a comprehensive work, in which Dr. MACKENZIE proposes to give a systematic account of the morbid conditions of the upper parts of the respiratory and alimentary passages—diseases to which he has long and successfully devoted himself as a specialist, and upon which he is decidedly recognised as a high authority. The author informs us that his present work is based, partly upon the courses of lectures which he has delivered for some years at the London Hospital, and partly upon his well known Jacksonian prize essay upon *Diseases of the Larynx*, but that the greater portion of the matter in the pages before us is now published for the first time. The present volume is divided into three sections, devoted respectively to the diseases of the pharynx, larynx, and trachea. Each section opens with a concise account, well up to recent knowledge, of the anatomy of the region in question. This is succeeded by a full description, copiously illustrated by excellent woodcuts, of the instruments used in the diagnosis and treatment of the disorders of the part; and this subdivision of the subject is followed by a systematic exposition of the etiology, symptoms, pathology and treatment of each of the particular affections of the organ under consideration. At the end of the volume we find a well arranged selection of formulæ for topical remedies used in the treatment of diseases of the throat, and a copious index, which must enhance the practical usefulness of the work. The best part of the book is that devoted to the description of individual diseases: within a comparatively small space the author has compressed a vast store of information, which he has put together with much literary skill, and supplemented by exhaustive bibliographical references. The work is practical in tone throughout. We commend it as a thoroughly reliable text-book.

WATER-ANALYSIS FOR SANITARY PURPOSES: WITH HINTS FOR THE INTERPRETATION OF RESULTS. By E. FRANKLAND, Ph.D., D.C.L., F.R.S. London: John Van Voorst. 1881.

THE subject of potable water must always be of interest to the medical profession; and a new book, written by our greatest authority on water analysis—Dr. FRANKLAND—must, therefore, be acknowledged worthy of a careful perusal. The present work is evidently the result of the author's great and varied experience in this branch of analysis; and, independently of its value to the medical officer of health and the analyst, it will be of no small service to the general practitioner: for, not only are most of the methods at present in use for the analysis of waters very clearly described, but much useful information is given as to the conclusions to be drawn from the statement of results. The author remarks, in his introduction: "It rests with the analyst now-a-days to determine what formerly the consumer had to discover for himself, by long and perhaps hazardous experience, whether the impurities found in water are of such a nature as to render it unsuitable for the particular purpose for which it is intended to be used." To this, we may add that it rests also with the analyst to report his results in a form intelligible to the unscientific reader; and, in the paragraph on "interpretation of results", material assistance is afforded those chemists following Dr. Frankland's method of analysis.

Part I of this work is devoted to the analysis of water, without gas analysis. Under this head, all the important methods for the detection of organic impurities are given, with the exception of the well-known "albuminoid ammonia" process, which is employed by so many analysts for obtaining approximate results. We are told that the "oxygen process" is "the only volumetric method deserving of any confidence whatever"—a statement which, we venture to think, will not be assented to by many engaged in water analysis. As, however, Dr. Frankland maintains that his own process—viz.: the actual combustion of the residue from the water—"is the only one that affords thoroughly trustworthy evidence of the fitness or otherwise of the sample for dietetic purposes"; and as, moreover, the "oxygen process", in the hands of Dr. Tidy, yielded a remarkable parallelism of results, his predilection for this process is easily understood.

Part II is devoted to water analysis requiring the use of gas apparatus. In this section, the author's combustion process is described at great length; and those who have either the opportunity or the inclination for employing it, may read this part with considerable interest and profit. We cannot here enter into the question, whether the labour involved in this process is repaid by the results obtained; but we may remark that the author himself acknowledges that "the separate determination of each organic constituent of the suspended matters is of comparatively little use in the present state of our knowledge, because it is impossible to distinguish, amongst the suspended matters in water, those which are injurious from those which are harmless"; and we would suggest that, what is true of suspended matter, may by some be considered true of dissolved. In the appendix, directions are given for the estimation of ammonia, nitrates and nitrites, chlorine, and hardness, together with instructions for the preparation of the standard solutions required.

Some tables and arithmetical operations given will be found of service. It is to be regretted that, by an oversight, several blanks have been left on pages 26 and 96, which render the instructions there given worthless. This will doubtless be remedied in the next edition. We can commend this book, not only to those who follow Dr. Frankland's process, but to all interested in water-analysis, because of the useful general information it contains; and probably it will become one of the standard works on the subject.

In conclusion, we may remark that, in addition to the scientific worth of this work, much matter of general interest will be found—such as directions for the collection of samples, and the conclusions and recommendations of the Rivers Pollution Commissioners, which treat of the quality of water from various sources; the rendering of polluted water again wholesome; the propagation of epidemic disease by water; the hardness of water in relation to health, and to cooking and manufacturing operations; and other topics of universal interest. A popular edition of this part of the work would, we feel confident, do much to call public attention to the too often neglected subject of our water-supply.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

A PORTABLE POLYGRAPH.

SIR,—In a recent notice of Professor Marey's work on the circulation, which appeared in your columns, the reviewer gave a description of the clinical polygraph devised by the author. Many of your readers will remember the instrument as exhibited at the Cambridge meeting of the British Medical Association, and the lucid description given by the inventor of his method, by using it so as to demonstrate the movements of the two sides of the heart simultaneously. The instrument appeared to be singularly compact, and made with the finish and perfection for which Parisian instrument-makers are famed. For this reason, however, it is likely to be very costly, if we may judge by the price asked for the ordinary sphygmograph of the same distinguished inventor. I wish to say a few words in favour of a similar polygraph, made by Rothie, of Prague, which, though lacking the beauty and finish of the French instrument, is still most useful, and sold at an exceedingly low price. It consists of a clockwork drum nearly five inches in diameter, two Marey's recording tambours, and two corresponding tambours which can be used either as sphygmographs or cardiagraphs. This, with an *Athmungsflasche* or bag for registering respiratory movements, and some accessory apparatus, is sold for £5. It serves well for the obtaining simultaneous curves of pulse and heart, or pulse and respiration; while for a few shillings extra a seconds marker can be adapted. The instrument will be found most useful to the teacher for numerous purposes of physiological demonstration in laboratories, where the large and costly recording instruments found in more highly endowed establishments are not forthcoming, as well as to the clinical physician by the bedside. In view of the increasing necessity of rendering our physiological lectures practical demonstrations, rather than mere verbal narrations, any attempt to reduce the present almost prohibitive price of physiological instruments of research is to be welcomed.

ERNEST H. JACOB, M.A., M.D.
Demonstrator of Physiology to the Leeds School of Medicine.

WE understand that Deputy Surgeon-General H. T. Reade, V.C. has been compelled through failing health, to resign the appointment of principal medical officer to the forces at Barbadoes, where he had served through the recent terrible scourge of yellow fever.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1882.

SUBSCRIPTIONS to the Association for 1882 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JANUARY 21ST, 1882.

MYXŒDEMA.

THE debate on myxœdema which took place at the Clinical Society on January 13th, was called forth by the exhibition of patients by Drs. Ord and Cavafy, and Mr. Lunn, at the preceding meeting. On that occasion, Dr. Mahomed ventured to call in question the nosographical entity of the disease, and suggested that it might be merely a variety of chronic Bright's disease.

Shortly afterwards, this gentleman gave a more detailed exposition of his views in a contemporary journal. Since the first descriptive account of myxœdema by Sir William Gull, nearly eight years ago, every author on this subject has laid special stress on the points of difference between the two affections. The general conclusion was unanimous, until Dr. Mahomed boldly called in question the autonomous existence of myxœdema. The challenge was accepted, and, at the President's suggestion, a discussion was arranged.

It was evident from the very first that the lines of the debate would partake rather of a pathological than of a clinical nature. Such, in fact, was the case. Dr. Duckworth reminded the Society that it was passing beyond its proper scope; but it is difficult to understand how the discussion could have been limited to the merely clinical aspect of the disease. Herein we have an additional argument in favour of the amalgamation of the various medical societies. The discussion on myxœdema exhibited the well-nigh impossibility of divorcing pathology from clinical matters, under ordinary circumstances.

The disease which Dr. Ord has called myxœdema was clinically recognised first by Sir William Gull. He described it as a "cretinoid condition" supervening in adult women.

Briefly, the characteristics of the disease are the following. There is a generalised solid œdema of the skin and connective tissue throughout the body; but this œdema, unlike ordinary dropsical swellings, does not pit upon pressure. In short, a superficial examination suggests that the patient is suffering from chronic Bright's disease. But it is at once evident that the patient exhibits features which are not usual in chronic renal disease. The face is broad and puffy; the expression placid and mask-like. On the cheeks and nostrils there is a curiously circumscribed redness, which presents a striking contrast to the pallid, porcelain-like zone beneath the lower eyelid. The nose is swollen and much broadened. The thickened lower lip hangs down, and sometimes allows the escape of the saliva. The mouth is widened transversely, and opens imperfectly from above downwards. The tongue and fauces are swollen; the speech slow, monotonous, and nasal. The hands and feet are broad, œdematous-looking, and, to use Sir William Gull's expression, "spade-like". The skin generally is dry and scaly, perspiration is absent, and the formation of sebaceous matter almost completely suspended. The hair, teeth, and nails show signs of imperfect nutrition. The thyroid body is diminished in size, or even apparently absent; and the subclavicular hollows are filled in by soft masses.

It is especially noticeable that there exists a remarkable degree of mental and bodily torpor. Thought and movement are extraordinarily slow, yet they are accomplished without imperfection. In short, the bodily and mental operations are simply retarded.

Headache, loss of memory, somnolence, and, in the later stages, delusions, or even hopeless insanity, are present. There is, in this disease, a constant sensation of cold, and, in addition, a temperature almost invariably below the normal. The urine is usually free from albumen, except in the more advanced period of the disease; the quantity of urea also, according to some writers, is much diminished; but symptoms of uræmia are usually absent. The thoracic and abdominal organs are generally unaffected. It must be confessed that, as the disease progresses, a condition almost, if not quite, identical with chronic interstitial nephritis usually makes its appearance. Such is the clinical history of myxœdema. Dr. Ord has found that the connective tissue throughout the body contains a very great increase of the interfibrillar mucin-yielding cement. It is needless to enter into details; but it must be remarked that the kidneys present an appearance almost undistinguishable from chronic interstitial nephritis. The change is also observable in the brain and spinal cord, although Dr. Ord was unable to detect it in his earlier investigations into the morbid anatomy of the disease.

Is myxœdema a distinct autonomous affection? If so, what is its nature, and how are we to explain its complex symptomatology? These questions naturally call for solution; and were discussed by several competent observers at the Clinical Society.

Dr. Goodhart thought that the alteration in the connective tissue was degenerative. He protested against the assumption that all, or nearly all, chronic changes of the connective tissue were of an inflammatory nature. Dr. Marcet suggested that the solid œdema contained a substance allied to the lardaceous material. He believed, too, that the altered connective tissue was imperfectly organised matter. Dr. Ord, however, replied that no reaction could be obtained with iodine. He was inclined to agree with the second of the suggestions made by Dr. Marcet.

Dr. Hadden put forward the hypothesis, that the sympathetic nerve was primarily at fault. He called attention to the bodily and mental torpor; the subnormal temperature; the diminution in the quantity of urea excreted by the urine; the usual absence of uræmic symptoms; and the diminution in size of the thyroid gland. It was probable that, not only the peripheral sympathetic nerves were affected, but also the centre in the medulla oblongata. He reminded the Society that symptoms of affection of the medulla had been observed in myxœdema; and that one case of Dr. Ord's had exhibited protrusion of the eyeballs.

Dr. Ord, in reply, freely discussed Dr. Mahomed's opinions as to the nature of the disease. He believed that myxœdema was clearly shown to be a distinct disease, from a clinical point of view. He could not admit that it was merely a variety of chronic Bright's disease. As regards Dr. Hadden's theory, he thought that neither prolonged vaso-motor paralysis, nor vaso-motor spasm, had ever been shown to give rise to symptoms in any way resembling those of myxœdema. As yet, he himself had not ventured to form a hypothesis, believing that further investigations were necessary before any conclusion could be arrived at.

The discussion, although productive of no decided result, cannot fail to be of advantage. Many valuable suggestions were thrown out, which will serve for future lines of inquiry. Whether myxœdema be a cretinoid state, and its symptoms due to padding of the peripheral nerve-endings; or, whether it be a degenerative condition; or, lastly, a disease of malnutrition from lesion of the sympathetic, it is at present impossible to say. It is, however, probable that investigation into the nature of this disease will lead to highly important results, bearing upon problems which have hitherto remained unsolved.

We believe that one thing was made clear by the discussion, and that is, the existence of myxœdema as an independent affection. Its pathological nature still remains unknown; and this research will, no doubt, decide at no very distant future.

THE OFFICE OF CORONER.

II.

In our last impression we traced the course of judicial investigations as they take place in France, more especially where a crime is supposed to have been committed; and we pointed out some of what we believe to be the merits and also the defects of the French system of making *post mortem* inquisitions. In Greece, the system in force is almost identical with that in France. The Scotch system is analogous to the French; the procurator-fiscal, an officer corresponding to the *procureur du roi*, performing the duties of the preliminary investigation, with large powers of taking evidence in private, making arrests, and acting without a jury. These systems, then, may be dismissed without further comment.

In Russia, the whole proceedings in the case of a violent death are placed in the hands of a judge of instruction, who is a judicial officer of the Crown, appointed in and for each district by the central governor, or council of the province or state. On receiving information, the judge of instruction repairs to the place where the corpse is lying, and takes charge of it. He has power to seize all papers and correspondence, and put seals on private papers and boxes. He summons and examines all witnesses, takes their evidence, commits it to writing, calls in experts, and directs their action. He is clothed with large powers, and may arrest, and even place in close confinement, a suspected person. He, indeed, acts as a public prosecutor, and yet is bound in honour and conscience to act as an impartial judge for as well as against the accused. The medical side of the case is entrusted to a physician or surgeon, who is a salaried sworn officer of the Crown. He acts in conjunction with the judge of instruction, but independent of him; and he is bound to make a necropsy if any suspicion or doubts exist as to the commission of a crime. He furnishes to the court, and also to a central medical board, a written account of his necropsy, and his conclusions as to the cause of death. Of late years, each Russian village has certain citizens designated by its mayor, whose duty it is to assist the judge of instruction by searching for and giving evidence as to known facts. They are not, however, a jury, as they neither report nor vote, but are, in fact, lay assessors to the judge.

In Germany, the matter of an inquest is solely an affair of police. There is no coroner, nor any analogous officer, nor any jury, on the preliminary examination, which is conducted by a judicial officer, the district attorney, who has not only the powers of an attorney, but also those of a committing magistrate and police justice. The police are, indeed, his subordinates, and under his control in all respects in the investigation of crime. There are also judicial district medical officers, regularly appointed and selected for their special training and fitness for forensic duty. These are summoned by the district attorney, or by the police authorities, when it is deemed necessary to have their services. They examine dead bodies, make necropsies, and report on the medical examination. The criminal code prescribes a form for the conduct of the judicial medical examination of the corpse; and the cases and manner in which experts may be called in by the district attorney or the magistrate are, in the precise German fashion, strictly defined. After the inquest (if it may be so called) has been held, and the medical examination and report made, if the district attorney be of opinion that a crime has been probably committed, he moves before the proper court; and if the court, after hearing the evidence, think that sufficient reasons are adduced, it orders a preliminary judicial investigation, which is conducted before a justice, with the assistance of the district attorney. The German system is too much a matter of police—too Bismarckian—to permit of its introduction into this country. The medical examiners are mere servants of the police, and in this the system is not to be commended.

In most of the States of the American Union, the English system, or a close approximation to it, of coroners' inquests, has prevailed, and indeed still prevails. In 1877, however, after discussion the State Legislature of Massachusetts, assisted by the powerful aid rendered by the Medical Society of that State, adopted an entirely new system, which is stated to have worked admirably, and will doubtless be shortly adopted by others of the States of the Union. The statute which worked these radical changes abolished the office of coroner, dispensed wholly with juries on the preliminary inquiry as unnecessary, and introduced a new system, by which a competent medical man takes charge of the medical part of the investigation, and makes arrangement for proper officials to take charge of the legal and statutory aspects of cases where the death is in anywise proper to be made the subject of a legal inquiry preliminary to a final trial of the accused after indictment. Medical examiners are appointed by the governor and council of the State for each several district. In the opinion of those best able to judge, the workings of the new system furnish an admirable view of the results of a peculiarly fortunate attempt to provide an intelligent and practicable substitute for an acknowledged faulty system, and may be commended to the consideration of Englishmen as a system well adapted to our free British institutions and prejudices. It is claimed for the Massachusetts system, that it compels a careful and proper medical examination and necropsy in all cases where a coroner formerly acted; that it secures the services of a competent officer to conduct the medical examination, and also, where necessary, of an officer fitted to conduct the legal inquiry; and that it dispenses with a jury on the preliminary investigation.

In all cases where the cause of death demands inquiry, it is most needful that a formal and careful medical examination by a perfectly competent medical man should be made *at once*, and that he should decide upon the facts by a careful scientific inquiry as to the cause of death. The Massachusetts system provides an officer for that duty, and requires him, by the terms of the law, to be "an able and discreet man, learned in the science of medicine", to be even eligible to hold the office of medical examiner. This officer is required to examine the body; and if, in such examination, and after personal inquiry into the cause and manner of death, he deem further examination necessary, he is required, on the written authorisation of the district attorney, or other competent judicial authority, to proceed in a specified careful way to make a necropsy in the presence of at least two discreet persons, and then and there to carefully reduce to writing every fact and circumstance tending to show the condition of the body and the cause and manner of death, together with the names and addresses of the witnesses. If, on this inquiry, the medical examiner, after the examination and necropsy, be of opinion that the death was caused by violence, he has to notify this to a judicial authority, and file his signed report and certificate in court. The judicial authority then takes up the case and conducts the legal inquiry. The medical examiner is empowered to call in the aid of a skilled chemist to analyse the viscera and any articles capable of throwing light upon the case, and provision is made for adequate payment for the analysis. To guard against negligence and fraud on the part of the medical examiner, if he report that the death was not caused by violence, and the district attorney or the State attorney-general be of a contrary opinion, either of the latter functionaries may direct an inquest to be held; and for this, provision is made by the Act.

It has been found, as we have already stated, that the Massachusetts system works well, and that the results are in every way satisfactory. The saving in cost, too, is considerable; the saving amounting to one-third of the cost under the old system of holding coroners' inquests. The serious consequences resulting from the inexperience and ignorance of incompetent persons taking charge of the medical investigation as to the cause of death, or the legal part of the inquiry into the cause of death, are said to be avoided. Provision being made, too, for the appointment of competent and trained medical examiners, and these being all of equal official status, the blunders attendant upon the employment of subordinates under the control of a superior officer are avoided; and though there would, at first sight, appear to be an advantage in having some supreme consulting medical authority to refer to in cases of great difficulty, the advantages of having officers each of equal authority in his own district, perhaps, on the whole, preponderates.

Mr. Clark Bell's pamphlet on *Proposed Reforms in the Coroner's*

Office, to which we are largely indebted in making the above remarks, is well worthy of perusal by all interested in the question of the retention, modification, or rejection of the office of coroner in this country. Some reform is necessary, and hence it is well that our readers should be made acquainted with a system which appears to hsve worked so admirably as that adopted by the State of Massachusetts.

ATTENDANCE ON THE FAMILIES OF MEDICAL MEN.

MEDICAL fees are a fruitful subject of discussion; and especially at the present season of the year, when books are balanced and averages struck, our professional brethren are forcibly reminded of the fact that they generally have to work hard for very inadequate fees, and that their anxious and arduous labours receive a very scanty acknowledgment from the public. It is no wonder, then, that questions of professional remuneration often come under our consideration, for they are apt to be "burning questions"—questions which come painfully home to many men, and harass them with pecuniary cares.

One such question has lately been fully discussed in our columns—Should gratuitous attendance be given to the families of medical men; and, after their death, should their widows and children receive a similar benefit?

Now, this is a question which it is impossible to answer in an off-hand way. We cannot lay down a hard-and-fast rule, applicable alike to all cases. As far as the question has reference to the families of medical men in practice, we have no hesitation in saying that they should be attended gratuitously. If the medical man call in his neighbour this year, next year his neighbour may be glad to avail himself of *his* professional advice. Sickness enters, sooner or later, into every family; and there may well be an exchange of good offices among medical men. In this way, if we view the profession as an united body, any obligation that may be incurred by one is repaid by another; and thus a friendly feeling is maintained among those who have great need to stand "shoulder to shoulder". We agree, therefore, with those of our correspondents who have held that the attendance upon the families of medical men in practice ought to be gratuitous. And surely the same general rule may well be extended to the widows and children of medical men who are living upon the proceeds of professional work. When the "bread-winner" is taken away, their circumstances are likely to be such as to form an additional claim upon our sympathies.

But the case is different when medical men have retired upon an ample private fortune, or when their widows are evidently in affluent circumstances. Then they would probably be the first to wish to remunerate their medical attendant; and, indeed, it is better, in such a case, that a regular charge should be made, than that the patient should be left under an obligation, which he endeavours to discharge by sending the medical man a drawing-room clock or a piece of silver plate.

In the interpretation of such a rule as we have suggested, we have no fear that any hardship will be done, for our profession always leans to the side of generosity; and wherever a case arises about which there may be a doubt, we are persuaded that the benefit of the doubt will always be given to the patient.

The Shropshire Ethical Branch of our Association did good service to the whole profession by the tariff of fees which it has published; and if the framers of that tariff could lay down, clearly and briefly, what ought to be the relations of the profession to the families of medical men in practice, as well as to their widows and children, much would be done to settle a question of some difficulty, and to bring about an uniformity of practice throughout the whole country.

SIR JAMES PAGET, who has derived great benefit from his holiday, will return to town on Saturday, January 21st.

Dr. BURQ, the inventor of metalloscopy and metallotherapy, is gazetted Chevalier of the Legion of Honour.

IT is announced that Lord Coleridge will make a contribution to the literature of vivisection in the February number of the *Fortnightly Review*.

SMALL-POX has broken out in the Local Board District of Liversedge, where seven cases have already been reported.

Dr. FELIX SEMON has been appointed Assistant-Physician for Throat-Diseases to St. Thomas's Hospital.

AN outbreak of typhoid fever, of considerable extent, has occurred at Savile Town, near Dewsbury. The outbreak is attributed to the bad sanitary arrangements of the locality.

A COURSE of eleven lectures on the Mechanism of the Senses is now in course of delivery at the Royal Institution, by Professor McKendrick, the new Fullerian Professor. The first lecture was delivered on the 17th instant.

AT a meeting of the General Court of Governors of Guy's Hospital, held on Wednesday last, Dr. F. A. Mahomed was appointed Assistant-Physician, and Mr. C. J. Symonds was appointed Assistant-Surgeon, to the Hospital.

THE French Minister of Public Instruction has asked the Paris Academy of Medicine to furnish statistics, concerning deaths and accidents consequent on scientific occupations, researches, and undertakings of all kinds.

A NOTEWORTHY reduction is reported in the infantile mortality at Long Sutton. Last year, seventeen deaths of infants were registered, against forty in 1880, and twenty-nine in 1879. This is the lowest infantile death-rate that has been recorded since the formation of the district.

M. CAMILLE GODARD has left 100,000 francs (£4,000) to be devoted to the purposes of creating a botanical garden at Bordeaux, for the use of the Faculty of Medicine. He has also bequeathed an annual sum of 3,000 francs to be given in prizes to the pupils.

WE are requested to remind our readers that the preliminary examinations of the Royal College of Surgeons of England having come to an end, inquiries with respect to recognised preliminary examinations should be addressed to the registrar of the General Medical Council, 299, Oxford Street, London, W.

M. BOULEY, member of the Paris Institut, Inspector-General of the Veterinary Schools, has been raised from the rank of Officer to that of Commander of the Legion of Honour. Medicine has everything to gain by the official recognition of the scientific acquirements and comparative researches of the professors of veterinary surgery and medicine.

IN the city of Brussels, whenever a birth is registered, the registrar hands to the parent, gratuitously, a little pamphlet of five pages, containing short and plain directions for the management of children. In Paris, where the mortality amongst infants is enormous, it is proposed to introduce a similar practice.

IT is reported that fever is so extremely prevalent in West Rhondda, that the medical officer of health has recommended the prohibition of all gatherings, public or private; and, what is perhaps an unprecedented occurrence, no divine service was allowed to be held, on Sunday last, in any church or chapel in the district. The day schools have been closed, and the celebration of public funerals has been stopped.

UNIVERSITY College, Liverpool, has been inaugurated by a public meeting, of which Lord Derby was the President. He stated, in the course of his speech on the occasion, that £100,000 had been raised for

the purposes of the institution, which the corporation had provided with a building; and seven professorships had been endowed with £10,000 each. Professor Rendall has been appointed Principal of the College.

M. LAULAINÉ has observed that the eggs of a certain nematoid, the *Strongylus Mustelarum*, encysts itself in the pulmonary parenchyma, and determines in it the formation of a pathological tissue histologically similar to that of a tubercle. True tuberculosis is transmissible by inoculation—that is to say, it is virulent. The tuberculosis which forms round the egg of the strongylus has not that characteristic.

MR. EDMUND BOULNOIS, chairman of the St. Marylebone Board of Guardians, has sanctioned a scheme for giving lectures to the Nightingale staff of nurses, at the St. Marylebone Poor-law Infirmary, Notting Hill, to be delivered by Dr. Lamb and Dr. Percy Potter. The lectures will be on the outlines of physiology, the principles of ventilation, and cognate subjects—a knowledge of which, on the part of the nurses, would be likely to enhance the comfort of the sick.

WE learn from *Nature* that the number of students who have entered the Chemical Laboratory of Firth College, Sheffield, this session, has been so great, that the present accommodation has been quite insufficient. The Council, therefore, decided at their last meeting to erect working benches for sixteen more students. The University of Edinburgh have recently recognised Dr. Carnelly, Professor of Chemistry in Firth College, as a Teacher of Medicine in Sheffield, whose lectures on Chemistry, and course of instruction in Practical Chemistry, shall qualify for graduates in Medicine in that University. The lectures on Chemistry and Laboratory Practice at Firth College have also been recognised by the Royal College of Surgeons and the Royal College of Physicians.

ABATEMENT OF SMOKE.

SINCE we last mentioned the Smoke Abatement Exhibition, it has progressed with as much vigour as the heartiest well-wisher of this sanitary movement could wish. Several of the great landlords in London have deputed their architects and engineers to visit the exhibition, with a view to determine which of the exhibits are most likely to be useful in any new houses which may be built, and how far the introduction of smoke-abating grates may properly be made a condition in the renewal of leases on their London estates. The greatest interest in the question has also been shown by manufacturers, by all the various trades, by the Government departments, and by provincial towns. Most of the leading foreign Governments have sent reporters to the exhibition, who have carefully investigated all the exhibits; and have expressed the greatest satisfaction at the important and useful character of the improved grates, stoves, heating apparatus, and industrial smokeless furnaces shown. The delegates of the French Government, of the German Government, and of the American Government, after thoroughly going through the exhibition, have prepared careful reports, which will be presented to their respective Governments, and of which copies will be subsequently available for use in this country. Meantime, it is satisfactory to find that it has been shown, by trials at this exhibition, and at various industrial establishments, of new inventions shown at South Kensington, that many of the trades, in which it had hitherto been believed that the production of smoke was an industrial necessity, can be carried on without any such production. For instance: pottery-burning was considered to be so difficult an operation to conduct without the production of smoke, that special exemptions have been made in its favour in the Smoke Acts; the trials at Messrs. Minton's, however, and those with the gas-kilns shown at the exhibition, have proved completely successful; and henceforth there will be no scientific reason why potteries and glass furnaces should not be conducted without the production of smoke. As to bakers' ovens, the results of the exhibition show that the production of smoke is not a necessary incident of the baking trade.

FOR ships of war it is especially important for strategic reasons, that no smoke should issue from the chimneys and hence it may be hoped that the Admiralty will take care that the engineers of the Fleet, as well as the officers of its land establishments, will carefully examine and investigate the subject as illustrated with relation to ships at South Kensington.

WE are glad to add that in more than one instance practical results have at once been manifested, and not only have a very large number of orders been already given to exhibitors of various apparatus shown, but the Executive have received a large number of inquiries asking them to recommend any apparatus specially suited for particular purposes. These somewhat delicate inquiries were met with a refusal to take the responsibility of selection; but, of course, a further guide will be afforded by the excellent trials which are being assiduously conducted in the testing houses at South Kensington. Meantime, the proprietors of several important blocks of buildings now in course of erection in London and suburbs have, it is understood, signified their intention of using one or other of the improved coal-saving and smoke-consuming grates shown.

NEARLY sixty thousand visitors have passed through the Exhibition, and, it is satisfactory to be able to add, deputations from a considerable number of important country districts and towns, where the smoke-nuisance is felt at least as strongly as in London.

WE are informed that a considerable desire has been manifested from influential quarters in Manchester, that the exhibition, at its close in London, should be transferred to Manchester, with probably some interesting additions; and there is a great prospect of arrangements being made which will effect this purpose. Many of the leading members of the corporation of Manchester and others in that city, deeply interested in the suppression of smoke and noxious vapours, are, at the present moment, actively engaged in making preliminary arrangements for the purpose.

LAST week H.R.H. the Prince of Wales signified his desire to attend the exhibition, and paid a long visit of upwards of two hours, carefully examining a considerable number of the most interesting objects. The Prince was received by Mr. Ernest Hart, Chairman of the Smoke Abatement Committee, and the Right Hon. Lyon Playfair, M.P., Dr. Siemens, F.R.S., Professor Chandler Roberts, F.R.S., and Mr. W. R. E. Coles, Members of the Executive.

SUBCOMMITTEES of Jurors have been appointed in each class, under the respective chairmanship of Professor Abel, C.B., F.R.S., Professor Frankland, F.R.S., Dr. Siemens, F.R.S., and Professor Roberts, F.R.S.

ST. THOMAS'S HOSPITAL.

AT a Special Court of Governors held at St. Thomas's Hospital on Wednesday, the Duke of Connaught was elected President of the hospital. The Duke was unexpectedly prevented from being present.

ONE of the governors of St. Thomas's expressed the hope on this occasion that, by the election of His Royal Highness, means would be forthcoming to furnish the wards which were now empty for want of funds.

THE present state of that hospital is not altogether satisfactory, and might, perhaps, appropriately form a part of the inquiry by Royal Commission which has been suggested.

AT Guy's Hospital, also, there are a considerable number of desolate and untenanted wards, and there is likewise apparent need for the intervention of public benevolence to increase the funds provided by the generosity of the donors of the past. Probably part of this is due to the depreciation of agricultural rents; but this would hardly furnish

sufficient explanation of the extent to which these hospitals have been overbuilt and the funds sunk in costly buildings erected on expensive sites.

EXTIRPATION OF THE UTERUS.

THE removal of the entire uterus, when cancerous, either by the vagina or through an abdominal incision, and the removal of a pregnant uterus entire, excepting the cervical portion, constitute what are respectively known to specialists as Freund's and Porro's operations. The history of the latter and some clinical reports of the former will be found in last year's volumes of the JOURNAL. During the last three months, both operations have been repeatedly performed in England. The success of Sir William Mac Cormac and Mr. Spencer Wells, in two cases recently under their care, are already well known to the profession, and are chronicled in our pages. We understand that at least five similar operations have recently been performed in London, all by well known and experienced operators, but all with fatal results. In two cases of Freund's operation it appears that, in spite of every precaution, one or both ureters were cut or tied; another proved fatal, after it had been performed from the vagina, on account of the impossibility of perfect drainage. A recent case of Porro's operation has also terminated fatally, and the cause of death is a point of importance upon which the profession ought to be enlightened. It is most desirable, for the purposes of sound scientific progress, that the greatest publicity be freely given to untoward as well as to successful results of these operations. They must be established, if practical experience shows that a fair proportion of favourable results justifies their establishment, in the same manner as ovariotomy was proved to be legitimate. If, in spite of all the improvements of modern surgery, the mortality in the hands of experienced operators remains as high as it seems to be at present, and if, in cases of Freund's operation, temporary recovery be frequent, but rapid recurrence of cancer be in such cases the rule, extirpation of the uterus will need to be the subject of further debate, study, and improvement, before it can be accepted as an established operation. Considering the advantages under which modern surgeons work, the outlook remains hopeful. It is hopeless, however, to discuss the question profitably whilst the dangers, which have proved insuperable in cases already performed, remain unregistered in the archives of medical societies and journals. The profession will eagerly look, on that account, for the histories of the recent cases of Freund's and Porro's operations performed in England.

REMOVAL OF THE UTERUS.

ON Tuesday, January 17th, Mr. Sydney Jones operated at St. Thomas's Hospital on a woman aged 45, for the removal, through the abdominal wall, of a large fibroid tumour of the uterus. The tumour blocked up the pelvis, descending nearly to the anus and vulva, and seriously interfered with micturition and defæcation. The incision extended a couple of inches above the umbilicus. The bladder was drawn up considerably, the apex reaching to midway between the umbilicus and pubes; its anterior wall was exposed in the lower half of the incision. The bladder was dissected off the front of the tumour; the broad ligaments were ligatured and divided externally to the ovaries; and, after the peritoneum and other bands had been divided posteriorly, the tumour was turned out of the pelvis. The neck of the uterus was much elongated. The peritoneum having been dissected off, the neck was divided by the knife about an inch above the os, ligatures being applied to bleeding points; and flaps were united over the stump by catgut sutures. All was done antiseptically. The next day, she vomited three or four times, and was being fed by nutrient enemata.

DEATHS UNDER CHLOROFORM.

AN inquest was held at Manchester on Tuesday on the body of William Bradshaw, nine years of age, who was admitted to the Children's Hospital on the 10th instant, suffering from an abscess in the thigh and spinal disease, for which it was found necessary that he should undergo an operation. He was accordingly placed under the influence of chloroform. The operation was successfully performed, but the patient never recovered consciousness, and died a few minutes after the administration of the chloroform. A verdict of accidental death was returned. We would point out the subject of deaths under anæsthetics as one particularly suited for the work of the Collective Investigation Committee. Indeed, it was originally intended to be investigated by the Chloroform Committee but for the lack of the machinery now provided. The result of the work of the Glasgow Anæsthetic Committee of the British Medical Association was to indicate ether as a less dangerous anæsthetic than chloroform. A collective investigation of the statistics of clinical and pathological facts connected with the administration of, and deaths under, anæsthetics, would be a valuable addition to professional knowledge.

THE PAY-WARDS OF ST. THOMAS'S HOSPITAL.

THE experience of the first nine months of the working of the St. Thomas's Home has been satisfactory enough to warrant the governors in continuing the undertaking. The number of patients under care has risen from 11 in March to 35 in November, the average daily number for the whole time being 22. The result is a profit of more than £400 on the working expenses. This is, of course, not clear profit, the interest on the preliminary expenses of fitting up the wards not being taken into account. But, as there is no rent to be paid, the surplus is sufficient to pay off the preliminary expenses in a short time if the present number of patients be maintained or increased. The total number of beds at present available is 41. The medical superintendent reports that the Home has been of especial value to those who have not homes of their own in which they could be efficiently nursed and cared for during sickness; such as clerks living in lodgings, visitors to London, colonists and travellers who have been taken ill in England, or who have returned to their country on account of ill health. Eight of the patients have been medical men.

TRAINED NURSING IN WORKHOUSES.

A MEETING has recently been held to discuss the advantages and disadvantages of employing trained nurses in workhouses, presided over by Mr. E. Boulnois, the chairman of the St. Marylebone Board of Guardians. Many papers were read by persons conversant with the subject—as Miss Louisa Twining, Mr. Potter, Mr. Hussey Walsh, and Mr. Benton—all of whom concurred in the opinion, that trained nurses should be employed in workhouse infirmaries in lieu of pauper nurses. Miss L. Twining, the Honorary Secretary of the Association for Promoting Trained Nursing in Workhouses, reported that, since the commencement of the work of this association, about a year and a half ago, sixty nurses had been recommended, and eighteen probationers had been or were being trained in hospitals and infirmaries. It appears that boards of guardians are alive to the advantages of trained nursing for their sick wards, since no fewer than thirty-two boards have sent requests for nurses. In a discussion which ensued on the reading of the papers, Mr. Bousfield expressed the opinion that trained nursing in workhouses was both more efficient and more economical than the old system of pauper nursing—a view of the case which is proved conclusively by the experience of the Kensington Board of Guardians. The Medical Superintendent of the St. Marylebone Infirmary thought that infirmaries should become schools for training skilled nurses; and also observed that he had noted a marked improvement in the behaviour of the patients in the St. Marylebone Infirmary, since the introduction of trained nurses. In reply to a suggestion by Mr. Wyatt, that the salaries which guardians were able to offer were inadequate to obtain trained nurses, Mr. Bonham Carter said that this difficulty might be obviated to a great extent, if large infirmaries were to have attached to them regular training schools for nurses. Some years ago, such an experiment was tried, in the Highgate Infirmary, on a small scale, with advantageous economical results. Mr. Boulnois bore testimony to the efficiency of the nursing staff at the St. Marylebone Infirmary, amongst whom were some ladies who devoted their lives to nursing; and enlarged

on the advantage of having a lady at the head of the nursing staff. He engaged to bear in mind the establishment of a training school for nurses at St. Marylebone Infirmary—a scheme which he hoped to see carried out.

HOSPITAL AMBULANCE SERVICE.

THE profession will learn with great satisfaction that the work of providing London with a hospital ambulance service, which was first commenced in these pages by the communications of Dr. Benjamin Howard of New York, temporarily resident in London, is proceeding with very satisfactory rapidity. In Dr. Howard's interesting paper published in the BRITISH MEDICAL JOURNAL for July 16th, 1881, he described, not for the first time, the excellent system in New York, under which each of the hospitals is provided with a well-constructed, well-horsed, and well-arranged ambulance, connected with the other hospitals and police- and principal alarm-stations by electric communication. Immediately on the occurrence of any accident requiring hospital aid in any part of the city, telegraphic communication is at once made with the nearest hospital by the police, and a horse-ambulance is sent out, provided with stretcher and necessary appliances for first aid to the wounded, and in charge of a skilled dresser, who is able to discriminate the necessities of the case, and to take the necessary steps for having the patient taken at once to the hospital, after giving the assistance best suited to the case. The same aid is at hand, where helpless or bedridden patients require to be taken to the hospital from their houses. Of course, a separate provision is made for contagious and infective cases. All this contrasts very advantageously with the absence of such arrangements in connection with our London hospital system. It is an oft-told tale how rudimentary are the means of conveyance, and how remarkable, for want of organisation, are the means of giving first aid to the wounded in the streets of London. The patient is often lifted by ignorant hands in such a manner as to aggravate the original injury, and carried by a cab, or by some other quite unsuitable conveyance, to a hospital. Hand-ambulances now exist at the police stations, but these are quite insufficient to meet the requirements of special cases; and it may be fairly said that, to be carried through the streets on one of the police ambulances, persistently followed by a crowd of inquisitive boys and roughs, as is often the case under the present arrangements, would be, for an ordinary invalid, in itself no small aggravation of his suffering. Dr. Howard has recently found, as we have before mentioned, a very generous and prompt supporter in Mr. Crossman, Vice-Chairman of the London Hospital; and that gentleman has liberally borne the expense of having constructed a very admirably devised and most convenient horse-ambulance, from the plans of Dr. Howard. We have had the opportunity of seeing this ambulance, and can speak of the remarkable ease with which the patient is carried, the facility with which he can be moved into the ambulance bed and transferred from that into the hospital—accomplishing the whole series of movements, and the journey, without any lifting or concussion. Dr. Howard has had considerable experience in this matter, his army ambulance having been highly approved by Professor Longmore and other of the best authorities; and certainly this hospital ambulance-carriage is remarkable for its lightness, ingenuity, simplicity, and efficiency. After the publication of the paper in our pages to which we have referred, which was published after a conference of Dr. Howard with Mr. Ernest Hart, the latter advised Dr. Howard to proceed in the matter by communication with several of the leading authorities in London; and, for this purpose, gave him introductions to the authorities at the London and other hospitals. The prompt generosity of Mr. Crossman, and the continuous devotion of Dr. Howard to the work, promise to achieve a much earlier solution of the question than could have been anticipated. The model ambulance is now ready, and has been presented to the London Hospital. It has been arranged, at the instance of Dr. Howard and Mr. Crossman, that a meeting should be held early in February, at the United Service Association—the president of this association, his Royal Highness the Duke of Cambridge, who is also President of the London Hospital, to be in the chair. This meeting would have been held some weeks since, but for the other engagements of His Royal Highness; meantime, it is satisfactory to see that the St. John's Ambulance Association—an association which has already done so much in the general cause of first aid to the sick—has also taken up Dr. Howard's suggestion; and that a meeting has been held at which his plans have been approved by many of the staff of our various hospitals, and by active members of St. John's Association. Mr. Reginald Harrison has moved in a similar direction in Liverpool; and it may be hoped that the Liverpool authorities will act upon the suggestions in Mr. Harrison's excellent pamphlet, and will not be outstripped by the generally more ponderous and clumsy organisation of this overgrown metropolis.

ST. BARTHOLOMEW'S HOSPITAL.

ON January 25th, several important propositions with regard to the enlargement of the permanent and the temporary surgical staff of St. Bartholomew's Hospital will be officially submitted to the consideration of the governors. The addition of one extra surgeon and assistant-surgeon is, we believe, practically settled; and one of the new appointments will involve duties in the surgery similar to those discharged by the out-patient surgeon at Guy's Hospital. Another important proposition is for the appointment of out-patient house-surgeons. This has long been opposed by the hospital authorities, and has the great objection that no single medical officer has the opportunity of seeing accident cases as they are brought in, and attending to them afterwards in the wards, observing their subsequent condition as they recover or succumb to their injuries. The work in the surgery and in the wards, however, has become too much for one junior resident to superintend; and, at the same time, the beds hold far more patients than four visiting surgeons can attend to and draw instruction from in their visits to the wards. Hence, for purely administrative reasons, the out-patient and ward duties will be assigned to a separate set of house-surgeons. This arrangement will also afford opportunities for a fairer proportion of the vast number of students at this great medical school enjoying the advantages of a house-surgeoncy at the hospital. Mr. Harrison Cripps, Mr. Macready, and others, are already spoken of as candidates for the new assistant-surgeonship. We believe that there is no intention of inviting the candidature of any distinguished senior surgeon from another hospital to fill the vacancy which, should the new propositions be agreed to, will exist in the senior surgical staff.

THE MISADVENTURE AT GUY'S HOSPITAL.

IT will be satisfactory to know if the lay managers of Guy's Hospital have taken any steps towards signifying their sense of the great gravity of the blame due to the sister and nurse, and also to those who were responsible for the terrible miscarriage and fatal result of the nursing, which was recently the subject of a coroner's inquest. Has any censure at all been inflicted upon those persons who were palpably so much to blame; or, have they, on the contrary, received sympathetic tokens of approval and support?

SMALL-POX AT CAMBERWELL.

AT a recent meeting of the Camberwell Vestry, Dr. Bristowe, the health-officer, reported that during the previous three weeks small-pox had caused seven deaths in the district. In addition to these, however, twelve more, due to the parish, had occurred in hospital, making a total of nineteen deaths from the disease. At the same meeting, Dr. Bristowe presented a memorandum relating to the prevalence of small-pox, together with a diagram giving a representation of the disease in the parish. The table and diagram showed that during the whole of the six years to which they related there had been a disproportionately large prevalence of small-pox in Peckham, and that there had been an increasing prevalence therein during the last three years. Lately, when the disease appeared to be dying out in London and in other parts of Camberwell, there was a sudden and alarming increase of small-pox (which is still in progress) in that locality. There was, however an undue prevalence of the disease in the Peckham district before the Kent Road Hospital was opened. This hospital was prepared for the recep-

tion of small-pox patients in March 1877, and closed at the end of August in the same year. It was reopened for small-pox cases in April 1878, and has continued to receive them down to the present time. If the mortality from small-pox in London during the year 1881 had been as large in relation to population as that in the Peckham district, the deaths from this disease would have been 9,348, instead of only 2,376; and under the same conditions those in the parish of Camberwell would have been 458 instead of only 190. These figures will, of course, receive the attention of the Royal Commission, now sitting to inquire into the working of the several hospitals of the Metropolitan Asylums Board, before whom they have, we believe, been placed.

ROYAL COLLEGE OF PHYSICIANS.

THE following are the dates fixed for the lectures of the Royal College of Physicians for the present year: Gulstonian Lectures, by William Ewart, M.B., March 3rd, 8th, and 10th, on "Pulmonary Cavities, their Origin, Growth, and Repair"; Croonian Lectures, by Sir Joseph Fayrer, K.C.S.I., M.D., March 15th, 17th, and 22nd, "On the Climate and Fevers of India"; Lumleian Lectures, by J. Burdon Sanderson, M.D., March 24th, 29th, and 31st, "On the Pathology of Inflammation".

THE UNIVERSITY OF LONDON.

THE result of the voting of Convocation, for the nomination of candidates for the Senate, has happily resulted in favour of a medical candidate. Some of the most influential of the arts candidates fortunately accepted the view which we initiated last week, and which has also been powerfully advocated in several lay journals, as to the extreme inadvisability of disturbing the well understood arrangement existing between the faculties of science and medicine on the one hand, and arts and law on the other; and gave a preference, on this occasion, to a candidate representing the faculties of science and medicine. The election has fallen, by a considerable majority, upon Dr. Buchanan. Dr. Buchanan's candidature was largely supported by arts graduates as well as by medical graduates, and it is understood that his friends had put him forward several weeks before Dr. Barnes was persuaded to become a candidate, and that a large proportion of medical votes had been secured for Dr. Buchanan's return for weeks before it was known that Dr. Barnes would be a candidate. The election has been carried on during Dr. Barnes's absence from England, and it is much to be regretted that a more thorough understanding was not early arrived at between the supporters of the respective medical candidates. Owing to this want of understanding, two medical candidates were in the field against one arts candidate, a state of things which greatly imperilled the result, and might have led to an unfortunate sequel to the contest. As it is, the faculty is excellently represented by a candidate who confessedly unites all the qualities desirable in a representative of the medical faculty in the Senate, and who has strong personal as well as official claims to the position. We confess to a regret that the senior candidate should have been so late in the field; and that the quite special claims of Dr. Robert Barnes, both personally on the graduates, and as a representative of a most important department of medicine hitherto unworthily treated, and which he has done much to raise in public and professional estimation, should have been passed over. But the fact is, whatever is worth doing, is worth doing thoroughly. It is probable that Dr. Barnes's candidature has suffered owing to his late appearance on the field and his absence from England. It is, however, also noteworthy that the obstetric department of medicine, which, whilst the oldest of the branches of practice, is also the newest comer among these departments of medicine claiming to be represented in the highest places. It is, comparatively, but yesterday, that an obstetric physician was not thought fit to have any proper position among the high officers of the College of Physicians, or, indeed, in any university; and it is curious to note that it is precisely among Radical constituencies that these prejudices of caste are often strongest. We have often had to urge the claims of obstetricians, as members of a department of medicine which is so bound up with the whole life and work of the great body of practitioners, that it is extremely desirable that its most eminent representatives should have a voice in the presence of the chief educational councils of the profession. This is a principle which certainly ought not to be lost sight of in future elections.

THE CLINICAL SOCIETY.

THE annual meeting of the Clinical Society took place on Friday, the 13th instant, when the President, Mr. Lister, occupied the chair. The official business of the meeting was transacted in the middle of a discussion on myxœdema (reported at page 89), adjourned from the previous meeting in December, with the result that the annual meeting was prolonged for half an hour beyond the usual time. Dr. F. Taylor, the outgoing Medical Secretary, read the report of the Council, from which it appeared that the Society numbered 341 members. The funds of the Society were in a satisfactory state, there being £138 in hand, whilst £500 were invested. In the *Transactions* was to be found a very valuable report on hip-joint disease, which had cost much labour. Mr. Heath, the Treasurer, read the balance-sheet. Dr. Cholmeley moved that the report of the Council and the Treasurer's balance-sheet be received and adopted. Mr. Gant seconded this proposition, which was carried unanimously. The President then read a proposed new rule, recommended by the Council, that all papers read before the Society should become its property; that they could not be withdrawn or published elsewhere, without forfeiting their chance of publication in the *Transactions* of the Society. The adoption of this rule was neither moved nor seconded, but was put from the chair, and declared carried. Dr. Bristowe proposed a vote of thanks to the retiring Vice-Presidents and other officers. Dr. S. Mackenzie seconded this proposition, which was carried unanimously, and was acknowledged by Dr. Althaus. Mr. Barker proposed a special vote of thanks to the retiring Secretary, Dr. F. Taylor, for his kindness and courtesy, as well as for the time and labour he had expended on the interests of the Society during his term of office. This proposition was seconded by Dr. Whipham, and carried unanimously. Upon the examination of the ballot-box, the gentlemen recommended by the Council for the various offices of the Society were found to have been elected. A list of their names was published at page 59 of the JOURNAL of last week.

UNFOUNDED COMPLAINTS AGAINST MEDICAL OFFICERS.

WE referred last week to the charges which had been made, and which have been spread wholesale by the Board of Guardians of Cowes, of the alleged inhumanity on the part of some unnamed medical man in refusing an appeal for assistance to a former relieving officer who had fallen into poverty, and who had met with a sudden and lamentable accident. We were unable to ascertain the actual facts of the case at the time, although inquiry was made; but we entertained the hope that, by referring to the complaint, we should receive the means of refuting it; and it will be observed, in a letter which we have the pleasure of publishing to-day, that a quite satisfactory answer is forthcoming. The claims upon the time and labour of medical men by the sick poor are constant and severe; and it has always been the pride of our profession that they are responded to with self-sacrifice, and in the spirit of humanity which corresponds to the traditional rules by which the medical profession has ever been guided. This readiness of medical men to respond to the call of suffering and distress under circumstances so frequently recurring, and making such severe inroads upon the physical and mental resources of a practitioner, is, unfortunately, too often abused. The medical man is subject not only to the appeal from real distress and impotent suffering, but this medical tradition is so widely known, and the soft-heartedness and high standard of charity which belong to the medical practitioner are so well established in the minds of all classes, that persons who merely trade upon such qualities do not hesitate to practice imposition, and still more frequently do they seem to con-

sider that free service a right which is only a gift, and to claim that generous bestowal of time and care for which they have no intention of making any sacrifice to requite, and which they will not strain their means to meet by any corresponding effort at remuneration. Imposition by the mean and well-to-do, grinding hardness from public officials, severe judgment from an easily moved press readily led to take the popular side, small fees, and hard labour, are but too frequent incidents in the life of the general practitioner. Boards of Guardians and local newspapers are but too apt hastily to seize upon an opportunity of pointing out shortcomings in the work of a hardly pressed medical officer, and only too slow to give any public or practical expression to the gratitude which is due to long years of faithful labour and a succession of acts of liberal kindness and generosity. This case at West Cowes appears to be only one illustration of a series of such instances, which should not pass without severe comment. The heading of "Charge against a Medical Officer" is, unhappily, not an unfrequent one in provincial papers, but only rarely is any such charge based upon fact. Every medical man engaged in the public service will do well to remember that he carries the reputation of his class and of his profession in his hand, and that any such charge, if it should be well founded either on acts of omission or commission (which he may regard as trifling at the moment), may easily lead to a public scandal and a public attack which are for the time being injurious to the character of the profession as well as to his own peace of mind. Happily, the conduct of the members of our great poor-law medical service has been such that we may point to it with pride as that of a body of men who have for a long series of years performed most laborious and thankless work, at a very unfair rate of remuneration, with singular ability and humanity and public spirit.

SMALL-POX AT LEEDS.

An inquest has recently been held at Leeds, upon the body of a man who had been in Armley Gaol since the 2nd of January last. A rash on the man's face developed into confluent small-pox; and, upon the discovery of this, he was isolated, and special precautions taken to prevent the spread of the disease. Notice of the outbreak was communicated to the health-officer for the borough, who ordered the isolation of the case within the gaol, as there was no small-pox hospital in the district. This is the second death from small-pox which has recently occurred in the parish of Armley.

A FATAL PRESCRIPTION.

An inquest has been beld at Waddesdon, near Aylesbury, on the body of a little girl, who had been about ten weeks previously unwell, and was attended by the assistant to a firm of local surgeons. Death resulted, and the child was interred. Subsequently, the medical officer of health for the district visited the house, and was shown the remaining portion of the medicine administered before death. He at once came to the conclusion than the concoction was dangerous, and that the doses were too large. The medicine was sealed up and handed to the police. The body has been exhumed, and an examination of the contents of the stomach made. The certificate of the county analyst pronounced the medicine to be of a nature unfit for a child. The inquest was adjourned.

RECONSTRUCTION OF THE BRISTOL GENERAL HOSPITAL.

Mr. Eassie, C.E., has most successfully completed for the General Hospital, Bristol, a reconstruction and redecoration of some of the wards. This hospital, with many excellent qualities, has to contend against an ancient form of construction, which makes sanitation very difficult, and thorough ventilation in many parts of the hospital almost an impossibility, unless by exceptionally ingenious methods. Mr. Eassie has contrived very thoroughly to ventilate the wards he has taken in hand, by a simple method of cross-ventilation. He has laid down over the old concrete floor an excellent smooth and impermeable wooden floor, with polished paraffin surface, and carefully tongued, so as to avoid crevices. The walls are painted with the albissima paint, which recently received the highest award at the International Exhibition, and the silver medal at the Brighton Sanitary Exhibition—a paint which has the great advantage of being non-poisonous and inodorous, and is stated to be in every way preferable to lead paints, which are both offensive and poisonous; Albissima has, it is claimed, the further merit of being much cheaper in use, possessing twice the covering power of ordinary zinc or lead paints, and giving a purer colour. It is very durable, and unchanged by sulphuretted hydrogen or other sulphur compounds and gases.

COLOUR-BLINDNESS.

The recommendations of the London International Medical Congress on the important subject of colour-blindness and other defects of vision, in relation to railway and sea service, will probably be fresh in the recollection of every scientific man. The general indisposition on the part of public opinion in this country to realise and adopt anything new, especially anything of a scientific character, has its effect in regard to this subject, and needs to be combated by such brief and pertinent statements of fact as appeared last week in the form of a letter from Mr. Morton in the *Times* newspaper. We must, however, bear in mind that the whole subject is still under the consideration of the Government, from whom it doubtless will receive, in due course, the recognition it merits, not only on account of the obvious practical importance of the subject in relation to life and property, but as the deliberate expression of opinion of the largest and most authoritative meeting of medical men that the world has ever seen.

UNCONSUMED CARBON.

Dr. Alfred Carpenter writes to the papers on the subject of the heavy fog on Wednesday last, pointing out that the fogs with which London has again been visited during the last few days have been of a dark smoky character, and that the wasteful manner in which the consumption of coal is carried out in the present day was never more noticeable than in the darkness which has hung like a pall over the city of London during the present week. He calls attention to the Smoke Abatement Exhibition at South Kensington; but the special object of his letter is to complain that the railway companies, during the prevalence of these fogs, have greatly added to the intensity of them by the hundreds of naked coal-fires which the railway authorities have kept burning along the lines of rail, with the apparent object of giving light, but in a very unscientific manner, to the men who were standing about the line in charge of fog-signals.

SCOTLAND.

GIFT OF £10,000 TO THE UNIVERSITY OF ABERDEEN.

A pleasant and agreeable surprise was in store for the Senatus of the University on Saturday last, when Professor Pirrie read a communication to the Senatus from Sir Erasmus Wilson, intimating the offer of Sir Erasmus to give a sum of ten thousand pounds to found and endow a chair of Pathological Anatomy in Aberdeen, "as an expression of my regard for an institution in which my father, a native of Aberdeen, received his medical education, and as a recognition of the honour which the University has been pleased to confer on me by granting me the distinguished degree of LL.D." The Senatus accepted, with great gratitude and pleasure, the munificent gift of Sir Erasmus, and accorded its warmest thanks to the donor for his timely generosity, by which he has placed not only the whole medical school under a deep debt of gratitude, but has supplied a long felt want in this University. This princely liberality was all the more appreciated as it was not expected, and came suddenly and very opportunely. Sir Erasmus is to be congratulated on his wise discretion and his just appreciation of the best means to advance medical education, not only in his native country and county, but also in the metropolis. The gift cannot be too highly appreciated, for it gives to Aberdeen the one chair which was required by

its medical school to complete its efficiency. Aberdeen and Edinburgh are the only universities in Scotland which have a chair of pathology. A committee has been appointed to arrange for the carrying out of the proposals of Sir Erasmus Wilson. A cordial vote of thanks was accorded to Dr. Pirrie, who has been mainly instrumental in securing the foundation of the chair. We look forward with pleasure to the future development of this already flourishing medical school.

COMBE LECTURES IN THE NORTH OF SCOTLAND AND IN ABERDEEN.

THIS course was resumed by Dr. Stirling in Montrose on Tuesday. The lecture was devoted to an exposition of the physiology of the blood-vessels and to the respiratory apparatus. In connection with the former, hints were given as to what to do in cases of wounds of blood-vessels before the arrival of the surgeon. The lecture was illustrated by numerous experiments and by practical demonstrations. A similar course was begun in Aberdeen on Saturday evening, when the large St. Katharine's Hall was crowded to overflowing. All the tickets for the course were secured before the day of the lecture. The syllabus which has been prepared will be found to be a pictorial guide to the course; and the Combe trustees have intimated their intention to give prizes to those who pass the best written examination on the subjects gone over in the course. Permanent benefit may thus be expected to accrue from these lectures.

THE TREATMENT OF ACCIDENT CASES IN COLLIERIES.

AN arrangement has been made by Mr. Watson, the proprietor of Earnoch Colliery, which cannot but be of the utmost advantage to those who may be the subjects of accidents at Earnoch Colliery, but which deserves mention in medical journals. He has erected a house for the temporary reception of anyone injured at the colliery, where the patient can be placed in comfort until the arrival of the medical attendant. The building consists of an apartment twelve feet square and ten in height; and it has been fitted up under the guidance of Dr. Gondar, the medical officer to the works. It contains a suitable couch and chairs, hot and cold water, bandage-press, and splint-kit, besides St. John's Ambulance carrying-stretchers. Such a convenience cannot but be of much value to the patient and to the practitioner; and it may be hoped that Mr. Watson's intelligent and benevolent example may be numerously emulated.

DAIRIES AND INFECTIOUS DISEASES.

IT is well that the possibility and probability of many infectious diseases being communicated through imperfect management of dairies is now recognised by the law, as well as thoroughly ascertained by the profession. On Monday, at the Glasgow Summary Court, a dairyman in Dalmarnock Road, who had a son suffering from measles whom he allowed to remain in the dairy, was fined £2 for that offence by the presiding sheriff.

GLASGOW CONVALESCENT HOME.

AT the seventeenth annual meeting of the supporters of the Glasgow Convalescent Home, Lenzie, held on Tuesday, the report submitted showed that during the year 1,381 patients had been admitted, an increase of 58 on the admissions of the previous year. Since last year's report, legacies of £500, £200, and £100 had been received. The total income for the year was £2,110 0s. 9d. (only 2s. 6d. less than the previous year's income); the expenditure was £2,057, an increase of about £70 on the previous year's, principally due to expenditure for furnishings and blankets. The propriety of increasing the accommodation of the Home is at present under the consideration of the directors.

GLASGOW ROYAL LUNATIC ASYLUM.

DURING the past year, 161 patients were admitted to the Glasgow Royal Lunatic Asylum, Gartnavel; the discharges numbered 156, and included 57 recoveries, and 36 deaths; the number remaining at the close of the year was 483.

THE NOTIFICATION OF INFECTIOUS DISEASES.

IN connection with the notification of certain infectious diseases, specified in the Edinburgh Municipal Act of 1879, Dr. Littlejohn submitted to the Public Health Committee of the Edinburgh Town Council, on Tuesday, statistics for the last half year, which showed that 1,795 cases had been reported by 130 medical men, the numbers from each being from 1 to 99, and the cost to the authorities being £224 7s. 6d., being 2s. 6d. for each case.

IRELAND.

A CONCERT recently given in aid of the Society for Providing Nurses for the Sick Poor, Belfast, has realised the handsome sum of £44 13s. for a most deserving charity.

IN consequence of the vacancy caused by the death of Dr. Reuben J. Harvey, Mr. William Stoker, senior temporary physician, becomes physician to the Cork Street Fever Hospital in Dublin, and Dr. Christopher Gunn has been appointed temporary physician.

AT a meeting of the students of the late Dr. R. J. Harvey, held at the Carmichael College, Dublin, on the 13th instant, it was unanimously decided to erect a tablet to his memory in the College. A subscription list was opened for that purpose; Mr. J. A. Scott being appointed treasurer, and Mr. S. D. Chandlie, secretary.

THE DUBLIN BRANCH.

THE annual general meeting of this Branch will take place on Wednesday next. As usual, permission has again been kindly granted to hold the meeting and subsequent dinner in the splendid halls of the King and Queen's College of Physicians. Several Members of Parliament, and other influential persons, have been invited to the dinner, which, there is every reason to anticipate, will prove as interesting and as agreeable a gathering as all the former annual dinners of the Branch have been. At the general meeting, at 4 o'clock, Dr. Kidd, the president-nominate, will deliver an address on Medical Education—a subject to which, as is well known, he has given much attention.

ROYAL UNIVERSITY OF IRELAND.

THE first matriculation examination of this university has just concluded. Of 606 candidates who went through the examination, 508 passed. The next matriculation will be held at the end of September or early in October. The exact date has not yet been fixed, but the names of intending candidates must be sent to the secretaries of the university before August 15th. The subjects of the examination will be the same as in the first matriculation examination. We understand that the full official regulations of the university will be published soon by Messrs. Thom and Co., printers to the Queen in Ireland, of Middle Abbey Street, Dublin.

CARRINGTON'S HOSPITAL, LIMERICK.

THE report of this institution for the past year shows that the expenditure during that period exceeded the income by £200. There was also a previous balance against the charity, so that at the commencement of the present year the hospital is in debt by a sum of £600. The cases relieved last year were nearly double those of the previous twelve-months, which accounts for the increased expenditure. The governors in their report regret that the interests of the hospital are not more fully appreciated and supported by the citizens, and they add that if no responsive liberal aid comes from the corporation and the citizens, they will reluctantly be obliged to resort to the painful alternative of closing the doors of the institution.

SMALL-POX IN BELFAST.

SLOWLY, but surely, the epidemic of small-pox which has existed for some weeks in Belfast, is spreading. The disease is not confined to a single district, as alleged, but prevails over the entire town. For the week ending January 7th, there were 115 cases under treatment in the Belfast Union Hospital, 23 fresh cases of the disease having been admitted during that period, and nine deaths having taken place. At a meeting of the Belfast guardians, held last week, Dr. Seaton Reid drew attention to the fact that he had ascertained that boarders were kept on in a school from which a servant was sent to hospital ill with small-pox, from which she died. Another girl was then engaged as a servant, without being told that the disease was in the house, and fell ill with small-pox. It is stated that during all this time day-scholars were attending the institution as usual; and if this statement be correct, the occurrence was most reprehensible. Since writing the above, we understand that the school in question has been temporarily broken up—a step which has been taken by the proprietors acting on the advice of Dr. Browne, medical superintendent officer of health, and which, in the interests of the community, should not have been delayed so long. At the same meeting of the guardians, a demand was made by a constable for a sum of twelve shillings and sixpence, being amount of costs obtained against the guardians in the recent prosecution for refusal to vaccinate. A formal seizure having been permitted, the amount due was paid. The seizure was allowed under legal advice, as, if they acted otherwise, the interests of the board might be prejudiced in the event of an appeal. The guardians have forwarded a statement to the Local Government Board, in which they point out that the decision of the magistrate in the case referred to would entirely frustrate future prosecutions of defaulters under the Compulsory Vaccination Act, not only in that union, but all over Ireland, unless the legality of the decision were tested by the board by taking the necessary steps for an appeal.

HEALTH OF CORK.

DURING December, the deaths registered in Cork amounted to 151; and 153 births took place. The annual death-rate per 1,000 inhabitants gives a total ratio of mortality of 25.05, and a birth-rate of 29.02. These figures, although somewhat higher than those of the previous month, yet contrast favourably with those of a corresponding period last year.

CHARGE AGAINST A MEDICAL OFFICER.

WE recently referred to a charge brought against Dr. O'Ryan, medical officer of Carrick-on-Suir Workhouse, and to the evidence given at the inquiry held by Dr. MacCabe, inspector of the Local Government Board. Dr. MacCabe has now reported that the injury in the case of the patient Hickey was of a formidable nature, and it appears doubtful if the patient would have survived the accident, whether removed from the workhouse or not. Further, he considers that, from a professional point of view, Dr. O'Ryan's treatment of the case was open to no objection.

MALE AND FEMALE PRISONS, CORK.

DR. BEAMISH, late medical officer to these institutions recently resigned after forty-one years' service, thirty-eight being under the corporation and three under the prisons' board. On his retirement the treasury granted him a pension of £110 *per annum*, of which sum £33 5s. is the portion payable by the city. This amount does not by any means represent that to which an officer of forty-one years service would have been ordinarily entitled, as it does not even amount to two-thirds of his late salary, the proportion which has hitherto been awarded to officers not having had half his service. He has brought the matter under the notice of the corporation, so that they may reconsider his strong claims, and grant him a sum at least equivalent to what he would have been entitled to under the late board of superintendence. Dr. Beamish was under the impression that his superannuation would not come up until the half-yearly presentments, otherwise he would have laid his claims before the council. The corporation have referred his application to the law and finance committee for consideration.

UNIVERSITY OF LONDON.

THE half-yearly meeting of Convocation took place on Tuesday last, at the University building in Burlington Gardens. Dr. F. J. WOOD presided, in the absence from illnesss of Dr. STORRAR, Chairman of Convocation.

The first business was the nomination of a list of three persons to be submitted to Her Majesty for the selection of a Member of the Senate. The scrutineers reported that the result of the voting was as follows. George Buchanan, M.D., B.A., 617; Samuel Newth, M.A., 580; Robert Barnes, M.D., 338; George Carey Foster, B.A., 213. The Chairman declared Dr. Buchanan, Mr. Newth, and Dr. Barnes duly nominated.

The next business was the adjourned debate (from the 10th of May last) on the following motion and amendment:—"Moved by Mr. A. P. Hensman, seconded by Mr. H. A. Nesbitt: That it is just and desirable that women who are graduates of this University, and of the requisite standing, should be entitled to become members of Convocation, and to vote at the election of the member of Parliament for the University. Amendment—Moved by Mr. A. M'Dowall, seconded by Mr. A. W. Bennett: "That female graduates be admitted to Convocation." After a discussion, in which Mr. Tyler, Mr. McDowall, Mr. Nesbitt, Mr. Godlee, Mr. Shaen, Mr. Dolleymore, the Chairman, Mr. Temple, and Mr. Hensman took part, the motion was withdrawn, and the amendment was agreed to with but three or four dissentients.

Some discussion took place upon a resolution moved by Dr. PYE-SMITH, requesting the Senate to consider the advantage of constituting boards of studies, one for each faculty, to advise the Senate on matters connected with the detail of examinations, and to form a medium of communication between the Senate, the examiners, and the teachers of candidates for degrees; the members to be nominated by the Senate from their own body (either in addition to or including the present committees on examinations), from professors in the affiliated colleges, and from present or past examiners. Eventually the resolution was amended by being made to conclude with the words "between the Senate, the examiners, and the teachers"; and in that form it was carried.

Mr. MCDOWALL proposed a resolution affirming the expediency of increased representation of Convocation on the Senate. It was resolved to refer the subject to the annual committee for reconsideration and report.

Mr. W. J. SPRATLING moved: "That, in the opinion of this House, the establishment of London University local examinations similar to those conducted by the older universities is desirable." Mr. TIDMARSH seconded the resolution, which was carried.

LUNACY LAW REFORM.

A MEETING of the Law Amendment Society was held this week, at their Rooms, Adam Street, Adelphi, Mr. J. Dodds, M.P., presiding, when a Paper on the Reform of the Lunacy Laws was read by Mr. Commissioner MILLER, Q.C.—The CHAIRMAN, in introducing Mr. Miller, observed that it was considered that the Lunacy Laws required amendment, which was shown by the fact that last year Messrs. Dillwyn and Litton introduced into the House of Commons Bills proposing to deal with this subject, which were ultimately abandoned, and that other Bills were contemplated and prepared, and would have been introduced if there had been any chance of passing them into law. —Mr. MILLER then read his paper. He was satisfied that, if public attention were once directed to this question by any occurrence sufficiently startling to arouse general sympathy, it would be seen that the law at present governing our treatment of lunatics offended more against the fundamental principles of personal liberty than did any part of our judicial system. He should like it to be brought home to the public at large, that there was no man or woman in England who was not liable to be incarcerated for life, without notice either to himself or to any one else, and without any power of securing an investigation of his case, if only any one were sufficiently interested in getting him out of the way to make it worth his while to secure the services of two reckless, needy, or ignorant practitioners, and the confederacy of the keeper of a so-called private asylum. He referred to instances in support, and also to cases where wrongful incarceration had taken place in public hospitals. The general principles of our law of lunacy assumed imprisonment as the normal treatment for lunatics, and threw the onus of proof, not upon the would-be incarcerator, but upon the alleged lunatic, if only the prescribed certificate had been previously obtained in all

proper form. It seemed to him that these principles were directly antagonistic to what a good law should be. The first rule he would lay down as an essential to a good lunacy law was that no inquiry into the sanity of an alleged lunatic, whether by a Master in Lunacy or otherwise, should be held in private, but in public, and upon sworn evidence, given by witnesses produced for cross-examination, conducted by a competent judicial officer, assisted either by a jury or by sworn medical assessors, at the option of the alleged lunatic. Where lunacy took a violent form provision might be made for apprehension and detention until such inquiry could take place. His second cardinal rule, therefore, would be that no lunatic should be liable to be forcibly detained in any asylum, or other place whatever, until lunacy had been established by inquiry, except under a warrant from a magistrate, which warrant should be grantable only upon sworn depositions showing that the deponent had reason to fear, and did actually fear, that the lunatic, if left at large, would be dangerous either to himself or some other persons, such warrant only to be valid for seven days. These provisions, if thoroughly carried out, would, he thought, be sufficient to secure at least as high a degree of probability that no sane man was kept under detention as a lunatic as that no innocent man was condemned to penal servitude as a criminal. In conclusion, he expressed his opinion that no question could be brought before Parliament of greater importance to society.—A discussion ensued, in the course of which Dr. MORTIMER GRANVILLE deprecated the statements often made with reference to lunatics that did not bear investigation. In twenty years' close study of the practical working of the lunacy laws he had never found evidence of malpractices. Instead of proprietors wishing to detain patients, it was too often the case that, smarting under fear of accusation, there was a tendency, on the other hand, to discharge cases rather too soon. There was no necessity to mix the question of the treatment of lunatics with their social disabilities. The first was purely a matter for medical men to consider, and the second for lawyers.—Dr. WOOD said that it was a great mistake to suppose that lunatics were ill-treated. On the contrary, most asylums were happy homes for the inmates. His opinion was that public inquiries would be most harmful, as in the present frame of mind of people generally such inquiries would mean ruin, not merely to individuals, but to whole families.—Mrs. LOWE expressed her belief that there were many cases of illegal incarceration, and that she was in possession of proofs of several, and advocated the employment of female inspectors.—Mr. MOZLEY thought that the lunacy laws should, for the purposes of incarceration, be assimilated as much as possible to the processes before detention for crime.—The discussion was continued by Mr. CRUTTWELL, Mr. R. HAMILTON, Dr. HENRY HICKS, and others, several of whom opposed the views expressed by the medical gentlemen, after which Mr. MILLER replied. —The CHAIRMAN, in proposing a vote of thanks to the reader of the paper, without expressing any definite views on the whole question, thought that the more publicly it was known where hereditary insanity existed the better it would be for all concerned. During the discussion on Mr. Dillwyn's Bill in last session the Home Secretary indicated his willingness to accept the appointment of a Select Committee. He would therefore suggest that those desirous of seeing an amendment in the lunacy laws should get some member of the House of Commons to move for such a committee, before which all opinions could be fully and fairly ventilated, and the result would probably be a report that would lead to beneficial legislation, not reflecting on the medical profession, but for the good of the country at large.—The customary compliment to the chairman brought the business to a conclusion.

BRITISH MEDICAL ASSOCIATION.

COMMITTEE ON THE STUDY OF AURAL SURGERY.

AT a meeting of the Committee, appointed by the Committee of Council of the British Medical Association, to consider and report on "the best means of promoting the study of aural surgery, especially in regard to compulsory examination in this subject by the various examining bodies", held on January 11th, it was announced that the following otological teachers had signified their willingness to join the Committee—viz.: Messrs. A. Gardiner Brown, H. H. Clutton, A. E. Cumberbatch, W. B. Dalby, G. P. Field, A. Hensman, W. L. Purves (London), Thomas Barr (Glasgow), J. J. Kirk Duncanson (Edinburgh), A. H. Jacob (Dublin), J. Macfie (Glasgow), and J. A. Nunneley (Leeds). Dr. Urban Pritchard was elected chairman, and Mr. Cresswell Baber honorary secretary of the Committee. The following gentlemen were elected members—viz.: Messrs. G. F. Hodgson (Brighton), F. M. Pierce (Manchester), J. M. E. Scatliff (Brighton), W. J. Tivy (Clifton), and E. Woakes (London). The names of numerous other gentlemen, in all parts of the kingdom, interested in otology, were also added to the Committee, on the condition of their consent being obtained. The next meeting will be held at 3, George Street, Hanover Square, London, on Wednesday, January 25th, at 4 P.M. Communications on the subject should be addressed to Cresswell Baber, Esq., M.B., 4, Preston Street, Brighton.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL:

NOTICE OF QUARTERLY MEETINGS FOR 1882: ELECTION OF MEMBERS.

MEETINGS of the Committee of Council will be held on Wednesday, April 12th, July 12th, and October 18th. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary not later than 21 days before each meeting, viz., March 22nd, May 22nd, September 27th, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

November 4th, 1881. FRANCIS FOWKE, *General Secretary*.

BRANCH MEETINGS TO BE HELD.

DUBLIN BRANCH.—The annual general meeting of this Branch will, by the kind permission of the President and Fellows, be held on Wednesday, January 25th, at 4 o'clock P.M., in the Hall of the King and Queen's College of Physicians, Kildare Street. The officers and Council for the ensuing year will be elected by ballot, and any other necessary business transacted. Owing to the lamented deaths of the President and President-elect, the Council has nominated Dr. Kidd, Vice-President, for the presidency of the Branch, and he has kindly consented to deliver an address on the occasion. The annual dinner of the Branch will be in the College Hall, at 7 o'clock P.M., the incoming President in the chair. Dinner tickets for members who purchase their tickets on or before Tuesday, the 24th instant, 17s. 6d.; for members purchasing their tickets after that date, and for guests, £1.—GEORGE F. DUFFEY, M.D., Honorary Secretary and Treasurer.

LANCASHIRE AND CHESHIRE BRANCH.—*Preliminary Notice.*—A special meeting of this Branch will be held at Manchester in the beginning of February, to consider the subject of Compulsory Notification of Infectious Disease.—A. DAVIDSON, Honorary Secretary, 2, Gambier Terrace, Liverpool.

CORRESPONDENCE.

EXHUMATION NOT BODY-SNATCHING.

SIR,—A paragraph quoted from your paper, headed "Body-snatching", in Friday's *Globe*, is of so misleading a character, and many of its statements so incorrect, that I must ask you to publish this letter in your next issue. As the case alluded to will shortly be before the public in the law-courts, I need only ask you to suspend your judgment; and I think that you will be disposed to do so when I assure you that this is no case of "body-snatching"; that the family of the deceased knew perfectly well that, if the removal of the body could be accomplished, it would be done; that the authorities at the cemetery were obliged to allow the removal under an order from the late Home Secretary; and that no step was taken upon which high legal opinions had not first been given. I have, moreover, read the will of the deceased gentleman, in which he gives directions to enable the friend, who succeeded in carrying out his desire, to have possession of his body; and orders his executors to provide the necessary funds.

In common justice, you will, I feel sure, publish this letter; and feel regret that your highly credible correspondent should have supplied you with a misstatement of facts, the publication of which has caused no little pain to the friends of a most estimable person.—Your obedient servant,

TRUTH.

NORTH WEST LONDON HOSPITAL.—A highly successful Christmas-tree entertainment was thoroughly enjoyed by over 100 children (past and present in-patients) on Thursday evening, January 12th. Mr. Cecil Collard, of the firm of Collard and Collard, kindly lent a grand pianoforte, and several ladies and gentlemen contributed to the fund of amusement, which included a magic lantern exhibition, conjuring tricks, etc. The tree was unusually large and well laden with toys and clothing.

THE AUSTRIAN AMBASSADOR AND LONDON HOSPITALS.—The *Charity Record* states that Count Karolyi, the Austro-Hungarian Ambassador, has apportioned half of the proceeds of the concert given at the Albert Hall on the 7th, instant, on behalf of the sufferers by the Vienna catastrophe, in three equal shares of £91 14s. 10d., each, to the Brompton Hospital for Consumption, the Hospital for Sick Children, and the Hospital of St. John of Jerusalem and St. Elizabeth, both in Great Ormond Street.

OBITUARY.

CHARLES DELACHEROIS PURDON, M.B., F.R.C.S.I.

On last Sunday, the 8th instant, death removed a distinguished practitioner—one holding an honoured name in Belfast—Dr. C. D. Purdon. He succumbed, in his sixty-fourth year, after a couple of days' illness, much regretted by the profession, and a large circle of friends and acquaintances. Dr. Purdon was the son of Dr. Henry Purdon, who practised as a surgeon in Belfast many years since, and received his medical education at Trinity College, Dublin, where he duly graduated in Arts and Medicine; while, two years previously, he obtained the Fellowship of the Royal College of Surgeons in Ireland. He proceeded to practise in Belfast, and became medical officer to the Belfast Charitable Society, and, for nearly twenty years, physician to the Deaf and Dumb Institution. He also received the appointment of surgeon under the Factories' Acts, and was elected vice-president of the Ulster Medical Society. Dr. Purdon was connected with various scientific societies; and, being possessed of a strong bias in relation to antiquarian subjects, he was well qualified to hold the position of Secretary for Ulster for the Royal Archæological and Historical Society of Ireland. Of a genial and kind disposition, Dr. Purdon was greatly esteemed; and his loss will be regretted by a large number.

RICHARD W. W. GRIFFIN, M.D.

Dr. Griffin, well-known as one of the medical practitioners of Southampton, died on December 24th, at the age of forty-five. He had been suffering for some time past from a painful malady. For some years, Dr. Griffin filled the post of medical officer under the Incorporation, the duties of which he discharged with satisfaction till he retired from it. He was also on the medical staff of the Southampton Dispensary, in the welfare of which institution he took much interest. He likewise assisted in the establishment of the Charity Organisation Society at Southampton, the cause of which he advocated with much earnestness and ability, both by means of his tongue and pen. In the Hospital Sunday Fund he also took a lively interest, being a member of the executive committee; and at the annual meeting, held a few weeks ago, reference was made to his serious illness, which elicited an expression of sympathy from those present. He was the son of the late Mr. Griffin of Weymouth, whose name was well-known some years ago as the representative of the cause of Poor-law medical officers.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen passed their primary examinations in Anatomy and Physiology, at a meeting of the Board of Examiners, on the 12th instant, and when eligible will be admitted to the pass examination.

Messrs. Geoffrey S. Clayton, William H. F. Farmer, and William A. Griggs, students of St. Bartholomew's Hospital; William A. Shelswell, of Guy's Hospital; Charles R. Bishop, of King's College; Henry W. Dixon, of the Newcastle School; Arthur W. G. Thomas, of the Charing Cross Hospital; Edward R. Tweed, of St. George's Hospital; and Sydney B. Jolly, of St. Thomas's Hospital.

Two candidates, having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their anatomical and physiological studies for three months.

With this meeting the primary examinations were brought to a close, when, out of the 179 candidates examined, no fewer than 69 were referred to their studies, including 11 who had an additional three months.

At a meeting of the Council on the same day, Mr. Richard Cross, M.D. St. Andrew's, of Carlton House, Scarborough, who had previously been elected a Fellow of the College, was admitted as such, his diploma of membership bearing date March 13th, 1840.

The following gentlemen, having undergone the necessary examinations, were admitted Members of the College at a meeting of the Court of Examiners on the 17th instant.

Messrs. Robert Hulis, L.S.A., Carshalton; Alfred C. Wallace, L. R.C.P.Lond., Streatham; George L. L. Lawson, L.R.C.P.Ed., Egremont, Cumberland; Frederick C. Mears, L.S.A., Bromley-by-Bow; Joseph H. Martin, L.S.A., Northampton; Thomas H. Openshaw, L.S.A., Bury, Lancashire; Octavius A. G. Collins, Kingstown, Dublin; Geoffrey F. Travers, Garden Court, Temple; Arthur R. Broom, Ottery St. Mary; F. Herbert Mayo, Deal; Charles E. Paget, Cambridge; Charles R. Bamford, Uttoxeter; Herbert Canton, Finsbury Park; Rayner D. Batten, Palace Gardens, Kensington: Richard S. Wright, Sutherland Gardens; Charles T. Griffiths, Cathcart Road, South Kensington; Edward J. Jenkins, M.A.Oxon., Sydney, N.S.W.; William Mill, Cholwell, near Tavistock; Alexander G. Wildey, Southsea, Hants; and Cecil M. Hendriks, Jamaica.

Eight candidates were rejected.

The following gentlemen were admitted members on the 18th instant.

Messrs. Lockhart E. W. Stephens, L.S.A., Emsworth, Hants; James Robertson, L.R.C.P.Ed., Pall Mall, S.W.; D'Arcy Power, M.A.Oxon., Great Cumberland Place, Hyde Park; Edward T. Trevor, Queen's Gardens, Bayswater; Charles L. Stow, Tunbridge; Quinten R. Veitch, Exeter; Herbert C. Simmons, Tufnell Park, N.; John A. P. Price, Brecon, South Wales; Arthur S. Nance, Eccleshall, Staffordshire; William G. Ellis, Wellington, Somerset; Frederick Bass, Tufnell Park, N.; and Charles F. Rumboll, Melksham, Wilts.

Ten candidates were rejected.

Apothecaries' Hall.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, January 12th, 1882.

Davies, Edward Cluneglas, Pontfain, Lampeter.
Mears, Frederick Charles, Bromley-by-Bow.
Nicholson, Frederick William, Upper Richmond Road, Putney.
Openshaw, Thomas Horrocks, Bury, Lancashire.
Stuart, Sidney Offord, Woolwich.

The following gentleman also on the same day passed the Primary Professional Examination.

Crone, John Smyth, Queen's University, Ireland.

MEDICAL VACANCIES.

The following vacancies are announced :—

BEDFORD GENERAL INFIRMARY.—Resident Surgeon. Salary, £100 per annum. Applications by 26th January.

BELMULLET UNION.—Medical Officer for Binghamstown Dispensary District. Salary, £100 per annum, with £10 yearly as Medical Officer of Health, registration and vaccination fees. Election on February 2nd.

CARNARVONSHIRE AND ANGLESEY INFIRMARY, Bangor—House-Surgeon. Salary, £100 per annum. Applications by 11th February.

CHARING CROSS HOSPITAL, West Strand, W.C.—Assistant-Physician. Applications by 28th instant.

CRAIGLOCKHART HYDROPATHIC, near Edinburgh.—Resident Physician. Applications to the Managing Director, Craiglockhart Hydropathic Company, Limited, 40, Frederick Street, Edinburgh, by 6th February.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Dental Surgeon. Applications by February 13th.

DROGHEDA UNION—Medical Officer for Duleek Dispensary District. Salary, £110 per annum, with £20 per annum as Medical Officer of Health, registration and vaccination fees. Election on the 23rd instant.

EVANGELICAL PROTESTANT DEACONESSES INSTITUTION AND TRAINING HOSPITAL, Tottenham — House-Surgeon. Salary £150 per annum. Applications to M. Laseron, Esq., M.D., The Green, Tottenham, by the 23rd instant.

GENERAL HOSPITAL, Birmingham—Assistant Surgeon. Salary, £100 per annum. Applications by the 30th instant.

GENERAL HOSPITAL AND DISPENSARY FOR SICK CHILDREN, Pendlebury, and Gartside Street, Manchester.—Physician. Salary, £300 per annum. Applications by February 8th.

GRANARD UNION.—Medical Officer for Finnea Dispensary District. Salary, £100 per annum, with £14 per annum as Medical Officer of Health, registration and vaccination fees. Age of candidate not to exceed forty years. Election on 3rd proximo.

GREAT WESTERN RAILWAY.—Medical Officer. Salary, £600. Applications by 26th January.

HECKMONDWIKE INDUSTRIAL CO-OPERATIVE SOCIETY (Limited), Medical Aid Department—Resident Medical Officer. Salary, £200 per annum. Applications by 26th January.

HUDDERSFIELD INFIRMARY—Senior House-Surgeon. Salary, £80 per annum. Applications to F. Eastwood by January 21st.

HUDDERSFIELD INFIRMARY—Junior House-Surgeon. Salary, £40 per annum. Applications to F. Eastwood by January 21st.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST AND THROAT, 26, Margaret Street, Cavendish Square, W.—Visiting Physician. Applications by January 28th.

LEAMINGTON AMALGAMATED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION—Resident Medical Officer. Salary, £200 per annum. Applications to the Secretary, Mr. C. Wildman, 6, Woodbine Street, Leamington.

LONDON LOCK HOSPITAL, Male and Out-Patient Department, 91, Dean Street, Soho, W.—House-Surgeon. Salary, £50 per annum. Applications by January 21st.

MERCER'S HOSPITAL, DUBLIN.—Resident Medical Officer and Apothecary. Applications to the Medical Registrar by January 20th.

ROYAL COLLEGE OF SURGEONS IN IRELAND—Professor of Practical and Descriptive Anatomy. Application to John Brennen, Registrar, by January 21st.

ROYAL CORNWALL INFIRMARY—House-Surgeon. Salary, £120 per annum. Applications by 26th January.

ROYAL SURREY COUNTY HOSPITAL—House-Surgeon. Salary, £75 per annum. Applications by January 30th.

ST. MARYLEBONE GENERAL DISPENSARY, 77, Welbeck Street, Cavendish Square.—Honorary Physician. Applications by January 30th.

ST. ASAPH UNION—Medical Officer. Salary, £83 per annum. Applications by 25th Instant.

ST. OLAVE'S UNION.—Resident Assistant Medical Officer and Dispenser. Salary, £100 per annum. Applications by 20th January.

UNIVERSITY OF LONDON—Assistant Registrar. Salary, £500 per annum. Applications to A. Milman, Registrar, University of London, Burlington Gardens, W., by January 31st.

WEST HERTS INFIRMARY, Hemel Hempstead.—House-Surgeon and Dispenser. Salary, £100 per annum. Applications by 1st February.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton. Honorary Physician. Applications by January 30th.

MEDICAL APPOINTMENTS.

FLINN. David Edgar, L.K.Q.C.P., L.R.C.S.I., appointed Medical Officer and Public Vaccinator for the Brownhills District of the Cannock Union, and reappointed Medical Officer of Health to the Brownhills Urban Sanitary District.

KEMPE, Arthur W., L.R.C.P.Ed., appointed Medical Officer of Health of the Budleigh Salterton Urban District, *vice* Robert Walker, M.D., resigned.

RICH, A. Creswell, M.B.Lond., M.R.C.S., appointed Honorary Assistant-Surgeon to the Liverpool Hospital for Cancer and Skin-Diseases, *vice* G. G. Stopford Taylor, L.K.Q.C.P.I,, appointed Surgeon.

TAYLOR, G. E. Stopford, M.R.C.S., L.K.Q.C.P.I., appointed Surgeon to the Liverpool Cancer and Skin Hospital, *vice* R. T. Lodge, M.D., deceased.

THOMAS, A. Harrison, M.B. and C.M., appointed Assistant Medical Superintendent of the Ayrshire District Asylum.

WRIGHT, C. St. John, M.B., appointed Medical Superinteudent to the Islington Workhouse and Infirmary, *vice* A. G. Mickley, M.B., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTHS.

COUPLAND.—On January 17th, at 14, Weymouth Street, Portland Place, the wife of Sydney Coupland, M.D., F.R.C.P., of a son.

HARRIES.—On the 12th instant, at Tufnell Park, N., the wife of Arthur Harries, M.D., of a son.

MARRIAGES.

WILLIAMS—KIRKPATRICK-HOWAT.—On January 17th. at St. Michael's and All Angels, Paddington, Dawson Williams, M.D.Lond., to Catherine, youngest daughter of the late Robert Kirkpatrick-Howat, Esq.,of Mabie, J.P., and Deputy-Lieutenant for the Stewartry of Kirkcudbright, N.B.

THE Duke of Cambridge has kindly consented to take the chair, at a public dinner, which will be held at the Star and Garter Hotel, Richmond, on Wednesday, February 8th, in aid of the funds of the Richmond Hospital.

PRESENTATION.—At the last meeting of the Birmininghaam Circulating Medical Book Society, the presentation of a handsome silver salver was made to Mr. George Jones "as a token of their esteem and regard, and in testimony of his kindness and courtesy as honorary secretary for a period of twenty-one years."

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—A Quarterly Court of the Directors of the above Society was held on Wednesday, January 11th, at 5 p.m. The chair was taken by the President, Sir George Burrows, Bart. Five new members were elected, and the deaths of three reported. The applications for grants from fifty-eight widows and nine orphans were approved, and the sum of £1212 10s. was voted to be distributed according to the merits of the respective cases. Two widows, recipients of grants, were announced as dead. There were no fresh applications for grants. The Christmas present of £5 additional to each widow and £2 to each orphan amounted to £320, and had been paid in December last. The working expenses of the quarter were £65 9s. 7d.

MESSRS. Evans, Sons, and Co., wholesale druggists, Hanover Street, Liverpool, have opened offices at No. 1 and 2, Exchange Buildings, Cromford Court, Market Street, Manchester, for the purpose of showing samples of drugs, pharmaceutical preparations, druggists, sundries, etc. The offices will be under the superintendence of Mr. Blyton, and will be open every Tuesday and Friday from 11 to 5 o'clock; also, at other times by arrangement.

TREATMENT OF GONORRHŒA.—Dr. A. W. Morris, of Kentucky, in the Medical Herald, says; "Early after I graduated, I was disappointed in the treatment of this disease, both by astringent injections and the internal administration of remedies; and, as I had a large number of cases coming to me, I made an effort to secure a treatment giving more satisfactory results." In my series of experiments, I purchased a "Bartholow's Catheter," an instrument with an olive bulb on the point, and holes in the shoulder of the bulb—the point not being pierced. The tube wasof the size of a No. 6 catheter, the bulb being much larger, preventing an outward flow of the injected fluid, and causing it to flow backward and outward. I attached this to a good pump-syringe by India-rubber-tubing; and in the next case, after throwing in about a gallon of cold water, I took a small penis-syringe, and gave an injection of sulphate of zinc, as thorough as possible, and told my patient to call again next day. I saw no more of him for a month; when he said that as it cured him, he never thought any more about it. Holding the theory of the limitation of the disease, as given by Bumstead, and other authorities, I had no faith in the result of this case, and determined to give it a further test, and reached the following result. Out of twenty-five cases, twenty-two were entirely well twenty-four hours after the treatment. No treatment of any kind was given, other than washing out the urethra, and the sulphate of zinc injection first and once only given. One was well in three days, one in seven days, and the other, a drinking man, who kept up his bad habits all the time, was cured in two weeks. After this, in fifteen cases, the result was not so satisfactory, but much more than the old treatment.—*Southern Medical Record.*

ST. JOHN'S AMBULANCE ASSOCIATION.—A meeting, summoned by the Central Executive Committee, was held on Monday afternoon at St. John's Gate, Clerkenwell, to consider the desirability of placing those metropolitan police stations where the Order of St. John litters are established in telegraphic communication with the various hospitals, and further to consider the best description of wheeled transport available for London use. Sir E. H. Lechmere, M.P., presided. Many representatives of the chief London hospitals, and police divisional surgeons, were present. Major Duncan mentioned that at seventy-five of the metropolitan police stations there were now St. John wheel-ambulance litters. Mr. E. Owen, St. Mary's Hospital, moved: "That in the opinion of this meeting it is desirable that a system of street-ambulances should be organised in London." Mr. J. H. Crossman, seconding, invited the members of the order to a meeting to be held on February 2nd, at the United Service Institution, when the Duke of Cambridge would preside, and two excellent ambulances would be presented to the London Hospital. The motion was carried. On the proposal of Major Duncan, seconded by Mr. Furley, it was decided to offer a prize for the best design of horse ambulance, it being considered that the hand ambulance supplied to the police stations was already perfect. A third resolution was passed, on the proposal of Dr. Allfrey, and seconded by Mr. V. B. Kennett, in favour of placing those metropolitan police stations not already in communication—in electrical communication—for ambulance purposes with the hospitals and with one another. General Burnaby, Mr. Cantlie, Superintendent Turner, Dr. Platt, Mr. Godlee, and others spoke to the subject.

HEALTH OF FOREIGN CITIES.—Trustworthy indications of the recent health and sanitary condition of various foreign and colonial cities are afforded by the following facts and figures, derived from a table in the Registrar-General's last weekly return. According to the most recent official weekly returns, the annual death-rate was equal to 28.4 in Bombay, and 30.3 in Madras. Cholera caused 20 deaths in Bombay, and 7 fatal cases of small-pox were recorded in Madras. The death-rate in Alexandria, during the last week of December, averaged 38.6; the deaths including 19 fatal cases of "fever" and 12 of whooping-cough. In twenty European cities, the death-rate averaged 30.2, and exceeded by 6.9 the average rate prevailing during last week in twenty-eight of the largest English towns. The death-rate in St. Petersburg was equal to 53.5, showing a further increase upon the high rates in recent weeks; the 682 deaths included 32 from "fever", and 27 from diphtheria. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate did not average more than 24.5, the highest being 25.9 in Copenhagen; measles caused 18 of the 57 deaths in Christiania, and 4 fatal cases of diphtheria occurred in Stockholm. In Paris, the death-rate declined to 27.7, although the deaths included 72 from diphtheria and croup, 28 from typhoid fever, and 10 from small-pox. The rates of mortality in Brussels and Geneva were equal to 22.3 and 32.3. The death-rate in the three principal Dutch cities averaged 23.4, and was equal to 20.4 in Amsterdam, 25.2 in Rotterdam, and 28.7 in the Hague; whooping-cough caused 5 deaths in Amsterdam. The Registrar-General's table includes returns from eight German and Austrian cities, in which the death-rate averaged 29.0, and ranged from 24.9 in Berlin and 28.2 in Munich, to 31.4 and 32.4 in Buda-Pesth and Dresden. Small-pox caused 15 deaths in Vienna, 9 in Buda-Pesth, and 4 in Prague; diphtheria fatality showed a considerable excess in Berlin and Dresden. In two of the principal Italian cities, the death-rate averaged 26.9, and was equal to 24.4 in Naples and 31.8 in Turin; typhoid fever showed fatal prevalence in both these Italian cities. In four of the principal American cities, the death-rate averaged 26.1; it was equal to 21.0 in Philadelphia, 24.0 in Baltimore, 24.3 in Brooklyn, and 32.8 in New York. Small-pox caused 12 deaths in New York and 11 in Philadelphia; diphtheria showed fatal prevalence in New York, Brooklyn, and Baltimore.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M.Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Second Lettsomian Lecture, by Mr. Hutchinson Royes Bell, on Diseases of the Testicles and their Coverings.

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Dr. Robert Barnes: On Hernia of the Ovary; with the Relation of Cases observed by the author.

WEDNESDAY.—Hunterian Society, 7.30 P.M., Council Meeting. 8 P.M., Report of Committee on Mr. Stevens's Case of Cerebral Tumour. Dr. Carrington: Cases of Hepatic Abscess associated with Dysentery. Dr. Turner: Miliary Aneurysms from a Case of Cerebral Hæmorrhage.—Association of Surgeons practising Dental Surgery, 8.30 P.M. General Meeting for the Election of Officers and Council.

FRIDAY.—Clinical Society of London, 8.30 P.M. Mr. W. H. Kesteven: A Case of Unilateral Xanthopsis. Cases of Renal Calculus removed by Operation: by—1. Mr. Marcus Beck; 2. Mr. Butlin; 3. Dr. Whipham and Mr. Haward.—Quekett Microscopical Club, 8 P.M. Mr. J. G. Haller: On Sand.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

FEES AT CORONERS' INQUESTS.

M. B. M. A.—No provision is made for the payment to a medical witness of any further fee than one guinea for attending to give evidence at an inquest in Great Britain in obedience to the order of a coroner, when the *post mortem* examination has been already made, or more than two guineas for making the examination, either with or without an analysis of the contents of the stomach, and attending to give evidence thereon. Nor are there any legal cases recorded in which it appears that any additional remuneration has been granted to or applied for by medical men for their attendance at adjourned inquests. We have been informed by one of the greatest authorities in the metropolis upon the law of inquests, that no fee or fees had been or would be allowed to medical witnesses for attending at and giving evidence at adjourned inquests. It seems to us, therefore, that provision should be made for due remuneration for going to, and giving testimony at, adjourned inquiries.

SIXTEEN COMMANDMENTS OF THE FRENCH ACADEMY OF MEDICINE.

THESE commandments relate to the care and feeding of infants; and Dr. Halliday, who translates them for an American contemporary, expresses the sincere hope that all mothers and nurses will commit them to memory and observe them as faithfully as the ten commandments. 1. During the first year the only suitable nourishment for an infant is its own mother's milk, or that of a healthy wet-nurse. Suckling should be repeated every two hours—less frequently at night. 2. When it is impossible to give breast milk, either from the mother or a suitable nurse, cow's or goat's milk given tepid, reduced at first one-half by the addition of water slightly sweetened, and after a few weeks one-fourth only, is the next best substitute. 3. In giving milk to an infant always use glass or earthenware vessels, not metallic ones, and always observe the most scrupulous cleanliness in their management, rinsing whenever used. Always avoid the use of teats of cloth or sponge so frequently employed to appease hunger or quiet crying. 4. Avoid carefully all those nostrums and compounds so liberally advertised as superior to natural food. 5. Never forget that artificial nourishment, whether by nursing bottle or spoon (without the breast), increases to an alarming degree, the chances of producing sickness and death. 6. It is always dangerous to give an infant, especially during the first two months of its life, solid food of any kind—such as bread, cakes, meats, vegetables or fruit. 7. Only after the seventh month, and when the mother's milk is not sufficient to nourish the child, should broths be allowed. After the first year is ended, then it is appropriate to give light broths or paps, made with milk and bread, dried flour, rice, and the farinaceous articles, to prepare for weaning. A child ought not to be weaned until it has cut its first twelve or thirteen teeth, and then only when in perfect health. 8. A child should be washed and dressed every morning, before being nursed or fed. In bathing a child, temper the water to the weather, carefully cleanse the body, and especially the genital organs, which require great cleanliness and care; and the head should be carefully freed from all scabs and crusts which may form. Where the belly-band is used, it should be kept on for at least one month. 9. An infant's clothing should always be so arranged as to leave the limbs freedom of motion, and not to compress any portion of the body. 10. An infant's clothing should be studiously adapted to the weather; avoiding at all times exposure to the injurious effects of sudden changes in temperature without proper covering: but nurseries and sleeping apartments should invariably be well ventilated. 11. An infant should not be taken into the open air before the fifteenth day after birth, and then only in mild fair weather. 12. It is objectionable for an infant to sleep in the same bed either with its mother or nurse. 13. No mother should be in too great a hurry to make a child walk; let it crawl and accustom itself to rising on its feet by climbing on articles of furniture, or assisted by the arms of a careful attendant. Great care should be taken in the too early use of baby wagons, etc. 14. No trifling ailments in infants, such as colics, frequent vomiting, diarrhœa, coughs, etc., if persistent, should be neglected—a physician's advice should be at once obtained. 15. In cases of suspected pregnancy, either of mother or nurse, the child should be weaned at once. 16. A child ought to be vaccinated before the fifth month.

SCRUBBING *v.* WAXING HOSPITAL FLOORS.

SIR,—May I ask, through your columns, what is the experience and opinion generally entertained of the relative merits of the above named processes, more especially with regard to cleanliness, sanitary value, economy of servants' time, appearance, and safety of locomotion, in the case of aged or feeble patients?—Yours truly,

SCRIPTOR.

*** It is now pretty generally admitted that scrubbing of hospital floors is undesirable, both on account of the time and labour required, and also because it is difficult to dry them with sufficient rapidity. Scrubbing ought certainly not to be done in wards while they are in occupation, the damp so produced being hurtful to patients. Floors that require scrubbing are usually of common deal, and, therefore, objectionable, both on account of the absorbent nature of the wood itself, and also because they seldom fit well, and so leave interstices in which organic matter lodges. Waxed floors, or floors rendered otherwise impervious, are to be preferred in every way; the only possible objection being the chance of falling for the aged or the feeble. The use of soft slippers would, however, obviate any such danger.

SELF-MUTILATION.

SIR,—The case of Isaac Brooks is no doubt one of great psychological interest. In connection with it, I should like to record the following case, which was under my charge when I was resident surgeon to the Guest Hospital, Dudley.

A labourer, aged 40, was admitted on July 29th, 1876; he was brought in by the police, who had discovered him lying in a field, bleeding severely, and with a pocket-knife—which they produced—by his side. I found he had an incised wound the whole length of, and completely opening up, the scrotum; the left testicle was missing; the cord had retracted considerably, and there was a great deal of hæmorrhage, which I had difficulty in stopping. About an hour after his admission, the police brought to the hospital the missing testicle, covered with dirt, which they had succeeded in finding in the grass, about six yards from the spot where he was first discovered.

A woman who had been lately seen in his company was arrested, in the belief that she had inflicted the injury; but she was released, on the man subsequently confessing to me that he had removed the testicle himself with his pocket-knife, in a fit of remorse. It appeared that he had had a quarrel with his wife, and had then been drinking for several days in company with a prostitute; he informed me that he considered his act of self-mutilation was an atonement for his misconduct. He was perfectly calm and rational on admission, and I could not detect, during his stay in the hospital, any trace of insanity; neither did there appear to have been any in his family. He was discharged, cured, on August 14th.

I heard of him occasionally for about a year afterwards, and during that time he did not make any further attempt upon himself.—I am, sir, yours faithfully,

2, Ospringe Road, N.W., January 17th, 1882. ARTHUR ORWIN, M.D.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

A GRAVE SOCIAL PROBLEM.

SIR,—In your JOURNAL of December 3rd, 1881, there is an article for which the writer ought to be thanked by the whole of the profession. As well remarked, there are two hostile camps; and it is most difficult to ascertain what is the most prudent course to pursue in bringing this "neglected field of inquiry" into notice before the profession. A most eminent physician who has had much experience writes to me, and says: "There are no statistics on which reliance can be placed". This is quite true; the degrading habit is rarely sought out by the practitioner, just because his knowledge of mental breakdowns is too superficial. Mental medicine is not taught at our schools or colleges; and the young medical man is exceedingly weak when called to treat or to decide upon treating cases of mental mischief arising from the habit that has been practised. The same physician also writes that: "I do not absolve girls or women; indeed, I have found mental breakdowns due to that cause in them". It would be well if the so-called mental breakdown, which really means a diseased nervous centre, ended in the patients themselves; but the frightful mischief is "hereditary", and the sooner the teachers of mental medicine begin to instruct their pupils, the sooner may we expect to be able to attack one of the greatest foes of our race. I am in possession of facts in relation to this matter that are perfectly appalling; indeed, to my mind, they are horrible; and no doubt my brethren are cognisant of the same kind of facts. The ministers of religion seem quite incapable of staying the enemy; in fact, reasons might be given upon that head. Possibly some of your readers will step into the arena, and combat that which, to my mind, next to "alcoholism", is the destroyer of numbers of our poor fallen fellow creatures.—I am, yours, etc., AN OLD MEMBER.

SIR,—Will you kindly allow me to say that the name of the author of *Morality*—the essay noticed in the leading article of the last issue of your paper—is not "Hume", but Hime. And may I add that the terrible social evil, to which the writer of that able and interesting leader refers, is not exactly that discussed in my book. I am very anxious to make this statement, lest the nature of my book might be in any way misunderstood. Perhaps (as you consider it "well worthy of the attention of all those who are in any way responsible for the up-bringing of boys") you will oblige me by letting me say that its publishers are W. H. Guest, Warwick Lane, Paternoster Row, London; and Messrs. Sullivan and Charles, Dublin.—Obediently yours,

MAURICE C. HIME.

Foyle College, Londonderry, January 16th, 1882.

THE COLLECTIVE INVESTIGATION COMMITTEE.

SIR,—From your remarks about the above, it might be inferred that the gentlemen mentioned in your article originated the idea of joint work; I beg to inform you that they did nothing of the kind, and in proof refer you to a work published by me in 1879, page 103, in which the proposal will be found. The work is entitled *The Medical Profession*, and was published by Fannin. In the same work will be found suggestions for altering the law relative to *post mortem* examinations, without which alterations, let me tell you, the pathological innings of your Collective Committee will be simply poor indeed.—Your obedient servant,

THOMAS LAFFAN.

W. S. will find, in Churchill's *Medical Directory* for 1881, page 1178, or 1882, page 1191, a Local List of Practitioners resident abroad possessing British qualifications.

THE PERIOD OF MEDICAL STUDY.

"*Facile omnes, cùm valemus, recta consilia ægrotis damus.*"

SIR,—There has recently been a smart discussion in the JOURNAL as to whether three years are sufficient for mastering "die gross' und kleine Welt" comprised in the study of medicine, the general consensus being that that time is much too short. This seems to have been the opinion of Goethe, who makes the Student in *Faust* say:

"Drei Jahr' ist eine kurze Zeit,
Und, Gott! das Feld ist gar zu weit."

And Mephistopheles (not a very respectable authority to be sure) says:

"Ein Titel muss sie erst vertraulich machen,
Dass eure Kunst viel Künste übersteigt."

Mr. W. S. Smith, Chemist (by Examination, and Associate of the Pharmaceutical Society) has issued a little book which shows that these notions are antiquated and behind the age, and that medical knowledge falls on us "like the gentle dew from heaven", so that any kind of special study is entirely unnecessary. At his Pharmakopœion may be obtained ready prepared medicines which will cure bilious headache, cold in the head, cold in the chest, diarrhœa, debility, eczema, gout, sciatica, lumbago, gravel, neuralgia, rheumatism, spasms, hysteria, and many other complaints "too tedious to mention", as was said in the programme of a concert. This being so, Mr. Smith has proved himself a great public benefactor. For why, instead of a man bothering himself with study, going into funking-rooms, and then before griffins of examiners, who bite and do not bark, and perhaps subjecting himself to the annoyance of being plucked, should he not supply himself with a stock of these medicines, which would be quite sufficient for all the cases that he is likely to meet with in practice? In this way, his patients will be treated "citò, tutò, et jucundè", and without much trouble to himself. The author of such a contrivance is really deserving of having a golden crown voted to him, who in these days, when so many are sent to their last account by over-study and slaps on the hand from cruel pedagogues (*vide* newspapers *passim*), has, by an encheiridion, if I may so call it, such as the present, rendered all such pernicious waste of time as study in the search of *remedia malorum* unnecessary. It now only remains to remind the student of what Faust says of his own and his father's meddling with medicine:

"So haben wir, mit höllischen Latwergen,
Weit schlimmer als die Pest getobt."

—I am, etc., G.

W. P. Y. (Jersey).—The usual fee for administering an anæsthetic for the extraction of teeth is £1 1s.

JUVENILE ODDFELLOWS.

SIR,—If any of your readers will favour me with any particulars concerning the admission of lads into an Oddfellows' Lodge I shall be much obliged. I am surgeon to a lodge, which proposes to form a juvenile's branch. 1. What should be the limits of age? 2. What amount of examination is customary? 3. Is a fee (4. If so what?) on examination usual or desirable? 5. What payment *per annum* should be asked for? The members of the lodge pay me 5s. *per annum* each; any living beyond three miles from the lodge-room pay me 1s. per mile each visit. No fee on entrance examination; what is usual?—Yours obediently, LODGE SURGEON.

TRAINING OF NAVAL MEDICAL OFFICERS AT HASLAR.

SIR,—A letter signed "R. N." appeared on the 7th instant, which ought not to pass without comment, as it is so uncomplimentary to the sister service, to which we owe very much, and at the same time depreciative to a great extent of military medical officers in general. I know from my personal experience, which I may counterpoise with that of most officers on the active list, and superadding the opinions of many of the naval "Netley *élèves*", as they are contemptuously termed, that a very different value might be laid on them than that your correspondent is disposed to concede. They might rather say that the knowledge and the general tone imparted to these "*élèves*" do not afterwards find an adequate field in the naval service. The writer is evidently not of them, and he may, in his own conceit, be substantially competent to judge of younger—I would not say better—men. The future must be waited for, until it shows whether or not the Netley "*élèves*", when placed in such commanding positions as your correspondent would wish it to be inferred he has held, prove themselves at least equal to the occasion in practice, as I have no doubt they will; and perhaps they will attribute that, in an advancing age, to the teaching they received under the staff of able professors at Netley.

As an educational establishment Haslar has once notably failed; let us hope that it may now be more fortunate, but for my part I am inclined to believe it can never be brought up to the standard of Netley without more funds being devoted to making it so.

I am persuaded that all naval medical officers of standing do not entertain the same sentiments as "R. N.", and I, for one, enter this protest against any such imputations and slurs as these being cast on army medical officers in general, and on Netley as a teaching establishment, as they are unmerited, and gratuitous from prejudice. The profession in the navy owes much to Netley, and I admit that, by a longer association there, it would have been rendered a still greater debtor to it. The fact is, that the Admiralty, in order to travel as long and so far as possible in its own old tracks, has deemed it expedient to remove its "*élèves*" from Netley and transfer them to Haslar; but it may be soon found that mere expediency is but a short-sighted policy in dealing with the medical profession. At present, discontent exists throughout all ranks of the Naval Medical Service, and candidates do not overabound; and the Admiralty, waiting for a turn of tide, is modestly asking for just as many "*élèves*" as will fill the vacancies of the past quarter, when they are really in want of five or six times as many to make up the greatly reduced active list.—Yours gratefully, ANOTHER M.D., R.N.

SIR,—I shall be very pleased to receive from any brother member any particulars as to medical practice in South Africa; the mode of going out; what to take as really necessary, etc. If any person who may have been there would kindly enter into private correspondence, I should be much favoured and exceedingly obliged.—I am, yours truly, S. AFRICA.

THE DENTISTS' ACT.

SIR,—May I suggest the following view of the state of things brought about by the above Act of Parliament to Mr. Stevenson, viz., that it is not we who are brought down to the same low position of equality with the unqualified, but they who are placed on our higher one. Truly, this may not be a desirable state of things, and is vexing to anyone who has spent much time and money on his education to fit him thoroughly for his profession, but as long as there is such a thing as vested interest, I fail to see any other way than the one followed by the promoters of the Bill for putting our speciality on a sound basis.—Yours truly,

MORTON SMALE, Medical Tutor to Dental Hospital of London.

89, Seymour Street, W.

A MEDICAL man named William Jones was charged at the Carlisle assizes with an assault upon four girls. A jury having been empanelled, it was, however, found that he was suffering from mental disease and from delusions of long standing. After full evidence to this effect, the jury found that the prisoner was insane, and incapable of pleading, and he was accordingly ordered to be detained in custody during Her Majesty's pleasure.

COMMUNICATIONS, LETTERS, etc., have been received from:—

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REPORTS
TO THE
SCIENTIFIC GRANTS COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION.

THIRD CONTRIBUTION TO THE LIFE-HISTORY OF CONTAGIUM.

By PETER MURRAY BRAIDWOOD, M.D., F.R.M.S.,
AND
FRANCIS VACHER, F.R.C.S.Ed.

*Original Experiments.**

The accompanying table gives a concise view of the various experiments performed by us at different times; but those comprised in Series A are given in detail, according to Groups, as an example of how the table should be studied.

Group A.—Experiments 1 and 3 show the effects of lochia applied to a surface-wound.

Experiment 1, May 19th.—A pellet of cotton-wool was soaked in lochia, and inserted into a valvular wound made on the upper and inner side of the right thigh of a rabbit. The lochial fluid here used was removed from a patient who, four days previously, had passed through a normal confinement. She was a multipara, and perfectly healthy. At the time of experiment, the patient's pulse was 96; she had slight pyrexia; the lochial fluid was somewhat fœtid, as if putrefying; and there was slight uterine tenderness on pressure. The lochia squeezed from the wool-pellet showed, microscopically, epithelial cells, blood-corpuscles, and some vibriones. After inserting the pellet beneath the skin, a piece of plaster was applied to retain it. Every precaution was taken to expose the lochialised pellet as little as possible to the air. Next day, all around the wound was swollen, the neighbouring inguinal glands were enlarged, and the wound itself closed by a crust.

Experiment 3, May 21st.—Another pellet soaked in the lochia of the above patient was inserted on the top of the former pellet into the same wound. Before this was done, on removing the scab, a few drops of fœtid pus escaped. The patient herself was perfectly well, having been syringed twice daily since the 19th instant with warm water containing Condy's fluid. This second lochialised pellet was kept rolled up in gutta-percha for twelve hours before being used, and a drop squeezed out of it under the microscope showed epithelial elements, blood- and pus-corpuscles. May 27th.—The wound looked sloughy, gaped to the size of a sixpence, and discharged very fœtid fluid. The rabbit's health was apparently unaffected, while the neighbouring inguinal glands were much swollen, and slightly tender. May 29th.—The wound gaped through most of its extent, its edges were indurated, and it smelled very fœtid. There was great tenderness over the adjoining abdominal surface. In a few days later, the wound took on a healthy action (after extruding the pellets), and healed steadily without interruption.

Experiment 2, May 20th.—A lochialised wool-pellet was inserted subcutaneously by a valvular wound into the opposite (left) thigh of the same rabbit. The lochial fluid in this instance was derived from the same patient as before, but was removed on a day intermediate between experiments 1 and 3. It appeared to be healthy, and showed, microscopically, epithelial elements, blood- and pus-corpuscles. Next day (May 21st), a few drops of fœtid pus exuded from the wound. The rabbit's health was unaffected. May 29th.—The wound gaped, and discharged freely, but the discharge was not fœtid, neither was there tenderness around the wound. From this date, after extruding the pellet, the wound healed rapidly.

Group B.—*Experiment* 4.—A drachm of lochial solution removed from Mrs. J., a primipara, who had been delivered thirty-six hours previously, was injected *per vaginam* into the pelvic cavity of a rabbit. Her labour had been very tedious, but was terminated with the forceps. She had severe *post partum* hæmorrhage, but made an excellent recovery. The lochial discharge was very fœtid, sanious, and grumous, showing, under the microscope, epithelial elements, blood- and pus-corpuscles, a few vibriones, and multitudes of granules. This patient's milk, at this date, was a sanious brown fluid, revealing, under the microscope, fat-globules, epithelium, large brown granular cells, and granules. About twelve hours after experimentation, this rabbit's ears felt very hot, and its respiration was rapid. Twelve hours later, it was listless, and would not move. Death occurred about thirty hours after experimentation. The abdomen was greatly distended. Necropsy, about fourteen hours after death, showed that the puncture in the vaginal wall made at the time of experiment led to a large clot, which filled the right iliac region between the skin and the abdominal wall. There were no signs anywhere of purulent infiltration. Congested patches were to be seen in the liver and in the lower lobe of the left lung.

Experiment 5.—Half a drachm of the lochial solution used in the last experiment* was injected into the peritoneal cavity of a rabbit, immediately below the umbilicus. Six hours after experimentation, this animal looked languid, and would not eat. Death occurred about fifteen hours after experimentation. Necropsy, about fifteen hours after death, showed a slight recent adhesion between two coils of ileum in the neighbourhood of the caput cæcum, with some lymph on their surface. On opening the ileum a minute puncture was discovered, which had been made during the operation and had healed. All the viscera were healthy.

Experiment 6.—We injected into a rabbit's pelvis, *per vaginam*, a mixture of a drachm each of the lochial fluid used in the last instance with an aqueous solution of carbolic acid (1 to 20). Six hours after experimentation this animal appeared languid, refused food, and its ears felt very hot. A few hours later the animal appeared brisk, and ate its food; while next day it seemed well, except being stiff in its hinder limbs. Four days later, it seemed in good health and took food greedily. Convalescence was uninterrupted; and, on the eighteenth day after experimentation, it gave birth to a litter which survived two days. It recovered well from this affliction also.

Experiment 7.—August 5th.—We injected, *per vaginam*, as above, a mixture of a drachm of lochial fluid with 40 minims of solution of sulphurous acid (*B. P.*) and 20 minims of diluted water. Six hours after experimentation this rabbit looked languid, would not eat, and its ears felt hot. Next day, it seemed well, showed stiffness of the hinder limbs, and œdema of the vaginal orifice. On the following day, (August 7th) the animal looked well and ate heartily, but there was observed a large sloughing wound above the pubes, laying bare the pelvic viscera. Four days later, this wound was seen to have doubled in size.

Experiment 9, August 11th.—We embraced the opportunity thus offered to insert two pellets of cotton-wool saturated with fœtid lochia from Mrs. J. into the pelvis of the last rabbit, so that it might be thoroughly infected. The wool, after soaking in the lochia, was kept for seventy hours carefully sheltered from the air before being applied to the wound. The patient had not been washed nor syringed for about eighteen hours previous to our removing the discharge, so that her pyrexial condition had increased, as was indicated by a rise in her pulse and temperature. After inserting the septic pellets, the wound was covered with gutta-percha, and the part bandaged. This bandage was retained for two days, and then cast off. The original wound looked very sloughy, and was very offensive. There was also observed another sloughing wound, as large as a shilling, near the umbilicus. Next day (August 14th) the large suprapubic wound seemed healthier, but still discharged very fœtid fluid, while the smaller wound was covered by a scab. On the following day, the suprapubic wound was still very sloughy-looking and offensive. The animal seemed well, but refrained from using its right hind limb when possible. The discharge from the large wound, examined microscopically, showed pus- and blood-corpuscles, some large granular cells, a few granular cells of irregular form, actively moving vibriones, and minute highly refracting granules. Three days later (August 17th) this rabbit seemed feverish, and its body felt hot, but the wound looked healthy. From this date, the animal improved in health, the larger wound contracted and healed kindly, while the umbilical ulcer cicatrised rapidly. In fourteen days later the larger wound had contracted to the size of a shilling, and the smaller had healed up, but the animal was noticed to be groaning much. Two days later, the suprapubic wound was nearly healed, and the animal appeared lively and well. Two days subsequently this rabbit showed two large sloughing superficial ulcers over its right hip, while it appeared in good health, and the suprapubic wound was nearly closed. The rabbit died suddenly three days

[*Continued at page 111.*]

* These experiments were performed before the Vivisection Act came into force. Their publication has been delayed by the pressing claims of private practice.

* In all our experiments we made use of Wood's hypodermic syringe, and got for our work two perfectly new syringes. One of these we used in the experiments in which we injected septic fluid alone; the other only for experiments in which we employed mixtures of septic fluid with germicides.

Table of Septicæmia Experiments.

Series A.—*Group* A.

No.	Designation of Animal.	Date of Experiment.	Date of Death.	Nature of Experiment.	Characters of Fluid used for Injection.	Principal *Post Mortem* Appearances.	Remarks.
I.	Rabbit.	May 19.	—	Inserted a pellet of cotton-wool, soaked in fourth day lochia of a healthy woman (Mrs. B.), into a valvular opening in the right thigh, and closed the wound with plaster.	Had a slightly fœtid odour. Microscopically showed blood-cells, epithelial cells, and vibriones.	—	The neighbouring lymphatic glands became swollen and painful.
II.	Rabbit.	May 20.	—	Inserted a pellet, similarly prepared from Mrs. B. (same patient), into the left thigh of the same animal.	Seen microscopically to contain blood, pus, and epithelium.	—	Wound sloughing, but discharge not offensive; and, after escape of pellet, it healed kindly
III.	Rabbit.	May 21.	—	Inserted another pellet (similarly prepared from the same patient) over that inserted in exper. 1; after squeezing out a few drops of fœtid pus from the original wound.	—	—	Seven days later, May 27, the discharge from this wound had a very offensive odour. The wound was sloughy, with everted, swollen, indurated edges: but, after the pellets were expelled, it healed rapidly.
				Group B.			
IV.	Rabbit (doe).	Aug. 5.	Aug. 6, about 30 hours *post experim.*	Injected *per vaginam* one drachm of lochial solution from Mrs. J. (who had been delivered 36 hours previously).	Fluid very fœtid, sanious, and grumous. Microscopically showed pus, epithelium, and granular matter.	Examined about 14 hours *post mortem*. Found a large clot in the right iliac region external to the muscles. Liver, and lower lobe of left lung posteriorly, showed patches of congestion.	—
V.	Rabbit (doe).	Aug. 5.	Aug. 6, about 15 hours *post experim.*	Injected into the abdominal peritoneal cavity half a drachm of the same septic fluid as was used in the last experiment.	Ditto.	Examined about 15 hours *p. m.* Found slight recent adhesion of two coils of ileum close to cæcal caput, with lymph on their surface; also a minute puncture of the ileum. All the viscera were healthy.	—
VI.	Rabbit (doe).	Aug 5.	—	Injected *per vaginam* a drachm of the same septic fluid as in the last experiment, mixed with a drachm of solution of carbolic acid (1 to 20 water).	Ditto.	—	Recovered, and brought forth young ones on August 23rd.
VII.	Rabbit (doe).	Aug. 5.	Sept. 5.	Injected *per vaginam* a drachm of same septic fluid, mixed with 40 min. of solution of sulphurous acid, and 20 min. of distilled water.	Ditto.	Examined about 3 hours *p. m.* Body greatly emaciated. Found secondary deposits in the liver, and in the iliac mesentery close to its blood-vessels. Scattered through both lungs were dusky white deposits; and on the surface of the right lung were minute subpleural hæmorrhagic extravasations.	The injection was followed by sloughing of all the soft tissues of the lower half of the abdominal wall, exposing the viscera. This wound healed gradually.
VIII.	Rabbit (doe).	Aug. 5.	Aug. 19.	Injected into the abdomen, just above the pubis, a drachm of the same septic fluid, mixed with a drachm of solution permanganate of potash (saturated).	Ditto.	Examined about 8 hours *p. m.* Found firm adhesions between coils of ileum, and scattered congested patches in ileum; secondary deposits in liver; large abscess in right iliac region. Blood fluid.	Received accidentally a bruise over the right hip, which gradually induced a subcutaneous abscess communicating with the internal one.
IX.	Rabbit, same one as in exp. VII.	Aug. 11.	—	Filled the sloughing wound with two pellets of cotton-wool which had been soaked, 70 hours previously, in fœtid lochia from Mrs. J. Covered the wound with oiled silk, and bandaged.	Showed microscopically large granular cells, blood, pus, epithelium, numberless highly refractive granules, and a few vibriones.	—	Produced no very distinct effect on the animal.
X.	Rabbit (doe).	Aug. 11.	Aug. 15, about 100 hours *post experim.*	Injected *per vaginam* a drachm of the same septic fluid as used in the last experiment.	Ditto.	Examined about 3 hours *p. m.* All the soft tissues in both gluteal regions were sloughing. Liver, both lungs, and the left cardiac wall, showed minute whitish secondary deposits. Blood fluid.	—
				Group C.			
XI.	Rabbit (doe).	Aug. 20.	Aug 21, about 24 hours *post experim.*	Injected *per vaginam* half a drachm of pus from rabbit VIII, mixed with half a drachm of distilled water.	Contained pus, blood, vibriones, minute sparkling granules, *débris*, phosphates, and bacteria.	Examined 6 hours *p. m.* Blood fluid; right cardiac cavities filled with fluid blood, and left ones empty. No secondary deposits.	—
XII.	Rabbit (buck).	Aug. 20.	Aug. 26, seventh day *post experim.*	Injected a drachm of the septic mixture used in the last experiment, by making a small incision into the abdominal peritoneal cavity; and, after injection, closed it with a harelip-pin and carbolised catgut.	Ditto.	Examined 2 hours *p. m.* Soft tissues forming the lower half of the abdominal wall found sloughing; those of upper half bound together by firm adhesions. Coils of bowel and their surfaces covered with lymph, and bound together; secondary deposits in liver; minute blackish spots seen on the surface of both lungs.	—
XIII.	Rabbit (buck).	Aug. 20.	Aug. 29, tenth day *post experim.*	A few drops of the septic mixture used in the last experiment were injected into the right femoral vein.	Ditto.	Examined about 12 hours *p. m.* Found diffuse inflammation of subcutaneous tissue, with deposit of lymph and purulent infiltration, extending from umbilicus downwards, especially on the right side, where it involved also the iliac region. Veins in this part bound down by inflammatory adhesions and filled with clots. All the veins were engorged. No secondary deposits.	—

TABLE OF SEPTICÆMIA EXPERIMENTS—*continued.*

SERIES A.—*Group* C—*continued.*

No.	Designation of Animal.	Date of Experiment	Date of Death.	Nature of Experiment.	Characters of Fluid used for Injection.	Principal *Post Mortem* Appearances.	Remarks.
XIV.	Rabbit.	Aug. 29.	—	Injected subcutaneously over the left shoulder 20 drops of a mixture (equal parts of filtered water and purulent fluid from rabbit, exp. XIII).	No bacteria found; odour very offensive, and fluid readily coagulable.	—	—
XV.	Puppy (dog).	Aug. 29.	—	Injected this fluid, in amount the same as in the last experiment, subcutaneously over the left shoulder.	Ditto.	—	Formed a large abscess, which burst, and the remaining wound healed kindly.
				Group D.			
XVI.	Rabbit (doe).	Aug. 29.	Aug. 3-.	Injected *per vaginam* a drachm of septic fluid obtained by macerating muscle in distilled water for 14 days, at 70° Fahr. (Sanderson's fluid).	Fluid seen to be crowded with actively moving bacteria.	Examined in a few hours *p. m.* Found very great congestion, with serous infiltration into lower half of abdomen. Blood fluid; decomposition rapid.	Blood removed after death from the spleen showed red corpuscles, with crenated edges, vibriones, and granules.
XVII.	Rabbit.	Aug. 29.	Aug. 31, about 50 hours *post experim.*	Injected subcutaneously over the left shoulder half a drachm of the septic fluid used in the last experiment.	Ditto.	Examined about 12 hours *p. m.*; seat of puncture indicated by a colourless clot. Mesenteric glands enlarged; patches of red congestion in colon and adjoining ileum; secondary deposits in liver; congested patches in right lung; secondary deposits in caput cæcum coli.	—
XVIII.	Rabbit.	Aug. 29.	Sept. 21.	Injected subcutaneously over the left shoulder half a drachm of Sanderson's septic fluid (same as last), mixed with half a drachm of a saturated solution of cupralum.	Ditto.	Examined about 18 hours *p. m.* Found in the viscera *nil;* but at site of injection a very large abscess containing extremely fœtid whitish pus, disintegrating all the soft tissues—a typical "scrofulous" abscess.	—
XIX.	Rabbit (doe).	Aug. 29.	Sept. 3, sixth day *post experim.*	Injected *per vaginam* half a drachm of the last described septic fluid, mixed with half a drachm of solution of carbolic acid (1 to 20 water).	Ditto.	Examined 3½ hours *p. m.* Mesenteric glands enlarged and caseified, lymph-vessels much engorged. Secondary deposits in liver and spleen. A large amount of lymph and some purulent fluid in the pelvic cavity.	—
				Group E.			
XX.	Rabbit (doe).	Sept. 1.	Sept. 8, eighth day *post experim.*	Injected *per vaginam* half a drachm of lochial solution just removed from Mrs. Y.	Showed epithelium, pus, blood, minute highly refractive globules, but no bacteria.	Examined 5 hours *p. m.* A large amount of fluid and flakes of lymph floating in abdomen. Congested patches in wall of colon. Mesenteric glands enlarged. Secondary deposits in liver. Bladder punctured during experiment.	—
XXI.	Rabbit (doe).	Sept. 1.	Sept. 9, ninth day *post experim.*	Treated like the rabbit in the last experiment.	Ditto.	Examined about 10 hours *p. m.* Abdomen filled with a large amount of grumous fluid of very offensive odour, and containing flakes of lymph. Secondary deposits in liver and kidneys. An abscess found behind the bladder.	Injected subcutaneously half a grain of quinine in solution about 30 hours after experimentation, and two similar doses on the following day.
XXII.	Rabbit (doe).	Sept. 1.	Sept. 2, twelve hours *post experim.*	Injected *per vaginam* half a drachm of the lochial solution used in the last experiment, mixed with half a drachm of a saturated solution of cupralum.	Ditto.	Examined 20 hours *p. m.* Lower lobe of right lung densely congested. Over remaining portion of this lung and over lower lobe of left lung, congested patches to be seen.	Lochial solution coagulated by the cupralum.
				Group F.			
XXIII.	Dog.	Sept. 9.	—	Injected subcutaneously over the right hip half a drachm of the fœtid grumous fluid from abdomen of rabbit, exp. XXI.	—	—	Did not produce any appreciable effect, local or constitutional.
XXIV.	Rabbit (buck).	Sept. 9.	—	Injected subcutaneously over the right hip half a drachm of the same septic fluid as was used in the last experiment.	—	—	Ditto.
XXV.	Rabbit (doe).	Sept. 9.	Sept. 21.	Injected *per vaginam* 15 drops of the same septic fluid as was used in the last experiment.	—	Examined about 12 hours *p. m.* Nothing found in the viscera, but a blood-clot in the spinal canal outside the pia mater, but inside the dura mater, extending from the first cervical to the seventh dorsal vertebra, and diminishing in size downwards.	Death probably resulted from an accident, as shown by the necropsy.
				SERIES B.—*Group* A2.			
I.	Rabbit (doe).	Sept. 29.	Oct. 18.	Injected *per vaginam* half a drachm of the dialysed portion of normal lochial solution of the fourth day after delivery. Dialysation was conducted through porcelain.	Not fœtid, no organisms seen. Contained the usual ingredients.	Examined 3 hours *p. m.* Showed secondary deposits in the liver. Mesenteric glands enlarged. Congested patches in the right lung. An abscess found behind bladder.	—
II.	Rabbit (doe).	Sept. 29.	—	Injected subcutaneously over the right shoulder half a drachm of the same dialysed fluid as used last.	—	—	No appreciable effect produced.
III.	Rabbit (buck).	Sept. 29.	Oct. 6, eighth day *post experim.*	Injected *per perinæum* half a drachm of the undialysed portion of the lochial solution last described.	This differed from the preceding by exhibiting actively moving bacteria.	Examined about 12 hours *p. m.* Secondary deposits found in the ileum and in the mesenteric glands.	—
IV.	Rabbit (buck).	Sept. 29.	Oct. 25.	Injected subcutaneously over the right shoulder half a drachm of the undialysed fluid used in the last experiment.	—	Examined about 8 hours *p. m.* Showed a large subcutaneous abscess at site of injection. Secondary deposits in both lungs and in the liver; some in the liver as large as hemp-seeds.	—
V.	Rabbit (doe).	Oct. 7	Oct. 9, third day *post experim.*	Injected *per vaginam* half a drachm of the dialysed portion of lochial solution from Mrs. P.	Had an offensive odour. Showed microscopically many actively moving bacteria.	Examined about 36 hours *p. m.* Found secondary deposits in liver, each surrounded by a zone of congested vessels; pylorus thickened; pelvic cellulitis.	The lochial solution had been put into the dialyser on Oct 1

TABLE OF SEPTICÆMIA EXPERIMENTS—*continued.*
SERIES B.—*Group* A2—*continued.*

No.	Designation of Animal.	Date of Experiment.	Date of Death.	Nature of Experiment.	Characters of Fluid used for Injection.	Principal *Post Mortem* Appearances.	Remarks.
VI.	Rabbit (doe).	Oct. 7.	—	Injected subcutaneously over the right shoulder half a drachm of the septic fluid (dialysed) last used.	Had an offensive odour. Showed microscopically many actively moving bacteria.	—	—
VII.	Rabbit (buck).	Oct. 7.	Oct. 11, fifth day *post experim.*	Injected *per perinæum* half a drachm of the undialysed portion of this last lochial solution.	Had a very offensive odour. Showed under the microscope blood, pus, and actively moving bacteria.	Examined 8 hours *p. m.*, and found secondary deposits in the liver and in the right lung.	
VIII.	Rabbit (buck).	Oct. 7.	Oct. 12, sixth day *post experim.*	Injected subcutaneously over the right shoulder half a drachm of the undialysed septic fluid last used.	Ditto.	Examined 18 hours *p. m*, and found secondary deposits in liver; hæmorrhagic spots in right lung and on transverse colon; a large abscess in right pectoral region.	—
				Group B2.			
IX.	Rabbit (doe).	Oct. 18.	Nov. 18	Injected *per vaginam* half a drachm of a mixture consisting of equal parts of purulent solution from rabbit exp. 1, series B and distilled water.	—	Examined 12 hours *p. m.* Many secondary deposits in liver, lung, and heart. Hæmorrhagic patches in lower congested lobe of right lung.	The purulent solution consisted of pus removed 15 hours after death, mixed with aq. distill. as 1 to 4.
X.	Rabbit (doe).	Oct. 18.	Nov. 18	Injected *per vaginam* the same amount of the same septic fluid as in the last experiment.	Ditto	Examined 15 hours *p. m.*, and found pelvis filled with purulent fluid, tissues all matted together. Secondary deposits in liver and both lungs. A few hæmorrhagic spots in right lung.	On Nov. 13 got a strain of the hind limbs.
XI.	Rabbit (buck).	Oct. 18.	—	Injected *per perinæum* half a drachm of the purulent solution used in the last two experiments.	Ditto	—	Recovered without presenting any symptoms.
XII.	Rabbit (buck).	Oct. 25.	—	Injected subcutaneously over the right hip one drachm of pus (diluted) from the abscess in rabbit IV, series B.	Ditto	—	The pus was removed after death. Recovered without showing any symptoms.
XIII.	Rabbit (doe).	Oct. 25.	—	Injected *per vaginam* 15 drops of the same septic fluid as was used in the last experiment.	—	—	Ditto.
XIV.	Rabbit (buck).	Oct. 25.	Oct. 28.	Injected *per perinæum* a drachm of a mixture consisting of equal parts (half a drachm each) of the purulent fluid used in the last experiment and liquor potassæ permanganatis (*B.P.*).	—	Found an abscess at site of injection; secondary deposits in liver and both lungs (in the latter as whitish elongated spots). Base of left lung and apex of right congested.	—
XV.	Rabbit (buck).	Oct. 25.	Oct. 26, sixteen hours *post experim.*	Injected *per perinæum* a drachm of a mixture composed of equal parts (half a drachm each) of the purulent fluid used in the last experiment and solution of carbolic acid (1 to 20 water).	—	Examination about 7 hours *p. m.* revealed diffuse suppuration in the perinæum, an abscess in front of the bladder, secondary deposits in the liver and ileum, hæmorrhagic spots in both lungs. Blood fluid.	—
				Group C2.			
XVI.	Rabbit (doe).	Mar. 23.	—	Injected *per vaginam* half a drachm of lochial solution removed from Mrs. Y. on the fourth day after delivery.	—	—	Recovered without showing any symptoms. Brought forth young a few days after experiment, and reared them.
XVII.	Rabbit (buck).	Mar. 23.	April 28, 1 month and 5 days *post experim.*	Injected *per perinæum* a drachm of a mixture consisting of equal parts (half a drachm each) of the lochial solution used in the last experiment and solution of carbolic acid (1 to 20 water).	—	Examination revealed hæmorrhagic spots in both lungs, a large secondary deposit in the left lung, numerous minute secondary deposits in the liver, fewer in the spleen; lymphatic glands enlarged.	The animal had convulsions during injection.
XVIII.	Rabbit (doe).	Mar. 23.	—	Injected *per vaginam* 45 drops of the septic mixture used in the last instance.	—	—	Recovered without presenting any symptoms.
				Group D2.			
XIX.	Rabbit (doe).	Mar. 29.	April 6, ninth day *post experim.*	Injected *per vaginam* half a drachm of lochial solution removed on the fourth day after delivery from a patient with variola.	—	Examination 24 hours *p. m.* Putrefaction proceeding rapidly. Viscera healthy, except the liver, which showed some small secondary deposits. Uterus and vagina greatly congested, exuding blood.	—
XX.	Rabbit (doe).	Mar. 29.	—	Injected *per vaginam* half a drachm of the same septic fluid as was used in the last instance.	—	—	Recovered without showing any symptoms.
XXI.	Rabbit (doe).	Mar. 29.	—	Injected *per vaginam* a drachm of the same lochial solution as was used for the last two experiments.	—	—	Recovered without exhibiting any special symptoms. Aborted on April 15th.
XXII.	Dog (fem.).	Mar. 29.	—	Injected above the pubes into abdominal cavity a drachm of the septic fluid used in the last instance.	—	—	Recovered without presenting any special symptoms.
				SERIES C.—*Group* A3.			
I.	Rabbit (buck) weighed 4½ lbs.	July 27.	Aug. 4, ninth day *post experim.*	Injected *per perinæum* a drachm of purulent peritonitic fluid from a patient.	Showed pus-elements, vibriones, large oval cyst-like bodies, and minute sparkling granules.	Examination immediately after death showed an abscess as large as an orange filling the pelvis and right iliac region. Abdomen filled with serum and flakes of pus. Secondary deposits in liver, and a few minute infarcts in the right lung.	On the fourth day after experiment, showed orchitis and œdema on the right side.

TABLE OF SEPTICÆMIA EXPERIMENTS—*continued.*
SERIES C.—*Group* A3—*continued.*

No.	Designation of Animal.	Date of Experiment.	Date of Death.	Nature of Experiment.	Characters of Fluid used for Injection.	Principal *Post Mortem* Appearances.	Remarks.
II.	Rabbit (doe) weighed 2½ lbs.	July 27.	Aug. 3, eighth day *post experim.*	Injected *per vaginam* half a drachm of the septic fluid used in the last instance.	Showed pus-elements, vibriones, large oval cyst-like bodies, and minute sparkling granules.	Found secondary deposits in the liver, and a large abscess with thickened wall filling the pelvis between the uterus and rectum.	—
III.	Rabbit (doe) weighed 2½ lbs.	July 27.	Aug. 7, twelfth day *post experim.*	Injected *per vaginam* half a drachm of the septic fluid used in the last experiment.	Ditto.	Found a large abscess situated as in the last instance. The anterior wall of the urinary bladder showed patches of recent lymph on its inner surface. Secondary deposits in the liver and in the cardiac wall, an abscess in a gland of the gastro-hepatic omentum, and several large congested spots in the left lung.	—
IV.	Rabbit (buck) weighed 2½ lbs.	Aug. 9.	Aug. 23, fifteenth day *post experim.*	Injected subcutaneously into the back half a drachm of peritonitic pus like that used in the last instance.	Showed pus-cells, entire and breaking down; fat and epithelial cells; vibriones; granules.	Found a large abscess between the external and internal muscular layers of abdominal wall; liver well studded with secondary deposits; ulcer of stomach.	—
V.	Rabbit (buck) weighed 2 lbs.	Aug. 9.	Aug. 16.	Injected subcutaneously into the back half a drachm of the septic fluid used for the last experiment.	Ditto.	Found a thick layer of recent lymph beneath skin near site of injection; secondary deposits in liver.	—
				Group B3.			
VI.	Rabbit (doe) weighed 4 lbs.	Aug. 10.	—	Injected *per vaginam* a drachm of peritonic sanguineous serum from Mrs. W.	Showed blood-cells, entire and breaking down; large granular ovoid cells; bacteria; vibriones; and granules.	—	Recovered without showing any special symptoms. The fluid was obtained from a patient suffering from diffused carcinoma of the abdominal viscera, and was used immediately after removal.
VII.	Rabbit (doe) weighed 5 lbs.	Aug. 10.	—	Injected subcutaneously on the back 1½ drachms of the septic fluid used in the last experiment.	Ditto.	—	Recovered without showing any special symptoms.

after (September 5th), exactly one calendar month after experimentation. A necropsy was made three hours after death. The animal was greatly emaciated. There were found secondary deposits in the liver (Fig. M. 3), in both lungs scattered dusky white spots, and minute subpleural hæmorrhagic extravasations on the surface of the right lung (Figs. K 3 and L 3); minute whitish deposits in the iliac mesentery in close proximity to its blood-vessels; the spleen was very small; but there was no peritonitis.

REMARKS.—This animal showed all the signs of subacute septicæmia. The large sloughing wound resulting from the injection *per vaginam* was due probably to the corrosive action of sulphurous acid. It is noteworthy that carbolic acid did not act thus, though a larger quantity of it was employed. The several superficial subcutaneous abscesses which occurred in this instance were, we believe, to be ascribed to the septicæmic condition induced. The application of septic media to the sloughing wound may have aided in aggravating the systemic poisoning, but that this means alone would not have induced pyæmia and its characteristic pathological lesions, in this animal, is rendered probable by the results obtained in Group A of our experiments. On the other hand, as will become apparent from our subsequent experiments, the secondary visceral lesions, found after death in this rabbit, can without fail be produced by the injection *per vaginam* of septic lochial fluid. It is further worthy of remark that the animal, when in this poisoned state, did not exhibit any characteristic constitutional symptoms, and this is to be noted in all our experiments. In fact, the animals at intervals appeared to enjoy health, and the end came suddenly upon them.

Experiment 8.—We injected a mixture of a drachm of lochial solution (same as in the last instance) with one drachm of a saturated solution of permanganate of potash into a doe, by puncture over the symphysis pubis. This rabbit, like the others operated on at the same time, seemed languid about six hours after experimentation, and did not eat its food. Next day it showed slight stiffness in the hinder limbs, but otherwise appeared well. There was no further change till the fourteenth day after experimentation, when the animal was observed to be very ill and did not eat. It also dragged its right hind limb, everting it, and there was seen a large fluctuating swelling over the right hip. In the evening, the animal looked brisker. We now remembered that, while replacing this animal into its box after experimentation it had sustained a slight squeeze of its right hind limb by the falling on it of the box-lid. Next day this rabbit appeared well, but was listless. It died during this day. A necropsy was held about eight hours *post mortem*. On opening the abdomen, the deeper coils of the ileum were found firmly agglutinated by lymph, and there were seen scattered at intervals through the iliac wall patches of congestion. The left kidney was very congested. Scattered through the liver were secondary deposits. The lungs, heart, and spleen appeared healthy. An oval, fluctuating swelling, bound down by firm adhesions, was found filling up the right iliac region and communicating through the sciatic notch with the subcutaneous swelling noticed during life over the animal's right hip. This pelvic swelling compressed the rectum, and was filled with laudable, somewhat fœtid pus. The blood in the veins was preternaturally fluid. The abscess over the right hip was probably excited originally by the bruise we have before mentioned, which the animal received when being put into its box; although the rabbit did not, for many days, show any ill effects from this bruising.

Experiment 10. We injected *per vaginam* into a rabbit one drachm of the lochial solution employed in Experiment 9. This septic fluid, on microscopical examination, showed, granular cells, epithelial elements, blood- and pus-corpuscles, vibriones, and multitudes of minute highly refractive bodies.* Next day, this animal seemed dull. On the following day it appeared very ill; it was thirsty, its coat was rough, it had no appetite, and lay listless, but the temperature of the body was not raised. There was observed a superficial sloughing wound over the right thigh. In the evening, this rabbit appeared better and took food. On the fourth day after inoculation (next day), it was again listless and would not move; its coat was rough and respiration hurried. In the left iliac fossa was felt a hard swelling twisting the tail to the opposite side, but there was no sense of fluctuation nor increased heat of the skin. Next day, the animal died (lying on its left side) about one hundred hours after experimentation. The swelling had increased considerably, the hair over it separated with the cuticle, and exposed gangrenous looking tissue. At the necropsy, three hours after death, on opening the abdomen, slight signs of inflammation were found around the bladder. All the subcutaneous soft tissues in both gluteal regions were discovered to be in a sloughing state, but there was no evidence of

* In our several experiments where inoculation in the pelvic cavity was used, the nozzle of the Wood's syringe was made to puncture the right wall of the vagina as far up from the external orifice as possible. It was then carried cautiously parallel to the vaginal wall, till it impinged against the side of the pubic arch, below which it was carefully passed, the fluid being injected thus as far as possible into the pelvic peritoneal cavity. So also with male rabbits, the perinæum having been pierced, the same procedures were followed as with does; but there was greater care required not to injure viscera, and the result was not considered to be so certain as with does.

purulent infiltration. A few white secondary deposits were observable on both surfaces of the liver, in both lungs, and in the left cardiac wall. Fig. N3. The blood was noticed to be very fluid.

GROUP C. *Experiment* 11.—We injected into a rabbit, *per vaginam*, a mixture of half a drachm each of purulent fluid from rabbit Experiment 8, and of distilled water. The purulent fluid had been removed from the dead rabbit about twelve hours before it was used for inoculation; it was very viscid, and stank horribly. Under the microscope this fluid showed pus- and red blood-corpuscles, bacteria, minute highly refracting bodies, phosphates, and granules. This animal died next day, about twenty-four hours after experimentation; and at the necropsy about six hours after death it showed swelling and signs of putrefaction among the soft tissues of the perinæum. The blood was fluid; the right chambers of the heart were filled with fluid blood, while the left were empty and firmly contracted. No evidences of secondary deposits were found.

Experiment 12.—We injected into the abdominal peritoneal cavity of a buck rabbit a drachm of the same mixture as was employed for the last experiment. To avoid puncture of the intestine, an incision was made, and the fluid inserted through a blunt-pointed syringe, while the wound was closed by transfixion with a hare-lip needle with carbolised catgut ligature twisted over it. Next day, the hare-lip needle and thread were observed to have been discarded, and the wound was patent. The animal's health was unaffected. On the following (third) day the rabbit appeared ill and ate little; while the wound was open and sloughing. Two days later (fifth day) the wound was as large as a shilling, looked sloughy, and burrowed deeply, but the animal's health seemed unaffected. Next (sixth) day the rabbit looked ill, with rough coat and drooping ears, and would not eat. There was seen a sloughing wound of the abdominal wall extending up to the point of puncture, and downwards as far as the scrotum, exposing the peritoneum. Death occurred on the following day—the seventh after experimentation. Necropsy, held two hours *post mortem*, showed that all the soft tissues in the lower half of the abdominal wall superficial to the muscles were sloughing, while the same tissues in the upper half of the abdomen were found bound together by inflammatory adhesions. Between the peritoneum and the intestines, as also between the several coils of intestine, a considerable amount of lymph, forming recent adhesions, was observed. The blood was very fluid. Scattered over the liver, especially in its right lobe, were seen very minute yellowish-white secondary deposits. In both lungs, especially in the lower lobe of the right lung, were seen minute superficial blackish spots. The heart showed the same condition as that in the last experiment. The brain appeared healthy, but its membranes were congested.

Experiment 13.—After careful dissection, we injected into the right femoral vein of a rabbit a few drops of the same septic mixture as was used in the last two experiments. The vein having been thereafter ligatured, the wound was stitched with carbolised gut. Next day, the animal seemed well; but there was slight erythema along the edges of the wound. Two days later, the wound had healed, and the rabbit looked quite well. On the morning of the seventh day from this date (being the tenth day after experimentation), the rabbit was found dead. At the necropsy, diffuse subcutaneous inflammation, with lymph formation and purulent infiltration, were found extending from the umbilicus downwards, especially on the right side, where they involved also the inguinal region. Some of the fœtid creamy-looking fluid from this tissue was removed in a watch-glass. The larger veins in the right abdominal wall were seen bound down by adhesions, and filled with clot. All the veins in the body were engorged, and the blood coagulated readily. A few very minute yellowish-white spots were seen in the liver. In the right lung were a congested patch, and several small whitish spots. The heart was firmly contracted, and filled with clots. There was no glandular infiltration.

Experiment 14.—We injected subcutaneously, over the left shoulder of a rabbit, twenty minims of a mixture (equal parts of filtered water and purulent fluid, removed an hour previously from the rabbit Experiment 13). Next day, this animal seemed well; but its coat was rough, and it showed an abscess forming at the site of puncture. In the evening, the rabbit seemed very poorly, and lay listless. Two days later, this animal appeared to be well, and the abscess had been completely absorbed, leaving a hard swelling of the size of a pea. On the ninth day after experimentation, this rabbit showed a sloughing wound (as large as a florin-piece) near the umbilicus, and a cicatrix over the left shoulder (the site of puncture). Next day, this animal showed a deep sloughing wound (as large as a shilling) near the umbilicus, and one somewhat smaller over the left hip, but penetrating through the superficial tissues. From this date this rabbit convalesced uninterruptedly, although for some weeks it was very emaciated. It recovered completely.

Experiment 15.—We injected subcutaneously, over the left shoulder of a puppy, twenty minims of the same mixture as was used in the last experiment. Next day, this animal seemed to be very poorly, had a hot skin and roughened coat, would not eat, and an abscess was observed to be forming at the site of puncture. At intervals on this and on the following days, this animal appeared to have rigors, and to be listless. Its health and appetite gradually improved; but the abscess gradually increased in size till it became as large as an orange. The abscess burst on the sixth day after experimentation, leaving a small sloughing wound, with emphysema of the surrounding tissue. The wound gradually increased till it became as large as a crown-piece, when it took on a healing action, and the animal convalesced uninterruptedly.

GROUP D. *Experiment* 16.—A rabbit received, *per vaginam*, a drachm of Dr. Burdon Sanderson's septic fluid (a solution of muscle, macerated for fourteen days in distilled water at 70° Fahr.). This fluid was shown microscopically to be swarming with bacteria. This animal was found dead next morning, having survived the inoculation probably twelve hours. The necropsy (held a few hours later) showed very great congestion, with serous infiltration into the lower half of the abdomen. The blood was fluid. There was a clot in the right ventricle, but the left was firmly contracted. The viscera appeared healthy. We examined, microscopically, serum from the abdomen, but found nothing; while blood from the spleen (which was much enlarged and engorged) showed red corpuscles, with crenated edges, and interspersed with vibriones and highly refractive granules. Decomposition had proceeded rapidly.

Experiment 17.—We injected subcutaneously, over the left shoulder of a rabbit, half a drachm of the same septic fluid as was used in the last experiment. Two days later, this animal seemed languid; its abdomen was swollen, and apparently painful. It died during the night with convulsions. Necropsy (twelve hours *post mortem*) showed a venous clot at the site of puncture. On opening the abdomen, the mesenteric glands were found greatly enlarged, patches of bright-red congestion were seen scattered over the surface of the colon (Fig. P3), and over the adjoining ileum; while a few small whitish spots (like caseous deposits) were to be observed in the ileum, near the caput cæcum. The liver tissue had a nutmeggy appearance, and scattered through it were several comparatively large caseous deposits. Scattered over the right lung were patches of livid congestion. The right cardiac cavities were filled with clot and with fluid blood, while the left were firmly contracted.

Experiment 18.—We injected subcutaneously, over the left shoulder of a rabbit, half a drachm of Sanderson's septic fluid (as in the last two experiments) mixed with an equal quantity of a saturated solution of cupralum. Next day, this rabbit seemed dull, with hot skin and roughened coat. Two days later, it looked well and ate heartily. On the ninth day after experimentation, it showed subcutaneous thickening and firm adhesion of the skin to the deeper tissues at the site of puncture. The animal's health was perfect. Next day, the rabbit seemed out of sorts; but recovered again in a few days. Thus it lived till the twenty-third day after experimentation, when the animal looked languid and would not eat. Death occurred next day. Necropsy, about eighteen hours after death, revealed no secondary deposits in the viscera: at the site of inoculation was found a large subcutaneous abscess-cavity, containing extremely fœtid pus and disintegrating tissue.

Experiment 19.—We injected, *per vaginam*, into a rabbit, a mixture consisting of half a drachm each of the septic fluid tried in the last instance and of a solution of carbolic acid (1 to 20). Next day, this rabbit was languid, with hot skin and roughened coat. On the fourth day after experimentation, it still seemed ill, and walked lamely on its left hind limb. Death occurred two days later, the sixth day after inoculation. Necropsy, about three and a half hours after death, showed the mesenteric glands greatly enlarged and indurated. (Fig. Q3*a*.) The lymph-vessels were so engorged that they could be traced like blood-vessels. Minute secondary caseous deposits were found in the liver, and two such in the spleen cut gritty. (Fig. Q3*b*.) The kidneys and lungs appeared healthy. The right cardiac cavities contained fluid and coagulated blood, while the left were firmly contracted. In the pelvic cavity was seen a large quantity of lymph floating in purulent fluid.

GROUP E. *Experiment* 20.—We injected, *per vaginam*, into a small rabbit, half a drachm of lochial solution, which had been removed a few minutes previously from Mrs. Y.* Under the microscope, this fluid exhibited epithelial elements (whole or broken down), pus- and blood-corpuscles, minute highly refractive granules, but no forms of micro-organisms. No special symptoms were observed till the seventh day after experimentation, when the animal would not eat, had a bad

* The lochial fluid was removed on the fourth day after confinement, when the patient was in the usual pyrexial state. The labour had been tedious, the child had been dead some time *in utero*, and required removal by forceps. The patient was a primipara, and suffered much from shock immediately after delivery; but made an excellent recovery.

cough, and was listless. Death occurred on the evening of the following day (the eighth after experimentation). Necropsy, five hours after death, revealed a large amount of serum in the abdominal cavity, containing flakes of lymph floating about, and a decolorised clot, as large as an apple. There was also found a punctured wound, extending through the right wall of the bladder, but sealed by recent lymph. There were seen several congested patches in the walls of the ascending colon. The mesenteric vessels were engorged. Secondary deposits were seen scattered over the liver. The spleen was small. The kidneys were anæmic in their centres, while their cortices were congested. There was slight congestion in the left pulmonary apex. The cardiac cavities showed the same appearances as in the last two experiments, and there was an excess of pericardial fluid.

Experiment 21.—Another rabbit, of almost the same size and age as the last, was inoculated at the same time, and in a similar manner. The object was to test the efficacy of quinine in cutting short pyæmia when developed. Next evening, this animal seemed ill and refused food. Accordingly (thirty hours after experimentation), it received, by hypodermic injection, half a grain of sulphate of quinine in neutral solution. On the following day, this hypodermic injecion was twice repeated. During the succeeding days, this rabbit improved in health, ate well, and looked lively.' It was found dead on the morning of the ninth day after experimentation. Necropsy, ten hours after death, showed the abdominal cavity filled with a large quantity of grumous fœtid fluid, having flakes of lymph floating in it. The smaller intestine was congested; the liver contained numerous secondary deposits, of which some were larger than any yet met with. (Fig. R 3.) The heart, lungs, kidneys, and spleen appeared healthy. In the pelvic cavity, but encysted, was found an abscess as large as a walnut, containing purulent fluid of milky appearance.

Experiment 22.—We injected, *per vaginam*, into a rabbit, a mixture of half a drachm each of the septic fluid (lochial solution) used in the last experiment, and a saturated solution of cupralum. Seven hours later, this rabbit was observed lying listless, and would not eat. It died during the course of the night, probably about twelve hours after experimentation. Necropsy, about twelve hours later, revealed the lower right pulmonary lobe converted into a firm congested mass, which sank in water. There were also limited patches of congestion scattered through the upper lobe of this lung and through the lower left pulmonary lobe. The vagina was very congested: all the other viscera seemed healthy.

GROUP F, *Experiment* 23.—We injected subcutaneouslyover the right hip of a dog half a drachm of the grumous fœtid serum removed four hours previously from the rabbit (*Experiment* 21). This animal showed no bad symptoms after experimentation, nor did an abscess form at the site of puncture. It was unaffected by the inoculation.

Experiment 24.—Injected subcutaneously over the right hip of a rabbit half a drachm of the septic fluid used in the last instance. This animal also did not show any effects, local or constitutional, from the inoculation.

Experiment 25.—We injected *per vaginam* into a small rabbit 15 minims of the septic fluid used in the last two experiments. Next day the animal appeared lively and well. It occurred now to us to examine the blood of this animal microscopically, and to compare it with that of a rabbit which had not been experimented on. We had the advantage of the assistance of a well-known microscopist when doing this. A drop of blood was removed from the ear of each rabbit in succession. We observed that the drop removed from the rabbit (experiment 25) which had been inoculated, showed the red corpuscles almost without exception to have crenated (not irregularly puckered) edges, and to have less adhesiveness than normally, while the blood itself seemed more prone to coagulate. Another comparative microscopical examination, held ten days later, showed the red blood-corpuscles of this rabbit (*Experiment* 25) to exhibit crenation of their edges, but there were many fewer such than when the former examination was held. On the thirteenth day after experimentation, this animal died of convulsions.

As noted in the table of experiments, the necropsy showed the cause of death to be spinal meningitis, unconnected with the experimentation, but how produced could not be ascertained.

[*To be continued.*]

YELLOW FEVER AT SENEGAL.—M. Joubert, Chief Inspector of the French navy, has received an order from the Minister to go to Senegal to report on the sanitary condition of the hospitals and ambulances in connection with the navy, after the late visitation of yellow fever. M. Joubert is also instructed to make a report on the condition of the troops stationed there, their barracks and general organisation.

A NOTE ON THE AFTER-TREATMENT OF SOME EXCISIONS OF JOINTS.

BY WILLIAM THOMSON, M.A., F.R.C.S.I.,
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IN a paper entitled, "Excision of the Knee in Early Life," which appeared in the BRITISH MEDICAL JOURNAL, of December 10th, 1881, my colleague, Mr. W. Stokes, observes: "The method of fixation of the limb adopted in the Richmond Hospital is a modification of that of Dr. P. H. Watson; and it appears to me to fulfil, as perfectly as need be, all the required conditions. An antiseptic dressing having been applied to the leg first, and subsequently to the thigh, two metallic splints, made of common hoop iron, are applied on the anterior and posterior surfaces of the limb, and then are fixed—first on the leg, and subsequently on the thigh, by gypsum bandages applied in the ordinary manner, care being taken to leave the portion of the limb near the situation of the wound open, so as to allow the application of antiseptic dressings without any disturbance of the limb. I consider this method of fixing the limb far superior to any others with which I am acquainted: and it has the merits of cheapness, simplicity, and thorough efficiency."

The method of dealing with these cases, thus approvingly spoken of by Mr. Stokes, was first introduced by me; and it was in my practice that he first saw it. I am very glad to know that, since he adopted it, he has had an experience of it so favourable, and so much in accord with my own. Although he has anticipated my intention to describe this plan, I may be allowed now to refer to it more fully. I had previously used Dr. Watson's apparatus; but I found that with a posterior splint of scored wood, afterwards covered with plaster-of-Paris, the whole covering made an unnecessarily bulky case, not always comfortable to the patient. Moreover, the scored splint did not lie so accurately as to prevent movement; and there was consequently not only, at times, pain from the jarring of the bones, but the risk of some displacement. The anterior splint, also made of rod iron, with lateral flanges attached to make it rest easily on the limb, and to give grip to the plaster, had to be specially prepared from careful measurements in each case, and entailed a cost worth considering in a large hospital. It therefore occurred to me that all the advantages of Dr. Watson's plan of fixation might be received with less trouble and cost and with certainty, by using hoop iron instead of the rod, and the Gooch splint. The material selected was about an inch-and-three-quarters wide, and of the ordinary thickness. This gives us a substance at once firm and resisting, and yet sufficiently pliable to be bent with the hands across the knee, or on the edge of a table, into any shape that we may require. A number of punch-holes should be made, passing from the under to the upper side, so that the roughened surface may be caught in the bandages. The anterior splint reaches from near the groin, along the front of the thigh, arches over the knee to give room for dressing, passes along the leg, and terminates on the dorsum of the foot. It is, in fact, of the shape adopted by Dr. Watson, with the exception that there is no suspension hook near the lower end of it. The posterior splint is modelled after that proposed by Mr. P. J. Hayes, of the Mater Misericordiæ Hospital, Dublin. That portion of the metal which corresponds to the popliteal space is bent obliquely upwards and forwards, so that the leg piece is on a slightly higher level than that of the thigh. The limb is rolled up in a gauze bandage; and the splints, protected by a light layer of cotton wadding, are then applied, and kept in position by a well fitting gypsum roller. The whole limb presents a size very little greater than natural, and the divided bones are kept firmly in position. The reason is that the plaster-of-Paris is applied directly to the surfacc of the limb (separated only by thin gauze layer) throughout the greater portion of its surface, and the two iron splints serve as bridges between the thigh and the leg. It will be found that the width of the iron is sufficient to afford a hold for the bandages, and that therefore the lateral flanges are not required. If the surgeon should fear hæmorrhage, requiring examination of the wound, and therefore be disinclined to apply the plaster immediately, he can postpone this operation until next day. The splints may meanwhile be secured with a gauze or flannel roller, and they will be found to give, even thus, very great security.

During the illness of one of my colleagues, I had an opportunity of trying the same method in a case of excision of the hip-joint of one of his patients. There is always difficulty in keeping the limb in a fixed position after operation in these cases; and I believed I could secure the necessary extension and fixity by very simple means. Moreover, the child had a very bad lateral curvature of the spine, and it appeared

to me that we could treat that at the same time. Accordingly, a piece of hoop iron was cut, of sufficient length to reach from below the axilla to the lower part of the leg. It was bent so as to form an arch over the wound, to allow for dressing. On the day after the operation, I placed the child under the influence of ether, and then had her well extended in the horizontal position by assistants. A Sayre's jacket was then applied for the usual distance, and in its folds was included the upper portion of the splint. The lower part was fixed to the thigh and leg, during extension of the limb, by a few turns of gypsum bandage, and all was done. The case soon passed from under my care; but the method appeared to me to achieve what was aimed at, and I shall again adopt it in a similar case. In compound fractures it has also acted admirably, keeping the broken extremity at rest, and allowing free access to the wound.

In excision of the knee, the swinging of the leg is a condition usually of much comfort to the patient. This I effect in a very simple way. I have had some bed cradles made of rod iron, about the thickness of one's little finger, and of a somewhat larger size than usual. The cradle is placed over the limb, which is then swung by means of a piece of stout calico of sufficient width, attached on either side by two or three tails to the upper bars. Hoop iron will be found to make admirable splints in fractures of the arm or leg in children, being at once very light, and admitting of being very closely applied to the limb.

OVARIOTOMY IN SWITZERLAND.

By ALBAN DORAN, F.R.C.S.,
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I AM indebted to Mr. Spencer Wells for the materials which enable me to give the following account of the history and progress of ovariotomy in Switzerland. The first operation of this kind ever undertaken in that country was performed by Mr. Wells at Zürich in 1865. The patient is still in good health; and, as Professor Billroth, Breslau, and several Swiss surgeons, were present, there can be no doubt that it had a marked influence as an encouraging example. Up to the time when Professor Kocher of Berne and two or three other experienced operators began to insist on the important alliance between antiseptic surgery and ovariotomy, the results were not favourable; since that time, statistics show a marked improvement in the experience both of Professor Kocher and of other Swiss operators. Professor Kocher has recently furnished Mr. Wells, for insertion in the new edition of his standard work now in the press, the information which I here arrange in detail; for Mr. Wells, through lack of sufficient space, will be compelled to present the subject to his readers in a more abbreviated form.

Our thanks are particularly due to those Swiss gentlemen who, waiving all personal considerations, have furnished us with the records of experience not only limited, but disastrous. One surgeon, writing of the fatal termination of his only case of ovariotomy, says: "Mon cas, c'est de l'indigence, mais à ce point de richesse la probité scientifique veut qu'on accuse tout cas." Here, scientific honesty is displayed in its purest form; and, whatever be the real triumphs of others, human nature is such that many would have more faith in the report of a solitary and an unsuccessful case, than in the value of other statistics as brilliant as they are lengthy. At the same time, we must be fair to systems as well as to surgeons; and we must, therefore, hesitate before recording with too great confidence the results of Listerian and non-Listerian operations. The solitary fatal case of one operator was performed with "Listerian precautions"; another unlucky ovariotomy, performed by a surgeon of no previous experience, appears to have been "antiseptic" only as regards the bandages. One operator speaks of his case being Listerian, "but without spray". As others may have, inadvertently, omitted that qualification, I do not think that British votaries of antiseptic surgery will be over-confident in the expressions "rigoureux" and "strengste", as applied to Listerian precautions, excepting when used by surgeons of such experience in ovariotomy as Professor Kocher himself. Lastly, the deficiency of experienced assistants and nurses must be considered, when we see the unfavourable statistics of several surgeons who, much to their credit, have performed ovariotomy in some of the smaller Swiss towns.

The total recorded cases of removal of the ovary in Switzerland amounted, at the end of 1881, to 233 cases, 178 being successful, and 55 fatal. In itself, this record is a mere curiosity, of little practical or scientific value, excepting as an indication of Swiss enterprise; for nearly a dozen are cases of removal of normal ovaries for hysteria and dysmenorrhœa; many others are double ovariotomies, properly so called; and a large proportion, as I have just observed, were conducted under antiseptic precautions, carried out after individual notions of Listerian surgery. The following tables which I have prepared will, I believe, render the records of Swiss ovariotomy up to the present date more valuable.

TABLE I.—*Cases of Ovariotomy by Surgeons who have operated under Carbolic Spray in every case.*

	Operator.	Town.	Operations.	Recoveries.	Deaths.
1	Bischoff	Bâle	33	26	7
2	Kuhn	St. Gall	22	19	3
3	Socin	Bâle	12	8	4
4	Kottmann	Soleure	6	4	2
5	Bircher	Aarau	4	3	1
6	Bleuler	Zürich	3	3	0
7	Egli-Sinclair	Zürich	3	2	1
8	Reverdin, A.	Geneva	1	1	0
9	Cornaz	Neuchâtel	1	1	0
10	Max Hasler	Geneva	1	1	0
11	Buman	Fribourg	1	0	1
			87	68	19, or 21.8 per cent.

TABLE II.—*Cases of Ovariotomy by Surgeons who have employed Carbolic Spray in their later Operations.*

			Without Spray.			*With Spray.*		
	Operator.	Town.	Op.	Rec.	Deaths.	Op.	Rec.	Deaths.
12	Kocher	Berne	5	2	3	42	38	4
13	Müller	Berne	2	1	1	32	28	4
14	Julliard	Geneva	4	2	2	7	3	4
15	Koller	Winterthur	1	1	0	5	4	1
16	Neuhaus	Bienne	8	6	2	2	1	1
17	Rouge	Lausanne	3	3	0	3	1	2
			23	15	8, or 34.7 per cent.	91	75	16, or 17.5 per cent.

TABLE III.—*Cases of Ovariotomy where no Spray was employed, or where Antiseptic Precautions were not specified.*

	Operator.	Town.	Operations.	Recoveries.	Deaths.	Remarks.
18	Kappeler	Musterlingen	10	6	4	3 clamp cases.
19	Dupont	Lausanne	12	8	4	Nearly all clamp or other extraperitoneal cases.
20	Ziegler	Winterthur	4	3	1	All ligature. Precautions not specified.
21	De Montet	Vevay	2	2	0	"No antiseptics."
22	Schläpfer	Herisau	1	0	1	Listerian bandages only.
23	Piachaud	Geneva	1	0	1	"No antiseptics."
24	Reverdin, J. L.	,,	1	0	1	"Listerian, without spray."
25	Michaille	Nyon	1	1	0	"No antiseptics."
			32	20	12, or 37.5 per cent.	

These tables show a mortality far larger amongst cases treated without antiseptics, or with only partial antiseptic precautions. Owing to the difficulties of ensuring perfect freedom from septic influences when the clamp is employed, cases where that instrument has been used will not be looked upon by all surgeons as purely antiseptic.

Mr. Savory, in a discussion at the Royal Medical and Chirurgical Society a year since, where the advocates and opponents of Listerism in ovariotomy had been disputing their claims with great energy, observed how significant it was that, in all tables of statistics, antiseptic or otherwise, each operator was troubled with less mortality after his later than after his first operations. In other words, increased judgment in diagnosis and skill in operating are factors of as great importance as the adoption of an uniform method in all the cases of any particular series. It is noteworthy that the mortality is less in the antiseptic cases in Table II than in all the cases in Table I. The operators in the second table began their antiseptic operations when they had already the advantage of practical experience in ovariotomy; whilst the surgeons named in the first list began ovariotomy with all the intricacies of the operation itself and of Listerian arrangements new to them. Many of these gentlemen commenced their series but a few years ago, when the improved methods of detail but recently introduced had facilitated the operation and diminished its risks to the beginner. Lastly, many have had an

unusual number of complicated cases; and it would not be fair to omit, in these columns, some more details than could be included in the above statistics. I will, therefore, following the order of the tables, briefly describe some of the special experiences of each operator.

1. Dr. Bischoff was one of the earliest surgeons to employ the spray in ovariotomy. He made use of a two per cent. spray in 1872. Four of his cases, included in the tables, were oöphorectomies: all of these recovered; eight out of the remainder were double ovariotomies. The seven deaths were "all from peritonitis"; three of these were cases of sarcoma extending to the peritoneum.

2. Dr. Kuhn used the clamp in three cases; in the remainder, he secured the pedicle by complete intraperitoneal ligature. Two of his fatal cases died of "sepsis" on the fourth day. The third fatal case was incomplete; a large papillary cyst existing without a pedicle, it could not be completely removed; the patient had hydro-thorax and hydro-pericardium. In one patient, there were temporary symptoms of carbolic acid poisoning.

3. Professor Socin used the clamp exclusively until his last case, where the pedicle was secured by complete intraperitoneal ligature, silk thread being used. Two of his fatal cases died of "collapse", two from septic peritonitis; both of these latter had advanced visceral disease.

4. Dr. Kottmann used the clamp twice, silk or catgut ligatures in the remaining cases. One clamp case died of "ileus" on the eighth day. The second case died on the second day "of collapse", possibly carbolic acid poisoning.

5. Dr. Bircher used the ligature; his experience, though small, was remarkable. One case was an oöphorectomy for neuralgia. Another was complicated by the formation, after operation, of an abscess bursting into the stomach, and also perforating the abdominal walls. A third was a "mixed cystic sarcoma". The fatal case was "fibroid of the right ovary and of the uterus, which was removed, excepting the cervix". Drainage was employed, but the patient died on the fifth day. The uselessness of statistical tables without details such as these, is well illustrated in this record of the eventful career of Dr. Bircher as an ovariotomist.

6. Dr. Bleuler's cases were all three "proliferous cystomata". He used the ligature for the pedicle.

7. One of Dr. Egli-Sinclair's cases was a "double castration for hysteria", the second a "fibro-sarcoma of the ovary". The fatal case was an ovariotomy performed during pregnancy; the tumour was sessile; the ligature was applied to the cornu of the uterus, and Paquelin's cautery also used. Premature labour, and death in twelve hours, was the result.

8. A. Reverdin's patient had twice been tapped. The tumour was a multilocular cyst, strongly adherent, two adhesions requiring ligature. The pedicle was secured by catgut.

9. Dr. Cornaz used the ligature; the tumour was a cyst, never tapped before the operation. An abscess formed on the cicatrix.

10. Dr. Max Hasler's case was a "unilocular cyst". He used the clamp, but appears to have employed the strictest Listerian precautions. The clamp separated on the ninth day, and the patient made a rapid recovery.

11. M. Buman's fatal case was a single woman aged 51, with cirrhotic liver. There were extensive intestinal and pelvic adhesions; death from collapse occurred four hours after the operation.

12. Professor Kocher of Berne has had the advantage of greater practical experience in ovariotomy than can be claimed by any other Swiss surgeon. He has also methodically tried and proved both the Listerian and the non-antiseptic methods. Table II shows how he lost three patients out of five before he employed spray; but only one more—namely, four—of his strictly Listerian cases. Still, it must not be forgotten that his non-Listerian ovariotomies were his first attempts at the removal of diseased ovaries. All the three fatal cases where spray had not been used died of "peritonitis"; in two of these the clamp, in one the ligature, had been applied to the pedicle. Complete intraperitoneal ligature of the pedicle was adopted in the last thirteen of the antiseptic cases. Amongst this later series, the four deaths were from the following causes: one died of "peritonitis, on the second day"; one, a case of carcinoma of the ovary, died of "septic peritonitis"; one died with septic symptoms, the cyst-contents being putrid through tapping before the operation; the fourth died through a singular accident. The sponges had been carefully counted before the abdominal wound was closed, and the nurses and sister reported that all were out of the abdominal cavity. The patient died on the third day of acute peritonitis, and a piece of sponge was found in the body. "The sister", Professor Kocher states, "accused one of the assistants of having torn one sponge into two pieces during the operation."

13. In the last ten of Professor Müller's cases, complete intraperitoneal ligature of the pedicle was adopted, the clamp being used in several earlier cases. Three of the fatal cases died from "peritonitis"; one from "hypostatic pneumonia"; and the last, an incomplete operation, died in one month, apparently from peritonitis.

14. M. Julliard of Geneva has tried more methods of securing the pedicle than any other Swiss surgeon; he is also partial to drainage, this appears to have saved his last case, which is not marked "antiseptique rigoureux" in his statistics. This was a case of universally adherent multilocular cyst. The bladder was lacerated, and a portion of the cyst-wall, "of the size of the palm of the hand", was left in the abdomen. The pedicle was secured by a silk ligature, cut short, and drainage maintained by one glass and two gutta-percha tubes. Two months after the operation, a small fistulous track remained in the abdominal wound at the site of the drainage-tubes. In only this and one other of M. Julliard's cases was complete intraperitoneal ligature of the pedicle adopted; and the second case died. The results of incomplete intraperitoneal ligature were not encouraging: one case, where the ends of the silk were left hanging out of the abdominal wound, died from hæmorrhage on the fourth day; spray had been used for this operation.

15. Dr. Koller's fatal case died of hæmorrhage half an hour after the operation. In one successful case, the ligatures of the pedicle were left dependent from the abdominal wound; the pedicle being secured by complete intraperitoneal ligature in all the remaining cases.

16. Dr. Neuhaus, in all his cases, transfixed the pedicle, which was retained against the abdominal wound. Of the two fatal non-Listerian cases, in one the cyst was gangrenous, the second was a double ovariotomy, the uterus being removed as well. The patient died of volvulus on the twenty-eighth day.

17. M. Rouge lost two of his antiseptic cases, one from carbolic acid poisoning, one from hæmorrhage; this latter was the only case in his entire series where the pedicle was not retained against the abdominal wound.

18. Dr. Kappeler used the clamp in three cases, the ligature, cut short, in the remainder. One clamp case died in eighty hours from acute obstruction, due to adhesion of the transverse colon to the pedicle; another died through hæmorrhage from the pedicle after violent retching; another from peritonitis. One ligature case died of peritonitis.

19. M. Dupont makes no reference to antiseptic precautions. Of the three bearing the words "ligature perdue" instead of "clamp", one, that recovered, is described as "fibrocyste utérin"; the second, a multilocular cyst, without adhesions, recovered; the third, a similar case, died of "hæmorrhage from the pedicle and peritonitis". With the clamp, M. Dupont had better results; one successful case was a "fibrocyste utérin".

20. The fatal case of Dr. Ziegler's had already undergone an operation, by another surgeon, for the removal of one ovary, apparently a cystic sarcoma. There was malignant deposit in the abdominal wall.

21. M. De Montet is described by a colleague as having "performed two ovariotomies in young subjects, two recoveries, no antiseptics"; and M. Michaille (No. 25 in the list) "performed one last year" (1880)—"cured, same luck as M. De Montet."

22. Dr. Schläpfer's solitary case was precisely similar to that which fared unluckily under Dr. Ziegler, being a second ovariotomy, with malignant deposit in the abdominal walls.

23. M. Piachaud describes his case as "cyst of the ovary with much ascites and a certain amount of surgical peritonitis". The cyst burst during the operation, much of its contents escaping into the peritoneal cavity.

24. M. J. L. Reverdin employed a catgut ligature; the case died of septic peritonitis on the tenth day.

It being ever the aim of the British Medical Association to encourage collective investigation, I doubt not that its members will sincerely desire that Professor Kocher's example in collecting statistics of this kind should be followed in Great Britain and Ireland. If a few metropolitan and provincial medical gentlemen in this country adopted a similar method, statistics of incalculable value, concerning all major operations in surgery, could be collected in a very short time. The different operations for partial or complete extirpation of the uterus particularly need publicity of this kind, down to the very minutest points of detail.

MEDICAL BENEVOLENT FUND.—At the annual general meeting of the subscribers to this fund, the following resolution was carried: "That the very best thanks of this meeting be given to Mr. Ernest Hart, Editor of the BRITISH MEDICAL JOURNAL, for his continued services to the fund."

CASE OF OPTIC DISTURBANCE, PROBABLY FROM INTRACRANIAL TUMOUR.*

By A. R. SAUNDERS, M.B., F.R.C.S., Kingston, Jamaica.

MR. J. E. consulted me, some weeks ago, respecting his eyes. About eight years ago, he was under the care of Mr. Swanzy of Dublin, for paralysis of his right third nerve, which was thought to be due to syphilis, though no constitutional symptoms, other than some slight glandular enlargements in the groin, had manifested themselves then, nor have any appeared since.

On examination, I found, in the right eye, slight drooping of the upper lid, the folds of which were obliterated; the eyeball was prominent, the sixth nerve paralysed, consequently there was inability to rotate the globe outwards, though the strabismus was slight, because of paresis of the third nerve; the movements of the globe upwards, downwards, and inwards, being very slowly and imperfectly performed. The pupil was dilated, did not contract on exposure to light, but contracted readily on convergence. There were several blind spots in the visual field, but there was no apparent diminution of its area. Perception of colours was normal. On ophthalmoscopic examination, a well marked myopic crescent was seen; the margins of the disc, particularly on the inner side, were ill defined, raised, and irregular in outline, the vessels in places covered by exudation, but not much diminished in size. The refraction was myopic. Vision = $\frac{20}{200}$ with − 1.25 D = $\frac{20}{50}$.

In the left eye, there was paralysis of the superior, inferior, and internal recti muscles, and of the inferior oblique, but not of the superior oblique, nor of the external rectus; therefore external strabismus, with the cornea directed outwards and downwards. Cycloplegia was so complete as to cause total inability to read ordinary type, though this was readily effected by + 4 D. There was no contraction of the pupil, which was widely dilated, either on exposure or on convergence. Ophthalmoscopically, the fundus and disc appeared normal, though possibly there was some fulness of the vessels, a condition not uncommon in hypermetropia. Vision = $\frac{20}{40}$ with + .5 D = $\frac{20}{30}$.

There was, of course, crossed diplopia, and the images did not lie in the same horizontal plane.

There are several points of interest in this case. The anisometropia, or unequal refraction in the two eyes (the right being myopic, and the left hypermetropic), is a very uncommon condition, and one not easily rectified by glasses; since, though it is easy to correct the refraction, it is almost impossible to harmonise the accommodation and the convergence. In the right eye, there is what is called the Argyll Robertson symptom, *i.e.*, contraction of the pupil on convergence, but not on direct exposure to light. This symptom was found by Dr. Argyll Robertson in cases of paralysis of the radiating fibres of the iris, due to lesion of the cervical sympathetic, and was supposed by him to be due to arrest of function in the sympathetic, on the assumption that the contraction of the pupil, when exposed to light, was not effected solely by contraction of the circular fibres of the iris produced by a stimulus from the third, but partly by loss of action of the radiating fibres, resulting from arrest of function of the sympathetic. Such an action as that attributed to the sympathetic would be physiologically quite unique. If it were the case, myosis and this peculiar symptom would be coincident; but, in one case of Dr. Grainger Stewart's, the pupil was of normal size; and in another quoted by him from Wernicke, it was not contracted; here mydriasis was associated with it. Wernicke has advanced the view that it is due to lesion of the nerve-tract connecting the centres of the second and third nerves; reflex action is interfered with, more or less, though central stimuli are readily transmitted. Dr. Grainger Stewart thinks that there are different centres for those fibres of the third which regulate the contraction of the iris on convergence, and for those which regulate its contraction on exposure to light. In the present case, the cause appears to be rather some lesion of the nerve-trunk, which, though sufficient to prevent the transmission of the reflex stimulus, yet allows the conduction of the direct stimulus emanating centrally. The lesion in this case is almost certainly one of the nerve-trunk itself; to a similar cause, affecting the optic nerve, is the optic neuritis probably due, since it is more marked on one side of the disc, the result, presumably, of partial involvement of the nerve-trunk; so that, to imperfect conductivity of the third nerve, a similar condition of the second is added; consequently the reflex stimulus will be less powerful than if the second were intact. In the left eye, where there is no contraction on convergence, paralysis of the third nerve is so complete as to prevent the conduction of either central or reflex stimuli. This explanation is supported by analogy, since nerves recovering from certain paralytic conditions are capable of conveying mental, before they can conduct electrical, stimuli; under diseased conditions, their electric conductivity is also variously altered. It is also well known that conductivity for certain rays of light is lost before that for others; *e.g.*, in cases of colour-blindness from optic atrophy, perception of green is first lost, then that of yellow, while that of blue disappears last. Under certain conditions, too, sensations of touch, temperature, and pain, are conveyed with varying facility, or the power of transmission of some may be altogether lost, while that of transmitting others remains.

The Argyll Robertson symptom has been likened to the absence of the patellar tendon-reflex; in both, power of reflex movement is lost, while that of voluntary motion remains. The paralytic eye-symptoms in this case might be due to locomotor ataxy, disseminated sclerosis, or diffused syphilitic gummata at the base of the brain. The absence of lightning pains, of anæsthesiæ, of loss of muscular sense, of incoordination of muscles, of gastric and other crises, and the presence of the patellar tendon-reflex, exclude ataxy; though the neuritis, temporary ptosis, oculo-motor paralysis, and the Argyll Robertson symptom, occur in this disease. The absence of vertigo, nystagmus, rhythmical tremor, and paresis of limbs, with the duration of the symptoms, exclude sclerosis. I think that there can be but little doubt that multiple tumours, involving the nerves at the base of the brain, are the cause of the symptoms, and that these tumours are syphilitic gummata.

* Read before the Jamaica Branch.

CASE OF LOCOMOTOR ATAXY: STRETCHING OF THE SCIATIC NERVE.

By H. E. SPENCER, L.R.C.P.Edin., York.

A. B., aged 30, general labourer, came under my care in March 1880. He stated that, in very early life (at fifteen years of age), he had been led into all kinds of excess, drinking and indulging his sexual passion to a frightful extent. Still, he did not contract venereal disease. But, about the age of seventeen, he began to notice an irregularity in his gait—having to calculate each step. He also observed a loss of feeling in his soles. Previously to this, he had "slight touches of the rheumatics", but "nothing to notice". The irregularity of gait became more and more marked, though he did not feel any loss of strength in his legs; but he did not think he was any worse then than he was four years before he consulted me. There was no family history of nervous disease. His "present state" was this. He was quite unable to walk without support. He brought up his feet with a flourish, and down again with a clumsy stamp. The least touch threw him off his balance, and he could not turn round without much trouble. He could not stand at all with his feet close together. There was no loss of power in the limbs; but there was much anæsthesia. Patellar and plantar reflexes were both absent. The characteristic pains of locomotor ataxy were absent, and there was no nervous or other trouble elsewhere. He was a man of powerful build, and in excellent general health. He articulated the liquids with some hesitancy; but he had always done this ever since he began to speak at all, and it always disappeared when he spoke in public—he being an energetic platform orator for the cause of total abstinence.

Sixteen months after the above notes were taken, I decided to try the effect of nerve-stretching, as no change whatever was to be perceived in him, and he regarded himself as a hopeless cripple. On July 7th, therefore (Messrs. Weekes and Kirsopp assisting me), he was placed under the influence of chloroform, and the left sciatic nerve stretched, under antiseptic precautions. It was first pulled steadily and vigorously downwards, and then upwards; and, finally, passing my fingers round the nerve, I lifted up and held the entire weight of the limb suspended by the nerve for about a minute.

On the following morning, there was complete return of plantar reflex on both sides. A week after the operation, I got him out of bed, and assisted him to walk across the floor. There was now a marked difference between the two sides. The movements of the left limb were now nearly normal, while the right remained as before. He stood pretty firmly on the left foot with a slight support; while, if he attempted to do so on the right, he reeled over at once. There was also much increase in sensation on the left side. Patellar reflex was still absent. A month afterwards, however, this difference had disappeared, and everything was as bad as ever again. I therefore, of course, abandoned the idea of operating on the right nerve, as I should otherwise have done. Yet, I think the result instructive. We had to deal with a case in which pain was absent, and in which we had simply to test the effect of the operation on muscular co-ordination. The interesting

points in the case are the restoration of plantar reflex, and the temporary improvement, both in sensation and motion, of the limb operated upon. The operation itself was followed by no bad consequences, either local or general.

SURGICAL MEMORANDA.

EXCISION OF THE KNEE IN EARLY LIFE.

AMONG the Surgical Memoranda published in the BRITISH MEDICAL JOURNAL of the 31st ult. appear some kind and appreciative remarks by Mr. C. Macnamara on a recently published paper of mine on early excision of the knee-joint. According to Mr. Macnamara, the reason why there is such a remarkable difference of opinion as regards the propriety of early excision of the knee, between the metropolitan surgeons, and those perhaps not so fortunately situated, is mainly due to the fact that the former can send their patients to convalescent homes, many of which are "situated in healthy seaside localities". The effect of a residence at one of these "homes" has, he says, been attended with the most signal benefit to many of his patients afflicted with articular disease, so much so as to render excision or other operative measure unnecessary. I regret that my experience in this matter does not coincide with that of Mr. Macnamara. In a convalescent home near Dublin, at Blackrock, than which no situation more healthy could possibly be imagined, and where the greatest care is taken of the patient, I have not seen those remarkably favourable effects on joint-disease resulting from a residence there.

The necessity for excising a thin slice from the ends of the bone when the disease is confined to the synovial membrane, Mr. Macnamara does not see. The reason why I did, and do still, advocate this practice is, that the probabilities of getting firm union between the bones are increased. In truth, by leaving the articular ends of the bone intact, it is hard to understand how satisfactory union could take place. Notwithstanding Mr. Macnamara's able advocacy of incision and drainage, I cannot alter my view that, as a treatment for extensive pulpy gelatinous thickening of the synovial membrane of the knee-joint, it is unsatisfactory.

Although I regret that some of the views put forward in my paper do not meet with Mr. Macnamara's approval, it is still a source of much pleasure to me that the paper proved of interest to him, as he has deservedly become a high authority on all matters connected with osseous and articular disease.

WILLIAM STOKES.

CLINICAL MEMORANDA.

THE GEOGRAPHICAL DISTRIBUTION OF GOITRE IN ENGLAND.

THE admirable articles of Dr. Low, on the Etiology of Goître, which have appeared in the last two numbers of the JOURNAL, might suggest to the newly appointed Collective Investigation Committee a subject for their first essay on the geographical distribution of disease, as goître rarely figures in the returns of the Registrar-General (although I have seen death result from its rapid development), and is a disease of great interest and importance from the obscurity which envelops its etiology. Or the Association, out of the abundance of its funds, might make a small grant, and invite Dr. Low to reduce his views to the form of a schedule for distribution in other parts of the country, or, at any rate, in the county of York. I urge this measure, because I fear his careful investigations, if left where they are, will only confirm the common, but, I believe, erroneous, belief, that goître is a very local disease, confined to hilly districts. Some years ago, I was, for a short time, resident medical officer to the York Dispensary, and for a long time house-surgeon to the York County Hospital; and I saw a large number of goîtrous out-patients at these institutions. The majority of the cases came from the villages in the low country to the east and south of York—the districts extending from Helmsley to Selby—while comparatively few cases came from the west (Tadcaster district), and still fewer from the north (Thirsk district). I know the Helmsley district pretty well, and I know the western slopes of the Hambledon hills very well indeed; and I do not think there is much difference in either the physical conformation or the geological formation of the two districts; but goître is very rare in the western, while Dr. Low has shown that it is very common on their southern, slopes. They are both on the margin, but well outside of the great Cleveland iron-fields, where, indeed, I know, goître is of comparatively rare occurrence.

With respect to the racial characters of these districts, I think Dr. Low is in error in stating that the inhabitants of his district "are descendants of the ancient Britons, with a 'dash' of Scandinavian blood in their veins". He might reverse this statement with more probability of truth. The people of the greater part of the North and East Ridings are Scandinavian, with the very faintest dash of ancient British, and with a much larger dash of Anglian blood in their veins. The Anthropometric Committee of the British Association have found the average stature of the male adults in the two Ridings to be 69.08, a small fraction below that of the Helmsley volunteers given by Dr. Low, which body must be, to a slight extent, selected men. Where the ancient British blood is represented, the stature is much lower, as in Chester, Salop, and Gloucester, where it is represented by 66.50, 66.33, and 66.31, respectively.

I may add that we were very successful at York in the treatment of goître when it was not of very long standing. Our treatment consisted of the administration of tolerably large doses of iodide of potassium, and the frequent blistering of the thyroid gland, together with a constant application of the iodide of lead ointment. It was to Dr. Hughlings Jackson, one of my immediate predecessors, that I was indebted for this line of treatment.

CHARLES ROBERTS, F.R.C.S., Bolton Row, Mayfair.

P.S.—With regard to the distribution of goître, I think too little importance is attached to its hereditary transmission.

PEMPHIGUS.

IN the JOURNAL of January 21st, 1882, Dr. Main quotes a case of pemphigus occurring in his student days, in which the patient was covered from the crown of the head to the sole of the foot with bullæ. I had a case last year of a similar sort; there was not a square inch on the body of the patient devoid of bullæ, head and face, feet and hands, included. I looked upon the case at the time as unique; for, on looking through many medical books on the subject, such a case was not described, and gave one the impression that the bullæ never exceeded one hundred in number.

I treated the case with sarsaparilla and liquor arsenicalis at first, and latterly with tincture of perchloride of iron and liquor arsenicalis, gradually increasing the arsenic, till the patient took fifteen minims three times a day. The patient quite recovered from the pemphigus in about six weeks, and he went to a public institution, subsequently, to be treated for the ensuing debility. I never treated it as a syphilitic disease, or possibly it might have recovered sooner. The patient was a lad aged 17.

A. H. BOYES, M.R.C.S.Eng., L.R.C.P.Ed., Lodway Villa, Pill, near Bristol.

OBSTETRIC MEMORANDA.

A COMPLICATED MIDWIFERY CASE: EPILEPTIC CONVULSIONS: INVERSION OF UTERUS.

THE following case possesses many points of interest, not the least being the power shown by the human frame to recover after the most violent strains and shocks.

Celia R., aged 44, wife of a quarryman, and mother of eight children, commenced her ninth labour on Monday night, December 12th, having engaged a supposed "midwife" to attend her. She continued (according to the midwife) in strong labour until the night of Wednesday, the 14th, when, epileptic convulsions having set in, the husband called me in.

When I arrived, I found her in strong convulsions, taking two persons to hold her. On examination, I found the head of the child well in the vagina; and without any difficulty I used the short forceps and delivered her. The placenta came away in about twenty minutes' time, without any tension whatever being used. She remained insensible for some time, but had no return of the convulsions. The next day, I found her going on very favourably, and, except that I had to use the catheter, gave no cause for any anxiety. At my visit on Monday, December 19th, I ordered a dose of castor-oil, which the midwife, who was still in attendance as nurse, gave her. About five o'clock the same day, I received a very urgent message to go up, as "there was another baby coming, which the nurse could not get away". When I arrived, more than one hour had elapsed; and during that period I found that the midwife, still persisting in her idea of another child, had been continually "hauling" at its supposed head, until made to desist by the cries of the patient and the interference of her neighbours. Upon inquiry, I found that, when the oil given in the morning was about to act, this midwife had made her unfortunate patient get out of bed and have the action of the bowels in a standing position and leaning over the back of the chair, when, as the patient afterwards informed me, she soon felt something give way and fall.

On examination, I found the uterus completely inverted and prolapsed, and lying outside the vagina. It was returned slowly and with great difficulty; but, from the history of the case, and especially from the treatment used for removing the tumour before my arrival, I held out but faint hopes of her recovery; her pulse then being 125, temperature 100°. However, with the exception of the retention of the urine, which continued, and required the daily use of the catheter, she did not show a bad symptom; and she is now well, and able to walk about, the only medicine used being a grain of opium every four hours for the first two days. GEORGE C. SEARLE, Brixham, Devon.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

WESTMINSTER HOSPITAL.

CASE OF LARGE STRANGULATED SCROTAL HERNIA: OPERATION: DEATH.

(Under the care of Mr. COWELL.)

[FOR the notes of this case we are indebted to Mr. ARTHUR, the Surgical Registrar.]

D. H., aged 47, a brewer, was admitted soon after midnight of June 11th, 1881, with a large strangulated inguinal hernia of the right side. His condition was one of extreme danger. He was anxious; his pulse extremely rapid (over 140), soft, and compressible; his surface was cold. There was considerable pain in the right groin. The skin of the scrotum was enormously distended, and of a dark red colour, and its superficial veins were tortuous and full of blood. The rupture was tense, not very tender to the touch, and evidently contained a considerable length of intestine, with a quantity of fluid.

The history which was obtained from the patient and his wife, who accompanied him, was as follows. He had been ruptured for nineteen years; with that exception, his health had been good. He had always been able to reduce the hernia until Friday afternoon, whilst he was at work—that is, about thirty-two hours before his admission. He stated that he was wearing a truss at the time; that his scrotum was quite natural on Friday morning; and that his bowels had acted on Thursday evening, but not since. His sickness had commenced on Friday afternoon, and had increased in frequency since. It had become stercoraceous when admitted. Several attempts had been made during the previous twenty-four hours to reduce the hernia, but without success. Previously to leaving his home, near Mortlake, he passed a pint and a half of blood from the rectum. He came to the hospital in a cab.

With this somewhat doubtful history, and in a very unpromising condition, the patient was placed under the influence of ether. The sac was opened, and about ten ounces of dirty serous fluid pressed out. The intestine was carefully examined; and, although part of it was much discoloured, the serous surface was perfect. The ring was found to be very capacious. The seat of stricture was below the ring, where there was a firm band, surrounding the intestine, which seemed to be formed by the bowels being twisted on each other. The opening in the sac was enlarged, and a careful examination of the coil showed that the constriction had thus been brought about. The mesentery was much thickened; but the coil was easily untwisted, and the intestine passed back into the abdominal cavity. The interior of the sac was carefully cleaned, the wound closed with four silver wire sutures, and a pad and bandage firmly applied. The patient, although he expressed himself as relieved by the operation, never rallied. He had several attacks of vomiting and hiccough, and died at seven o'clock—six hours afterwards. A short time before he died, he again passed about a pint of blood by the rectum.

The history, subsequently obtained from Mr. Palmer of East Sheen, who sent the patient to the hospital, is as follows. Mr. Palmer first attended him, five years ago, for a hernia of old standing, which the patient could not himself reduce. A warm bath, a dose of opium, and the local application of ice, were followed by a successful application of the taxis. A proper truss was ordered for the patient, and Mr. Palmer saw that it fitted and retained the hernia. The patient was not seen again by Mr. Palmer until Friday, June 10th, 1881, when he was summoned to him late in the evening, his wife stating that her husband had come home from his work ill. He had not worn the truss, and was now found with a hernia enormously increased in size, and giving unmistakable signs of strangulation. Mr. Palmer was unable to reduce it, and advised his going to the hospital in the morning. This he firmly refused to do until late on Saturday night, when his condition had become extremely serious. Mr. Palmer says that he would have operated himself on Friday night, but, knowing the kind of patient with whom he had to deal, and his intolerance of anything like control, he considered the hospital the best place for him. He adds, that he was unable to obtain any satisfactory account of the duration of the symptoms from the patient.

Post mortem examination, thirty-two hours after death. The body was well nourished; the organs fairly healthy. The amount of intestine which had been strangulated was as follows; eight inches of the ascending colon, the whole of the cæcum and vermiform appendix, and exactly three feet of the ileum. The chief discoloration was in the cæcum and colon—the structure of the former being soft, and tearing with the slightest touch. The meso-colon and meso-cæcum were much thickened. The mucous membrane of the colon below the hernia, and also of the rectum, was much congested, and there were a few small clots.

Surgeons, Mr. Cowell observed, are accustomed to the marvellous neglect of symptoms which is common amongst hospital patients; but, in this case, a man, after serious warning, habitually neglected to wear the truss that was provided for him; permitted the hernia to increase to an enormous size; continued at his work after the more serious symptoms of strangulation had set in; and refused to go to hospital until it was too late.

ROYAL ALBERT EDWARD INFIRMARY, WIGAN.

DIRECT STRANGULATED HERNIA: OPERATION: CURE.

(Under the care of Mr. WILLIAM BERRY.)

J. C., aged 21, labourer, was admitted on April 25th, 1881. The hernia came down after a severe attack of vomiting; it was large, tense, and painful; the scrotum was filled on the right side. The swelling had been perceived from early on the morning of April 23rd. He had not much pain in the swelling at first, but a dragging pain in the abdomen, especially around the navel. Vomiting continued, chiefly of a frothy material. On admission, an enema was administered, and some fæculent matter came away; taxis was again tried, but failed. As there were no urgent symptoms, he was left till next day. Another enema was ordered. Finding no abatement of symptoms, Mr. Berry determined to try taxis under chloroform; and, if that failed, to operate. Taxis having failed, he at once cut down upon the protrusion; a good deal of bloody serum escaped when the sac was reached. The hernia was reduced without opening the sac. The wound was closed with wire sutures, and a pad of dry dressing applied, and a spica bandage.

On April 28th, the dressing was changed. The scrotum was œdematous and black, from ecchymosis. He was ordered one grain of opium every three hours, and to have milk and soda water.

On April 29th, there was some abdominal tenderness, but no vomiting. The skin was hot and dry. The wound and scrotum were completely filled with blood-clot, showing that considerable oozing had taken place.

On May 6th, the wound was closing. Absorbent wool pads were used all along, and the patient stated that they were very comfortable. The bowels acted for the first time on this day, after an enema. He was ordered ordinary diet and porter daily, and to take one pill of opium at night.

This case was dressed with dry dressing throughout; and, although the wound opened up and granulated from the bottom, his stay in the hospital was not greatly prolonged. His temperature chart is too long for a clinical memoir, but presents nothing unusual. After the abdominal tenderness subsided, the temperature was never high—with the exception of the night temperature on May 11th, when he had a rigor, and his temperature went up to 104.8°, which was the highest recorded during his illness; no ill effect, however, followed. Next morning, his temperature was normal, and continued so till his discharge. He was discharged on June 7th, cured.

THE number of suicides in France for the year 1881 is officially stated to be 6500, being four more cases than in 1880. For several years the statistics have exhibited a regular increase. Taking the last thirty years, the rate of increase is given at 78 per cent. In 1851 there was one suicide to every 9833 inhabitants, while in 1881 every 5161 furnished a case. The frequency of suicides in Paris is far greater than in any other capital. Only, indeed, in the German province of Thuringia, which has the dismal distinction of pre-eminence in this matter, is the rate of suicide higher than in the French capital.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JANUARY 24TH, 1882.

A. W. BARCLAY, M.D., President, in the Chair.

On Hernia of the Ovary. By ROBERT BARNES, M.D.—The author said that scanty advantages had been taken of the opportunity which the ovary, brought to the surface of the body, offers for physiological observation. He cited in abstract some of the most marked cases of hernia of the ovary which have been published, notably those of Goucy, Pott, Desault, Lallemand, and Poquet, Deneux, Veboux, Cæsar Hawkins, Oldham, Holmes Coote, Oettingen, Meadows, and Lawson, Courty, Leopold, Beigel, Boinet, Rheinstädter, and Raffo, and related two cases observed by himself. The first case was admitted by him into St. George's Hospital in 1877. The patient, a single woman, aged 41, had always enjoyed good health. At 24, she sustained a rupture in the left groin and wore a truss; at 38, she observed a second swelling behind the first. The swelling and tenderness of the ovary were observed before and during the menstrual periods. Corresponding sphygmographic observations showed distinct rise of tension preceding the flow, and subsiding when the flow set in. The ovary was removed. A description and illustration of it were submitted by Dr. Goodhart. Dr. Barnes referred to Dr. Chambers's case in the *Obstetrical Transactions*, in which bodies simulating ovaries turned out to be testicles. He discussed the etiology of hernia of the ovary and uterus, citing Cruveilhier's views. He referred to the frequent complication of anomalies of development of the genital organs in association with hernia of the ovary; also with extra-uterine gestation. He enumerated the varieties of hernia of the ovary, and referred to the supposed greater frequency of inguinal hernia when the ovary was concerned; to the greater frequency of congenital hernia; the complications with intestine and epiploon; the dependence of hernia of the uterus upon pre-existing hernia of the ovary, citing Cruveilhier's theory and the confirmatory conclusions of Puech, Deneux, and Cæsar Hawkins. The author then discussed physiological points, illustrated by the observation of the herniated ovary; how the ovary swelled concurrently with increased tension of the vascular system before menstruation; how the round ligaments swelled. He discussed the order in which the phenomena of menstruation occurred, arguing that the ovarian nisus was the *primum mobile*, that nervous and vascular tension followed, and lastly, the menstrual flow; resting greatly upon sphygmographic observations. He suggested that the recent practice of oöphorectomy on Battey's principle would supply opportunities for deciding this and other questions; and proposed that sphygmographic observations should be made upon the subjects of this operation. He then discussed the diagnosis and treatment of hernia of the ovary, contending that it furnished a legitimate motive for Battey's operation *quoad* this affection at least. The paper was illustrated by sphygmographic tracings by Dr. Fancourt Barnes; by drawings of the amputated ovary by Dr. Goodhart; and by a cast of the parts by Dr. Harper.—Dr. ROUTH said that such cases as those described by Dr. Barnes were important, not only as indicating the symptoms of ovarian hernia, but as contributions to the history of menstruation, which no doubt began in the ovary. He had, however, observed some symptoms to which Dr. Barnes had not referred, in cases in which the ovary had fallen into Douglas's pouch; especially on the left side. In one case, that of a young lady, who had a displacement of the ovary into the left side of Douglas's pouch, where it had become adherent, pressure on the ovary caused sexual excitement. This, if observed in hernia of the organ, would be an additional means of diagnosis. Another symptom observed in these displacements was, that pressure on the ovary produced a feeling of sickness like that arising from pressure on the testicle.—Mr. HULKE said that cases of hernia of the ovary were rather frequently met with by surgeons. Of course, care was necessary in making a diagnosis. In 1871, 38 cases of hernia of the ovary were recorded and classified by Englisch of Vienna (see *Biennial Retrospect* of New Sydenham Society, 1871-72). Of these, in 27 the hernia was inguinal; and in 9 of these the displacement was on both sides. In most of the inguinal cases, the hernia was congenital. As regarded the absence of any process of peritoneum in one of Dr. Barnes's cases, this might have existed and have become atrophied. In congenital cases, it appeared that the ovary was almost always accompanied by the Fallopian tubes; while, when the hernia was acquired later in life, the ovary generally came down alone. In many of the recorded cases, a distinct tubular process of peritoneum was described. As regarded operation, each case must be judged on its own merits. He had seen cases where a lightly fitting truss produced no discomfort to the patient, while in others it could not be borne.—Mr. LANGTON referred to the difficulty of diagnosis. At the Truss Society, among more than 4,000 cases of inguinal hernia in women, there were 67 cases of hernia of the ovary. Of these, 42 were congenital, and in 25 the displacement occurred at various ages. The ovary was reducible in 29 of the congenital cases, and in 27 of these the patients were quite relieved by the use of a truss; the other two did not report themselves, and were probably cured. Of the cases in which the hernia occurred later, 8 were reducible and 17 irreducible; the proportion being the reverse of that in congenital hernia. The conditions of the ovary during the menstrual periods varied. In some, there was swelling of the ovary with effusion of fluid, which became absorbed; but, when the hernia had been first observed between the ages of one and twelve, no such excitement of the ovary was developed. The application of a truss gave relief in most cases; in none were there any indications for operation.—Dr. HEYWOOD SMITH said that it was very rare to find sexual excitement produced by pressure on the ovary: pressure generally caused pain of a sickening character. Might not the sexual excitement in Dr. Routh's case have been caused by irritation of the pudic nerve, in consequence of the adhesions to the pelvis?—Dr. BARNES thought that the remarks of Mr. Hulke and Mr. Langton tended to confirm the opinion of Cruveilhier that most cases of hernia of the ovary were congenital, and that the displacement was most frequent on the left side. He had not met with any cases in which distinct sexual excitement was produced by pressure on the ovary. He thought that the greater frequency of displacement in Douglas's pouch on the left side was caused by the round ligament and the ovary being more lax there than on the right.

OPHTHALMOLOGICAL SOCIETY OF GREAT BRITAIN.

THURSDAY, JANUARY 12TH, 1882.

WILLIAM BOWMAN, F.R.S., President, in the chair.

A Case of Acute Vascular Disease, with Retinal Hæmorrhages.—Dr. STEPHEN MACKENZIE read a very carefully recorded history of a case of this nature. The patient was a young blacksmith, aged 28, not overworked, getting meat three times a week, and vegetables daily, and in large quantity on Sundays. Four days before admission, he was attacked with swelling, pain, and bleeding of the gums, and abundant purpuric spots on the skin. At night, he vomited bloody fluid, and became delirious. On admission into the London Hospital, he was well nourished; there were numerous hæmorrhagic extravasations into the skin, but no subcutaneous or intermuscular extravasations; the gums were spongy, bleeding, and sloughy; there were extensive hæmorrhages into the retina, and some vitreous extravasations. There was a high degree of anæmia (corpuscles, 24.9 to 27.5 per cent.; hæmoglobin, 25 to 22 per cent.), and the temperature was high (maximum, 105.0° Fahr.). The disease ran a rapidly fatal course; antiscorbutics were of no service, and transfusion caused a rally of but very short duration; death occurred within a week of the onset. The body decomposed so rapidly after death that the necropsy threw little light on the nature of the disease, revealing only subarachnoid and subperitoneal hæmorrhages. The case was brought forward on account of the rapid and large retinal hæmorrhages, and also to raise the question of its nature. Dr. Mackenzie, after passing in review the most important vascular diseases attended with retinal hæmorrhage—namely, scurvy, idiopathic anæmia, hæmophilia, and purpura hæmorrhagica—said that he thought the case fell under the last head, though it was peculiar in that there was a condition of the gums similar to that seen in scurvy. This seemed to him to indicate that spongy gums had not the specific significance usually attached to the condition—a view which was supported by a case of idiopathic anæmia, in which the gums were swollen and bleeding, brought before the Society by him in the previous session.

Case of Double Optic Neuritis, following Purpura.—Mr. LAWFORD communicated this case, which had been under the care of Mr. Nettleship, at St. Thomas's Hospital. The patient was a girl, aged 12. During the greater part of the summer of 1880 she suffered from purpura; the purpuric eruption appeared in crops, a new crop being discovered on rising in the morning; she had several severe attacks of epistaxis, but no hæmorrhage from other sources. When admitted, on March 16th, 1881, there had been no purpura for many weeks; she had experienced some pain in the right eye, which was followed by loss of sight. She was sent to the hospital by Dr. McDonald, because she had lately begun to experience a similar pain in the left eye; at that time, the right eye had perception of light only, while the left had $\frac{2}{40}$ and 1 Jäger. The ophthalmoscope revealed neuritis, with fine striated hæmorrhages, on the disc on the right side, and commencing neuritis on the left side.

A week later, the swelling of the left optic disc had increased; the right disc was clearing rapidly. There was some disturbance of vision of colour in both eyes. Four days later, vision had greatly improved in the right, while it had markedly deteriorated in the left eye; the right disc was nearly clear, and the left was beginning to clear. From this date, vision in each eye rapidly improved—so that, on May 7th, she could read 1 Jäger with either eye. She was examined on the day of the meeting: vision was then normal in both eyes, and ophthalmoscopic examination revealed no definite deviation from the healthy state. Optic neuritis was quite rare, if known at all, with purpura; and, in this case, it might be doubted whether any causal relation existed. The strict coincidence in time and degree between the changes at the discs and the state of vision, together with the history of pain referred to each eye shortly before the failure of sight, probably pointed to the disease being a localised papillitis, rather than a descending neuritis. In reply to a question from Dr. Stephen Mackenzie, Mr. Lawford said that there was no heart-disease.—Dr. STEPHEN MACKENZIE, in reply to several questions, stated that there was no evidence of any infective process in his case, and that he did not attach any great diagnostic importance to the high temperature; it was commonly met with in various forms of severe anæmia. In Mr. Lawford's case, he was led, by the manner in which the spots appeared in crops at night, to regard it as a case of peliosis rheumatica; the neuritis followed so long after the purpura, that he doubted whether there was any good reason for connecting the two, though it was worthy of note that, in his case, Mr. Waren Tay had observed some swelling of one disc.

Epithelioma of the Cornea.—The patient, a man aged 50, had been under the care of Mr. JAMES E. ADAMS. In September 1877, Mr. Adams shaved off from the conjunctiva a small, hard, lobulated growth, which sprang from the lower and inner part of the ciliary region on the right side, and overlapped the cornea. No further trouble occurred until the spring of last year, when a tumour appeared at some distance from the site of the former one. It grew rapidly, and, on September 3rd, 1881, the globe was extirpated. On microscopical examination, the growth proved to be undoubtedly an epithelioma, though it showed no tendency to penetrate the deeper tissues.—The PRESIDENT observed that, though he had himself frequently been forced to excise the globe in these cases, he still felt that repeated removals of the growth, with the careful application of such an escharotic as chloride of zinc, was a justifiable line of treatment, since it was possible sometimes thus to eradicate the growth.—Mr. ADAMS said that he had applied nitrate of silver after the first operation; but now somewhat regretted that he had not used a more powerful escharotic. At the time, he regarded the excision of the growth merely as a palliative measure.

Two Cases of exceptionally high degree of Spasm of Accommodation.—Mr. JAMES E. ADAMS described two cases. The first was that of a young lady, aged 13, who had suffered from diphtheria three months before her eye-troubles commenced. When seen, there was slight dragging of one foot, but no other signs of paralysis; here the eyes, naturally hypermetropic, became apparently myopic to a high degree. Not the slightest alteration of refraction took place in the dark; but, after instillation of atropia for three hours, the refraction returned nearly to its original condition. This condition of spasm had arisen shortly after resuming arduous studies. The facility with which the surgeon might fall into error in such cases was, Mr. Adams remarked, obvious, unless atropia were used. The second case, that of a French priest aged 20, was chiefly remarkable for the length of time required to bring the ciliary muscle under the influence of atropia.—Mr. ADAMS FROST referred to the history of diphtheria in the first of these cases. He suggested that there might have been some paralysis of accommodation, leading to violent effort to overcome the paresis; after recovery from the paresis, the spasm might have remained.

Hard Chancre on the Conjunctiva of the Lower Eyelid.—Mr. WHERRY (Cambridge) described the case of a young shepherd, aged 23. On the conjunctiva of the right lower eyelid, a little to the outer side of the centre, was an ulcer with an indurated base; there was a good deal of chemosis, but the eye was otherwise healthy; the lymphatic glands in the parotid and submaxillary regions were large and hard. There was no history of the mode of infection. About five weeks after the affection of the eye began, well-marked secondary symptoms occurred.—Mr. NETTLESHIP said that he had seen a case in a little girl, aged three years, which was almost the exact counterpart of this case, and was published in Mr. Berkeley Hill's treatise. She had a painless swelling on the inner surface of the lower lid, followed by indolent enlargement of the lymphatic glands, and a roseolar eruption. There was no history, in this case, either of the mode of infection.—The PRESIDENT remarked that a foreign body, which entered the sulcus, between the lower lid and the sclerotic, was very apt to be retained there; and he suggested this fact might account for the site of the chancre being exactly the same in the two cases referred to.

Diabetic Cataract.—Mr. NETTLESHIP read the case of a woman who had suffered partial dislocation of the lens in one eye, owing to an accident; and when first seen, three years later, was suffering from diabetes. There was then partial cataract in each eye, but more advanced in the injured one. Afterwards, the displaced lens made much slower progress towards complete opacity than the other. The question was: whether the rupture of the suspensory ligament by injury prevented the diabetic state from having so great an influence on the lens in the injured as in the sound eye.—The PRESIDENT suggested that as, when the lens lost its natural connections, the normal processes of nutrition went on less rapidly, so, under the same condition, it might be less affected by any morbid state.

New Perimeter.—Mr. McD. MCHARDY exhibited and explained a new perimeter, made for him by Messrs. Pickard and Curry. He claimed that it combined most of the advantages of other perimeters; that it was more portable; and especially that the automatic recording apparatus, introduced last year by Dr. Stevens, was here rendered simpler and more effective.

Specimens shown by Card:

Fibro-sarcoma of Lacrymal Gland.—At the last meeting of the Society, Mr. HENRY POWER and Mr. JULER showed a patient with a tumour of the lacrymal gland. The tumour was removed on December 22nd, 1881, and proved, on microscopical examination, to be a fibro-sarcoma. The patient, who was in attendance on this occasion, also presented slight ptosis of the left eyelid; the cicatrix was firm, and there was no evidence of recurrence.

Glioma of the Retina.—This patient, a girl aged four years, was exhibited by Mr. HENRY POWER and Mr. JULER. A whitish lobulated tumour grew apparently on the lower and outer part of the ciliary processes, and protruded into the vitreous body, behind the lens. The retina was extensively infiltrated with deposit, which extended to and included the disc.

HARVEIAN SOCIETY.

JANUARY 5TH. 1882.

HENRY POWER, M.B., F.R.C.S., President, in the chair.

Cases of Removal of Osseous Tumours from the Auditory Canal.—Mr. FIELD related several cases, in which he had operated successfully on ivory exostoses (hyperostoses), by means of the American dental engine, drilling through the growth—thus making a permanent opening. In other cases of pedunculated osseous tumours, exostoses, made up of soft bone, he usually removed them with stump forceps, such as are used by dentists for the upper jaw. In all cases, the patients regained their hearing satisfactorily. In the case of multiple growths, operations were, as a rule, unnecessary; for a triangular space was left, between the apices of the tumours, which, growing from opposite sides of the canal, became wedged together—so that the aperture was not completely closed up. Five patients, with ivory exostoses, were accustomed to bathe regularly in the sea. From this fact, he was led to conjecture that this disease, instead of being invariably due to gout, rheumatism, or syphilis, or being influenced thereby, is more often the result of a chronic inflammation of the walls of the external meatus, such as might be produced by sea-bathing, or from the presence of pus in the canal.—Dr. STEPHEN MACKENZIE asked if serious brain-symptoms ever followed these operations.—Dr. BROADBENT mentioned a case of double exostoses, in which severe giddiness and sickness occurred when the mucous membrane was congested.—Dr. CLARKE and the PRESIDENT spoke; and Mr. FIELD, in reply, said he had never met with a case in which serious brain symptoms had followed the operation.

Encysted Dropsy of the Peritoneum.—Mr. KNOWSLEY THORNTON read a paper on this subject. He said that the disease was very rare, but he had met with two cases, in his hospital practice, in the last three months; and this showed that it was necessary to diagnose it from other abdominal enlargements. He alluded to the small amount of information on the subject to be found in either the general or special text-books. He quoted at some length a case in Mr. Spencer Wells's work on *Diseases of the Ovaries*, which very closely resembled one of his own; and alluded to the opinions of Drs. West and Peaslee, and showed how misleading the statements of the latter were—the errors arising, in his opinion, from an attempt to generalise from very imperfect data. He pointed out that it was important to distinguish this disease from the much commoner condition in which partial collections of fluid occurred in the peritoneum, around malignant growths. His own cases were then fully recorded. Case 1 was that of a woman, aged 45, believed to have an ovarian tumour, which was also supposed to have ruptured into

the peritoneum, while she was under the author's observation. Suppression of urine led to tapping of the peritoneum, which gave temporary relief; but she died with uræmic symptoms without further operation. The *post mortem* examination revealed very advanced granular disease of the kidneys, a large spleen, and an encysted dropsy, which had become general by breaking down of adhesions. The ovaries were healthy. Case II was that of a young girl, in whose abdomen a doubtful collection of fluid existed. It was a very difficult case for diagnosis; but, on the whole, the author leaned to the view that it was a case of flaccid cyst of the broad ligament. Abdominal section showed that it was an encysted dropsy of the peritoneum. The fluid was removed, the sac carefully sponged out, and the incision closed without drainage. The patient made a good recovery, the intestines gradually reoccupying the space where the fluid had been; and, when she was last seen, there was no appearance of reaccumulation. In his concluding remarks, Mr. Thornton urged the importance of the faithful record of rare cases, and pointed out that the knowledge of this disease was still too limited for it to be possible to lay down rules as to diagnosis. He would accept Peaslee's statement, that "encysted" dropsy of the peritoneum was always preceded and caused by peritonitis. The causes of the peritonitis were, however, very various. With regard to treatment, he thought it right to open the abdomen, and sponge out the sac, in any case in which the condition was diagnosed in a patient free from kidney-disease. Drainage was not necessary. He urged the advantage of incision, as compared with tapping; and spoke strongly as to the value of Listerism in abdominal section. At the Samaritan Hospital, in 1881, he had had forty-one cases of ovariotomy; he had not once drained, and had only had two deaths, both occurring in young patients, the subjects of malignant tumour.—Dr. BROADBENT mentioned a case of peritonitis, with dropsy, limited to the great omentum.—Dr. HARRIS also stated that he had seen a case of localised dropsy following childbirth.—Dr. HAYES said, after Mr. Thornton's success, he would be encouraged to operate in these cases, though he felt the whole difficulty lay in the diagnosis.—The PRESIDENT spoke; and Mr. THORNTON replied.

BORDER COUNTIES BRANCH.

OCTOBER 28TH, 1881.

S. GRIERSON, M.R.C.S.Eng., in the chair.

Amputation of the Hip-joint.—Dr. MACLAREN read a short account of three cases of amputation at the hip-joint. The first patient, a boy aged 10, had acute necrosis of the upper end of the femur. He died twenty-six hours after the operation from exhaustion consequent upon extensive intrapelvic suppuration. The second case, a boy aged 17, was one of chronic ostitis and subperiosteal suppuration of the femur. He made a good recovery. The third, a lad aged 20, had hip-disease of six years' standing. A large portion of the pelvis was subsequently removed. He made a slow recovery, and all the sinuses had not yet healed. He was able to go about and work at his trade. The method of removing the limbs was circular incision in two cases, anterior and posterior flaps in the other, all at the upper third; then an incision along the femur, and disarticulation. The advantages of this operation were: easy control of hæmorrhage; a small cavity in the centre; division of important structures, further from the trunk than by the old method; and diminution of shock. Davy's lever was used to control hæmorrhage in two of the cases, and answered admirably. In the other, which was a right limb, it could not be placed upon the common iliac artery; and Lister's tourniquet, supplemented by digital pressure, was employed.

The Treatment of Scarlet Fever.—Dr. HENRY BARNES, in introducing a discussion on this subject, first spoke of the prophylactic measures necessary for preventing a patient suffering from this disease from becoming a source of danger to others. The most essential of these were thorough isolation, and efficient disinfection. The unsatisfactory character of the experiments for the inoculation of the disease were referred to; and a hope was expressed that the infective germs might, at some early period, be identified and cultivated—so that the good results obtained by Pasteur, in splenic fever, might be also forthcoming in regard to scarlet fever. The medical and hygienic treatment was then considered. In mild cases, the necessity for great precautions against cold, and the risks of secondary complications, were insisted upon. The good effects of the blanket bath, and inunction with oil, in allaying irritation, reducing pulse and temperature, and conducing to the greater comfort of the patient, were pointed out. In discussing the treatment of graver cases, the unfavourable symptoms which the author had met with in different epidemics were alluded to, and the plan of treatment which he had found most successful in obviating these symptoms was described. The antiseptic salts of soda, especially the hyposulphites, were prescribed in some cases with decided benefit. The indications for the use of quinine, pilocarpine, chlorate of potash, carbonate of ammonia, and other remedies, were detailed, and especial reference was made to the external use of cold water, in the form of either cold pack or of cold affusion. The applications to the throat which had been found most useful were, sulphurous acid and glycerine, liquor sodæ chlorinatæ, solution of nitrate of silver (five grains to one ounce), and the liquor calcis saccharatus—the latter especially in those cases where there was any tendency to the formation of false membrane. When the urinary secretion was scanty or suppressed, a condition which might continue sometimes for four or five days, the internal administration of benzoic acid produced good results. The sequelæ of the disease and their treatment were also shortly alluded to, special prominence being given to the treatment of the tubal nephritis.

REVIEWS AND NOTICES.

OBSERVATIONS ON THE LOSS OF SENSIBILITY, OR ANÆSTHESIA, IN FUNCTIONAL CONDITIONS, AND ON CORD DISEASE, ETC. By DAVID DRUMMOND, M.A., M.D. Newcastle-on-Tyne, 1881.

THIS essay, a reproduction of papers presented by Dr. DRUMMOND at different times to the Northumberland and Durham Medical Society, represents an attempt to treat of the various anæsthetic and analgesic phenomena met with in hysteria, and in diseases of the spinal cord, in a systematic way; and contains, therefore, as might be expected, many interesting and suggestive observations upon a class of affections in regard to the pathogenesis of which we have at present but little information.

In a brief physiological introduction, the author gives his adhesion to the opinion that the same terminal organs in the cutaneous and afferent nerves serve in common for tactile and painful impressions; and, further, that these are the same organs and channels which respond to thermal impressions.

In treating of sensation-conduction in the spinal cord, the theories advanced by Brown-Séquard, Schiff, Woroschiloff, and Wundt, are discussed; and, in order to explain the fact familiar to clinicians, that pain is more frequently abolished (analgesia) in nervous affections than the sense of touch, a hypothesis is suggested, founded on the theory that pain-exciting impressions are from habit accustomed to travel certain definite paths in the afferent regions of the spinal cord; that such impressions, when forced into a new channel owing to some obstruction, ascend through the unaccustomed paths with difficulty, and arrive at the sensorium so modified as simply to excite tactile sensations; while, since the whole of the afferent channels are habituated to their passage, no such opposition is offered to the conduction of tactile impressions.

In discussing the etiology of the affection, the opening passage is calculated to excite comment. "I would premise that an overwhelming majority of the cases of anæsthesia, using the term in its fullest sense, are of the hysterical variety. My observations on this point have led me to the conviction that analgesia—impaired sense of cutaneous pain—is the commonest phenomenon of hysteria, and its most faithful and frequent index, not excepting the globus, emotional manifestations, inframammary neuralgia, etc." If it be true that the hysterical condition can be recognised by the loss of cutaneous sensibility more certainly than by any other manifestation, the observation is to be looked upon as of considerable clinical importance; although the author, in describing in succeeding pages the modes of investigating sensibility, wisely adds a word of warning as to the necessity of much discrimination in this regard, and particularly insists upon the necessity of distinguishing between painful impressions originating in muscles and those arising from irritation of the skin.

Hysterical hemianæsthesia is spoken of as exceedingly rare, the analgesia frequently met with being either general or irregular in its distribution. Several interesting cases of the former variety of the affection are, however, mentioned.

In distinguishing hysterical anæsthesia from the organic variety, particular emphasis is laid upon the presence, as indicative of a functional origin, of analgesia affecting the skin, whilst a strong Faradic current causes pain by inducing contraction in the muscles; and, again, in hysteria it is not unusual to meet with abolished tactile sensibility, whilst thermal impressions are still appreciated. In organic anæsthesia, thermal and tactile sensibility, in their presence or absence, are generally associated. Subjective symptoms—paræsthesiæ—are, Dr. Drummond states, rare in functional cases; a statement referring, it is to be supposed, to true paræsthesiæ, and not to those peculiar morbid sensations that usually pass under that name, and which result merely

from the blunting or diminution of the normal sensations in parts of the skin the seat of sensory paresis.

In the section dealing with the anæsthesiæ of toxic origin, special consideration is paid to chronic lead-poisoning, to alcoholic excess, and to bromism, as leading to sensory paralysis; and the records of cases having these several origins are given. The validity of the views of Naunyn and Tanquerel, as to the comparative rarity of anæsthesia in lead-poisoning, and its then transitory character, is called in question; the author believing it to be one of the most common and lasting of the symptions, a view which Beau, we observe, in a recently published monograph, likewise favours. "The peculiarity of the anæsthesia of chronic lead-poisoning is", says Dr. Drummond, "the frequency with which the cutaneous analgesia—for it is generally painful impressions which are lost—and analgesia of deeper structures are co-existent and co-extensive."

A class of cases, believed to be intermediate between the strictly functional and the undoubtedly organic in origin, is next described; and as instances of this class, cases are cited of anæsthesia occurring in the subjects of exophthalmic goître, of so-called functional epilepsy, and of chorea. The symptoms in such cases are, it is supposed, attributable to sympathetic or vaso-motor changes.

The muscular sense and its impairments, with the methods of their investigation; the sensory conditions met with in locomotor ataxy, in the various forms of myelitis of the cord, and in disseminated sclerosis, are amongst the subjects instructively touched upon by the writer; while his remarks also upon the subject of metallo-therapeutics are evidently based upon considerable personal experience of that method of treatment. In this essay, we may say in conclusion, there is very much that is interesting to the neurologist—much, perhaps, to which some will be inclined to take exception. We can cordially recommend it as an honest and able attempt to deal with a very difficult subject.

LECTURES ON THE DIAGNOSIS AND TREATMENT OF DISEASES OF THE CHEST, THROAT, AND NASAL CAVITIES. By E. FLETCHER INGALS, A.M., M.D., Lecturer on Diseases of the Chest and Physical Diagnosis, Rush College, Chicago, etc. London: Sampson Low, Marston, Searle, and Rivington. 1881.

ALTHOUGH we have in England two or three excellent manuals on the physical diagnosis of pulmonary diseases, we are pleased to welcome this new work by one of our American brethren. It possesses features which render it more interesting to the majority of senior students and practitioners than most books of this class.

Dr. INGALS has not only given the diagnosis of the various diseases affecting the lungs, heart, larynx, and nasal cavities, but he has also added an excellent account of the treatment proper to each affection. In the preface, he tells that, when the lectures were delivered, no allusion was made to treatment; and that he was induced to remedy this omission, in order that the work might be made more interesting to the practitioner and student. We certainly agree with Dr. Ingals's after-thought. We well remember, in our student-days, perusing such works as the present; and we have no hesitation in saying that our interest would have been the greater, had an outline of the treatment been appended to each affection.

The first eighty pages are devoted to general physical diagnosis. We are pleased to find that the author mentions a method of diagnosis, hitherto but little used. We refer to combined auscultation and percussion, commonly termed auscultatory percussion. It is rarely practised, because a second person is necessary in order to make the percussion. This, of course, is a serious objection to its universal use. Dr. Ingals has invented an instrument, which he calls the "emballometer", by means of which, and the binaural stethoscope, auscultatory percussion can be easily practised without the aid of an assistant.

We must pass over the greater part of Dr. Ingals's account of pulmonary and cardiac diseases, because he tells us little or nothing new. Nevertheless, he describes the familiar signs of these diseases so well, that we read the pages with the greatest interest. The author adopts the plan of giving tables, placed side by side, and containing the signs which are special, and not common, to each affection.

Dr. Ingals usually succeeds in making the differential diagnosis fairly clear; but we are disappointed in his very brief account of ulcerative endocarditis. We certainly should not be in a position to diagnose this grave disease from the meagre description given in this work.

Our author has set himself a task, which, on the whole, he has performed well; but we think that he gives the diagnostic points of some diseases with over-confidence. This is a fault, however, which can be readily condoned, because we believe it to be extremely difficult for an author to write such a work as the present satisfactorily without being somewhat dogmatic. The descriptive account of laryngeal and nasal affections is one of the most satisfactory features of this book; but we refrain from further criticism. Dr. Ingals deserves thanks for the great labour he has bestowed on this work.

NOTES ON BOOKS.

A Contribution to the History of Hygrometers. By G. J. SYMONS, F.R.S. (Reprinted from the *Quarterly Journal of the Meteorological Society.*)—This paper was read by Mr. Symons as a Presidential Address to the Meteorological Society. He commences with a quotation from Pliny to the effect that, when the platters and dishes at a feast become covered with dew, and leave that dew or sweat on the table, a terrible tempest is certainly approaching. He also quotes Miraldus, who wrote in 1554, and noticed that the strings of fiddles are apt to break or alter their pitch before the occurrence of rain; this is mentioned as an illustration of the catgut hygrometer. The earliest name given was notiometer, from Νοτίς, dampness, and Μέτρον, measure; but hygrometer from Ὑγρός, damp, and Μέτρον, measure, has superseded it. These instruments have been divided into three classes, viz., those of *(a)* absorption, *(b)* of condensation (dew-point instruments), and *(c)* of evaporation (dry and wet bulb thermometer). Mr. Symons thinks this a bad division, as some cannot be said to belong to any one class, being on the confines of two. He therefore has contented himself with giving a description of the various instruments which have been used since 1660. The first instrument was one of condensation, pounded ice being used to condense the moisture of the air; catgut and the beard of an oat were used by Hooke in 1664. Cusano used a delicate balance, into one pan of which dry cotton was placed, and any alteration in the weight noted. The lateral expansion of wood from moisture was utilised by Coniers; ropes, whipcord, parchment, hair, whalebone, and catgut, have been frequently used in different forms since that date. Le Roy, in 1751, noted the temperature at which dew was deposited on a tin vessel artificially coated. Dines, in 1871, made an improved instrument of this kind, and in 1879 brought out a better kind, which can be used with water or ether. De Luc's, Sansome's, Leslie's, and every known variety of hygrometer are described in the paper, but need not be further mentioned, as the dry and wet bulb thermometers are almost solely used at present for ascertaining the hygrometrical state of the atmosphere. Mr. Symons wisely does not discuss the question of the relative values of the instruments described; indeed, the limits of the paper would not have admitted of it, but it is as well to mention that considerable doubt has been thrown upon the results deduced from the observations taken from the dry and wet bulb thermometers. There is an useful plate showing the various forms of hygrometers, which will materially assist the reader in understanding the descriptions of the most important of the 131 hygrometers mentioned.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

THERMOMETER WITH PERMANENT INDEX.

MESSRS. FERRIS AND CO., of Bristol, have forwarded to us, a specimen of their corrected readable clinical thermometer. They allege that its special and distinctive feature, is, that the Kew corrections are distinctly marked upon the stem of every thermometer, etc. We have tested it carefully, and are of opinion, that it will be found to be a very handy and convenient form of clinical thermometer, and as such, suitable to the consultant or to the general practitioner.

OLEUM RICINI INSIPIDUM.

OUR attention has been drawn to this preparation, recently introduced by Messrs. Allen and Hanburys; we have had the opportunity of examining and testing it clinically. Although absolutely pure castor-oil, it is so prepared as to be entirely devoid of smell, and to have none of the disagreeable flavour which characterise the ordinary varieties of this oil. Being free from the nauseating character, which has so long formed an objection to the habitual use of castor-oil, this castor-oil of Allen and Hanburys does not leave a disagreeable after taste, nor give rise to the frequently experienced sensation of sickness, common to the use of the old-fashioned oil. It possesses very full aperient properties of the most active samples of oleum ricini insipidum, and is thus likely to be a very successful candidate for medical and popular favour.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1882.

SUBSCRIPTIONS to the Association for 1882 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JANUARY 28TH, 1882.

THE MEDICAL ASPECTS OF THE OPIUM QUESTION.

ALTHOUGH the discussion on Sir Rutherford Alcock's paper, read before the Society of Arts, was limited to the political and commercial aspects of the opium controversy, it may be as well to consider briefly the medical aspects of the question, and to endeavour to arrive at a definite opinion as to the effects on the system of the habitual use of opium. Is opium-eating or opium-smoking necessarily and universally pernicious? If we are to believe the older writers on the subject, it is a custom as dangerous and degrading as it is possible to imagine. Until recently, much of our knowledge of the subject was obtained from non-medical writers, whose practice has been too frequently to describe the confirmed opium-debauchee plunged in the lowest depths of moral and physical exhaustion; and, having formed the premises of this argument from the exception, to proceed at once to involve the whole practice in one sweeping condemnation. But the question has of late assumed a somewhat different complexion; and it would appear, from the correspondence published in the BRITISH MEDICAL JOURNAL, in the course of last year, that the facts are susceptible of a different interpretation; and that, amongst those capable of forming an opinion on this vexed question, there is a growing belief that opium-taking is, after all, not such a very pernicious custom. The whole weight of trustworthy evidence—and professional evidence is alone trustworthy in such matters—is in favour of the moderate use of opium by the inhabitants of tropical climates, particularly by those who live in malarial districts, and whose diet consists chiefly of vegetables. Dr. Cullimore, for example, who lived long in China, Java, Singapore, and other places where opium is used, says that, although its continuous use might be considered by some pernicious, it is pernicious only in the sense in which Sir Wilfrid Lawson might speak of alcohol as being pernicious, or as an antitobacconist might object to the use of the weed. Dr. James Burnes, in his *Narrative of a Visit to the Court of Scinde, and a Sketch of the History of Cutch*, gives the most convincing testimony of the comparative impunity with which opium is used in the latter country; and Crawfurd, in his *Dictionary of the Malay Archipelago*, expresses a strong preference for the use of opium, rather than of alcohol, as a habitual stimulant. Dr. Eatwell, who was for some years resident in China, states, as the result of personal experience, that the effects of the abuse of the drug rarely come under observation; and that, when such cases do occur, the habit has probably been induced by some painful chronic disorder, to escape from the sufferings of which the patient has fled to the great alleviator of pain. Marsden, in his well-known work on Sumatra, says that, among the Malays, the practice of opium-smoking is all but universal; the gold traders, who consume it in enormous quantities, are an active, steady, and laborious class, and are amongst the most healthy and vigorous in the island, rarely suffering in any way. Surgeon-General Moore, in a series of papers recently published in the *Indian Medical Gazette*, asserts that the anti-opiumists very greatly exaggerate the evil effects of opium; that opium in moderation is not injurious, but in some cases beneficial; and that it does less harm than alcohol. Similar evidence reaches us from America. The New York correspondent of the *Chicago Medical Review*, in describing a night visit to the opium-dens of Chinatown, says he did not see a single person who exhibited the slightest indication that the habit had had an injurious effect; they were all, Caucasian and Mongolian, male and female, averagely healthy, and some of them were the picture of health. He adds: "There evidently has been a good deal of sentimental gush about the subject; I found the opium-smoker quiet, inoffensive, and inclined to an unobtrusive sociability". Dr. Kane, the Medical Superintendent of the De Quincey Home in New York, stated that, while he had treated hundreds of opium-*habitués*, who had used morphia hypodermically or by mouth, he had had occasion to treat but a single opium-smoker. Sir George Birdwood, in a recent letter to the *Times*, says: "I hold opium-smoking to be a strictly harmless indulgence, like any other smoking, and the essence of its pleasure to be, not in the opium itself so much as in the smoking of it. If something else were put into the pipe instead of opium, that something else would gradually become just as popular of opium, although it might not incidentally prove so beneficial. It was in this way that the Red Indians took to smoking willow-bark in place of tobacco, which was too costly for them".

It should be remembered that there is good reason to believe that opium-eating is common in many parts of England. The quantity of opium imported is far in excess of what would be required for strictly legitimate medical purposes. Dr. Murrell, quoting from a private communication received from a medical man near Cambridge, has shown that, in the Fen districts, the practice of opium-eating to ward off fever is habitual, that large quantities are often taken, and that there is no evidence to show that it ever produces any injurious effect. Sir George Birdwood has recently collected some remarkable evidence of the prevalence of opium-eating in this country, chiefly among the poor population about Tothill Street, and in the East End of London, affording the strongest proof possible of the impunity with which opium may be indulged in, and that it is conservative rather than destructive of morality. He mentions the case of an old woman aged 90, recently deceased, who to her last day earned her own living by manufacturing small wares in iron and tin. She began opium-eating at seventeen; and during the last nine years of her existence had been in the habit of eating daily 135 grains of opium. This, it should be noted, was Turkey opium; and the taking of Turkey opium as by the opium-eaters of Eastern Europe, or of laudanum as in this country, or of morphia as in America, is a different thing from eating or drinking Indian opium, which, from its comparative weakness in morphia, is rarely seen in Europe.

It is often supposed that the excitement produced by opium is similar to that resulting from indulgence in alcohol; but such is not the case, and they are in no way allied. If we contrast the furious madman suffering from delirium tremens with the prostrate debauchee, the victim of opium, or the violent drunkard with the dreamy sensualist intoxicated with his favourite drug, it must be admitted that the comparison is not in favour of the former.

THE WAR AGAINST SCIENCE.

THE detestation of science, which is so curious a phenomenon in the social and intellectual history of the day, is being carried on with uncompromising vigour by the antivivisectionists, who apply themselves with quite praiseworthy zeal to the perusal of our pages. We trust that, from time to time, they are rewarded by finding there much matter for edification. It is but natural that, in reading the BRITISH MEDICAL JOURNAL, and no doubt other medical journals, as these seekers after knowledge appear to do with minute and anxious care, for the purpose from time to time of framing indictments against medical science and against the medical profession, they find materials which they are able to use for that purpose. They have fallen foul, during the last fortnight, of Mr. Jonathan Hutchinson, *à propos* of a lecture published in the JOURNAL on the subject of the treatment of pemphi-

gus. The special ground of complaint was, that the patient whom Mr. Hutchinson had under his care at the London Hospital was allowed by him to remain three days without active treatment, that the lesson of cure might in this way be made more instructive to the students. This, it is observed, is a scientific experiment performed without a licence; and apparently some of the gentlemen who have commented on this case would like to have a law passed which should apply to this case also. A smart and plausible attack has been made upon Mr. Hutchinson in more than one London journal, and propagated throughout the country papers, to which, however, he has made a very effective reply, pointing out that the man was in every way a gainer by being admitted into the hospital; and added that it was his practice, as it is that of many other physicians, to allow their patients a period of brief respite from medicines, that the quiet, good nursing, suitable dietary, the tenderness and comfort of the hospital treatment, should produce its effect, and that the actual tendency of the disease under such circumstances should be observed. Mr. Hutchinson adds a paragraph which is very much to the point of the general principle involved. He says: "Your correspondent would appear to think the training of our family practitioners a matter of but slight importance to the public, and that a zeal for science is out of place in hospitals. The word 'science' in the present instance means nothing more than the correct knowledge of disease and how to cure it, and it means nothing less. We in the profession know that such knowledge comes only of quiet and patient observation, and we hold it so valuable when got, that we are desirous to employ every legitimate opportunity for efficiently conveying it to others. Teaching in all its branches is undoubtedly one of the highest vocations of man, and the teaching of those who are to be the future healers of the community is surely one of the most important of them. It is far better to let a student see for himself, than simply to tell him a thing..... The value of the cure in question was, I assert, increased a hundredfold to the community by the fact that it was done in public, while it was not one whit lessened to the patient. It is not the interests of 'science' which are at stake; it is not the interests of a profession; it is the interests of the community at large, for whose benefit science and the profession alike exist."

The fact is, that this particular attack on Mr. Hutchinson is part of the general hatred of science, which is as strongly marked among the new school of philosophers and sentimentalists of the present day, as was the antitheological spirit developed among certain classes of men of science at a somewhat earlier date. This has been quite characteristically developed in relation to Dr. Stevenson's experiments with aconitine poisoning in the Lamson case, tried upon mice. A volume of the most worthless rubbish has been written in the papers to prove that such tests were unnecessary under the circumstances, of which Dr. Dupré and Dr. Stevenson might at least be allowed to be far more competent judges than the ladies and gentlemen who undertake to act as their critics. It is a noteworthy fact that, if they had chosen to poison a whole hecatomb of mice for the mere pleasure of poisoning, supposing they possessed the diabolical spirit which our antivivisectionists are fain to invent for the purpose, or if they had poisoned the mice with aconite simply because they were noxious, or because they were afraid of them, or because they did not like to see them running about, not a word would or could have been said. When, however, they undertook to poison the mice to obtain knowledge for the purposes of science, and of the knowledge which it would make available for justice, an outcry has been aroused which could obviously not have been directed against cruelty, since trapping and killing mice is an act of occasional domestic practice, probably even in the households of those who have written on the subject, but is palpably directed against the scientific use of the information thus obtained, and against the audacity of science in venturing to do that in a questioning spirit which every housemaid is thought justified in doing under the plea of convenience, cowardice, or caprice.

It has not occurred to any of these sentimentalists to suggest that the sale of phosphor-paste or vermin-killer should be forbidden, but they are only anxious that two or three little mice should not suffer when a useful object is to be gained, for the purpose either of preventing crime or alleviating suffering, or in the hated name of scientific knowledge and research.

THE MEDICAL WORK OF THE LOCAL GOVERNMENT BOARD FOR 1880.

THE delay in the appearance of the successive volumes of Reports of the Medical Department of the Local Government Board is much to be regretted, if for no other reason than that interest in them must necessarily be diminished when the events that they record are remote and forgotten. In the case of the present volume, there is the less apparent ground for delay, as the book is neither so large nor so elaborate as those which have immediately preceded it. Dr. Buchanan, the able medical officer, makes no attempt (probably he has not the leisure) to discuss at length any one subject of public health in the broad catholic spirit that illuminated Mr. Simon's blue-books, but confines himself to a plain business-like account of his stewardship; and touches, with as light a hand as possible, upon each of the matters coming within the purview of the department during the year under report. The ordinary work of the medical inspectors in supervising the public vaccination of the country extended to 303 unions, and to 1,498 vaccination districts. Of the 1,379 public vaccinators working in those districts, 76 per cent. were found deserving of first-class awards, this percentage being identical with that of 1879. The National Vaccine Establishment distributed during the year 31,418 charges of lymph to 10,301 applicants, and received from the vaccinators supplying it with lymph 8,798 ivory points, and 20,854 tubes.

Dr. Buchanan refers to his personal investigation, in the autumn of 1880, of the working of vaccination from the calf at the Hague, Amsterdam, Utrecht, Rotterdam, and Brussels, and to the decision of the Local Government Board to cultivate animal lymph for themselves. Dr. Cory, whose appointment as director of the animal lymph establishment must now be nearly a year old, is reported as "in a position to commence calf-to-calf vaccination as soon as premises suitable for the purposes of the institution have been secured"; though how long it will be before such premises are ready, Dr. Buchanan does not venture to prophesy. The department has taken pains to discover a case of spontaneous vaccinia with which to begin a series of calf-to-calf vaccinations; but having hitherto failed in its endeavours, the medical officer proposes, when the time comes, to give the preference to the lymph cultivated at the Hague by Dr. Carsten and his colleagues. The importance of caution in accepting as "cow-pox" or "horse-pox" pustular eruptions on those animals is shown by an inquiry made by Dr. Klein into a case of alleged horse-pox, which, it was said, had communicated "cow-pox" to heifers when inoculated into them. These rumours were put to the strictest test, with the result of showing that the disease in question was neither horse-pox in the horse, nor cow-pox in the heifer. The disease was probably that known and recognised on the Continent as *dermatitis pustulosa contagiosa*, which, though it presents certain rough resemblances to horse-pox and cow-pox, is altogether distinct from those diseases in its anatomy, in its course, and in other essential features in its history.

With the exception of Dr. Ballard's interesting inquiries at Welbeck and Nottingham into the cases of pork-poisoning, and Mr. Spear's inquiry at Bradford and its vicinity into the nature of woolsorters' disease, all of which have already been dealt with at length in our columns, there was but little in the general work of the department during the year to call for special notice. Dr. Airy made an abortive inquiry into the behaviour of diphtheria in certain rural districts that had for some time been free from the disease in its fatal form, and Dr. Thorne made an investigation into "the nature of the arrangements that are provided in various localities for the isolation of persons suffering under infectious disease, who cannot be retained at their homes without danger to others". In the course of his inquiry, Dr. Thorne visited many o

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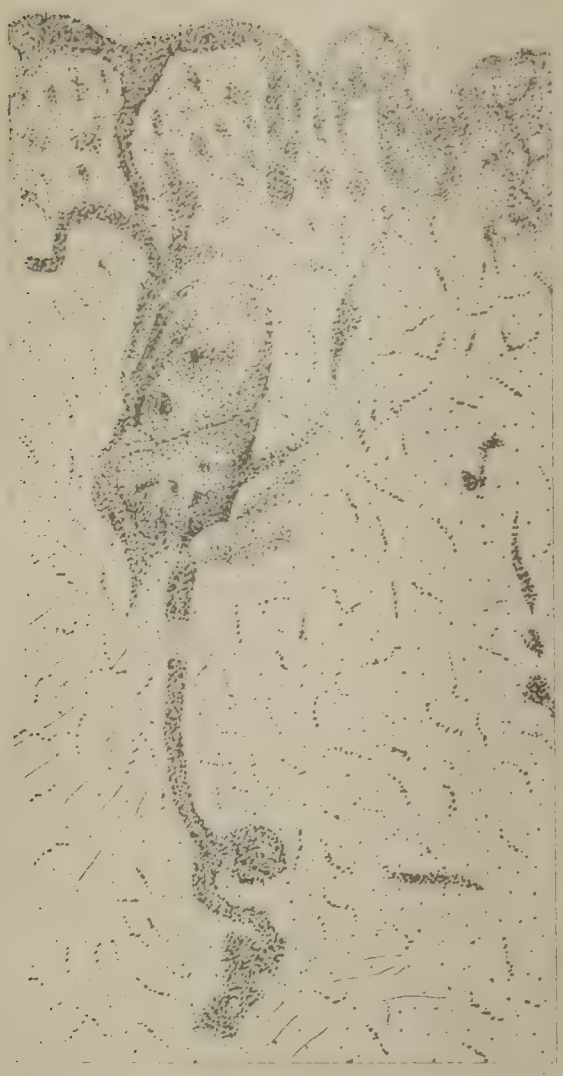

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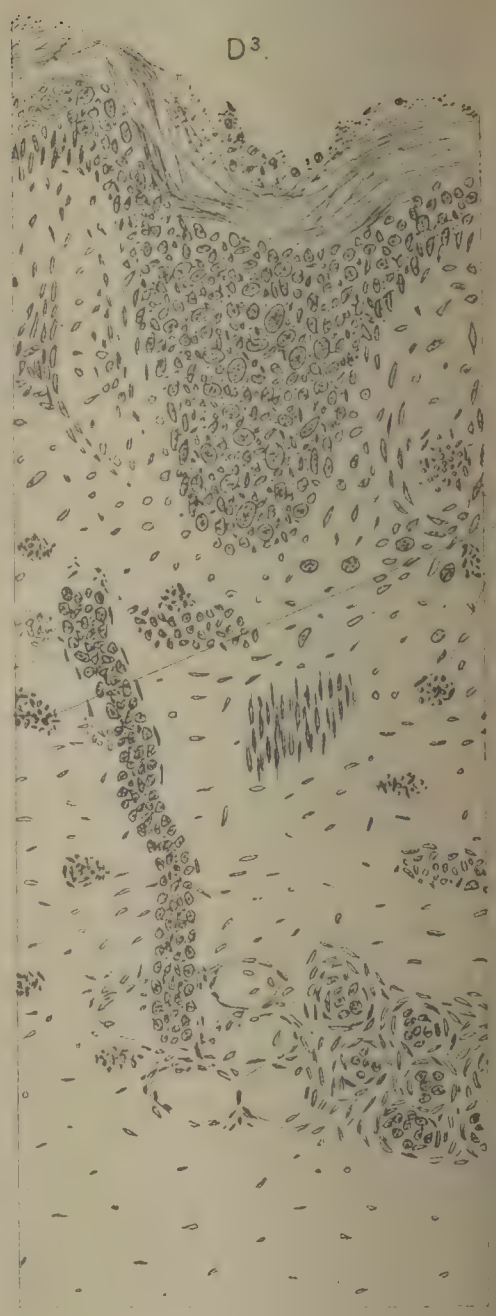

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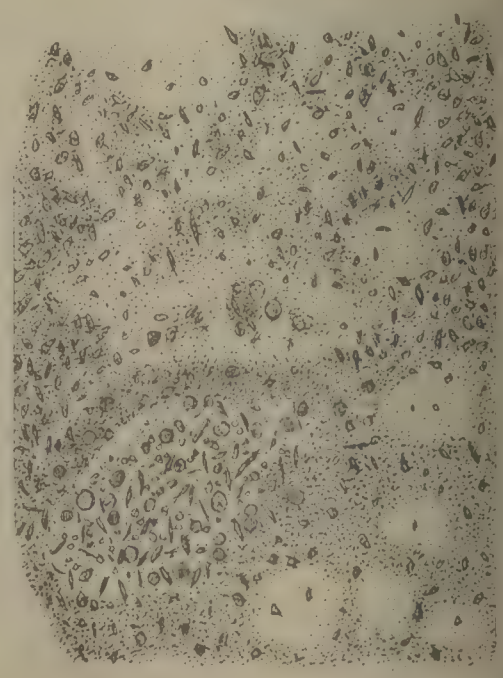

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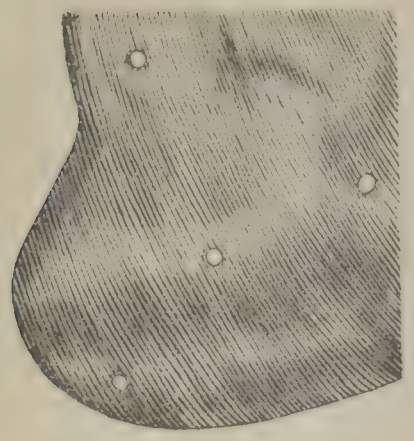

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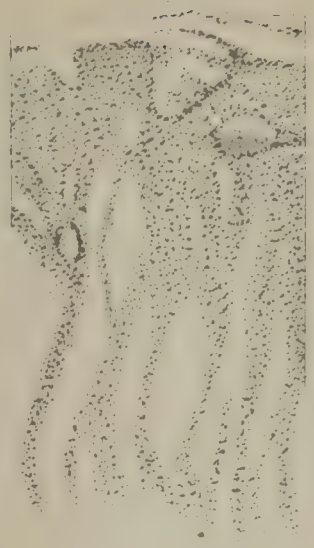

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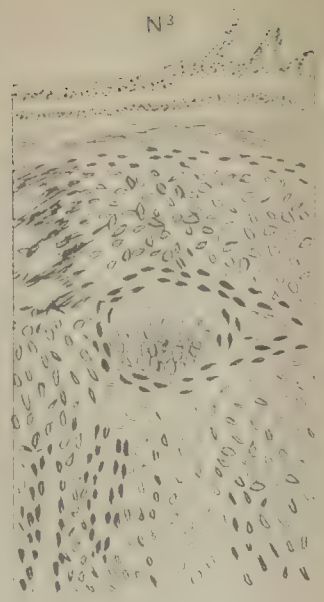

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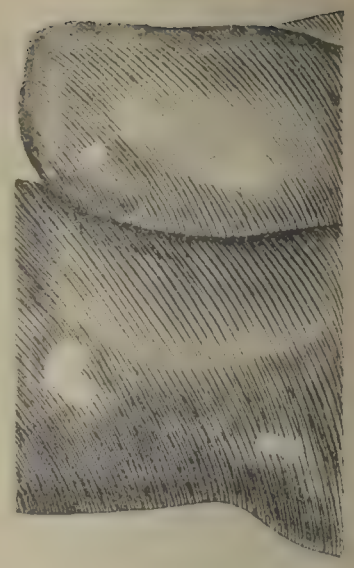

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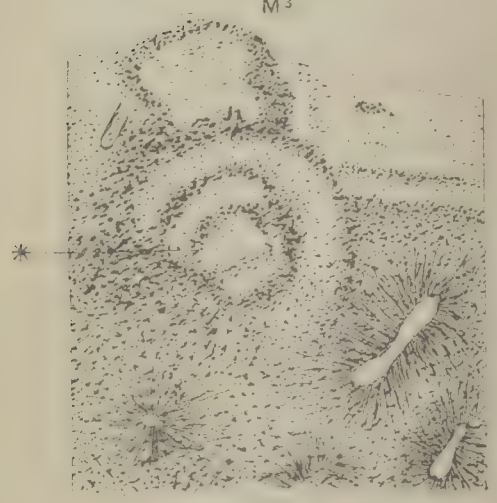

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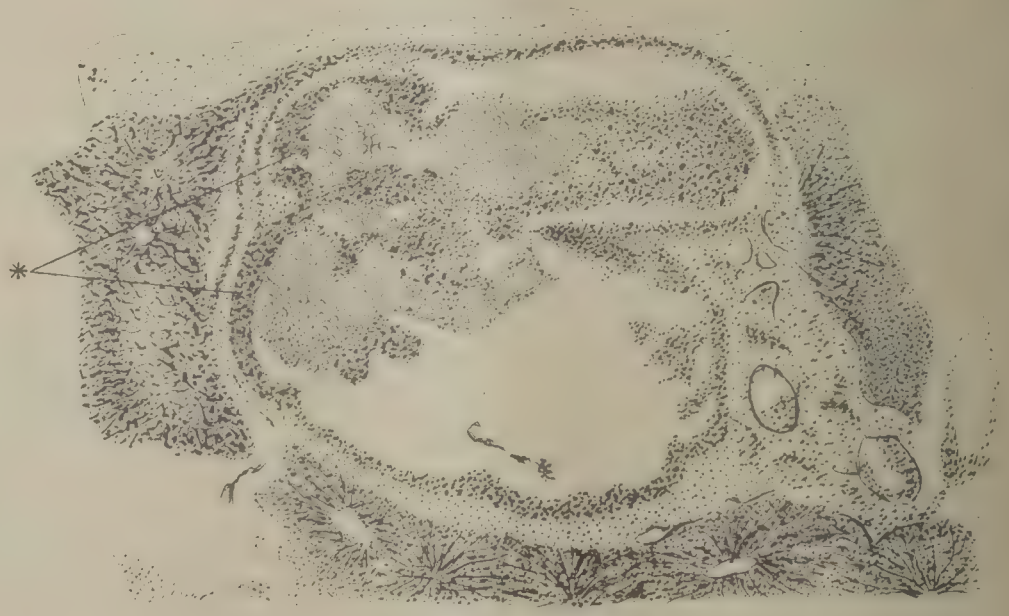

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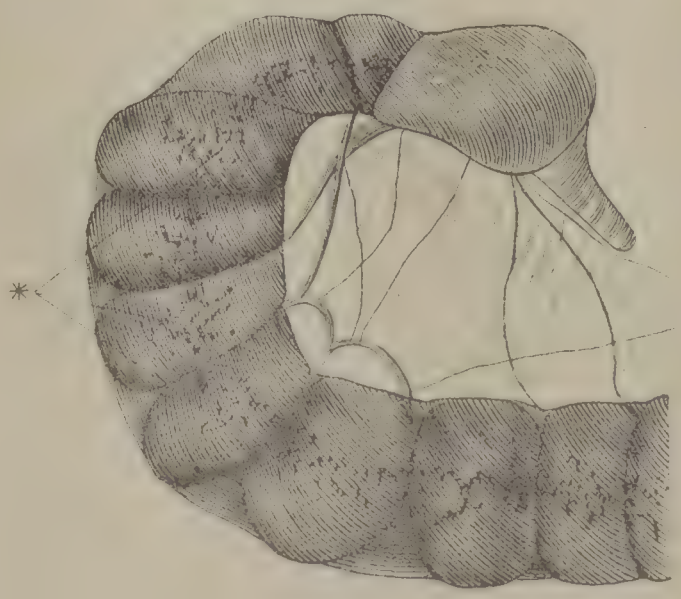

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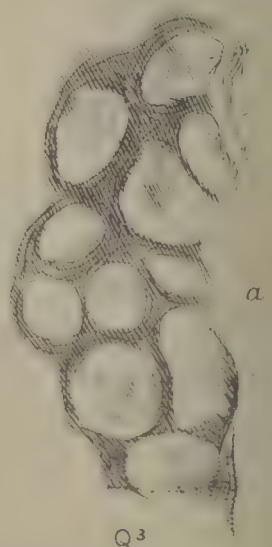

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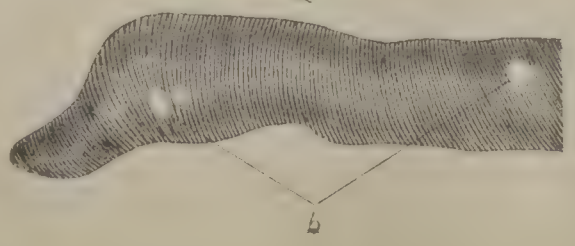

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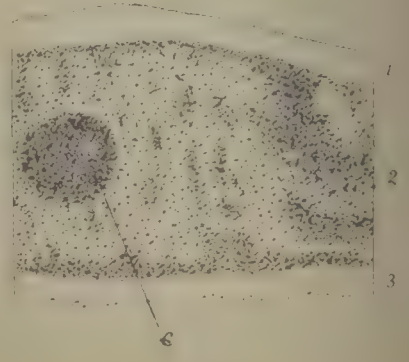

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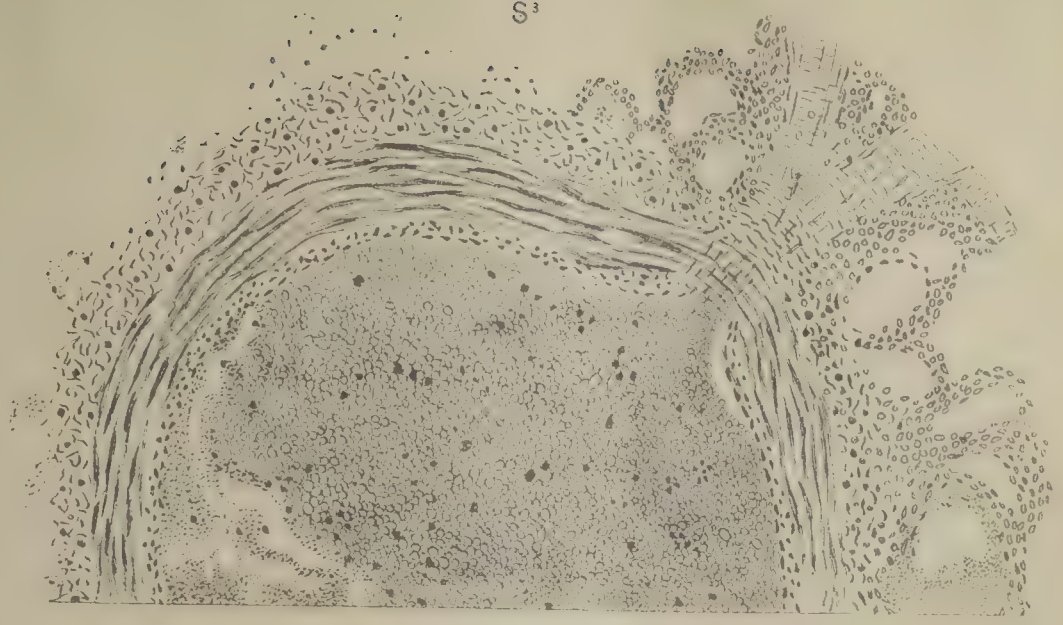

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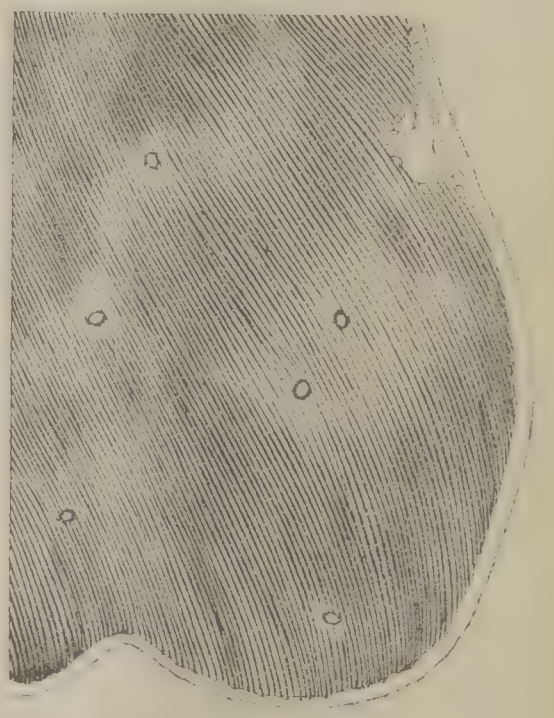

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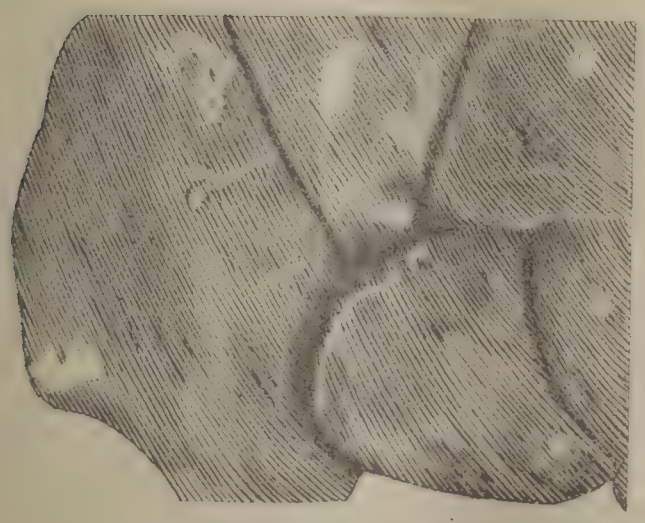

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the districts that have established small-pox and fever hospitals, and "has taken account of such evidence as has been forthcoming about the advantages of these hospitals in preventing the extension of disease, and about the injury to health supposed to have been done by the hospitals to the inhabitants of adjacent houses". The results of Dr. Thorne's investigations are not even hinted at; but it may be supposed that his researches will be at least laid before the Royal Commission on Fever and Small-pox Hospitals, and that they will in this way be sooner or later available for the public.

The auxiliary scientific investigations undertaken by the board have heretofore been more of an abstract and not immediately profitable kind, though there are signs that Dr. Buchanan appreciates the necessity and importance of lending the best scientific aid to practical and every-day questions that urgently press for solution. Thus, in addition to Dr. Klein's researches into the minute anatomy of the lymphatic system, and to Dr. Thudichum's investigations into the chemical constitution of the brain, a beginning was made in 1880 of an inquiry, the value of which it is impossible to overestimate. The significance to be attached to current methods of chemical analysis of potable waters has long been matter for dispute, and the attempts of chemists to dogmatise on the purity or innocence of waters from certain of their chemical constituents, without knowledge of their physical surroundings, have sadly needed repression. This will, it is to be hoped, be furthered by the results of an investigation now being made in the medical department, as to the characters of samples of water purposely polluted with one and another material, but especially with the stools of enteric fever patients. This most interesting inquiry is in the hands of Dr. Cory, who, although not yet in a position to report on the whole results of it, has "already learned enough to show that these examinations were greatly needed, in correction of judgments commonly pronounced about the wholesomeness and unwholesomeness of samples of water that have been the subject of analysis". These significant words are probably the precursors of much that will astonish and confound the apostles of water-analysis; and it is on every ground earnestly to be hoped that, in view of the immense interests involved in the inquiry, its results may be made known as soon as completed, in anticipation of the probable appearance of Dr. Cory's finished report a year hence, in the next blue-book of the Medical Department.

We are glad to announce that Sir James Paget has returned to town in excellent health, and is actively pursuing his professional duties.

The Conseil Municipal of Paris has voted the suppression of the *aumôniers* (officiating priest or chaplain) in all the Paris hospitals. It remains to be seen if the Minister for Home Affairs will confirm the vote.

The statements which have been current as to the serious illness of General Garibaldi are founded on error; but we regret to say that he is reported to us as being still a great sufferer from rheumatism, and very thin and wasted. Reports from Naples state that he sleeps well, and that a consultation of the principal physicians of the city was to be held on his case.

At an inquest held at the prison at Maidstone this week, touching the death of two prisoners, it transpired that an epidemic of small-pox of a virulent nature had occurred within the prison walls. A government inspector has visited the gaol, and the authorities have taken the necessary steps to arrest, by revaccination, the extension of the disease.

An inquest was held this week on the body of James Whitehead, who escaped from the Westhulme Hospital whilst suffering from confluent small-pox, and was refused admission into his father's house. The jury returned a verdict to the effect that greater supervision should be exercised in the management of Westhulme Hospital, and praised the conduct of Elijah Stott, who, when the police refused to move in the matter, took the deceased to the hospital in his cart.

A meeting of the St. George's (Hanover Square) and Westminster Committee of the Charity Organisation Society will be held, by kind permission of Canon and Mrs. Farrar, at 17, Dean's Yard, Westminster, on Tuesday, January 31st. Mr. Johnston, of the Hastings Sanitary Aid Association, will on this occasion describe the work accomplished for the prevention of the spread of infection and its results, with a view to introducing the same system into Westminster. The chair will be taken by the Rev. Canon Farrar at 5 P.M.

Mr. Holloway's Sanatorium near Windsor, on which he has already spent £300,000, will probably be opened in May next. The institution will, it is stated, be endowed with £50,000. No patient will be permitted to remain an inmate longer than twelve months, no patient will be received whose case is considered hopeless, and no patient will be admitted who cannot pay the moderate charges which will be made, Mr. Holloway's announced intention being the assistance of the great body of the middle-class.

The meeting of the hospital authorities, for the purpose of examining Dr. Howard's ambulance, recently presented by Mr. Crossman to the London Hospital, and of carrying out Dr. Howard's proposition for organising a hospital ambulance service for the metropolis, and telephonic intercommunication between the hospitals as well as all the police-stations, will be held at the United Service Institution on February 2nd.

The next monthly conference of the London Society for the Abolition of Compulsory Vaccination will be held in Steinway Hall, 15, Lower Seymour Street, Portman Square, Marylebone, on Friday evening, February 3, at 7.30 o'clock, when the chair will be occupied by Dr. Andrew Clark, and a paper read by Dr. W. B. Carpenter, C.B., entitled, "The Increase of Small-pox Mortality in London during the Year 1880, without any corresponding Increase in other Parts of the Kingdom, a Reason—not for a Repeal of the Compulsory Vaccination Act, but for increasing the Efficiency of its Operation". Medical men holding different views on this vexed question have been invited.

Her Royal Highness the Princess Louise was present at a Christmas-tree entertainment given at the Victoria Hospital for Children on the 18th instant. The Princess kindly offered to distribute the gifts from the tree with her own hands, which she accordingly did, going round the various wards for the purpose, to the great delight of the little inmates of the hospital. The trees and their burdens of gifts were numerous and beautiful; one, in particular, named the nurses' tree, with its beautiful load, was presented by Mr. W. S. Gilbert, the well known dramatist. Mr. Grossmith kindly delighted the poor little patients with his amusing entertainment "A Visit to the Pantomime", which elicited shrieks of laughter.

VISIT OF THE EMPRESS EUGÉNIE AND PRINCESS BEATRICE TO NETLEY.

The Empress Eugénie, accompanied by the Princess Beatrice, honoured the Royal Victoria Hospital with a long visit on Tuesday morning, the 24th instant. They crossed from Osborne in Her Majesty's yacht *Alberta*, and reached Netley shortly after eleven o'clock. The day was generally bright and sunny; but on Southampton Water, and almost confined to its limits, there was a sufficiently thick mist to cause the speed of the yacht to be considerably slackened. The Empress, with Princess Beatrice, and their respective suites, went through all the wards, and visited the nurses' quarters, the quarters for sick officers, and all the other principal parts of the building. The Empress's manner was observed to be particularly sympathetic when addressing some of the patients in the wards, as well as a wounded officer, who had received their injuries in engagements in South Africa. It was between one and two o'clock when the distinguished visitors left to return to Osborne.

THE NEW CONVALESCENT HOME FOR ST. BARTHOLOMEW'S HOSPITAL.

THROUGH official information from Mr. W. H. Cross, Secretary to St. Bartholomew's Hospital, we learn the following particulars concerning this recent valuable acquisition to that great charity. An anonymous friend has given £5,000 to purchase the site; Mr. Kettlewell, a gentleman of independent means, has added £10,000 for the erection of the home, with an additional sum of £1,000 for furniture. Fifteen acres of land have already been purchased, close to Swanley Junction, on the London, Chatham, and Dover Railway, and the building will be erected without delay. It is believed that accommodation will be made for fifty male and twenty-five female convalescents.

HOSPITAL SUNDAY FUND.

AT a meeting of the Hospital Sunday Fund, this week, Mr. Richard B. Martin and Sir Edmund Hay Currie were unanimously re-elected Honorary Secretaries, and Mr. Hénry Neville Custance Secretary to the Fund. The Committee of Distribution selected were: the Lord Mayor; Sir S. H. Waterlow, M.P.; Lord Ashley; Mr. J. D. Allcroft; Mr. Thomson Hankey; Mr. Samuel Morley, M.P.; Dr. Sedgwick Saunders; Mr. Jervoise Smith; Mr. Alderman McArthur, M.P.; and Mr. Willett. In the General Purposes Committee, the Rev. Dr. Rigg and Mr. C. Macnamara were chosen in place of the Rev. J. Baker and Mr. Jabez Hogg.

THE PROPOSED PARK AT PADDINGTON.

THE Metropolitan Board of Works has taken a step which, however prudent in the narrowest financial sense, can hardly be said to be wise or just from the point of view of real economy or true statesmanship. A rare opportunity has presented itself during the last two years of securing for one of the most thoroughly crowded districts in London, filled with a closely packed and poor population, an additional lung. This much needed breathing-place for the north-west of London is surrounded by a population which is actually more densely packed than the population of St. Giles's. The census of streets around this last remaining 100 acres of open space has been carefully taken, and it has shown a population of 130,000, chiefly of the working classes. Naturally, the value of the ground is annually increasing as the dense population closes in around it; and the value of these few remaining fields, planted as they are in the midst of a rapidly encroaching growth of small houses, is now stated to be £3,000 an acre. A great effort, however, has been made to secure this area for public use; and, to show the earnestness of this effort, a public subscription is in course of being raised to defray part of the expense. The Metropolitan Board of Works might reasonably have been expected to accept with gratitude this earnest of the strong feeling of well informed persons as to the necessity of securing this reservoir of fresh air while it is still unchoked; and, at least, it would have been supposed that it would yield, not only with grace, but with satisfaction, to the intimation of public sentiment on the subject, and would welcome the procuring of parliamentary powers to secure this space by levying a small metropolitan rate. The space in question is situated in the north-west part of Paddington; it is at a great distance from any other open space, and of its enormous public value it is really unnecessary to speak. Certain it is that, unless the opportunity now offered be taken, it will pass away for ever, and, within another decade, the whole of this ground will be covered with street upon street of houses, densely populated. We speak of the proposed park for Paddington, a movement which has now been in progress for two years. Twice the Metropolitan Board of Works has been appealed to on the occasion. On one occasion, a highly influential deputation addressed the Board; and Mr. Ernest Hart, on behalf of the deputation, laid before the Board a statement of the density of the surrounding population, and maps were shown by Mr. Pooley and others, explaining all the circumstances of the case. The full urgency of the position was thoroughly admitted and accepted by the Board, as well as the extreme desirability of securing such an open space, as one of the last remaining opportunities of obtaining a park for London in that crowded poor district. After referring the project to a committee, and after thoroughly considering the question, the Metropolitan Board of Works came to the conclusion that it would not be justified in finding the whole of the money needed. It was thought that, when a considerable public subscription had been raised, to show the appreciation the public of the district, as well as the populations of other parts of London, felt of the need for the park, the Metropolitan Board of Works would be glad to do its part. With this view, a considerable and continuous effort has been made, and upwards of £40,000 has been subscribed, the corporation of London liberally promising £5,000 of the amount. A Bill has been framed, to give the Metropolitan Board of Works power to obtain rating powers to secure this object. Opposition has now arisen from the quarter from which it would have been least expected; and the Metropolitan Board of Works, which is, by its very constitution, a guardian of health in respect to open spaces, which is appointed to lay out and take charge of parks and public buildings, now appears as the opponent of this most urgently needed improvement, on which the health of future generations of citizens so largely depends. Should the Metropolitan Board of Works persevere in its opposition, it will be but a sorry success. It will have succeeded in adding to the asphyxiating closeness of the London atmosphere; it will have helped to remove one great purifying organ, which the public spirited citizens were anxious to retain, and which benevolent donors were willing to help to provide; it will have shown a comparative parsimony, which can hardly be said to represent, in any sense, real economy, or knowledge of the functions and of the duties of the Metropolitan Government. If any appeal can influence this body, under such circumstances, it may be hoped that a most earnest appeal will at once be made to the Metropolitan Board of Works, to retrace this most ill-advised, most mischievous step. It is enough to make thoughtful men despair of civic government, as at present organised, to find a body such as the Metropolitan Board of Works becoming the most active and powerful opponent of a movement, of which it might reasonably have been expected, by its very constitution and objects, to have been the warmest and most generous supporter.

MEDICAL CONGRESS AT SEVILLE.

A MEDICAL congress will take place at Seville on April 9th, 1882. The organising commission is presided over by Dr. D. Antonio Rivera y Ramos, and the vice-presidents Drs. D. Domingo Ferreyra and D. Vicente Chiralt y Selma. The general secretary, Dr. Raphael Tunon de Lara, 15, Plaza de la Constitucion, Seville, answers all questions for information. There will be honorary foundation and subscribing members. The meetings will take place from the 10th to the 15th April inclusive; and it is probable that other subjects than the medical sciences will enter into the scheme.

POISONOUS AND PATENT MEDICINES.

IT has for a long time been pointed out by us and by others as a palpable cause of danger to the public, and as a singular anomaly in the law, that poisons, of whatever nature, can be, and are, sold without a poison-label, provided they pay the patent medicine tax, and are put up as patent medicines. One of the simplest, most common and palpable examples of this anomaly is the case of chloral-hydrate, which, when sold by chemists, is properly and necessarily labelled as a poison, to indicate the danger which attends its use, either in undue quantities or without proper advice and under medical supervision. On the other hand, while Liebreich's solution of chloral—a solution prepared by the discoverer of the uses of chloral, must be labelled "poison", because it is sold as a medicine, and not as a secret preparation, various forms of solution of chloral, such as that known as Hunter's solution of chloral, are converted into patent medicines by being recommended on the label as a "sedative draught and a sleep-producer", and paying stamp-duty as patent medicines. Thus, the same preparation which, when its nature is simply declared, and it is sold as

a drug, comes under the proper restriction of the Poisons Act, is free from such restrictions when bearing the patent medicine stamp. The Director of Public Prosecutions has put this particular case to the legal test by prosecuting the vendors of Hunter's solution of chloral-hydrate, and a magistrate's decision has been obtained in favour of the view that chloral-hydrate must be considered as a poison under any circumstances, and that the Government stamp as a patent medicine does not relieve it from that character. The case is one of great importance; and, on the application of Mr. Besley, a case has been granted for the opinion of a higher court. We are very glad to see the authorities moving in this matter; for it is well known that a large number of narcotic poisons are sold as soothing or sedative cordials and medicines without being labelled as poisons.

BUTTERINE AND SOAPSTONE.

THE extent to which the manufacture of butterine has now reached may be estimated from the fact, that recent statistics, published in the United States by Mr. Nimmo, estimates the export of oleo-margarine, for the year ending June 30th, 1880, at nearly nineteen millions of pounds; and this certainly is not an under-statement—inasmuch as there is reason to suspect that a good deal of butterine is exported under the milder name of butter. About fifteen millions of pounds of this oleo-margarine went in 1880 to Holland, there to be converted into butterine, and the majority of it to be re-exported to this country. Just, however, as even parasites are infested by other parasites, so oleo-margarine, which is used to adulterate butter, is itself largely adulterated. It appears "an ingenious American has recently sought to place butter, as he calls it, on a soapstone *basis*, by which is implied that finely ground soapstone, added to the fat, will, in his opinion, make a marketable commodity". A writer in *Nature*, commenting on this device, says: "We are told, on high authority, that, if we ask for bread, we are not to be offered 'a stone'; neither should we be when we ask for butter."

WORKMEN'S CONVALESCENT HOMES.

AT a conference of delegates and collectors of the Hospital Saturday Fund, held this week, Mr. Samuel Morley, M.P., in the chair, the question was again discussed, of favouring the establishment for working men of one or two convalescent homes by the seaside or elsewhere, for the benefit of sick members of their class. Mr. Morley urged the utility of the work, but wisely observed that, if it were to be done at all in the name of the working man, it should be done by the working man, and not for him; and, if the meeting should decide upon sanctioning the proposal, strong co-operation would be needed. During the past few years, substantial progress has been made by the artisan class in the metropolis, and they have the power, if they be so disposed, to carry out such a work as this well. Ultimately, a resolution was carried, on the motion of Mr. Hamilton Hoare, pressing upon the collectors of the Hospital Saturday Fund the necessity for establishing such an institution for convalescents, and resolving to use every effort for the purpose of securing the funds necessary for carrying it into effect. It is very significant that, by way of starting the subscription, Mr. Hoare, an energetic and benevolent banker, promised to give twenty guineas; and offered fifty guineas, if any other gentleman would give a similar sum. This was rather a curious commentary upon the suggestion of Mr. Morley that, if the work were to be done at all, it should be done by the working men themselves, and not by bankers. The working classes are, we fully believe, quite prepared to undertake work of this sort by themselves and for themselves; and every effort should be made to let the working man see that the movement which is carried on in the name of the working classes is not too much nursed by their benevolent friends; but that they will be left to their resources, so that the smallness or greatness of what they do may show on the face of it. It is not fair to the working classes themselves, and it does not encourage that manly spirit of independence which it is desirable should be encouraged in them, that collections made in their name, and announced as workmen's funds, should include large contributions by charitable persons who do not belong to the working classes. If any such auxiliary fund be needed, it should be separated. The present system of collecting in the streets, in the Stock Exchange, and from all willing to give various sums of money to a workman's fund, is deceptive, and not quite fair to the working classes themselves.

THE LATE MR. SOUTH.

THE following resolution was unanimously adopted at the last meeting of the Council of the Royal College of Surgeons: "That the Council do hereby express their sincere condolence with Mrs. South and her family in the loss they have sustained by the death of Mr. John Flint South, and do also hereby record their appreciation of the services rendered by Mr. South to the College as a member of the Council and of the Court of Examiners, and during the two periods of his holding office as President of the College."

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.

THE following members are recommended by the present Council as officers and councillors for the year 1882. *President:* S. L. Rymer, Esq. *Vice-Presidents* (resident): J. Smith Turner, Esq.; C. S. Tomes, Esq.; H. Moon, Esq. (Non-resident): J. E. Rose, Esq. (Liverpool); Walter Campbell, Esq. (Dundee); William Doherty, Esq. (Dublin). *Treasurer:* J. Parkinson, Esq. *Librarian:* F. Weiss, Esq. *Curator:* S. J. Hutchinson, Esq. *Honorary Secretaries:* J. H. Mummery, Esq. (Foreign Correspondence): F. Canton, Esq. (Council); T. F. Ken Underwood, Esq. (Society). *Councillors* (resident): T. Chart White, Esq.; G. Wallis, Esq.; W. F. Henry, Esq.; A. Coleman, Esq.; J. Stocken, Esq.; J. Walker, M.D.; I. Lyons, Esq.; G. A. Ibbetson, Esq.; A. Gibbings, Esq. (Non-resident): T. J. Browne-Mason, Esq. (Exeter); W. Williamson, Esq. (Aberdeen); J. E. Palmer, Esq. (Peterboro'); W. Fothergill, Esq. (Darlington); A. Jepson, Esq. (Leamington); M. Magors, Esq. (Penzance).

A CASE OF EXHUMATION.

A CORONER'S inquiry has recently been held at Waddesdon, in Bucks, as to the death, from alleged medical maltreatment, of a child, two and a-half years of age. The child had been suffering from whooping cough and bronchitis, for which it was attended by a Mr. Williams, who appears to be a duly qualified, but unregistered medical practitioner. It died on October 22nd last, after taking three doses of a mixture sent by Mr. Williams, each dose being one teaspoonful. There was evidence to show that this medicine caused the child much pain. For some reason, which is not quite clear, Mr. Williams refused to give a death certificate, and the child was buried on the 26th October, unregistered; the vicar of the parish, in accordance with the Statute, reporting the fact to the registrar. Three days later another practitioner, Mr. Keene, was called in to attend another child of the family; and he, on being shown the medicine administered to the deceased child, expressed an opinion to the mother that the child had been poisoned; and he also subsequently told a police-constable that no doubt the child had died through poisoning. It would have been well if an inquest could have been then held; but the coroner does not appear to have seen his way to order an exhumation. Eventually, by the intervention of Mr. Keene, an order was obtained from the Home Secretary, and the body was exhumed. Its condition was, however, then such as to preclude the possibility of making a satisfactory necropsy. The medicine was analysed by Mr. Wanklyn, the county analyst, and was found to contain 1.6 per cent. of caustic ammonia; or each teaspoonful dose contained ammonia nearly equivalent to 9 minims of liquor ammoniæ P.B. He was of opinion that the medicine was a very dangerous one for a child, and might kill it in a few minutes. Mr. Ceely, surgeon, had no doubt that the medicine would be deleterious, but whether it would have a poisonous effect he was not prepared to say. The symptoms which the child was stated to have manifested were consistent with death from whooping-cough and bronchitis; and he thought the quantity of prussic acid which had been previously

administered was quite harmless. Mr. Keene, we are glad to say, did not reiterate the hasty opinion formed before an analysis of the medicine had been made, and could not say certainly whether the child's death was caused by the medicine or by the whooping-cough and bronchitis; though he thought the medicine was not a safe one to give to a child—it was too strong. It is only right to state that the medicine analysed did not correspond with the prescriptions produced at the inquest. The verdict was to the effect that there was no evidence to satisfy the jury whether the death of the deceased resulted from disease or from the medicine administered. A great deal of personal feeling was displayed in the course of the case. The registrar of the Royal College of Physicians had been appealed to as to the right of a gentleman who is a Licentiate of no college to be called doctor. The reply (published in the local press) is to the effect that the gentleman in question is "neither authorised nor entitled" by virtue of the licence granted him by the college to assume the title of doctor. Were the system of medical examiners, to which we have recently directed attention, adopted in this country, such cases of doubt as this, would be well-nigh impossible.

CONVALESCENT HOMES.

AT a meeting on Tuesday of ladies and gentlemen connected with the operations of the Charity Organisation Society, it was agreed, after some discussion, that a special committee on convalescent work should undertake the duty of making arrangements for the boarding out in the country of children in a delicate state of health. It was also resolved that further hospital accommodation was needed for men and boys of the better class, and for consumptive and infectious cases.

PUBLIC MORTUARIES FOR THE POOR.

Dr. TRISTRAM, Q.C., the Chancellor of London, held a Consistory Court in St. Paul's Cathedral on Tuesday to hear an application on the part of the rector and churchwardens of St. Luke's, Chelsea, to erect a mortuary on the old closed burial-ground near King's Road, Chelsea. Dr. Phillimore, instructed by Messrs. Lee and Pemberton, explained to the court the nature of the application. The mortuary would contain three rooms, some distance from houses, one of which would be used for infectious cases, while to another the poor would be enabled to send their dead bodies before interment. The learned counsel said it was a great object that the poor, who lived in rooms, should have a place in which the bodies could be placed until the funerals. Several witnesses were called in support of the application, and the plans exhibited had been approved by the Bishop of London. The learned Chancellor granted a faculty to erect the mortuary, to remain a fortnight on the register in case of any objection.

PREVENTABLE ASPHYXIA.

SO-CALLED "accidental", but in reality easily preventable asphyxia, appears to be alarmingly on the increase in South London. We read in a local newspaper that Mr. William Carter, coroner for East Surrey, "held two inquests on Saturday, and three (another report says four), yesterday" on infants who had been found suffocated in bed. The jury in each case returned a verdict of accidental asphyxia, or death from natural causes. Possibly, though it is not so stated, medical evidence was adduced as to the cause of death in each case. One of these hapless infants, aged ten weeks, was found lying with blood oozing from her nostrils. If two days' inquests, all held within the limits of Peckham and Old Kent Road, can furnish such a crop of cases of accidental smothering, and juries can be so easily persuaded to save further trouble, by returning a verdict of death from natural causes, as appears to have been the case here, we may shortly expect to hear of a further increase in the number of these preventable cases. We recommend Mr. Carter to induce juries, in a few cases of a more glaring description, to return verdicts of manslaughter against the custodians of infants who have "accidentally" been overlaid. Overlaying has been notoriously the most frequent cause of violent deaths among infants, generally perhaps from gross neglect. The increased number of deaths, however, from this cause engenders a suspicion that this convenient mode of disposing of children is not always so entirely accidental as the verdicts of coroners' juries would lead us to suppose. The matter is one well worthy of the attention of the Public Prosecutor.

A PRE-WATERLOO VETERAN.

PROBABLY the oldest medical officer who has served in the Army Medical Department is Mr. Thomas Ward Jeston, Mayor of Henley-on-Thames, now in his 92nd year. He was elected mayor of this town for the fifth time last autumn. He served as a medical officer under the command of the Duke of Wellington in the Peninsular war during the years 1812, 1813, and 1814, up to the date of the last battle, that of Toulouse. Although the earlier part of this period dates nearly seventy years back, Mr. Jeston describes himself as being in as good health as he could wish to be, and able to attend to his medical duties, in which he is assisted by his son, Mr. R. P. Jeston. Shortly after the close of the Peninsular war, Mr. Jeston returned to England, owing to illness contracted on field-service; and, not long afterwards, being placed upon half-pay, he returned to his native town, Henley, where he has been in practice ever since. Mr. Jeston was present at the meeting of the British Medical Association in August last, and returned thanks at the dinner for the toast of the army.

A VICTORY OF SCIENCE.

A CHILD, nine years of age, suddenly disappeared at Alexandria during May last. A short time afterwards, his body was found drowned, and the Greeks accused the Jews of having killed Evangeli Fornaraki, after they had taken his blood for their religious rites. It was asserted that the supposed victim had incisions on his tongue and his wrists. An international medical commission was appointed to perform the *post mortem* examination, and this body decided that Evangeli Fornaraki's death was from drowning; that there were no wounds nor trace of wounds on his body. A Greek doctor, M. Counomopoulos, questioned the decision of the commission, refused to accept it, and affirmed that the child's death was not owing to submersion, but to an act of violence, probably strangulation. The Israelite community was in a perilous condition, and appealed to the arbitration of M. Brouardel, the well known professor of medical jurisprudence, who testified to the absence of the slightest trace of violence, and endorsed the opinion of the commission. He pointed out that, the body having remained fifty hours under water, and having been subsequently exposed to the air during twenty-four hours, there was considerable putrefaction, which modified the symptoms of asphyxia due to submersion, and evident shortly after death; but those that were still present sufficed to show that death resulted from drowning.

ST. BARTHOLOMEW'S HOSPITAL.

AT a General Court of Governors, held at St. Bartholomew's Hospital on January 25th, it was decided that an additional surgeon and an additional assistant-surgeon should be appointed. The election for both offices is fixed for March 2nd. Candidates are requested to send in their names and testimonials on or before February 14th. Each surgeon will henceforth have the services of two house-surgeons: a senior who will reside within the walls of the hospital, and a junior who will be non-resident, but, when on duty, constantly present in the surgery. The house-surgeons will hold the junior and the senior appointments successively, each for six months. The admission-period for in-patients to each surgeon will rotate by half-weeks, and not by full weeks, as before. The two junior assistant-surgeons will every morning have the oversight of the treatment of patients in the male and female surgical casualty departments. Power was conferred on the house-committee to appoint an aural surgeon; also to appoint an electrician, who must be a registered medical practitioner; also to appoint Dr. Klein as lecturer on histology. Mr. J. Mills, the present senior administrator of anæsthetics, was permitted to reside out of the hospital; and the number of assistant-administrators will be, under the present arrangement, increased to two, both resident.

The Court took into their serious consideration the state of the casualty department. There have been, during the past fifteen years, constant complaints from the casualty medical officers, and from others within and without the hospital, that the department in question is grossly abused, so that the surgery is filled every morning with patients, a large proportion of whom are, for divers reasons, unqualified for relief. After due deliberation on various propositions which have been made to remedy the evil, it was decided at this meeting that an officer should be appointed, whose duty will be to inquire into the means and circumstances of patients applying for relief; power was also conferred on the medical officers on duty in the department to refuse advice and treatment to cases which, in their opinion, are of so trivial a nature as not to require hospital relief. The governors of St. Bartholomew's Hospital believe that, should these powers be judiciously exercised, the casualty department will soon be limited to a reasonable number of patients, no longer so numerous as to render proper attention to them impracticable.

THE SALE OF POISONS.

A PENDING trial has attracted much attention and elicited much comment in connection with the undoubtedly great facilities which the present law holds out for the commission of crime. An effort will perhaps be made in the ensuing session of Parliament to amend the law as to the sale of poisons by making it more stringent; but we may be sure that the chemists and druggists, and the pharmaceutical chemists, will strenuously resist any alteration which would tend to restrict their retail trade in poisons. So long as medical men have in their repertory of drugs such potent agents for good or for evil as strychnia and aconitia, it will be impossible to prevent such misuse of them as was exercised by Palmer and Pritchard. Any conditions prescribed by the Legislature can form but a frail safeguard to the public, if a member of our profession determine to poison a fellow-creature. In the case of aconitia and some other of the rare alkaloids, their legitimate use is at present confined to the medical practitioner and the scientist, and rigid precautions in this direction might safely be enforced. The most exact records of the sale, weight, and delivery of such substances should be insisted upon; though medical men engaged in the treatment of disease must, of course, not be restrained in freely obtaining such remedies where needed for the alleviation of human suffering. It is the abatement of the almost unrestricted, or but thinly veiled, sale of ordinary poisons to the lower orders which is most needed.

THE CASE OF CAROLINE TOMPSETT.

A MIDWIFE charged with manslaughter, by conveying puerperal fever from one patient to another, was acquitted last week at Maidstone. She had, it appeared, recently attended several patients who had the puerperal fever, so-called, and had been cautioned by Mr. Stamford of Tonbridge, and advised to disinfect herself. She continued attending fresh labours until one of her patients died. The judge left the jury to decide whether the prisoner had knowledge that the other woman whom she had recently attended had been suffering from a dangerous and infectious fever, and whether, if she had such knowledge, and had not taken proper precautions, she had not been guilty of criminal carelessness in attending the deceased as she had done. It was, he said, difficult, indeed impossible, to lay down a definition of culpable or criminal negligence applicable to every case. The acquittal was in accordance with the more recent knowledge on the subject, namely, that if due precautions be resorted to, such as washing the hands in carbolic solution and taking open air exercise, a "*bain d'air*", to use Professor Tarnier's words, obstetric practice may safely be continued by a midwife or practitioner who is attending a case of puerperal fever. The antiquated notion that puerperal fever results from a definite zymotic poison, and is an entity like typhoid fever or scarlatina, is rapidly being dispelled by the clinical experience daily gained in antiseptics, as well as by a more accurate knowledge of the pathological conditions which distinguish the various forms of puerperal lesions hitherto classed under the name of puerperal fever. When "puerperal fever" is conveyed from one patient to another, it is by dirty hands, and not by an atmosphere of germs. It is, therefore, especially important that those who practise midwifery should keep their finger-nails and hands perfectly clean. If this be done, we believe there can be little danger of contagion.

WRITERS' CRAMP.

THE treatment of functional spasmodic affections in general is so very unsatisfactory, that we should gladly welcome any substantial addition to our therapeutic knowledge from any quarter. M. Wolff, a German teacher of writing, has earned for himself a considerable reputation by his skill in the treatment of this class of affections; and his success is attested by such authorities as Nussbaum, Bamberger, Benedikt, Billroth, and Esmarch. Hearing of the beneficial results of his system, M. Charcot invited him to Paris, and placed under his care two patients suffering from writers' cramp, who had been treated by himself and M. Vigouroux for some months without any improvement. M. Vigouroux has published the cases (*Le Progrès Médical*, 1882, No. 3), and mentions that, after being handed over to M. Wolff, the first was cured in fifteen, and the second in thirteen days. M. Wolff's system consists in a combination of gymnastics and massage. He makes his patients execute movements in all directions with the affected hand for half an hour to an hour and a half at a time, three or four times a day; and, in addition, the muscles involved are stretched more or less forcibly three or four hundred times daily. He also uses massage and friction, and attaches considerable importance to percussing the affected muscles. The most essential part is the extension of the spasmodic muscles. He thinks, if no improvement is apparent after five or six sittings, the case should be abandoned. The method is worth imitating, though, as M. Vigouroux remarks, while M. Wolff generously explains his procedure, he cannot give us, at the same time, his experience, his practical skill, or that medical instinct which not only enabled him to devise his method, but guides him in its application.

HOME TREATMENT OF THE SICK POOR.

THE authorities of the Assistance Publique in Paris, which corresponds to our Poor-law organisation, are using every effort to increase the help to sick persons at their own houses. The insufficiency of the number of beds at the hospitals has been the cause of the creation of this service for those who cannot be received into them. The sum allowed is 253 francs *per annum* for men, and 195 francs *per annum* for women. This sum is payable monthly; that is to say, 24 francs during the winter months, and 19 francs during the summer months; and for women, 19 francs during the early months, and 15 francs during the later months of the year. This hospital assistance is placed at the disposal of the *bureau de bienfaisance*, for the benefit of the poor population helped through their agency. The director of the Assistance Publique ratifies the admissions. The conditions are: 1. That the recipient be above seventy years of age; 2. That he live as much as possible with his family; 3. That he be in the possession of furniture; 4. That he have been inscribed for a year at the *bureau de bienfaisance;* 5. That he have lived ten years in Paris. A couple may be admitted to this assistance, but they must show that they have been married ten years. The poor admitted to the hospital assistance cannot participate in any other charitable allowance than treatment at home in cases of disease, and an allowance of drugs, baths, and bandages.

COURTS OF JUSTICE AND INFECTIOUS DISEASES.

THE custom of placing a piece of rue before the judge, which has so long survived in courts of justice, as a relic of the times when the judges' tables were strewn with rue as a prophylactic against fever, reminds us of the days when prisoners were often brought up suffering from the contagious diseases of the day, and when infection spread from them to witnesses, jurors, and officers of our courts of justice. Since then, the secrets of infection have been studied, and largely unveiled by medical research, and the methods by which it is spread in each kind of disease have been investigated. The medical profession,

which is occasionally in these later days taunted with devoting itself especially to such means of prophylaxis as are likely to be peculiarly advantageous to itself, whether individually or as a body, has with faithful and unwearied labour devoted itself to the study of the prevention of disease by all means whatsoever; and has succeeded with infinite pains in impressing the public mind with a general conception of the doctrines of infection, and has procured some measure of assent to the precautions necessary for the prevention of infection, and with this is involved the abolition of doctors' bills. This doctrine of prevention and these stringent precautions to protect the public health, which were till lately a part of the growing knowledge of medical men, laboriously studied by a few, and gradually extending from the scientific student to the practitioner, now form part of the general stock of knowledge, and influence legislation and every-day action. A striking example was given at the Midland Circuit this week of the different state of things which now prevails from that which ruled in former days, in the case of Reg. *v.* Taylor (before Lord Justice Baggallay)—in which a new point of practice arose. Mr. Etherington Smith applied for directions as to the attendance of witnesses when the case was called. The prisoner was committed to the assize on a charge of burglary in a workhouse. Since the committal, small-pox had broken out in the workhouse, and the witnesses, who could perfectly well travel without danger to their own health, could not be called without danger to the public. The judge, after consultation with Sir Henry Hawkins' intimated that he should be ready, upon a medical certificate that the witnesses could not attend without endangering the public health, to postpone the trial, although no bill had yet been laid before the grand jury. Mr. Arthur Denman renewed the application upon the medical certificate properly verified. His lordship ordered the prisoner to be placed in the dock, and explained to him the reasons why he could not be tried at this assize. It would be advisable if Mr. Peter Taylor and his associates, who, when driven to their last parallel by the invincible arguments in favour of vaccination, find refuge in protesting that medical men are tainted witnesses in favour of vaccination because vaccination means fees, would consider, not only the enormity of the charge which they make, but also its absurdity; if they would consider, in relation to such facts as these, how great a body of medical men have given and habitually give their time, their thought, and their lives, to the study of the prevention of disease by means which are not only not productive of fees, but are destructive to such remuneration.

BIRTHS, DEATHS, AND MARRIAGES IN LONDON DURING 1881.

In the fifty-two weeks that ended on 31st December last, there were 132, 674 births recorded as having happened in London, the population concerned being estimated at 3,829,751 in the middle of 1881. The birth-rate for the past year is 34.8, that for 1880 having been 36.2 for every thousand inhabitants. The births show an excess of 51,602 over the registered deaths. This number, therefore, represents the natural increase of the population of London in the past year, the area concerned extending from Hampstead in the north to Sydenham in the south, and from Woolwich in the east to Hammersmith in the west, in all about one hundred and twenty-two square miles. The deaths of 81,072 persons were recorded in London in the past year, and this total is far below those of the three previous years. In the past year 16,847 deaths took place in workhouses, hospitals, and other public institutions; 5538 were inquired into before coroners, and 3026 deaths were due to violence, the latter being considerably over the total of the previous year. There were 19,575 deaths recorded of infants under one year, and 16,905 took place at sixty and upwards. In 1880 small-pox was fatal in 475 instances; this number has risen to 2371 for the past year, recent weekly returns of the Registrar-General now showing considerable improvement. Measles were far more fatal in the past year than in the previous one, the total rising from 1501 to 2533. Fatal cases of scarlet fever declined from 3073 to 2108; on the other hand, fevers of other types have risen from 886 to 1195. Diphtheria shows a rise from 541 to 654. In 1880 there were 3438 deaths by whooping-cough; in 1881 the number was 1961. The Registrar-General states in his last annual report—namely, that which deals with the year 1879—that 33,477 marriages were recorded in London. This total includes 28,294 which took place in church, while 5183 were of Nonconformists.

THE HYGIENIC VALUE OF THE ELECTRIC LIGHT.

The French scientific journal *La Nature* summarises a communication from Dr. Javal, who believes that the electric light is absolutely without danger to the sight, in consequence of the amount of division which can now be obtained in it. *L'Union Médicale* also reminds its readers that similar researches of great interest from a scholastic point of view were published in that journal in May and July 1881; including the researches of Dr. Cohn of Breslau, who found that the electric light increases sixfold, as compared with daylight, the perception of yellow, and doubles the perception of green and blue. The observations of Dr. Blasius and Dr. Hoppe, in a discussion which took place at a meeting of the Brunswick Society of Natural Sciences, are also noteworthy. These scientists have shown that illumination by the electric light deserved preference over all other methods in use, for the following reasons. 1. It does not pollute the air with deleterious gases or other unhealthy products. 2. It induces a greater visual unity than with daylight or gaslight. The conclusion adopted by the meeting was, that "the hygienic qualities of the electric light have not hitherto been appraised at their real value".

TREATMENT OF HYPERTROPHY OF THE TONSILS BY IGNIPUNCTURE.

The removal of diseased tonsils, by the help of the finger, ligature, cauterisation by caustics or the actual cautery, are all methods which have fallen into disuse. In Europe, the bistoury only reckons a few partisans, amongst whom is one of great authority, M. de Saint-Germain. The treatment now-a-days most in favour is excision, performed with the guillotine, which has given rise to very serious and often fatal hæmorrhages. It is now alleged that, with the thermo-cautery, this serious accident is no longer to be dreaded. M. Krishaber, who has tried it during two years, and has collected more than forty cases (*Annales des Maladies de l'Oreille et du Larynx*, July 1881), has never had any accident after this treatment, and the results obtained have been lasting. It is likewise a novel application of a method which he has found perfectly successful for granulations of the larynx and pharynx. He proceeds as follows. The patient is placed—firmly, if a child—as if for laryngoscopic examination, in front of the operator, the mouth open, the tongue held back by a large spatula, the bottom of the throat well illuminated. M. Krishaber generally uses Paquelin's narrow-pointed thermo-cautery, heated to red heat. When it is only required to modify the nutrition of the gland, he gives preference to Trouvé's polyscopic galvano-cautery. The puncture of the gland, made as deeply as possible with the point of the instrument, should be repeated five or six times at each sitting. An interval of two or three days is left between the sittings, so as to allow the fall of the eschar, and to estimate the result. The operation is not at all painful, and pain, from burning, is rarely felt. Nothing need be administered after the operation, except, in some cases, a gargle of warm water, slightly carbolised.

RELIGIOSITY AND ANIMALISM.

We have often heard it asserted that excess of religion and sexual immorality go together. This, however, is impossible, or at any rate the statement is crude. True religion and immorality of any kind exclude one another. There is, however, much in the assertion when proper terms are used. In an address to the Education Society by a headmaster, Mr. J. M. Wilson, reported in a recent number of the *Journal of Education*, the following occurs: "There is, and always has been, an undoubted coexistence of religiosity and animalism". We adopt Mr. Wilson's term, "religiosity," as a name for disease of religion or for fanaticism. Admitting the absurdity of supposing that religion can coexist with sexual immorality, there is evidence that religiosity, or fanaticism, coexists with, or perhaps is a result of, sexual excesses after

the normal period of sexual life. Medical men know this well enough, but the quotation given, and the one next to be given, show that it is recognised by sincerely religious men outside our profession. In a sermon delivered on Christmas Day, Mr. Spurgeon, as reported (*Pall Mall Gazette*, December 27th), said, "Let us not forget, too, that excess of spirituality is, by a strange but certain law, placed next door to sensuality". We suppose that what Mr. Spurgeon calls "excess of spirituality" is the same thing as that which Mr. Wilson calls religiosity. The following quotation shows that the doctrine of the association of religiosity and animalism is a very old one. In Robertson's *Charles V.*, vol. iii., book 5, p. 58, tenth edition, 1800, we find:—"Having now attained the height and power, Boccold began to discover passions, which he had hitherto restrained, or indulged only in secret. As the excesses of enthusiasm have been observed in every age to lead to sensual gratifications, the same constitution that is perceptible of the former being remarkably prone to the latter. He instructed the prophets and teachers to harangue the people for several days concerning the lawfulness, and even necessity, of taking more wives than one, which they asserted to be one of the privileges granted by God to the saints."

SCOTLAND.

THE Duke of Edinburgh proceeded to Thurso on Saturday last, and performed the ceremony of laying the foundation-stone of the Dunbar Hospital.

COMBE LECTURES IN THE NORTH OF SCOTLAND AND IN ABERDEEN.

DR. STIRLING resumed this course in Arbroath last week, and lectured upon the physiology of the blood-vessels and the bearing of such knowledge on every-day life. Experiments were shown to illustrate how the pulse disappears in the capillaries, and many interesting phenomena in connection with the influence of the nervous system on the small blood-vessels were illustrated by a reference to the physiology of blushing. In Aberdeen, the large hall was filled and densely packed with a very large audience. The lecturer, after describing in a general way the bones of the limbs, referred to the artificial deformities to which the feet and waist are subjected in obedience to the inexorable demands of fashion. These practices met with a merciless and scathing denunciation. The lecturer enforced his remarks with regard to the feet by showing a cast of a typical foot, and comparing it with casts of feet deformed through wearing narrow-pointed high-heel boots, and also comparing it with the present fashionable lasts. The results of tight-lacing were illustrated by comparing a statue of the Venus of Milo, which was put on the platform, with a fashionable dressmaker's block on which corsets are moulded. The lecture was brought to a close with a short description of the muscular system.

THE GLASGOW PHILOSOPHICAL SOCIETY.

AT the fortnightly meeting of the above Society, held on the 18th instant, Professor McKendrick and Dr. J. McGregor Robertson, Muirhead Demonstrator of Physiology in the University, gave an account of the present state of our knowledge of animal electricity, illustrating the subject with experimental demonstrations. These latter were conducted by Professor McKendrick, while Dr. Robertson read the paper. The first part of this was taken up with pointing out how, as far back as 1786, Galvani imagined he had discovered inherent electricity in the muscular tissue of frogs; and then there was traced the development of the theory of a muscle-current by Volta and others. Dr. Robertson also dwelt at some length on the investigations of Du Bois Reymond and of Hermann of Zürich; and gave details of the controvery between these two physiologists on the subject. The experiments performed during the reading of the paper worked well, and were much appreciated. They showed clearly that the electrical change which happened in the muscle, on stimulating the nerve going to the muscle, occurred before the muscle actually moved—in other words, that the change preceeded contraction of the muscle. Before concluding the paper, Dr. Robertson pointed out to what a great extent electricity was, in quite normal circumstances, developed in the tissues. It was indicated by Professor McKendrick that other contributions on this subject would probably follow.

OUTBREAK OF TYPHOID FEVER IN EDINBURGH.

IT is only a fortnight since the immunity of the southern suburbs of Edinburgh from fever was noticed in the JOURNAL. During the last ten days, however, this has been rudely disturbed by the occurrence of a number of cases of typhoid fever in the Morningside, Grange, and Merchiston districts. Since the beginning of the month, about thirty cases have been notified from the southern districts, and all occurring in villas which were well drained. In the Pleasance and St. Leonard's district, thirty-one cases have been notified, of which two have already died. The milk-supply was investigated by the medical officer of health, who believed he had found the source of the infection in a temporary pollution of the Braid Burn, which has now been removed. Altogether, three deaths have occurred.—In the parish of Sleat, Isle of Skye, an epidemic of measles prevails, and has led to the closing of several public schools.

EDINBURGH EYE INFIRMARY.

THE subscribers to the Edinburgh Eye Infirmary held their annual meeting last week. It was reported that, during the year, 954 cases had been treated at the infirmary; of these, about a fifth came from the country. Since its institution, 26,130 cases have been treated at the institution, of whom 397 had been treated as indoor patients. The ncome showed a considerable balance over the expenditure.

HEALTH OF GLASGOW.

THE report of the medical officer for the fortnight ending January 7th shows that the number of deaths registered was 531, representing a death-rate of 27 per 1,000 living. In the corresponding fortnight of last year, the death-rate was 2 per 1,000 higher, owing to the greater number of deaths from pulmonary and general causes. There were 169 deaths in the present fortnight from pulmonary diseases, representing a death-rate of 8.5 per 1,000, and constituting 32 per cent. of the total deaths. The deaths from fever numbered 10—viz., 5 from enteric fever, three from typhus, and 2 undefined. The number of deaths from infectious diseases of children was 62—viz., 28 from whooping-cough, 20 from measles, and 14 from scarlet fever. There were 41 cases of fever registered, of which 31 were enteric, 9 typhus, and 1 undefined. There were also 138 cases of measles, 55 of scarlet fever, 40 of whooping-cough, and 15 of diphtheria registered, of which 18 were removed to hospital, and the remainder supervised at home. There are at present in the hospitals, Belvidere, 113 cases of scarlet fever, 86 of enteric fever, 34 of measles, 17 of typhus, and 1 of whooping-cough—in all, 251, as compared with 294 at the corresponding period of last year. In a supplementary report, Dr. Russell shows that the deaths in the city of Glasgow during last year were 12,901, and that, simply comparing the number of deaths in previous years, without bringing them to any standard of population, this is the lowest, with one exception, since 1862.

HEALTH OF THE PRINCIPAL SCOTCH TOWNS.

THE report of the Registrar-General for the month of December shows that there were 2,315 deaths registered in the eight principal Scotch towns, 1,180 of these were of males, and 1,135 of females; after making a proportionate allowance for estimated increase of population, this is 686 under the average for the same month during the preceding ten years. The respective mortalities were, per thousand of the population: Edinburgh, 20; Dundee and Aberdeen, 22; Glasgow, Paisley and Leith, 24; Greenock 25, and Perth 27. Thirty-nine per cent. of the entire mortality was of children under five years of age, and the respective percentages were: Perth, 27; Aberdeen, 28; Paisley, 29; Edin-

burgh, 32; Dundee, 36; Leith, 42; Glasgow 44, and Greenock 45 per cent. Zymotic diseases contributed 14.7 per cent. of the entire mortality, this rate being exceeded in Glasgow and Greenock where the infantile zymotic diseases prevailed largely, in Greenock no less than 7 per cent., and in Edinburgh 4.2 per cent. of all the deaths were due to scarlet fever. Of 38 cases of death from fever 10 were registered as typhus, 25 as enteric, and 3 as simple continued fever. As to the other zymotics, whooping-cough caused 65 deaths, measles 58, diphtheria 34, and croup 25 deaths. To apoplexy 51 deaths were attributed, and 74 to paralysis; cardiac diseases caused 156 deaths; hydrocephalus 46, and premature birth debility, 60 deaths. Phthisis pulmonalis contributed 10.3 per cent. of all the deaths, while inflammatory affections of the respiratory organs other than those referred to, caused 505 deaths, equal to 21.8 per cent. of the entire mortality. Out of 86 deaths attributed to violent causes, 4 were of suicides. Four individuals died over ninety years of age, the oldest being a widow of 96. During December, the births of 3,508 children were registered, of whom 1,823 were males, and 1,685 were females. As to the meteorological conditions, it was found that the mean barometric pressure was less by 0.028 inch, and its monthly range greater by 0.247 inch, the mean temperature greater by 0.3°, and its daily range greater by 1.2°, the mean humidity less by 1, the rain-depth less by 0.55 inch, and the wind pressure greater by 0.17 lb. than the average of the same month for the preceding 24 years. The highest mean temperature 40.6°, was at Paisley, the lowest 37.5°, was at Dundee.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending January 14th, it appears that the death-rate of the eight principal towns was 23.4 per 1,000 of estimated population. This rate is 1.2 below that of the corresponding week of last year, but 0.5 above that of the previous week. The lowest mortality was recorded in Paisley, viz., 17.4 per 1,000; and the highest in Glasgow, viz., 27.0 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 4.3 per 1,000, or 0.7 above the rate for last week. Measles was the most fatal epidemic in Glasgow; but no deaths from scarlatina were registered in Edinburgh. Acute diseases of the chest caused 140 deaths, or 5 more than the number recorded last week. The mean temperature was 42.7°, being 1.6° above that of the week immediately preceding, and 18.8° above that of the corresponding week of last year.

IRELAND.

THE annual meeting of the Belfast Hospital for Sick Children takes place on the 27th instant, in the Clarence Hall, when the chair will be taken by Lord O'Neill.

DR. D. J. CUNNINGHAM, Senior Demonstrator of Anatomy in the University of Edinburgh, was on Thursday elected to the Professorship of Anatomy and Physiology in the Royal College of Surgeons of Ireland.

NEWRY FEVER HOSPITAL.

FROM the medical report, it appears that seven hundred and forty-five patients were treated in the hospital during the past year, with a mortality of only four. The subscriptions amounted to £257; and it is satisfactory to learn that there was a balance to the credit of the hospital at the commencement of the present year, amounting to £120.

THE PUBLIC HEALTH ACT.

THE Queenstown Town Commissioners, at a special meeting, held on the 16th instant, to consider the steps to be taken to prevent the spread of fever in the district, resolved that the infected clothes of patients suffering from fever be sent to the disinfecting chamber and disinfected, under protest; and that this arrangement should only be temporary, in order to enable the Cork guardians to give an order to refund the amount expended for disinfection; and that the guardians should undertake those duties for the future. In reference to this resolution, the Local Government Board have informed the Commissioners that they had already pointed out that the responsibility as to the disinfection of premises, bedding, and clothing, in cases where dangerous infectious disease occurs, rests exclusively with them as the sanitary authority. The Local Government Board again warn the sanitary authority pursuing a course in making default in that duty, which, if persisted in, must cause disease to spread in Queenstown, and result in much loss and injury to the port.

UNKNOWN CAUSES OF DEATH.

IN the south city district of Dublin, thirteen instances were recorded last week in which the cause of death was "unknown" to the informant, who attended to register the deaths that took place in the South Dublin Union Workhouse.

CLONAKILTY UNION: VACCINATION FEES.

DR. GARDE, medical officer of Timoleague Dispensary District, last week reported to the Clonakilty Board of Guardians that, from October 20th to December 11th, he had vaccinated 1248 persons, 91 of whom were children under three months, and requesting payment of a sum of £124 16s., the amount due, at the rate of two shillings for each person vaccinated. It appears Dr. Garde went to the National Schools and vaccinated or revaccinated the children, much to the annoyance of the guardians, who considered his thus acting, without their consent, as most reprehensible. After a heated discussion, they unanimously adopted the following resolution: "That we desire to draw the attention of the Local Government Board to the report of the number of persons vaccinated and revaccinated in the Timoleague district; that, in the opinion of this board, the doctor acted illegally in going into the National Schools within his district to revaccinate children, without the knowledge of the board or dispensary committee. There were stations appointed by the dispensary committee, which we consider it his duty to attend, and not at the National Schools. If there is not a check to such a course, the medical officer could at any time revaccinate every person in his district." We surmise that the children born in the district are not brought to Dr. Garde, as required by law; and we consider, under the circumstances, that he was quite justified in acting as he did.

DUBLIN SANITARY ASSOCIATION.

THE ninth annual general meeting of this association was held last week. There was a large attendance of members. The adoption of the report, which dealt with various subjects, which came under the notice of the executive committee during the past year, was moved by Mr. C. H. Meldon, M.P., and seconded by Mr. R. O. B. Furlong.

IRISH POOR-LAW MEDICAL OFFICERS' SUPERANNUATION.

A DEPUTATION from the Council of the Irish Medical Association waited on the Chief Secretary for Ireland on Monday last, for the purpose of urging the Irish Government to give its approval to a Bill to provide superannuation allowances for union officers under more satisfactory arrangements than those now in force. The deputation was attended by Mr. Gibson, M.P.; Dr. Lyons, M.P.; Mr. Brooks, M.P.; Mr. Meldon, M.P.; Mr. Findlater, M.P.; Dr. Banks, President of the Irish Medical Association; Dr. Johnston and Dr. J. W. Moore, President and Vice-President of the College of Physicians; Dr. Kidd and Dr. Duffey, President-elect and Honorary Secretary of the Dublin Branch of the British Medical Association; Mr. Porter, Surgeon to the Queen; Dr. Robert MacDonnell; Dr. Chapman; Dr. Jacob; Dr. Molony, Tulla; Dr. Bellew Kelly, Drogheda; Dr. Hayes, Naas; Dr. Purcell; Dr. Morrogh; Dr. Browne; Dr. Speedy, etc. Dr. Jacob having brought the views of the Association before the Chief Secretary, in an able and lucid statement, Mr. Forster said that the subject had occupied the attention of Government since last year, and that he had carefully considered the question. He had come to the conclusion that the circumstances dwelt on by Dr. Jacob needed to be dealt with by the Government, and, therefore, he intended,

with the aid of Mr. Herbert Gladstone, who was present, to take the matter in hand and introduce a bill thereon early in the session. The bill would seek to transfer to the Local Government Board all the powers now vested in boards of guardians as to superannuation allowances and retiring gratuities, and it would include within its scope all union officers, medical and non-medical. The Bill would place these pensions upon a general rate contributed by all the unions in Ireland, and he believed that an extremely small tax would be sufficient for the purpose. Lastly, the Bill would adopt the scale and regulations as to age, etc., now in force for the Civil Service. This announcement is a most satisfactory one; and the committee of council of the Irish Medical Association deserve the warmest thanks of the Irish Poor-law Medical Officers, and of the profession generally, for the zeal with which they have so long laboured for their good.

REMOVAL OF THE UTERUS.

DR. ATTHILL, Master of the Rotunda Hospital, removed the greater portion of the uterus last week, by a modified Porro's operation. The patient had suffered intensely for a long time previously. Malignant disease of the fundus of the uterus was diagnosed. The nature of the proposed operation and its risks were explained to the patient, who readily acceded to its being performed as a possible means of relieving her from her sufferings. She unfortunately succumbed thirty hours after the operation. Microscopical examination of the diseased portion of the uterus showed it to be an epithelioma. The cervix had not been encroached upon by the new growth, but a small portion of the latter had been left in the stump. There was little or no hæmorrhage. Death was probably due to collapse, but there was *post mortem* evidence of acute septic (?) peritonitis. The specimen was exhibited at the last meeting of the Pathological Society of Dublin.

HEALTH OF DUBLIN.

ACCORDING to Dr. Cameron's last report, the state of the public health in Dublin, in December, was very unsatisfactory, especially as compared with the summer and autumn months, which were exceedingly healthy. The high death-rate of the month (37·75 per 1,000 persons living within the muncipal area) was caused nearly altogether by two causes—an epidemic of measles and a large number of cases of bronchitis. 101 deaths out of a total of 120 deaths, caused by the seven principal zymotic diseases, were the result of measles. If the report be correct, it is unfortunate during such a fatal epidemic, and with typhus fever also extremely prevalent, that the solitary disinfecting chamber of the corporation should not have been for three or more weeks past in working order. Dr. Cameron states that he has reason to believe that the epidemic is declining. But according to the Registrar-General's returns for the first week of the present year, thirty-eight deaths from the disease were registered during the week. Forty new cases were admitted into the principal hospitals during the same period, being eleven over the admissions for the preceding week, and leaving eighty-two cases under treatment in these hospitals alone on the 7th instant. On this date also, there were thirty-six cases of typhus fever in the same hospitals.

THE IRISH REGISTRAR-GENERAL'S RETURNS.

DR. GRIMSHAW, with that spirit of progress which has characterised the administration of his department since his accession to its charge, has, in accordance with the advance which has taken place in medical science and nomenclature, slightly modified the classification hitherto in use for statistical purposes. This modification, which comes into force in the first weekly return of births and deaths for the current year, will not, however, materially alter the relation of the various groups of diseases to one another, and for all practical purposes the numbers tabulated under the new system are fairly comparable with those included under similar denominations in the classification of Dr. Farr, hitherto made use of in the returns published by the General Register Office. Instead of the five classes of Dr. Farr, Dr. Grimshaw now groups the cause of death under eight classes, viz.: 1, Zymotic diseases; 2, Parasitic diseases; 3, Diathetic diseases; 4, Constitutional diseases; 5, Developmental; 6, Local; 7, Deaths from violence; and 8, Deaths from ill-defined and unspecified causes. Quinsy and croup are removed from the zymotic to the local group; rheumatism also from the zymotic group to that of the constitutional diseases; and similar changes, which need not be further particularised, are adopted, which will help to make the registration of deaths in Ireland more scientific and more accurate than before.

DR. ANDREW CLARK ON ALCOHOL.

IN addressing a meeting convened under the auspices of the City of London Total Abstainers' Union, at Messrs. J. and R. Morley's warehouse, Wood Street, on Friday, the 6th instant, Dr. Andrew Clark related the result of his experience, extending over a quarter of a century, of the physiological effects of alcohol on the human system. He admitted that there were many difficulties in the process of investigating those effects. Apart from the fact that men were sometimes apt to be prejudiced in favour of total abstinence from mere feeling and party spirit, a great difficulty that stood in the way of achieving trustworthy evidence on the question was the slowness with which the evil consequences of alcoholic poison were made manifest. Very often, under the appearance of health and brightness of spirits, disease was slowly making its way in the deeper parts of the body of a man, who seemed to be indulging in what was ordinarily considered a moderate quantity of alcohol daily; and, sooner or later, the man of apparently robust health and exuberant animal spirits was cast down by some disease of the heart or kidneys, or some of the other ailments that afflict men of middle life, because he had not been careful in the use of alcoholic drinks. There were various methods of investigating the effects of alcohol. In the first place, there was personal experience; and Dr. Clark thought it was the duty of every man to himself, by a careful experiment over a sufficient period—say, of six months—to learn what effect it had upon him. Another very valuable method of inquiry was that which had been performed by the late celebrated Dr. Parkes of Netley, of ascertaining the results from a number of men placed under precisely similar conditions, as to food, air, and lodging, the one half of them receiving a certain quantity of alcohol with their meals, and the other not. The result of Dr. Parkes' experiment was decidedly against the use of alcohol. A third method—not a bad one—was that of studying the histories of great naval and military expeditions in which alcoholic drinks were freely used, or in which they were not used at all, or very sparingly. One of the most valuable results of this method of investigation—as borne out by the history of the Kaffir war in South Africa, the Red River expedition, and the various Arctic voyages—was to show that it was invariably the case that the greatest amount of work and the least amount of sickness were associated either with an entire abstinence from alcohol, or with the administration of only a minute quantity of it. The comparison of one nation with another he distrusted, for the reason that in such cases we had to deal with difference of race, difference of climate, habits, etc., which considerably qualified the accuracy of the results obtained. Another source of information on the subject was to be found in the experience of medical men. They had especial experience on this matter. It was their interest to find out what was the relation between alcohol, health, work, and disease, because, according to the accuracy of their finding, would be their power to heal their patients; and, although doctors were sometimes weak, and failed in their duty, yet, in the main, their hearty desire was to benefit those who sought their aid. In one or other or all of these ways, either personally in private practice, and as a hospital physician, or by reliable trustworthy accounts, or by listening to the careful experience of others, he had formed certain conclusions. The first thing that he would say, in summing up the result of his observations, was, that alcohol should never be given to the young. Secondly, every adult man who found himself, after trial, to be better without the use of alcohol, should never resume it; for he would work better, enjoy life more, have a greater exemption from disease, and probably live longer, and be better in all the relations of life. Thirdly, if a man did feel himself the better for a little alcohol, in one form or another, and it enabled him to do that which he could not do without it, and did not sensibly to himself injure his health, then he (Dr. Clark) would say to such an one that he could take it, only with the utmost regard to quantity and time. As to quantity, he would allow him certainly not more than was contained in half a pint of beer a day; and as to time, he should say that even that quantity could be taken with safety only at the greater meals of the day, that was to say, at dinner and supper. Next, if alcohol were to be taken, it must be taken, not only under these conditions and

with these limitations, but it was the duty of every man to himself to have what he would call an alcoholic fast from time to time, to ascertain how he felt without it as compared with how he felt with it. In conclusion, Dr. Clark said that, while this was the sum of his convictions, at present there was no doubt that the human race was undergoing a great change. The exigencies of modern life, with its intensity and excitement, and the advances of civilisation, were all telling upon the nervous system. One of the leading manifestations of that change was the growing intolerance of alcohol on the part of the human race. We did not see people now-a-days enjoying their two bottles of port wine, as formerly—a circumstance which was due less to their virtue than to necessity, for undoubtedly there were many men now who would be quite ready to enjoy their two bottles if they could, only they could not. Sir Thomas Watson, the Nestor of the profession, had expressed the same opinion to him, and said that it seemed certain that the advance of civilisation was entailing a loss, and a growing loss, of the toleration of alcohol on the part of mankind.

FOURTH INTERNATIONAL CONGRESS OF HYGIENE.

THE third Congress of Hygiene, which met at Turin in 1880, selected Geneva, by acclamation, as the seat of the fourth Congress. The Swiss Federal Council, the Genevese Councils and people, gratified by so flattering a decision, are preparing to welcome the hygieists, both Swiss and foreign, who may attend this scientific meeting. The Congress will meet on the 4th, and sit till the 9th September 1882. The Geneva Committee, entrusted with its organisation by the State Council, hope to make it worthy of its predecessors, the Congresses of Brussels, Paris, and Turin. Supported by the Swiss National Committee, they appeal to all persons who, by their writings, their position, or personal experience, strive to elucidate the theory of hygiene, and to practise it. With the assent of the International Committee of the Paris Congress of Demography in 1878, they have resolved that a Demographic Section shall supplement the Congress of Hygiene.

The General Committee request us to express their hope that the hygienists and demographers of all countries will prepare to bring to the Geneva Congress the contribution of their learning and labours. They are invited, together with the boards of health, and scientific and sanitary societies, to submit as soon as possible to the Managing Committee the questions they may think worthy of treatment by the International Congress. Several essays have been announced, and, as soon as a full list of them shall have been obtained, the Committee will apprise the public of their drift, calling special attention to the main points of investigation. An exhibition of books, plans, and instruments of all kinds concerning hygiene and demography, will be opened in Geneva on September 1st, and last till September 30th. Authors, inventors, and manufacturers, of every nationality, are invited to give notice, at their earliest convenience, of their intention to contribute to the exhibition. The Committee will endeavour to obtain a reduction of tariffs both for members of Congress and for the objects sent to the Exhibition.

The Managing Committee is constituted as follows: *President*, H. Cl. Lombard, M.D., Vice-President of the International Congress of Medical Sciences held in Geneva in 1877. *Vice-President*, J. L. Prevost, M.D., Professor of Therapeutics, Dean of the Faculty of Medicine. *General Secretary*, P. L. Dunant, M.D., Professor of Hygiene. *Assistant Secretaries*, M. D'Espine, M.D., Professor of Internal Pathology; G. Haltenhoff, M.D., University Lecturer on Ophthalmology. *Members*, V. Gautier, M.D., Head Physician of the Butini Infirmary; M. Julliard, sen., M.D., formerly Medical Inspector of Public Health; M. Denis Monnier, Professor of Biological Chemistry; E. Rapin, M.D., formerly President of the Medical Society.

It is especially requested that manuscripts and prints which concern the Congress should be directed to Professor Dunant, M.D., General Secretary, Geneva.

THE HUNTERIAN MUSEUM.—The large number of 11,290 visitors attended the Museum of the Royal College of Surgeons during the past year.

THE DEVONSHIRE HOSPITAL, BUXTON.—At the recent annual meeting of the trustees and committee of the Devonshire Hospital, Buxton, a letter was read by the chairman from Dr. J. F. Dickson, junior consulting physician to the hospital, announcing the gift (on behalf of his sisters and himself) to the hospital of a presidential chair, in memory of their father, Thomas Dickson, F.R.S., a former trustee of the charity. The chair, which is of massive oak, is of elegant mediæval design and excellent workmanship, designed and made by Messrs. John Taylor and Son, Edinburgh. An enthusiastic vote of thanks was accorded to the donors.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL:

NOTICE OF QUARTERLY MEETINGS FOR 1882: ELECTION OF MEMBERS.

MEETINGS of the Committee of Council will be held on Wednesday, April 12th, July 12th, and October 18th. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary not later than 21 days before each meeting, viz., March 22nd, May 22nd, September 27th, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

November 4th, 1881. FRANCIS FOWKE, *General Secretary*.

BRANCH MEETINGS TO BE HELD.

LANCASHIRE AND CHESHIRE BRANCH.—*Preliminary Notice.*—A special meeting of this Branch will be held at Manchester on Wednesday, February 8th, at 5 P.M., to consider the subject of Compulsory Notification of Infectious Disease.—A. DAVIDSON, Honorary Secretary, 2, Gambier Terrace, Liverpool.

BORDER COUNTIES BRANCH: AUTUMNAL MEETING.

THE autumnal meeting of this Branch was held at the Keswick Hotel, Keswick, on Friday, October 28th, 1881. Twelve gentlemen were present. Mr. GRIERSON, the President of the Branch, occupied the chair.

New Members.—Drs. Black, Ring, and Rumney, of Keswick, were elected members of the Branch; and Dr. Rumney a member of the Association.

Communications.—The following communications were read.

1. Dr. Maclaren: A Short Account of Three Cases of Amputation at the Hip-joint.

2. Dr. Barnes: The Treatment of Scarlet Fever. All the gentlemen present joined in the discussion which followed.

3. Dr. Knight: A Biographical Sketch of the late Dr. Leitch of Keswick.

4. Dr. Burt: A Short Umbilical Cord as an Obstruction to Delivery. The author mentioned three cases which had occurred in his own practice.

Dr. Fothergill and the Association.—A communication was read from Dr. Milner Fothergill, advocating some changes in the manner of conducting the business of the Association. This received no support from the meeting.

British Medical Benevolent Fund.—A communication was read from the Honorary Secretaries of the South Wales Branch, which led to a proposal by Dr. MACLAREN, seconded by Dr. TIFFEN, "That this meeting recommends the Council to draw the attention of the members of the Branch to the desirability of subscribing to the British Medical Benevolent Fund, and recommends that those members who do not already subscribe should do so, and forward any sum from five shillings upwards to Dr. Barnes of Carlisle, the Honorary Secretary of the Fund for this district."

Dinner.—The members afterwards dined together at the Keswick Hotel, where they were joined by the Rev. L. Richmond and the Rev. W. Wainwright.

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

A MEETING of the Bath and Bristol Branch was held at the Grand Pump Room Hotel, Bath, on Thursday afternoon, January 19th, 1882: present, D. DAVIES, Esq., President, in the chair, and sixteen members.

New Members.—The following were elected members of the Association and Branch: D. S. Davies, M.B., Bristol; and C. F. Hawkins, M.R.C.S., Bristol.

Papers.—The following communications were made.

1. Mr. R. J. H. Scott showed a case of Spina Bifida, and gave a history.

2. Dr. Greig Smith narrated his experiences of eight successful cases of Ovariotomy in the Royal Infirmary, Bristol. This led to remarks by Dr. Swayne, Mr. Fowler, Dr. Coombs, Mr. Harsant, and Mr. Davies; to which Dr. Greig Smith replied.

3. Dr. Swayne exhibited and explained the mode of using a new Stem Pessary, which led to questions from several members.

MR. SAMPSON GAMGEE, of Birmingham, has been elected a Foreign Associate of the Norwegian Medical Society.

CORRESPONDENCE.

ON THE RELATIONS OF SMALL-POX AND COW-POX.

SIR,—In perusing Mr. Hodgson's paper on the above subject, read in the Public Health Section at the last meeting of the British Medical Association, and published in the BRITISH MEDICAL JOURNAL for November 26th, I observe that he makes special allusion to my views as set forth in a pamphlet published not long ago (*Human and Animal Variolæ*), and maintains that I am in error, while the results of the experiments and observations of Ceely and Badcock prove that cow-pox is only modified small-pox. I have no desire to go over the ground occupied by the contents of the pamphlet just mentioned, but Mr. Hodgson will find arguments there which I fancy he will not be able to disprove, and which are conclusive that the two maladies are distinct, and are not convertible one into the other. I believe the opinion I entertain is that now held by the majority of pathologists on the Continent who have paid any attention to the subject, and are acquainted with comparative pathology; and, so far as I can understand, not only is every argument in favour of that opinion, but also scores, if not hundreds, of experiments. The Lyons Commission, composed of the ablest scientists—among them Chauveau—which France contained, and afforded every facility, could not transform small-pox into cow-pox. The Italian Commission laboured even longer, and perhaps more extensively, than the French one, and yet could not once succeed in what Mr. Badcock is reported to have done with comparative frequency, and Mr. Ceely on two occasions. The Belgian Commission has had no better success; and, if Mr. Hodgson will turn to the ninth annual report of the Local Government Board (supplement containing the report of the medical officer) for 1879-80, he will there find a detailed list of experiments on thirty-one cows, performed by Dr. Klein, under the supervision of Dr. J. Burdon Sanderson and Mr. Ceely himself, and all of a negative character. Every recent attempt to produce cow-pox by inoculating bovine with small-pox matter has resulted in failure, notwithstanding every care and attention, and the multitudes of animals operated on.

Seeing that the gravest doubts are thrown—and not unreasonably—on Mr. Badcock's experiments and assertions, surely, if for no other object, that gentleman might exonerate himself by once more doing what he is reported to have already done so often. If it be the fact that humanised vaccine lymph has become deteriorated, and does not afford the protection it used to do, surely anyone who could produce a new and potent supply would be regarded as a benefactor. I am certain Mr. Badcock would receive every assistance in this direction, and I am indeed greatly astonished he has not volunteered to repeat his experiments, in order not only to silence those who assert he cannot produce vaccine by the variolisation of cows, and has never done so, but with the higher object in view of furnishing efficient protective material. If the transformation could be effected at one time, surely it could now. Small-pox is as virulent at present as in 1840, and cattle are, we may suppose, quite as susceptible. Until Mr. Badcock or someone else demonstrates publicly and unmistakably that inoculation with small-pox virus will produce vaccine, I shall retain the opinion I have always held, that it cannot be done, and has never been done.

Cow-pox and small-pox are diseases of a very different character; and to maintain that the latter—a generally eruptive, very fatal, and most infectious disorder—can be converted into the former—a mild, locally eruptive, and benignant malady, with a distinct eruption of its own—by only passing the virus of the latter once through the cow, the transformation being so permanent and complete, that it never produces small-pox again when carried back to its native soil, is as extraordinary as it would be to assert that carrot-seed sown in the ground would produce a crop of turnips. The experiments of Pasteur and others entirely negative the notion that they can be made to lose their identity, and become something quite different in action and results. These may be modified, but can never be absolutely and permanently changed. According to Mr. Hodgson, and those who think with him, small-pox passed only once through the cow is never small-pox again, no matter into how many generations of human beings it may be grafted when retransplanted from the cow. A few minutes' reflection will, I think, expose the hollowness of the arguments upon which the believers in the absolute transformation of the small-pox virus rely. Let me ask Mr. Hodgson to peruse my arguments and facts, and explain how it is that while, according to Ceely and Badcock, it is extremely difficult to produce vaccine from small-pox—according to scores of more experienced experimentalists impossible—yet that there is no difficulty whatever in producing vaccinia from humanised vaccine lymph.

I am well aware that the generally received opinion among medical men in England is, that vaccine is merely human small-pox modified by the system of the cow; but this opinion is only based on the results of the experiments of Ceely and Badcock, and one or two others perhaps who experimented earlier, and has been handed down from one to another, and transferred from text-book to text-book, without inquiry. Comparative pathology has received but little attention in this country, and therefore it is that most erroneous notions prevail with regard to the disorders of animals, *i.e.*, that the sheep is the only creature which is affected with small-pox, vaccine being derived from human small-pox. Until students receive some instruction in this very important branch of medical science, their education must remain incomplete.

Mr. Hodgson ventures to point out what he designates an unfortunate argument employed by me, where I show in my pamphlet, and for the first time, that the supposed outbreak of cow-pox in a small herd of cattle in a paddock, due, according to Mr. Ceely, to their smelling small-pox tainted clothes, was not that malady at all, but the foot-and-mouth disease, then extremely prevalent. If Mr. Hodgson will peruse Mr. Ceely's report in the *Transactions of the Provincial Medical and Surgical Association*, he will find that the evidence was only hearsay. Mr. Pollard, a farmer, expressed his conviction "that his cows had been infected from human small-pox effluvia, to which he considered they had been exposed" (p. 211). But Mr. Ceely himself doubts the infection of the cows from this source; for, while admitting that such effluvia might be "quite adequate to the propagation of the disease among human beings, had they been exposed", he adds, "but whether sufficient to excite the vaccine in cows I really cannot pretend to say, having failed myself in attempts to infect two or three such animals at a time, with means not less potent, and under a closer atmosphere." The cattle—eight milch cows and two heifers—were not seen by Mr. Ceely while they were affected, and he was astonished and baffled at the simultaneousness of the outbreak; the whole of the cows being attacked within three days (pointing to foot-and-mouth disease), and the symptoms being undoubtedly those of foot-and-mouth disease. Mr. Ceely himself remarks on the great difference in the symptoms described from those of cow-pox (pp. 226, 233). If the two persons said to have received vaccine from the cows were really affected with that disease, then it is just possible one of the animals may have had it. We may be certain, however, that the infection was not conveyed to it from the tainted clothes and bed-flocks.

I will not intrude further upon your space in the discussion of this subject, but would merely suggest that it is for those who assert that vaccine can be produced in the bovine species by the inoculation of small-pox matter, to demonstrate this in a conclusive manner. There is every opportunity; and, if they be successful, then I will gladly acknowledge I have been wrong. At present, everything except the experiments of Ceely and Badcock negative the assertion; while the former has failed quite recently, notwithstanding the great facilities afforded him. It would not be very hazardous to predict similar failure to Mr. Badcock, if he made the same attempt now-a-days. At any rate, it is almost a duty he owes to his species, and certainly it would be a great service to pathology, if he could repeat the success he is said to have achieved so many years ago.—I am, etc.,

GEORGE FLEMING, F.R.C.V.S.

St. John's, December 10th, 1881.

DENTAL HOSPITAL OF LONDON.—A *conversazione* was held on January 18th, at 40, Leicester Square, by the Students' Society of the above-named hospital, under the presidentship of Mr. R. H. Woodhouse. The whole hospital building, and the Museum of the Odontological Society were thrown open, and the rooms were decorated with pictures, flowers and flags. The president received the guests as they arrived in the lecture-room, where arrangements had been made for a musical entertainment of vocal and instrumental music. The large stopping-room was devoted to the display of dental apparatus, exhibited by the dental depôts, comprising the most approved operating-chairs, engines, electric mallets, gold instruments, etc. One of the most interesting novelties was a new battery for the electric mallet, shown by Mr. Nehmer, brother of the inventor. It is alleged that, by substituting platinum for carbon, in the cell, the constant care requisite for the battery now in use is obviated. Mr. Coffin contributed a large number of marked cases of dental irregularities that he had treated successfully by means of an ingenious regulating plate, which is now associated with his name. The library and council-room were occupied with microscopes. Refreshments were served on the ground floor throughout the evening. At eleven o'clock a very interesting and successful *soirée* was brought to a close.

MILITARY AND NAVAL MEDICAL SERVICES.

THE death is announced as having taken place recently at Malta of Deputy Inspector-General of Hospitals George Birnie Hill.

SURGEON-MAJOR JOHN BEAN, late of the Bombay Medical Service, died on the 11th January, at Paslow Hall, Ongar, Essex, aged seventy-one.

THE appointment of principal medical officer to the forces in the Dominion of Canada has been resigned by Surgeon-General J. S. Furlong, whose duties have been taken up by Brigade-Surgeon William Cattell, lately serving on the Medical Staff at Aldershot, and more recently at Malta.

BRIGADE-SURGEON W. CATTELL, recently serving at Malta, has been appointed principal medical officer to the forces in Canada, in succession to Surgeon-General J. S. Furlong, resigned; Deputy Surgeon-General J. L. Holloway, C.B., lately principal medical officer to the forces in South Africa, has succeeded Deputy-Surgeon-General R. Gilborne as principal medical officer of the Eastern district, head-quarters at Colchester; and Deputy Surgeon-General E. J. Franklyn, M.D., late chief medical officer to the Meerut Division of the Bengal Army, has succeeded Deputy Surgeon-General J. Sinclair, M.D., in the appointment as principal medical officer of the Belfast district, the latter officer having succeeded to the chief medical charge of the troops at the Cape of Good Hope.

DEPUTY SURGEON-GENERAL H. T. READE, V.C., who it is stated, has resigned his post as principal medical officer at Barbadoes, in consequence of ill-health, gained the Victoria Cross and medal during the siege and capture of Delhi in 1857, when he was the first up the breach at the storming of a magazine, and, with the assistance of a sergeant, spiked a gun. He was mentioned in despatches for "unwearied exertions and gallant conduct in the field". He had been previously commended for, in company with a few men of the 61st regiment, repulsing 300 sepoys who were attacking some wounded men. During the recent scourge of yellow fever at Barbadoes, Surgeon-General Reade has been conspicuous by his unwearied efforts and devotedness in his attention to the sufferers.

VOLUNTEER AMBULANCE DEPARTMENT.

THE Volunteer Ambulance Department, which was originated in 1876 as "the Volunteer Sick Bearers' Association", has, under the patronage of the Duke of Cambridge, and with the friendly assistance of the heads of the Army Medical Department, now been officially recognised by the War Office. Members of the Volunteer force who join the classes are instructed in ambulance duties and the proper treatment of wounded in the field, in accordance with the practice prescribed in the official Red Books of instruction and the system adopted by the Army Hospital Corps at Aldershot, so that in case of emergency they would be able to work with the regulars. Since the classes of instruction commenced more than 1,200 men have been enrolled in London alone, and 845 of these have attended the requisite number of lectures and drills, and entitled themselves to certificates of proficiency. In the provinces, a large number of men have been under instruction, and over 470 certificates have been granted, bringing the total number of efficients to 1,315. Allowing two men to a company, however, it is calculated that about 5,000 men of the Volunteer forces should be available and competent to undertake this duty. It should be known that this movement has been carried on without any pecuniary help from Government; and, as further expenses have to be met in the purchase of material and the development of this service, those who feel an interest in the Volunteer force are invited to forward their contributions to the treasurer, W. H. Platt, Esq, 4, Upton Villas, Kilburn, N.W.

THE TRAINING OF NAVAL MEDICAL OFFICERS AT NETLEY.

SIR,—There has lately appeared in the JOURNAL a letter from "R. N.", who is an advocate of the change by which the instruction of young naval medical officers is removed from Netley—a change which, it is an open secret, the Admiralty, for their own ends, wished to accomplish years ago. He adduces the authority of the late Committee; but, perhaps, he would not be surprised to hear that the medical members of that Committee did not enjoy the confidence of many naval surgeons. With one exception, they would probably never have been heard of if the selection had been entrusted to the profession; and, in fact, their fitness for the office was a general subject of laughter. In one respect, however, they harmonised—they were all lucky men, and had made good progress in the service, not, it need scarcely be added, on account of professional ability. The officers examined were also selected, and, in all probability, their opinions were known beforehand. The greater number of the staff-surgeons and senior surgeons—the backbone of the service—were abroad, and their opinions were not asked. How many *ci-devant* "Netley *élèves*" were examined? Their evidence would surely have been of the greatest value.

It may be conceded that, in some particulars, Haslar is naturally well adapted for a school, which, however, as to its utility, must always be more dependent on the talents of the teachers. It contains a fairly good museum of pathology of a certain kind, and at one time had also a good museum of natural history, since plundered with the connivance of the Admiralty. There is, moreover, an abundant supply of instructive cases of injury and disease which might be utilised by a competent and willing teacher, if he could be procured; and the proximity of the dockyard furnishes a field for the study of practical hygiene. What is known, however, of the action of the Admiralty is not reassuring as to the character of the instruction afforded. If Dr. Macdonald must discontinue his lectures, could they not have secured the services of some American or Frenchman, who has made a name for himself on the subject? So long as consanguinity and nepotism are more respected than merit and scientific knowledge in the selection for appointments, there is little chance of the naval culture of hygiene being much augmented.

It is surprising that "R. N." should not recognise the very great importance of special instruction in naval, and also in military, surgery. The routine on board-ship can be picked up by anyone in a few days, and is not to be learned in a hospital.

In some respects, the letter refutes itself. If the writer have no high opinion of the knowledge of young medical officers, it is surely of some consequence that they should have the benefit of the best teaching available, which no one will affirm is to be found at Haslar.

It is well known that a strong prejudice against the "Netley *élèves*" has prevailed amongst many of the senior medical officers, principally those of the very old school. A young gardener who, after attending lectures in medicine, and walking a hospital for one or two years, has joined the navy without a qualification, is likely enough in more advanced age, even though he have bought an M.D., and perambulated the world in a "floating prison", to resent the companionship of a doubly qualified young gentleman just emerged from Netley, and bristling with knowledge, often with too much for the comfort of his senior.

As to the invidious and unwarrantable remarks of "R. N." in comparing the two services, pride in the profession, *esprit de corps* (meaning, apparently, clannishness), etc., it is sufficient to point to the valuable contribution to our knowledge of medicine, surgery, and hygiene, made by army medical men within the last twenty years, and to contrast them with the miserable outcome of naval medical observation and thought. When the profession in the navy have produced one-tenth of the number of eminent names that have become conspicuous in the sister service during that period, then only can a naval surgeon, with propriety, raise himself from that attitude which at present best befits him—hanging his head in sorrow and in shame.—I am, etc.,

MEDICUS NAVALIS.

THE NAVAL MEDICAL SERVICE

SIR,—It is not surprising that different opinions should exist in such a complex subject as that handled by your correspondents in the late numbers of the JOURNAL. The public services present advantages or otherwise, very much as the recipients are capable of turning them to account. A better illustration of this could not be afforded than by the two letters which appear side by side in the JOURNAL of January 14th. From the tone of the letter signed "Medicus Navalis", I should say the author is eminently unfitted for the vocation he has chosen, and in his own interest would do well to try another. He will find no obstacles thrown in his way by the authorities. It is but bare justice, however, to draw particular attention to his concluding statement as to the "heads" of the department, by which I conclude is meant the Director-General. Now, if there be a single point on which all are agreed, it is this: the extreme courtesy and consideration which is shown to every member of the department, irrespectively of his rank, by its present chief. Your correspondent is the first man I have ever heard make a statement to the contrary; and his experience must have been peculiar. When this letter is read throughout the service, conclusions not very flattering to its author will, I fear, be drawn, as anyone acquainted with the present Director-General will know how foreign to his nature is conduct such as that attributed to him, and will be able to judge how much credence is to be given to the rest of your correspondent's grievances.—I am, etc.,

VERITAS.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE

THERE will be an examination at Gonville and Caius College, beginning on Thursday, March 23rd, for one Shuttleworth Scholarship of the value of £60 per annum, and tenable for three years. Papers will be set on Thursday and Friday, March 23rd and 24th, and there will be a practical examination on a day or days to be hereafter fixed. The subjects of examination are Botany, and Comparative Anatomy in its most general sense (including "Zootomy and Comparative Physiology"). The qualification of candidates is, by the terms of Dr. Shuttleworth's will, as follows:—They must be resident medical students of the University of Cambridge, who have kept not less than eight terms, have passed the Previous Examination with the additional subjects required from candidates for honours, and produce satisfactory testimonials of good character. A successful candidate, if not a member of Gonville and Caius College, must forthwith become a member of the same. This scholarship is tenable with any other scholarship at the College. None will be adjudged unless a candidate be found proficient. For further information, apply to the Rev. A. W. W. Steel, Senior Rector to the College, to whom candidates should send application before March 16th.

VARIOUS Liverpool charities have been benefited, to the extent of £16,000, by the death of Mrs. Hamilton, a late resident.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

THE Wolverhampton Town Council have determined upon the erection of a public mortuary. A similar building is, we understand, to be provided for Aldershot.

IN consequence of a slight outbreak of small-pox at Stamford, the town council have determined upon the erection of wooden buildings, to be used as temporary hospitals, in a field at the outskirts of the town.

AN epidemic of scarlet fever has been prevailing in the Fradswell and Chartley Districts of the Stafford Union. The cases, twelve in number, are now convalescent, the fever having been of a mild character.

IN consequence of the spread of measles in the local board district of Morley, the health-officer, who reports that the cases are very numerous, has recommended the closing of the schools for a month. Scarlet fever and small-pox are prevalent in the adjoining townships.

THE St. Saviour's Board of Works have resolved to petition the Home Secretary, praying that the notification of infectious diseases may be made compulsory, restricting notification to the following diseases, viz., small-pox, scarlet fever, typhus fever, typhoid fever, and cholera. It would be well if other sanitary authorities would join in making a strong appeal to the Government to take up this question, which is rapidly becoming more and more within the range of practical politics. The duty of notification should, however, be thrown upon the householder, or person in charge of the case, and not upon the medical man.

SMALL-POX AT LIVERSEDGE.—The outbreak of small-pox at Liversedge appears to be more serious than at first supposed. At the last meeting of the local board, the health-officer stated that thirteen cases of the disease had broken out in the township, ten of which had been removed to the hospital, and were doing well. Three of the cases had not been vaccinated, and they were of the worst kind. Probably the worst case of small-pox had to be removed to the Fever Hospital at Bradford, upon a magistrate's order. Though there were six or seven members of the same family using the room in which the patient was lying as a sleeping apartment, they refused to have the patient removed until compelled to do so.

A RECENT POOR-LAW MEDICAL INQUIRY.

THE Local Government Board having called on the district medical officer of a country union (whom we will name Mr. Enoch) to resign his appointment in virtue of the evidence taken by their inspectors, Mr. Wodehouse and Dr. Mouat, at a Poor-law inquiry, held at the workhouse, as to certain alleged irregular proceedings on the part of the said officer; and the case being one of much interest to all Poor-law medical officers, we propose to give an epitome of the same for the information of such officers.

It would appear that, on July 7th, 1881, Mr. Enoch was requested to attend one Charlotte M., but without an order. He was not at home, and the woman was seen by his *locum tenens*, who reported that the placenta was adherent, and that there had been much flooding. On the 8th, the following day, Mr. Enoch received a message intimating that the woman was still losing a little, whereupon he prescribed ergot, iron, and digitalis, and visited her at 2.30 P.M. on that day. He found her in a sad condition, looking as if she had lost much blood. She was cold, œdematous, the conjunctivæ bloodless, with frequent sighing, yawning, and fainting, and complaining of great pain over the abdomen, with retching and vomiting, hiccough; pulse quick, thready, jerking, and irregular. The abdomen was tympanitic; she was very filthy, not having been properly attended to. Mr. Enoch diagnosed that she was labouring under peritonitis. Milk, brandy, and beef-tea were ordered, with turpentine stupes. Mr. Enoch also directed that the friends should send for some pills, containing opium (one grain each), to be given at intervals of two hours; he also intimated that he would send a powder, with which a lotion should be made, to be used also as an injection, namely, crystallised permanganate of potash. When the messenger arrived, he gave some verbal instructions as regards the use of the permanganate, but, unfortunately, omitted to send the pills. On the messenger, a girl of 16 or 17, returning for the same, he gave two powders instead, again without any written instructions. On the 9th, he received a pressing message to go and see the woman, who was suffering from retention, probably suppression, of urine. On his arrival he learned that she had not taken the powders, but that she had just swallowed, instead, the permanganate of potash. On inquiry, he found that, besides her other symptoms, there was pain at the back of the throat, but the vomiting, previously urgent, had ceased. He passed a catheter, but drew off only a few drops of urine. She still remained unwashed, and not properly attended to. He proceeded to administer a mustard emetic, and, on leaving, left instructions to give another emetic if vomiting did not come on. In from half to three-quarters of an hour, he returned; and finding that no sickness had taken place, ordered that one of the powders should be given, and repeated every two hours; and on finally leaving, directed that they were to let him know how the case progressed. On the 10th, at 5 P.M., he learned that she was faint, and had to be constantly fanned, and was worse; he did not, however, go to see her. At 11 A.M. on the next day, an order was sent by the relieving officer, requiring his attendance. On his way to see the case, about 2 P.M., he was informed that the woman had died at 12.15 to 12.30 P.M. Mr. Enoch saw the body, and advised speedy burial; he also gave a certificate thus worded: "Child-birth, four days; peritonitis, three days". The husband wanted a *post mortem* examination, to which Mr. Enoch assented. Subsequently, the husband altered his mind, but again expressed a similar desire on the evening of the same day, to again (as it is said) alter his mind a second time. About a month afterwards, the guardians took up the matter, and the case was referred to the coroner, who replied that he had inquired into the particulars of the occurrence, and did not deem his interference necessary. Ultimately, on November 8th, the Local Government Board deputed Mr. Wodehouse and Dr. Mouat to institute an official inquiry.

In the letter of the central department, calling on Mr. Enoch to resign, it is stated "that the board have been reluctantly forced to the conclusion that Charlotte M.'s death had resulted not from puerperal peritonitis, as certified by you, but in all human probability from the effects upon one in her weak state of health of a large quantity of permanganate of potash, which was intended for outward use, but which, owing to your omission to send with it proper instructions, was administered internally. Although your carelessness in omitting to send written instructions on the medicines was undoubtedly very serious, the board regard it as of minor importance beside your very grave misconduct in certifying that the death was due to childbirth, followed by peritonitis, and recommending the speedy burial of the body without due examination, sought by the husband. They consider, also, that you showed an entire disregard of duty, and a reprehensible indifference to the results of your carelessness, when, after having ordered the administration of an emetic, you left without awaiting the results—without, in fact, any real effort to rescue the patient from danger, in which she was placed through the unfortunate effects of your own omission. The board consider that they would be wanting in their public duty if they allowed the sick poor to remain any longer under your charge, and they therefore require you to place your resignation in the hands of the guardians at their next meeting; such resignation to take immediate effect."

To those who have followed the story we have detailed, it cannot appear surprising that the department should have expressed itself strongly; but we are not altogether agreed with it in the conclusions at which it has arrived. We are of opinion that the woman did die from puerperal peritonitis of a low type, not an unlikely contingency, having regard to the *post partum* neglect in the dog days, and the probable blood-poisoning, due to a partially dislodged placenta; and we feel we must demur, therefore, to the opinion of the department, as to the alleged injury done by the swallowing of the permanganate. The case, however, is a very sad one, and it is much to be regretted that Mr. Enoch should, on his own showing, have exposed himself to such a severe rebuke. We trust it will be to him a lesson from which he will learn much; and we also hope that Poor-law medical officers generally will see that, though the department is, in our judgment, reprehensibly indifferent as to the provisions made by boards of guardians for the efficient treatment of the sick poor, they can and they do bring down a heavy hand on any parish doctor who is shown to be guilty of the *lâches* exhibited in this case.

SCHOOL CERTIFICATES.

M. O. H. writes: My School-board asked me to give them two certificates to certify that we had an epidemic of scarlet fever, and that, in consequence, several children had been kept away from school. In consequence of these certificates, the School-board obtained grants for absent children to the amount of about £4 10s. for each school. One of the schools was situate in my district, but the other was situated in the district of another medical officer of health. The children who were kept from school all lived in my district. They came to me for the certificates because I was the medical officer of health. Ought I to charge for these certificates?

and, if so, what ought I to charge? They are willing to pay, but I do not know what to charge them.

*** We are informed that medical officers of health rarely charge for certificates given to school authorities, unless special inquiries have to be made previously to giving them. It is, of course, no part of their duty to assist the managers of schools to get grants for scholars who have been kept away in consequence of infectious disease, and therefore there does not seem to be any good ground for not making a small charge, such as would be made for a certificate given for other purposes. It is evident that masters and mistresses of schools receiving Government grants will be more willing to send home scholars coming from infected homes, if the grant for them can be obtained, than if it be refused. To give a certificate, therefore, assists the work of a medical officer of health.

RULES FOR FACTORIES.

SIR,—Will you, or any of your readers, kindly inform me where I can get the best information regarding the sanitation of lead manufactories, and rules in force for the safety of the workpeople? I remember some years ago seeing the rules in force in the Paris factories, but where I cannot remember.—With respects, I am, dear sir, faithfully yours, WILLIAM MCDONALD.

Burgh House, Maryhill, January 16th, 1882.

*** Strict personal cleanliness and the use of sulphuric acid lemonade (if requisite) are the workmen's precautions. The methods of keeping a smelting work free from lead fever are pointed out in Dr. Ballard's Third Report on Trade Nuisances, in the Eighth Annual Report of the Local Government Board Supplement (being the Report of the Medical Officer).

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 19th instant.

Messrs. Roland Danvers Brinton, M.B.Cantab, College Terrace, Belsize Park; Lestock W. Cockburn, Totnes, Devon; Joséph L. Hewer, Highbury New Park; Bernard C. Scott, Anerley; Charles A. A. Taylor, Acton; J. Boyd Hurry, B.A.Cantab, Wanstead; Malcolm Webb, Manchester; Andrew Fuller, Wolverhampton; George Utting, Hockering, Norfolk; Frederick R. Anness, Ipswich; Clement B. Voisey, L.S.A., Manchester; James F. Joseph, L.K.Q.C.P.I., Warrington, Lancashire; Herman E. Heyd, M.D.McGill, Brantford, Ontario, Canada.

Eleven candidates were rejected.

The following gentlemen passed on the 20th instant.

Messrs. Robert H. S. Spicer, L.S.A., Cambridge Street, W.; Frank C. Payne, Halstead, Essex; Charles E. Todd, Adelaide, South Australia; James Limont, M.B.Edin., Alnwick, Northumberland; John Hague Clegg, L.S.A., Oldham, Lancashire; George T. H. Thomas, L.S.A., Gloucester Street, Warwick Square, S.W.; William Odillo Maher, M.D.Queen's Univ. Irel., Sydney, New South Wales; Charles Rout, L.S.A., Coldharbour Lane; John D. E. Mortimer, L.S.A., Clifton, Bristol; Andrew Houman, L.S.A., Weymouth Street, W.; Henry A. Fotherby, L.S.A., Finsbury Square; William B. Giles, L.R.C.P.Ed., Staunton-on-Wye; and Edward H. Booth, L.S.A., Worthing.

Ten candidates were rejected.

The following gentlemen passed on the 23rd instant.

Messrs. Charles G. Bunn, L.S.A., Elm Tree Road, St. John's Wood; Archibald Watson, M.D.Paris, Paris; Walter T. Williams, L.S.A., Williton, Somerset; Peter Piggott, L.S.A., Dulwich; John W. Payne, L.S.A., Pentonville Road; Dhanjibhai R. Wadia, L.R.C.P.Ed., Bombay; J. Harrington Douty, L.S.A., Salisbury; John Coveney, L.S.A., Maidstone; Joseph L. Bousignac, L.S.A., Trinidad; Richard Rice, L.S.A., Barrington, Gloucestershire; Edward Mattei, M.D.Malta, Malta; Charles E. Wedmore, B.A. and M.B.Cantab, Bristol; and Walter H. Goddard, L.S.A., Norfolk Crescent, W.

Six candidates, having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for six months, making a total of 45 out of the 124 examined, including 15 who failed in Obstetrics.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, January 19th, 1882.

Banatvala, Hormasjee Edaljee, The Grove, Ealing, W.
Booth, Edward Hargrave, Guy's Hospital.
Fuller, Herbert Knowles, Ramsdale, Basingstoke.
Nicholls, Frederick Lucius, Bury St. Edmunds.
Swallow, Francis McDonald, Church Road, Forest Hill.

The following gentlemen also on the same day passed their Primary Professional Examination.

Davis, John Warren, London Hospital.
Hubbard, Frederick Edmund, Guy's Hospital.
Tibbles, John Thomas, Charing Cross.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At a special examination, held on Tuesday and Wednesday, December 20th and 21st, 1881, the following candidates were successful.

For the First Professional Examination.—Charles Henry Underwood.
For the Licence to practise Medicine.—Alfred Taylor.

At the usual monthly examinations for the Licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, January 9th, 10th, 11th, and 12th, the successful candidates were the following.

For the First Professional Examination.—Arabella Kenealy, Henry Robinson.
For the Licences to practise Medicine and Midwifery.—St. George Ashe, George James Hodgson.
For the Licence to practise Medicine alone.—Edward Hyacinth O'Doherty, Henry Reynolds Peyton.

The following Licentiates in Medicine of the College, having complied with the by-laws relating to Membership under the Supplemental Charter of 1878, were duly admitted Members.

Francis Joseph Davys, 1860, Swords, Co. Dublin; Henry Fitzgibbon, 1875, Dublin; George Smith, 1875, Surgeon H.M.S. *Penelope*.

(The numerals indicate the year in which the Licence of the College was obtained.)

MEDICAL VACANCIES.

THE following vacancies are announced :—

BELMULLET UNION.—Medical Officer for Binghamstown Dispensary District. Salary, £100 per annum, with £10 yearly as Medical Officer of Health, registration and vaccination fees. Election on February 2nd.

BRADFORD FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION—Assistant Medical Officer and Dispenser. Salary, £120 per annum. Applications by February 9th.

BRITISH LYING-IN HOSPITAL, Endell Street, W.C.—Honorary Physician Applications by February 13th.

CARNARVONSHIRE AND ANGLESEY INFIRMARY, Bangor—House-Surgeon. Salary, £100 per annum. Applications by 11th February.

CHARING CROSS HOSPITAL, West Strand, W.C.—Assistant-Physician. Applications by 28th instant.

CRAIGLOCKHART HYDROPATHIC, near Edinburgh.—Resident Physician. Applications to the Managing Director, Craiglockhart Hydropathic Company, Limited, 40, Frederick Street, Edinburgh, by 6th February.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Dental Surgeon. Applications by February 13th.

GAINSBORO' FRIENDLY SOCIETIES' MEDICAL ASSOCIATION—Medical Officer. Salary, £140 per annum. Applications to H. Cuckson, Secretary, Bath Street, Gainsboro'.

GENERAL HOSPITAL, Birmingham—Assistant Surgeon. Salary, £100 per annum. Applications by the 30th instant.

GENERAL HOSPITAL AND DISPENSARY FOR SICK CHILDREN, Pendlebury, and Gartside Street, Manchester.—Physician. Salary, £300 per annum. Applications by February 8th.

GRANARD UNION.—Medical Officer for Finnea Dispensary District. Salary, £100 per annum, with £14 per annum as Medical Officer of Health, registration and vaccination fees. Age of candidate not to exceed forty years. Election on 3rd proximo.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST AND THROAT, 26, Margaret Street, Cavendish Square, W.—Visiting Physician. Applications by January 28th.

LEAMINGTON AMALGAMATED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION—Resident Medical Officer. Salary, £200 per annum. Applications to the Secretary, Mr. C. Wildman, 6, Woodbine Street, Leamington.

LIVERPOOL EYE AND EAR INFIRMARY—House-Surgeon. Salary, £80 per annum. Applications by the 10th February.

MERCER'S HOSPITAL, Dublin.—Resident Medical Officer. Applications to Mr. J. Shaw.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen's Square, Bloomsbury.—Resident Medical Officer. Salary, £100 per annum. Applications by February 2nd.

ROTHERHAM HOSPITAL—Resident House-Surgeon. Salary, £100 per annum. Applications by February 28th.

ROYAL SURREY COUNTY HOSPITAL—House-Surgeon. Salary, £75 per annum. Applications by January 30th.

ST. BARTHOLOMEW'S HOSPITAL—Assistant Surgeon. Applications by 14th February.

ST. BARTHOLOMEW'S HOSPITAL—Surgeon. Applications by 14th February.

ST. BARTHOLOMEW'S HOSPITAL, Chatham.—Assistant House-Surgeon. Salary, £80 per annum. Applications by February 13th.

ST. MARYLEBONE GENERAL DISPENSARY, 77, Welbeck Street, Cavendish Square.—Honorary Physician. Applications by January 30th.

THE CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—Assistant Surgeon. Applications by February 7th.

UNIVERSITY OF LONDON—Assistant Registrar. Salary, £500 per annum. Applications to A. Milman, Registrar, University of London, Burlington Gardens, W., by January 31st.

WEST HERTS INFIRMARY, Hemel Hempstead.—House-Surgeon and Dispenser. Salary, £100 per annum. Applications by 1st February.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton. Honorary Physician. Applications by January 30th.

MEDICAL APPOINTMENTS.

BRYDEN, R. J., M.R.C.S., appointed House-Surgeon and Dispenser to the Gravesend Dispensary and Infirmary.

COWAN, R. H., M.R.C.S., appointed Assistant Medical Officer to the Birmingham Workhouse.

GABB, J. P. A., appointed Resident Medical Officer to the St. Marylebone General Dispensary.

JACKSON, Thomas, L.R.C.S.E., L.S.A.L., appointed Assistant Medical Officer to the County Lunatic Asylum, Sninton, Nottingham.

KENDALL, T. M., L.R.C.P., appointed House-Surgeon to the Isle of Wight Infirmary.

LEAHY, A., F.R.C.S., appointed Surgical Registrar to the Charing Cross Hospital.

MCCUTCHEON, J., L.S.A., appointed Medical Officer to the Leeds Amalgamated Friendly Societies' Medical Aid Association.

MINCHIN, R. G., M.B., appointed Medical Officer to the Alverstoke Medical Benevolent Asylum.

MITCHELL, A., L.K.Q.C.P.I., appointed Medical Officer for Borris in Ossory District, Donaghmore Union, *vice* R. H. D'O. Duckworth, M.B., resigned.

PRATT, J. D., M.B., appointed House-Surgeon to the City of Dublin Hospital.

RICH, E., L.R.C.P., appointed Medical Officer to the Isle of Wight Infirmary.

ROUTH, A., M.B., appointed Honorary Obstetric Physician to the St. Marylebone General Dispensary.

STANLEY, W. H. R., M.D., appointed Medical Officer to the Leeds Amalgamated Friendly Societies' Medical Aid Association.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

MARRIAGE.

SHAW—EVANS.—On January 24th. at St. Margaret's, Westminster, by the Revd Canon Farrar, D.D., William Shaw, M.B., M.R.C.S., of Maidstone, to Maria (Minnie), youngest daughter of the late Robert C. Evans, Esq., of New York.

DEATH.

ESSEX.—At his residence, Pontypool, Monmouthshire, James Essex, M.R.C.S., L.S.A., aged 74 years, January 18th, 1882. Was in practice in Pontypool for fifty-one years, and long time member of British Medical Association.

NATIONAL HEALTH SOCIETY.—At the meeting of the National Health Society held on Tuesday at 44, Berners Street, it was announced that Lord Derby had become a life member and vice-president of the society.

DR. JOSHUA DUKE, of the Indian Medical Service, is engaged in preparing a new work upon Cashmere, its natural history, its people, and its scenery. This book will include an account of Sir Frederick Roberts's famous march from Cabul to Candahar.

THE dignity of State-Councillor has been conferred by the Emperor of Austria on Dr. Alexander Rollet, professor of physiology in the University of Graz, in recognition of his long services in the cause of science.

A WOMAN has been recently summoned, at Sevenoaks, for refusing to allow lymph to be taken from her child's arm for the performance of other vaccinations. It was stated that the defendant, who pleaded ignorance of the law, had been twice warned of the result if she still persisted in her refusal. A mitigated penalty was imposed.

METROPOLITAN PROVIDENT MEDICAL ASSOCIATION.—At a recent meeting of the Charity Organisation Society, Mr. Bousfield stated that the Association had made arrangements with the Children's Hospital, Ormond Street, for the treatment of patients. He hoped that this step was the commencement of a system of co-operation between the Association and the metropolitan hospitals. It will lead to well-considered reform of out-patient hospital abuses.

THE ADULTERATION ACT.—Dr. Saunders reports as public analyst to the City of London, that 162 samples had been analysed during the year—namely, of milk, butter, water, pepper, and sugar—but only two required the institution of a prosecution, both being in respect of milk. The public seemed to take very little interest in the working of the Adulteration Act, for, with a few exceptions, all the articles analysed had been obtained at his own (Dr. Saunders's) instruction by the officers of the Commission.

DEAD DRUNK.—M. Gréhaut made an interesting communication to the Biological Society of Paris at a recent meeting, on the subject of fatal doses of alcohol. In order to determine what quantity of alcohol is present in the blood when death ensues from drinking it in large quantities, he made a series of experiments, all of which gave the same results. By means of an œsophageal syringe, he injected into the stomach of a dog thirty grammes of alcohol every half-hour until the dog died. He then collected some of the blood of the animal, scrupulously taking the same precautions as when an analysis of the gases present in the blood is made. He then distilled it *in vacuo*, using for the purpose, with the necessary modifications, a mercury-pump, such as is employed for analysing the gases of the blood. M. Gréhaut's experiments convince him that death happens when the blood of the animal presents the proportion of 1 part of absolute alcohol to 100 of blood; that this substance acts directly on the constituent elements of the blood; that the condition known as "dead drunk" exists when drunkards continue drinking, but when the alcohol imbibed ceases to be absorbed, and the blood presents the proportion of 1 part of alcohol to 195 of blood; that is to say, almost the half of the quantity present in the blood when death is caused by drinking. M. Gérhaut believes that, if death from drunkenness is less frequent than might be expected, it is because drunkards generally stop drinking when this proportion exists (1 in 195). M. Gréhaut here establishes a curious parallel between his experiments and those recently made by M. Bert on anæsthetics (BRITISH MEDICAL JOURNAL, December 24th, 1881).

LONDON HOSPITAL STUDENTS' CLUB.—The building which has lately been erected in the hospital grounds for the accommodation of the students of the London Hospital, has been formally opened by Mr. W. J. Thompson, the Chairman of the College Board, in the presence of Sir A. Rose Robinson, Dr. Andrew Clark, Dr. Langdon Down, Dr. S. Mackenzie, Mr. James Buxton, and of several members of the committee and staff. There was a large attendance of students. The chairman briefly traced the circumstances under which the club had been founded, and said that the number of students had so much increased, that the want of accommodation had become more and more felt. The building had been erected at the expense of the college staff and the members of the house committee, while the money required to purchase the fittings had been lent by a member of the staff, at a low rate of interest, and at a very slow rate of repayment. The management of the club had been left in the hands of a committee comprised of four members of the College Board, and two of the members of the club, elected by the other members; Mr. Munro Scott (Warden of the College) having very kindly undertaken the duties of honorary secretary, the rules had been approved by the members, and the accounts would be kept by the committee. In the event of there being any surplus, it was intended that the tariff should be at once reduced, so that members might have the full benefit of the club in every shape and form. About 120 students had joined, but he hoped that all the students, members of the staff and committee, would join the club, which had been started under such favourable circumstances. Dr. Andrew Clark spoke in terms of high commendation of the objects of the club, and expressed the hope that the establishment of a residential college for the London Hospital would be the next move in the right direction. Dr. Clark also referred to the necessary qualifications for success in life as a medical practitioner, these being, in his opinion: health, a just knowledge of the medical art, singleness of purpose, and self-denial. The meeting was also addressed by Mr. James Buxton, Mr. Adams, Mr. Treves, Dr. S. Mackenzie, and Mr. Munro Scott.

THE METEOROLOGICAL SOCIETY.—The Annual General Meeting of this Society was held on Wednesday evening, the 18th inst., at the Institution of Civil Engineers, Mr. G. J. Symons, F.R.S., President, in the chair. The Secretary read the Report of Council for the past year which showed the society to be in a very flourishing condition. The society receives second order and climatological observations from 83 stations, the results of which are published quarterly in the *Meteorological Record*. In addition to the *Quarterly Journal*, two publications have been prepared and issued under the direction of the Council, viz.:—*Hints to Meteorological Observers: with Instructions for taking Observations, and Tables for their Reduction*; and, *Index to the Publications of the English Meteorological Societies* 1839 *to* 1881. The President (Mr. Symons) delivered an address which was devoted to the consideration of the present state, and future prospects of Meteorology. The following gentlemen were elected officers and Council for the ensuing year:—*President:* J. K. Laughton, M.A., F.R.A.S. *Vice-Presidents:* W. Ellis, F.R.A.S.; Rogers Field, B.A.; J. H. Gilbert, Ph.D., F.R.S.; Baldwin Latham, F.G.S. *Treasurer:* H. Perigal, F.R.A.S. *Trustees:* Hon. F. A. R. Russell, M.A.; S. W. Silver, F.R.G.S. *Secretaries:* G. J. Symons, F.R.S.; J. W. Tripe, M.D. *Foreign Secretary:* R. H. Scott, M.A., F.R.S. *Council:* E. D. Archibald, M.A.; A. Brewin, F.R.A.S.; J. S. Dyason, F.R.G.S.; E. E. Dymond, H. S. Eaton, M.A.; C. Harding, R. J. Lecky, F.R.A.S.; W. Marcet, M.D., F.R.S.; E. Mawley, F.R.H.S.; R. Strachan, G. M. Whipple, B.Sc., F.R.A.S.; C. T. Williams, M.A., M.D.

GALVANO-PUNCTURE IN AORTIC ANEURYSM.—Dr. R. Cameron, of Valparaiso, *New York Medical Record*, November 26th, 1881, reports a case of cure of aneurysm of the aorta by galvano-puncture. The patient, a man of forty, had an aneurysm of the ascending arch. Two fine steel gilt needles were used, passed into the aneurysm and kept there twenty minutes. In about two weeks the tumour began to flatten, and all bad symptoms gradually and permanently disappeared. The effect could not be clearly charged to galvano-puncture, as, owing to a defect in the battery, almost no current had been passing.

NEW METHOD OF PREPARING THE SPINAL CORD FOR MICROSCOPIC SECTIONS. — Debove recommends, in the *Archives de Neurologie*, the following method of hardening the spinal cord for microscopic sections. Place the cord in a 4 per cent. solution of bichromate of ammonia for three weeks, then in a solution of phenic gum for three days, and for three days more in alcohol. Sections may then be cut with great facility. They should be placed in water to prevent curling. They are then immersed in a saturated solution of picric acid for twenty-four hours, and colored with carmine for about twenty minutes, the picric acid acting as a mordant.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. The President will give the *Post Mortem* Appearances in a case of Paralysis of Seventh, Eighth, and Ninth Nerves, shown to the Society on October 31st, 1881. Dr. Benjamin Howard of New York will give an account of the proposed Hospital and Accident Ambulance System for London. The London Hospital Ambulance will be exhibited. Dr. Stretch Dowse will read a paper on some Points in the Differential Diagnosis of Intracranial Disease, General Paralysis of the Insane, and Tabes Dorsalis.

WEDNESDAY.—Obstetrical Society of London, 8 P.M. Annual Meeting. Election of Officers and Council. Specimens will be shown. President's Address; and other communications..—Epidemiological Society of London, 8 P.M. Sir Joseph Fayrer: Malaria.

THURSDAY.—Harveian Society of London, 8 P.M. Mr. Osman Vincent: Cases of Contraction of the Knee and other Joints. Dr. Day: On Headaches in Children.—Abernethian Society, St. Bartholomew's Hospital, 8 P.M. Dr. Percy Kidd will introduce the Medical Discussion on Hæmoptysis.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

MEDICAL ARTICLES IN LAY PAPERS.

THERE can be no reasonable objection to articles in lay papers which point out the modes of origin of preventable diseases, or indicate the means by which immunity from them may be attained; indeed, it may be fairly held that the imparting of such information is a very essential part of the duty of a publication pretending to the position of an educator of the people. But it is to be regretted that such articles should contain recommendations of the particular methods of treatment of this or that medical man. The copy of *Chambers' Journal* for January 21st contains an article called "A good Digestion", which is open to this objection; and a short time ago, we believe, there was another on the treatment of consumption, in which the same practice appeared. The writing is not that of one who possesses a medical education, and we do not doubt that the articles were written in good faith to supply what is believed to be a popular need; but we would express the hope that, in future, this objectionable feature will be excluded from articles of this character in this respectable and deservedly popular periodical.

LIFE-ASSURANCE OFFICES AND MEDICAL MEN.

SIR,—It is not often in the present day that assurance offices refuse to pay the fee for the private and confidential advice they require from medical men. Having met with an instance lately, I send you the correspondence on the subject, thinking it possible you may deem it worth publishing, as an example of the way in which such a case should be dealt with.

In reply to a printed letter signed by my patient, which requested me to supply full and confidential particulars to the secretary of the office in which the patient wished to assure, I wrote as follows.

"Sir,—The enclosed sealed report on the life of Mr. —— contains the private and confidential information required by your directors in the conduct of their business. I never accept a fee from a patient for this labour, because the information is often injurious to him or to her, and it is expressly for the service and protection of the office. The ordinary custom of life-offices is to send the fee directly to the medical men inquired of; as your office fails to do this, I beg to give you and the directors notice that I hold them responsible for my fee, which in this instance is one guinea.—I remain, sir, your obedient servant, T. H. To the secretary of the London Life Association."

After a few days, I received back my report, seal unbroken, with the following.

"London Life Association, 81, King William Street, London, E.C., January 6th, 1882. Sir,—Referring to your letter of the 2nd instant, I beg leave to acquaint you that the London Life Association is not a trading company, but a society of members associated for mutual benefit; and that any person who desires to enter it and share its advantages, is required by its rules to afford the requisite evidence that he is in good health, without expense to the other members; and that, if he cannot do so, he cannot be admitted. Under these circumstances, and as you require a fee from the society, the directors instruct me to say that they will not avail themselves of your report as to Mr. ——, which I return unopened herewith. —Yours faithfully, EDW. DOCKER, Secretary."

And so the matter ended, as far as I am concerned.—Faithfully yours,

T. H.

SIR,—The London Life Association has lately declined to pay me, as the family medical man of an applicant, for reporting on his life. Left to get my fee from the proposer, I may have much trouble, or even give offence. The society, as one of the very few acting in this way, should be noticed as a matter of information to the profession. —I am, your obedient servant,

L. M. N.

PUZZLED.—There is a complete list of insurance offices in the *Post Magazine and Insurance Directory*, price 6d., published by Wm. J. Stokes, Wine Office Court, Fleet Street, and to be had of any bookseller. This is most probably the handy guide referred to by our correspondent. The *Handy Assurance Guide* is, we are informed, published quarterly at 22, Norwood Grove, and 12, Lord Street, Liverpool, by Mr. J. P. Bourne, Associate of the Institute of Actuaries, price 3d. each. The January number is now ready, containing latest reports of all offices to date of issue.

MEDICAL RULES.

SIR,—A medical man goes away, and asks me to see his patients. I do so on two occasions. He returns, thanks me, and says he will be happy to do the same for me at any time. I, in my turn, leave home; he is called in to attend a patient of mine. I come back; he continues to visit until the end of the case, without referring to me at all. Should I have claimed the patient, or should he have offered to retire?—I am, etc.,

C. K. W.

*** A medical man having vicarious charge of a patient should offer to retire on the return of the ordinary medical attendant.

DR. OSBORNE D. MARRIOTT (Sevenoaks).—Provident dispensaries are now so numerous, that the only difficulty is to select suitable models. Our correspondent might apply to the secretaries of the provident dispensaries at Leamington and at Tunbridge Wells. The model rules of the Charity Organisation Society might be adopted, with such modifications as the locality may require, and the opinion of the local practitioners may suggest.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

COLORADO AS A SUMMER AND A WINTER RESIDENCE.

SIR,—I am desirous of calling the attention of the profession, through your columns, to Colorado, not only as a summer, but as a winter, residence for invalids. The climate is extremely dry and bracing; and there are few days, even in the winter, when persons in delicate health cannot spend a great part of the day out-of-doors with advantage, while in the summer, the heat is never oppressive. Here, at an altitude of 7,500 feet above sea-level, we have had a long succession of warm cloudless days, and have been able to sit out-of-doors by ten o'clock in the morning, without any feeling of chill; towards sunset, the temperature falls rapidly, and every night there is a sharp frost, but, in consequence of the small amount of moisture in the atmosphere, the cold is felt in a very much less degree than in England. The shade-temperature at mid-day is generally about 56° Fahr., while on Christmas Eve it reached 72° Fahr.

A careful record of the temperature was kept by a friend of mine who spent the winter of 1878-79 in a neighbouring valley at this altitude (7,500 feet); and he found that, during the whole time, from October 24th to March 17th, the mercury fell below zero only sixteen times, nine of the number being from 1° to 6° below only, and these were the lowest night-temperatures.

Up to the present time, December 30th, I have never had a great-coat on, though I am rarely in the house from morning till night. I have spent winters both in Florida and California, and found the cold there, slight as it is according to the thermometer, when compared with this, far more trying; and the beneficial results which I have seen from residence in this climate, have induced me to settle here, with the intention of receiving into my house patients who have been recommended to try the high altitude treatment for chronic lung-disease, feeling convinced that, in time, this part of the world will become the great resort in such cases.

In this particular section of the State lying between Fort Collins on the Colorado Central Railway, and North Park, we are specially favoured, in that there is a much slighter snowfall than in most other districts; this is due to the fact that the higher peaks of the mountains rise from 5,000 to 7,000 feet above us, distant some fifteen to twenty-five miles to the westward, and intercept the storms; and it is no unusual thing to see the snow falling heavily on these peaks while the sun is shining brightly here. That which falls rarely remains on the south sides of the hills for more than twenty-four hours, and generally disappears after exposure to the sun for a few hours only.

Besides the climate itself, there are many sources of amusement to be found; the magnificent scenery is always a pleasure; and the artist, the botanist, the geologist, the fisherman, and the sportsman; will all find ample opportunity for the exercise of their favourite pursuits; and, taking it altogether, it is difficult to find any part of the world so well calculated for aiding the recovery of those cases where an out-door life in pure bracing air is one of the most important adjuncts to treatment.

Statistics show a marked benefit to the majority of phthisical cases which come to Colorado, a permanent cure being not unfrequent; while there are few cases of uncomplicated asthma which are not entirely relieved by residence in these mountains. The journey from England is not a long one, as it only takes from twelve to fifteen days to get from Liverpool to Chayenne or Denver; and the expense is £25 to £35, according to the line of steamers chosen, stoppages on the road, etc.

In conclusion, I will add that I shall be glad to give any information that I can about this country and climate to any member of the profession who desires it.—I am, sir, yours faithfully, G. ALLEN NORMAN, M.B.Oxon.

Elkhorn, Larimer Co., Colorado, December 30th, 1881.

R. O. B. (Upton).—We shall have no objection to the course proposed.

JUVENILE ODDFELLOWS.

SIR,—In reply to "Lodge Surgeon" concerning the Juvenile Oddfellows' Club, I would recommend the following as rules for guidance in admission. 1. Do not admit members under five years. 2. Examine for strumous disease, *i.e.*, enlarged lymphatic glands and granular eyelids, and for hernia; and do not admit candidates unless they have had measles and scarlet fever. 3. A fee should be allowed for examination of each member for entrance, and it should be at least 1s. for those that pass, and 2s. 6d. for those that are refused, because the latter require more care on examination; and, further, you have to explain to the parents why they will not pass, and, in some cases, gain a grudge from them for your kindness, and they leave the surgery determined not to enter it again. Do not accept the lodge for less than 4s. a head; one mile and a half being the limit of the distance to visit a club patient; beyond that, charge at least 1s. 6d. per visit.—Yours, etc.,

FAIR PLAY.

RAPID RECURRENCE OF MEASLES.

SIR,—*Apropos* of my communication to the JOURNAL of a case of rapid recurrence of measles, I have received a postcard from Dr. Neale, which, perhaps, he will kindly permit me to answer through you. He therein draws my attention to the fact that, in the *Medical Digest*, several instances of the third and fourth attacks of measles are referred to; and also that a case is noticed in the *Lancet*, subsequent to the appearance of the first edition of the *Digest*, in which a second attack was developed within the month. In his own practice, he adds, three children in one family had a second attack within six weeks. My case, accordingly, was not so rare as I was inclined to think. Of course, I never for a moment supposed it unique, as I am quite aware "there is nothing new under the sun".—I am, etc., J. J. BYRNE.

Preston, January 4th, 1882.

THE use of carrier-pigeons by medical men, which has more than once been mentioned as being practised in England by one or two medical men, and specially referred to in our columns, has, it is reported, extended to America. Some of the doctors there, who have to travel considerable distances, send in their prescriptions to the chemist in serious cases by means of these birds. Carrier-pigeons are also, it is stated, occasionally used to convey periodical messages as to the progress of patients in critical cases.

PROFESSIONAL ADVERTISING.

SIR,—I found the enclosed handbill exhibited in a window this morning. Dr. (?) Marsh is described in the *Medical Directory* for 1882 as M.R.C.S.Eng. and L.S.A.Lond. Further comment is unnecessary.—Yours truly, SURGEON.

"Dr. Marsh, Surgeon, 68, Horton Road, Bradford, opposite School of Art. Advice and medicine—morning, 8 to 10; evening, 5 to 7—one shilling. Visit and medicine, one shilling and sixpence.'

REFUTATION.

DR. WILLIAM HOFFMEISTER presents his compliments to the editor of the BRITISH MEDICAL JOURNAL, and begs to forward the *Isle of Wight Herald* of the 14th inst., as it contains an article giving the real facts of the case respecting the alleged inhumanity paragraphs, so far as he himself is concerned; to which, however, Dr. William Hoffmeister wishes to add that his father, Dr. Hoffmeister, was not sent for from beginning to end.

Townsend House, Cowes, January 14th, 1882.

The following is a copy of a letter sent to the Isle of Wight board of guardians, to be read at their meeting on Thursday, January 19th, 1882.

"Townsend House, Cowes, January 12th, 1882.

"My dear sir,—With regard to the scandalous and untruthful reports made in the press, relative to Mr. Whitmarch, at any rate as far as I am concerned, I must now call upon your board to make as public as possible the real facts of the case. I was sent for about 11 P.M. on December 23rd, 1881, to see Mr. Whitmarch. I at once referred the messenger to Mr. Gibson, saying it was quite a mistake their sending for me, as Mr. Gibson was their family doctor. I heard absolutely nothing more of the case till the next evening, when, to my surprise, Mr. Griffin (relieving officer) called upon me with a parish order to attend Mr. Whitmarch. I did so at once, and have given him every care and attention since. I had, therefore, nothing whatever to do with sending to the relieving officer; in fact, had I been at all aware that his own medical man had refused to attend, I would have gone at once, and done my best for the poor old man. I should never have dreamt of applying to the relieving officer in such a case. Allow me to add that, if Mr. George Watts is correctly reported, he has made a most cruel and unjustifiable attack upon your medical officer, which might have done him incalculable and life-long injury; and I now call upon him to publicly withdraw such base and groundless imputations, such as my refusing to attend Mr. Whitmarch 'because a bankrupt, and possibly might not be paid for my services'. If Mr. George Watts be incorrectly reported, then I call upon your board to censure the reporter of such a paragraph as appears in the *World* (January 11th, 1882), which I now inclose for your perusal. I may add that no message was ever sent to my father to attend Mr. Whitmarch from beginning to end. Please make this letter as public as the paragraphs in question, and oblige, yours faithfully, W. HOFFMEISTER, M.D., Medical Officer Cowes District.—Rev. C. Theobald, Chairman of Isle of Wight Board of Guardians."

F.R.C.P. does not enclose his name and address. It must be forwarded, not necessarily for publication. Meantime, we may observe that, in the first instance, he should, we think, address the body in question. There is a great difference, however, between legal titles and courtesy titles; and the title of "Dr." is very largely given by courtesy to persons holding the legal status of physician, either as licentiate or as member of the Royal College of Physicians, although not possessing the degree of M.D. of an university.

THE POSITION OF THE DENTAL PROFESSION.

SIR,—Will you again allow me to correct another statement made by Mr. Stevenson in your issue of the 14th inst., wherein he says that a person registered in the *Dentists' Register*, with or without a qualification, is entitled by that Act (*i.e.*, the Dentists' Act) to style himself Dental Surgeon or Surgeon Dentist. The Act does nothing of the kind. Neither of these assumed designations are mentioned in the Act; they are not touched by the Act, which forbids the unauthorised assumption of the only conferred dental title, viz., Licentiate in Dental Surgery, and the use of the word Dentist, either alone or in combination with any other word or words. Antecedent to the passing of the Act, the assumed titles could, without breaking the law, be used by persons who had no conferred qualifications; and the provisions of the Act could not justly be made retrospective, with the view of punishing those who used a designation which, to use the words of Lord Chief Justice Colborn, "had been sanctioned by immemorial usage". Apologising for occupying your space with such disputes, I am, obediently yours,

JAMES SMITH TURNER, Honorary Secretary British Dental Association.

SIR,—Mr. Stevenson thinks that the position of dental surgeons is lowered by the Dentists' Act, which has associated the names of all classes of practitioners, qualified and unqualified, in a common *Register*. The reply to this is, that professional status in no department of the medical profession depends alone on the mere possession of a superior diploma. It is necessary, for the safety of the public, that all practitioners should be qualified, and it is desirable that everyone should possess high qualifications; but, after all, the status of each is determined by the real personal and scientific value of the individual. In the medical profession we see amongst its lower grades the keepers of shops—so called "open surgeries"—little, if at all, superior in social position to the ordinary petty tradesman; and at the other extreme we find men, often with no better "qualifications", occupying the highest positions in the professional and scientific world. In the dental profession there are a large number of men holding only a dental diploma, some of whom, before a dental qualification existed, practised without a diploma at all, and yet many of these are, and have always been, in every sense of the word, accomplished and high-toned professional men. On the other hand, we have, not long ago, seen a dental surgeon holding full qualifications degrading himself and his profession by continuously advertising in the daily papers an illiterate "Practical Treatise" (at sixpence), in which the sole practical information consisted of the author's name and address, printed in a conspicuous place in its pages.—Your obedient servant,

M.R.C.S., L.D.S.

WOOD'S OPERATION FOR RADICAL CURE OF HERNIA.

SIR,—I shall feel greatly obliged if members who have performed Wood's operation for the radical cure of inguinal hernia will be so kind as to communicate to me by letter their experiences respecting the success, or otherwise, of the operation. I am collecting statistics, or I should not trouble you.—I am, yours very faithfully,

W. J. TIVY, F.R.C.S.Ed., etc.

1, Tottenham Place, Clifton, January 20th, 1882.

REGISTRATION OF QUALIFICATIONS.

SIR,—In the event of my adding the letters M.D.Heid. after my name in one of my certificates, would the same be valid in law, or would I have to add my other qualifications as F.R.C.S.Edin. and L.R.C.P.Edin. to make it so? An answer is kindly solicited.—Yours, etc., M.D.HEID. (EXAM.)

*** The Births and Deaths Registration Act does not enact that the certifying medical practitioner shall add to his signature all or any of his qualifications, but, inasmuch as registrars are instructed only to accept the certificates of registered practitioners, it is eminently desirable that, in medical certificates, the signature should be followed by some qualification which is registrable by the General Medical Council. At the same time, if the registrar be assured that the practitioner is registered, he would not, we believe, be justified in refusing a certificate because the added qualification was M.D.Heidelberg.

Medical Etiquette.

Sir,—I do not presume to call in question your opinion given in the case submitted to you in the Journal of January 14th by "S. D. B."; but, inasmuch as his account is inaccurate and misleading in important particulars, I beg you will allow me to state the real facts of the case.

On November 28th, S. received a message to visit a girl aged 16, and on going found her sitting downstairs at the fire, exhibiting symptoms of catarrh and a copious eruption over her body. She had been ailing a week, and S. pronounced it a case of measles. The following day S. reported the case to the local board on forms (copy enclosed) supplied by them for the purpose. Two days afterwards, he received a note from B., the assistant of the medical officer, intimating that he had been attending previously to S. seeing the girl, and he did not consider the case measles. S. replied that he then learned for the first time of anyone having been attending previously, but he had no objection to B. visiting the girl to satisfy himself as to the character and existence of the rash, which he seemed to call in question. B. replied, after visiting the girl, that he still did not consider it a case of measles, not condescending to say what it was. S. then answered that it was unnecessary to discuss the diagnosis further. The friends of the patient are willing to bear testimony to the following facts. 1. B. had attended the girl a week; he had not said from what she was suffering; and as he had not led them to expect any eruption, when the rash appeared and she seemed so much worse, they sent a messenger to B., who saw him and informed him that they did not wish him to come again. They then sent for S., and state that E., the medical officer, afterwards called, examined the patient, and informed them that it was not measles or any infectious disease. E. also informed the inspector of nuisances to take no notice of the report sent to the board, as it was not a case of measles, and afterwards sent the form of report to the board, effaced by lines being drawn across it, and with a note added that this report had been sent in, but as he had seen the patient, and his assistant had attended, that he had ordered no disinfectant or other preventitive measures, not considering it a case of measles.

The proceedings taken by S. at the local board (of which he is a member) are accurately reported in the local paper, and consisted in the bringing forward of a motion to confirm, by a formal resolution, what had till then been the uniform practice of the board's officers, and ran thus: "That in all cases of infectious disease reported by medical practitioners as occurring in the district, immediate action be taken by the medical officer and inspector of nuisances to prevent spreading". This motion was lost by five to four votes, one member not voting either way.

I ask you now in fairness to publish this letter, and to give your decision with these additional facts before you; and I would specially ask you to note: 1. That, as a message was sent and delivered to E. and B. to discontinue attending before S. was called, the case thereafter was not E.'s own, and he was not justified in informing the patient's friends in his official capacity that the medical man they had called in was wrong in his opinion of the case. 2. Although E. subsequently came forward to confirm his assistant's opinion, the disputed diagnosis was really between B. and S., and the prejudice of superior social position, age, and experience are in favour of S. 3. S. did not lay a complaint at the board against E. 4. S. did not sit in judgment on the diagnosis of E. or B., because at the time of his reporting the case he was not aware of their having seen the patient.

I may say that, at the time of the case occurring, measles existed in the nearest town, five miles off; and notwithstanding that the patient was the youngest person living in the house, preventitive measures were taken.—I am, yours truly,

S.

January 17th, 1882.

Sir,—Having had an amputation of the humerus, just above the elbow, in a lad at our paper-mills, would you kindly inform me what you might think my charge to the company ought to be under the following circumstances. He was sent to the union of which I am surgeon, and there attended, the company paying for his maintenance, and he also receiving his wages, and now employed at the works. It is not a case of dispute.—I am, etc.,

C. S.

*** "C. S." will do well to refer to the "Medico-Chirurgical Tariff" issued by the late Shropshire Ethical Branch, and published by Mr. W. Wardle, Bookseller, Shrewsbury.

Scarlet Fever.

Sir,—If "M. B. M. A." refer to my communication of the 7th inst., he will see that I am speaking of cases of tonsillitis occurring amongst the "protected and unprotected attendants, etc.", in households free from disease, and where, in spite of rigid preventive means, scarlet fever breaks out subsequently amongst members of the family hitherto unaffected—amongst the "protected" as a tonsillitis *pur et simple* (*e.g.*, sisters and nurses with hospital sore-throat); amongst the "unprotected" as a local sign of a constitutional febrile condition, and *with the element of infection retained*. I should look upon a second attack of scarlet fever in the same person as a highly exceptional occurrence.—I am, etc.,

H. A. Smith.

Querist.—Faba Egyptica is the Egyptian lentil, and can be procured at any good corn and grain dealer's, and at most large grocers and provision shops.

Animal Vaccination.

Sir,—After the important evidence in favour of animal vaccination adduced at the Ryde meeting by Drs. Warlomont and Martin, as well as by Mr. Ernest Hart and Dr. Renner, it seems time that some action should be taken by our Government in giving the profession and the public the opportunity of obtaining lymph from the calf, instead of long humanised vaccine. Dr. Martin assured us that the protective power of animal vaccine is quite perfect, or that a child, when vaccinated from the calf, is quite sheltered from all risk of taking small-pox at all, and quoted the evidence of the medical officer of health of San Francisco, California, which shows that, whereas, in an epidemic of small-pox that occurred in 1869, humanised lymph was found but of slight protection, in another epidemic in 1877, not a single person vaccinated from the calf was seized with small-pox.

At the commencement of this century (in 1800-1804), when vaccine lymph had only recently been removed from the cow, it was extremely protective. To cite one case among many, I find that 102 children were vaccinated in 1801 in Paris, at La Pitié Hospital. About a year after, these were all inoculated with small-pox pus, and some of them put into the wards with small-pox patients, and none took the disease.

Humanised lymph now-a-days is evidently not nearly so protective as this, for the vast majority of all cases of small-pox entering our hospitals are now among the vaccinated. It seems clear, then, that we should return to calf-lymph, or at least renew our stocks from the calf very frequently, say once a month; and, to do this, we need Government aid.—Your obedient servant,

Charles R. Drysdale, M.D.,
Senior Physician to the Metropolitan Free Hospital.

17, Woburn Place, London, W.C., January 16th, 1882.

Newspaper Charges against Medical Men.

We last week commented upon the gross injustice of an unfounded charge against a medical man at Cowes, of refusing to attend a patient who had fallen into distress, at a moment of severe accident. We find again, in the daily papers this week, the following paragraph.

"At an inquest at Crewe, it was elicited that a medical man had refused to attend the deceased unless a debt of eighteen pence was paid. A verdict of death from natural causes was returned, but the coroner characterised the conduct of the doctor as cruel and heartless."

We shall be glad to hear the facts which, no doubt, exist on the other side. The practice of inserting these paragraphs, criticising the conduct of medical men, is cruel, and one which easily becomes contagious. Nothing is cheaper than the sort of philanthropy which consists in putting one's hand into one's neighbour's pocket; and to attack the doctor for not attending to some call of sickness is a form of benevolence which appears to commend itself very extensively just now to many contributors of paragraphs to local papers. It ought, however, not to be allowed to pass unnoticed and unchecked; and we shall be glad to publish any statement refuting this vague charge.

Mr. R. Firth (Blackburn) will find an answer to the extract which he forwards in the article published in to-day's Journal, under the head of "War against Science", and possibly it might be desirable to send a copy of this article to the journal from which he has taken the extract.

Payments for Sick Clubs.

Sir,—I shall feel much obliged if any of your readers will furnish me with some information as to the rates of payment for attendance (medical and surgical, or medical with surgery extra) upon members of sick benefit societies. I believe there is a wide difference, and should like to know the extremes. I shall also be glad to know the usual rules for attendance at the surgery, finding bottles, etc.—Yours obediently,

Richard J. Pitt.

Wellesbourne, Warwick, January 25th, 1882.

Sir,—Having recently returned from the Cape and Natal, I shall be happy to give "S. Africa" any information in my power, if he will communicate with me.—Faithfully yours,

Samuel Barker, M.D.

24, Eaton Place, Brighton, January 23rd, 1882.

Fees for Attendance on Families of Medical Men.

Sir,—Noticing in this week's issue of the Journal a letter from "A Scotch M.D.", headed "Fees for Attendance on Families of Medical Men", I am led to bring before the Association and profession generally a case in which the custom of "no fee" was made an exception.

A poor country practitioner, suffering from the effects of anxiety and overwork, and not being quite satisfied with ordinary home-treatment, sought admission to the Crichton Royal Institution, Dumfries; but, though he had numerous medical friends in the district to which he belonged, who could and did furnish all reasonable information respecting his condition without any remuneration, yet, because he was an Englishman, it was requisite that he should undergo a merely formal examination by two medical men in Dumfries, for which paltry service two guineas had to be drawn from his hard earned savings.

I think the opinion of the profession on a case of this kind will be instructive, and may help towards some reform in similar matters.—Believe me, sir, yours respectfully,

Joseph Thompson.

Kirkby Stephen, January 18th, 1882.

Urbs in Rure.—The subject is not one fitted for discussion in our pages.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Mr. Thomas Partridge, Stroud; Dr. John Cavafy, London; Mr. J. Neville Porter, London: M.R.C.S., L.D.S.; Our Aberdeen Correspondent; Fair Play; Mr. Newland Pedley, London; Mr. T. Garret Horder, Cardiff; F.R.C.P.; Dr. Landfort, Corsica; Dr. Beales, Congleton; Mr. T. Jones, Mansfield; Dr. Joseph Rogers, London; Mr. G. Eastes, London; Our Edinburgh Correspondent: Mr. G. Cureton, Shrewsbury; Mr. A. H. Benson, Dublin: Mr. G. A. Norman, London; Mr. C. R. Illingworth, Clayton-le-Moore; Mr. W. J. Tivy, Clifton; Dr. W. Chessall, Horley; Mr. H. Oliver, Durham; M. E.; Mr. A. Roberts, Keighley; Mr. E. Watson, Isleham; Dr. J. C. Reid, Newbiggin-by-Sea; Mr. Malcolm Morris, London; Mr. Balmanno Squire, London; Dr. W. Bull, London; Dr. T. Partridge, London; Mr. O. Graham, Manchester; M. H. Durand, Paris; Mr. R. J. Pitt, Wellesbourne, Warwick; Dr. Tripe, Hackney; Dr. I. Comyns Leach, Sturminster Newton; Mr. J. N. Greenwood, jun., London; Mr. W. E. Green, Sandown; Mr. R. O'Brien, Upton; Mr. C. Lockwood, London; Mr. J. C. Carden, Wilton, Lincoln; Mr. D. N. Keene, Glasgow; Mr. Robert H. Firth, Blackburn; Dr. Chessall, Horley; Dr. Stevenson; Mr. H. Lewis Jones, London; Dr. W. Thomson, Dublin; Mr. H. Greenway, Plymouth; M. O. H.; Mr. J. Spofforth, Kidderminster; Mr. J. Aspinall Hunt, Derby; Dr. S. Barker, Brighton; Mr. G. H. Cressey, Lowestoft; Mr. T. Jackson, Bridgend; Dr. Thorne Thorne, London, etc.

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REPORTS
TO THE
SCIENTIFIC GRANTS COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION.

THIRD CONTRIBUTION TO THE LIFE-HISTORY OF CONTAGIUM.

By PETER MURRAY BRAIDWOOD, M.D., F.R.M.S.,
AND
FRANCIS VACHER, F.R.C.S.Ed.

(*Continued from page 113 of last number.*)

REMARKS.—Having naturally grouped our experiments as already described we shall now briefly examine the groups, and endeavour to draw some conclusions. They teach us certain lessons regarding the several septic fluids employed, the dose of the septic fluid required to produce results or death, the effects of different modes of inoculation, the date and manner of death after experimentation, the various pathological lesions found after death, the relative frequency and character of the secondary deposits and alterations in different viscera, and the results of the admixture of antiseptics with the septic fluids, as also of other treatment employed. The microscopical examination of the several septic fluids used and of the blood of some of the animals experimented on gave, however, no striking or uniform results.

GROUP A represents the first rough attempts which we made to induce septicæmia by inoculating healthy animals with lochial solution. In these three instances, the septic fluid was obtained by soaking small pellets of cotton-wool in lochia from a patient in a slightly pyrexial condition, such as most patients present on the fourth day after parturition. The saturated wool was introduced into a small valvular wound, and retained there by means of plaster till, after several days, the ulcerative process induced served for the extrusion of the foreign body. No constitutional symptoms seemed to be caused by this mode of inoculation. The lochial solution was offensive in odour, and was inserted in the same manner into each thigh of the same animal. It produced a slow, unhealthy form of ulceration, with enlargement of the contiguous inguinal glands, and the formation of very fœtid, greenish, purulent fluid. The animals recovered gradually after the septic wool had been extruded; the wounds healed, and no ill-results followed.

In GROUP B the septic fluid used was lochial solution removed thirty-six hours after parturition, in Experiments 4, 5, 6, 7 and 8, while some was again removed at a later date from this patient and employed in Experiments 9 and 10. This forms the most important and extensive group of our first series of experiments. The lochia used was a slightly offensive grumous fluid, containing epithelial elements, blood- and pus-corpuscles, a few vibriones, and multitudes of highly refracting granules.

In Experiment 4, a drachm of septic fluid was injected *per vaginam*. The animal died thirty hours after experimentation, and *post mortem* examination revealed patches of congestion in the liver and in the lower lobe of the left lung.

In Experiment 5, half a drachm of the same septic fluid was injected directly into the abdominal peritoneal cavity, and the rabbit died in about fifteen hours. The necropsy revealed puncture of the bowel, inducing circumscribed peritonitis, causing death, and showed that this mode of experimentation was not advisable. No secondary visceral lesions were found.

Experiment 6 consisted of the injection *per vaginam* of a drachm of the same septic fluid combined with a drachm of an aqueous solution of carbolic acid (1 to 20).

It may be remarked here, in passing, that our lochial solutions were obtained by wiping out the vagina with small portions of cotton-wool, then syringing the passage with about two ounces of distilled water, and allowing the cotton-wool to soak in this water in a test-tube till required for experimentation, when the fluid was squeezed out of the wool to mix with that in the test-tube. To render the test-tube as pure as possible, and to prevent, as far as possible, the decomposing influence of air, the tube was first thoroughly heated in the flame of a spirit-lamp, and while cooling, as also after it received the septic fluid, its mouth was closed with cotton-wool and covered with oiled silk tied firmly on. Excepting temporary *malaise* and increase of bodily temperature, this rabbit (Experiment 6) showed no bad symptoms, and was quite well in a few days after experimentation.

Experiments 7, 8 and 10, terminated fatally. In Experiment 7, a drachm of the same lochial solution as had been used in the three previous instances, mixed with forty drops of solution of sulphurous acid (*B. P.*) and twenty drops of distilled water, was injected *per vaginam*. This caustic antiseptic produced œdema of the vaginal orifice, and induced sloughing of all the superficial soft tissues in the lower third of the abdomen, exposing the viscera. A second comparatively small sloughing wound appeared near the umbilicus, probably from lymphatic sympathy with the other, and several superficial abscesses formed in different parts of the body at a later date.

This animal showed no characteristic constitutional symptoms of pyæmia, and died in an emaciated condition just one calendar month after experimentation. On *post mortem* examination, typical secondary deposits were found in both lungs, in the liver, and in the mesentery. These secondary lesions appeared as minute whitish spots, surrounded by a reddish zone and scattered over the surfaces of various viscera, combined in the lungs with minute superficial hæmorrhagic extravasations. Microscopical examination of these spots showed capillary thromboses, surrounded by circumscribed extravasations of blood into the tissue of the organ. No purulent fluid was detectable in any of the secondary visceral deposits produced by our experiments. It is evident from this experiment (7), that sulphurous acid does not destroy the septicity of lochia.

In Experiment 8, a drachm of the same septic lochia as was used in Experiments 4 to 7, combined with a drachm of the saturated solution of potash permanganate, was injected into the abdomen of a rabbit by puncture over the symphysis pubis. Excepting temporary slight ill-health, this animal appeared unaffected by the inoculation till the fourteenth day, when it was observed to be very ill, and showed a large abscess over the right hip. Death occurred next day, the fifteenth after experimentation. The necropsy revealed signs of recent peritonitis, secondary deposits in the liver (like those met with in Experiment 7), and a large abscess filling the right half of the pelvis. The subcutaneous abscess over the right hip, observed during life, was due probably to the rabbit's septicæmic condition, and had been excited by a slight bruise it had received.

For Experiments 9 and 10, a lochial solution was obtained from the same patient, but at a later date, viz., on the sixth day after parturition. In Experiment 9, the septic wool was inserted into a sloughing wound, but produced no ill effects. In Experiment 10, a drachm of the lochial solution was injected *per vaginam*, inducing pyrexia with increased bodily heat, secondary subcutaneous abscesses, disinclination for food, thirst, listlessness, and hurried respiration before death. This animal died on the fourth day (about 100 hours) after experimentation. *Post mortem* examination revealed signs of slight recent pelvic peritonitis, and characteristic secondary deposits scattered through the liver, through both lungs, and on the left cardiac wall.

GROUP C was arranged to observe the effect of inoculating rabbits with purulent fluid obtained, not from human beings, as this had been tried by previous investigators and found unsuccessful, but from rabbits which had died septicæmic, as shown by *post mortem* examination. In Experiment 11, half a drachm of purulent fluid obtained from rabbit (Experiment 8), combined with half a drachm of distilled water, was injected *per vaginam*. In Experiment 12 a like amount of the same mixture was injected into the abdominal cavity; and in Experiment 13 a few drops of the same septic fluid were injected into the right femoral vein of a third rabbit. This septic fluid, examined microscopically, showed pus, blood, bacteria, phosphates, and refracting granules. Animal 11 died in about twenty-four hours after inoculation, and the necropsy showed local signs of inflammation near the point of injection, but no secondary visceral deposits. Animal 12, died on the seventh day after experimentation, and exhibited pyrexia ending in convulsions. On *post mortem* examination, there were found extensive subcutaneous inflammation and deposit of lymph in the abdominal cavity, and in the abdominal wall, secondary deposits in the liver (similar to those in Group B), circumscribed hæmorrhagic extravasations in the lungs, and congestion of the cerebral meninges. Rabbit 13 died also on the seventh day after experimentation, and showed extensive suppurative inflammation and deposit of lymph subcutaneously in the lower half of the abdomen, and in the right inguinal region, with characteristic secondary deposits in the liver and right lung; and the blood was very coagulable.

Experiments 14 and 15 consisted in subcutaneous injections into a rabbit and a puppy, of twenty minims of an aqueous solution of the purulent fluid removed an hour previously from the rabbit which died from the last experiment. No distinct constitutional symptoms were thus induced, but in both instances local abscesses. In the puppy,

a large abscess formed at the site of puncture, and burst, causing a large wound which gradually cicatrised; while the analogous abscess in the rabbit became gradually absorbed, but excited more distant circumscribed subcutaneous abscesses.

GROUP D comprises Experiments 16, 17, 18, and 19, in which Dr. Burdon Sanderson's septic fluid was used. Rabbit 16 received a drachm *per vaginam*, and died in about twelve hours thereafter. It showed on *post mortem* examination no marked traces of disease. Rabbit 17 was inoculated subcutaneously with half a drachm, and died in convulsions about fifty hours after experimentation. The necropsy revealed caseous-looking deposits on the surface of the liver, ileum, and caput cæcum; while scattered over the outer surface of the colon and right lung were congested patches. In Experiment 18, the rabbit received subcutaneously half a drachm of the same septic fluid, combined with half a drachm of a saturated solution of cupralum. This produced a large local abscess, which became more or less absorbed. Death occurred on the twenty-fourth day after experimentation, without any pyæmic symptoms having been exhibited during life, and without any signs of pyæmia being detectable after death.

Experiment 19 consisted in inoculating a rabbit *per vaginam* with a mixture of half a drachm each of Sanderson's septic fluid and an aqueous solution of carbolic acid (1 to 20). This animal presented no special symptoms during life, but on *post mortem* examination there was found extensive caseous infiltration (scattered secondary deposits, caseous-like) of the liver, spleen, and mesenteric glands. In the pelvis was seen a large amount of purulent serum, and the mesenteric lymphatics were so engorged as to be readily dissected.

These four groups of experiments did not differ in the symptoms produced, but they showed certain important variations in the potency of the septic fluids, and in the character of the secondary visceral deposits induced. Lochial solution was poisonous, but was not so potent as the purulent fluid used for Group C, and this again was surpassed in lethal strength by the septic fluid applied to Group D. This is shown by the relative number of deaths, and rapid accession of death in these groups, produced by a like dose of the poison administered by a certain method. As regards the secondary visceral deposits, it is to be noted that the animals forming Group D, showed on *post mortem* examination appearances markedly different from the subjects in Groups B and C. Comparing Figs. O 3, P 3, and Q 3, with Figs. K 3, L 3, M 3, and N 3, it is readily seen that the secondary deposits, in the former derived from Group D, are very distinctly raised above the surface, are not surrounded by a congestive zone (as is seen in secondary deposits from the subjects of Groups B and C), and to the naked eye are yellowish-white, while they cut gritty, like caseous deposits. This last characteristic rendered it difficult to cut sufficiently thin sections for microscopical examination of visceral deposits from the subjects of Group D.*

GROUP E comprises experiments with lochial solution (as in Groups A and B) used a few minutes after its removal from a third patient. The microscopical examination of this septic fluid showed the absence in it of any microzymic organisms. One rabbit (Experiment 20), received *per vaginam* half a drachm of this lochial mixture, and died on the eighth day following, without exhibiting any marked symptoms. After death were found the ordinary signs of acute peritonitis in the abdominal and pelvic cavities, secondary deposits in the liver, engorgement of the mesenteric vessels, and congestion of the left pulmonary apex.

In order to test the influence of quinine, another rabbit (Experiment 21), of about the same size as the last one, was treated in a precisely similar manner. On exhibiting signs of *malaise*, about twenty-four hours after experimentation, this animal received half a grain of quinine in neutral solution by hypodermic injection, and next day (third after experiment) there were administered to it hypodermically two more doses of like amount; the only result being that this animal lived for twenty-four hours longer than the preceding. The *post mortem* appearances were as nearly as possible identical in both instances.

For Experiment 22, half a drachm of the same lochial solution, with half a drachm of a saturated solution of cupralum, was injected *per vaginam*. This so-called antiseptic seems to have accelerated death, as it occurred about twelve hours after inoculation; and the only pathological lesion revealed by necropsy was pulmonary congestion on both sides, especially severe in the lower lobe of the right lung.

GROUP F illustrates the effects produced by inoculation with fœtid grumous serum removed from the abdomen of a rabbit (Experiment 21), which had died from septicæmia. In two of the experiments forming this group, the subcutaneous injection of half a drachm of this septic fluid into a dog, and into a rabbit, excited no appreciable symptoms, local or constitutional. A third animal (Experiment 25) received fifteen drops of the same septic serum *per vaginam*. In this instance the blood was examined microscopically during life, and found to be preternaturally coagulable, whilst its red corpuscles exhibited less adhesiveness than in health, and their edges were distinctly crenated. These characteristics in the blood were further observed to become less marked as the animal continued to live. It met with death by accident, hence no pyæmic lesions were found in the viscera on *post mortem* examination. We may, however, infer from these three experiments that the fœtid peritonitic serum applied to this group, was not so septic as the fluids used in the previous groups of experiments.

Our next two series of experiments show a much larger percentage of recoveries. We do not intend to follow out their details so fully as we have done in the case of series A, but we desire our readers to study very carefully the table in which these minutiæ are fully described, seeing they are well worthy of perusal.

SERIES B.—In all the twenty-two experiments (excepting one) which form this series, as also in the seven experiments composing series C, the animals used were rabbits. We may further subdivide these series into groups, as has been done with those already narrated.

GROUP A^2 includes Experiments 1 to 8 of Series B, which may further be examined in pairs. Into a doe (Experiment 1), was injected *per vaginam* half a drachm of the dialysed portion of lochial solution removed from a patient on the fourth day after her confinement. The septic fluid had no offensive smell, and microscopically showed no micrococcus organisms. An equal quantity of the same septic fluid was inserted subcutaneously into another rabbit (doe) at the same time. The former animal died on the twentieth day after experimentation, and its viscera showed septicæmic changes in the liver, right lung, and mesenteric glands. The other rabbit (Experiment 2), recovered without presenting any symptoms. Again, into other two rabbits (bucks) were injected *per perinæum* (Experiment 3), and subcutaneously (Experiment 4), half a drachm into each of the undialysed portion of the same lochial solution. This septic fluid exhibited, under the microscope, actively moving bacteria. Both animals died. Experiment 3, which had received the perineal injection, died on the eighth day after experiment, exhibiting deposits in the mesenteric glands and in the ileum; while the rabbit (Experiment 4) which had received the septic fluid subcutaneously, died on the twenty-seventh day after experimentation, showing a large subcutaneous abscess and secondary formations in both lungs and in the liver. The hepatic deposits were some of them as large as hemp-seeds.

For our next four experiments, lochial solution, which had been subjected to dialysation, was again the septic fluid employed; but this solution was obtained from another patient (a primipara), who had received laceration of the perinæum during labour. Furthermore, this lochial solution was poured into the dialyser on October 1st, and used for experiment on October 7th, by which date it had acquired an offensive smell, and showed actively moving bacteria. Again, two does and two bucks were respectively subjected to the influence of separate portions of the septic fluid. Into each of the does was injected half a drachm of the dialysed portion of this lochial solution. One doe (Experiment 5) received it *per vaginam*, and died on the third day thereafter, exhibiting secondary deposits in the liver, and pelvic peritonitis; while another doe (Experiment 6) was injected subcutaneously, and recovered without showing any symptoms. Into the bucks was inserted a like amount of the undialysed portion* of the same lochial solution, which, besides having an offensive smell, showed under the microscope active bacteria, blood-corpuscles, and pus-cells. One rabbit (Experiment 7) received *per perinæum* half a drachm of the septic solution, and died five days later, with secondary deposits in the liver and right lung; while the other rabbit (Experiment 8) received a like amount subcutaneously, and died on the following day (sixth after experiment), showing a large abscess at the point of puncture, and secondary changes in the liver, right lung, and transverse colon.

The purpose of this group of experiments was to isolate, or separate, if possible, the contagium element of septicæmia. With this view, a

* As in the case of the microscopical slides which illustrated our former reports, these were prepared for us, tinged with carmine, by Messrs. A. C. Cole and Son, 53, Oxford Gardens, Notting Hill.

* Dialysation was thus conducted by us. A white unglazed porcelain cylinder (similar to those used in galvanic batteries) was washed thoroughly and placed vertically into a long-necked wine-glass, which had been likewise thoroughly cleansed. The lochial solution recently removed from the patient (as in our former experiments was poured into the dialyser, which was then stopped up with cotton-wool, and tied over it was gutta-percha: the whole was covered with a glass shade, to limit the ingress of dust. The first solution thus treated was kept in the dialyser for about three days, and had no bad odour when used; while the second portion was very slow indeed of filtering, and was very fœtid when employed, having been nearly eight days in the dialyser. By "dialysed portion" is meant the part which filtered through into the wine-glass; while "undialysed portion" refers to that remaining in the dialyser.

porcelain dialyser was used; but, being unavoidably exposed to atmospheric action, bacteria developed in the lochial solution, and intensified its lethal action.

GROUP B² includes Experiments 9 to 15 of the second series, and in all these instances purulent fluid caused the sepsis. For the rabbits 9, 10, and 11, pus from a postvesical abscess found in the victim of Experiment 1 of this series, which had died septicæmic; and for rabbits 12 to 15, pus from a subcutaneous abscess in the subject of Experiment 4, was used. Into two does (Experiments 9 and 10) were injected, *per vaginam*, fifteen minims each of purulent fluid (from rabbit 1) and distilled water. Both these rabbits died about the same time, one month after experimentation, and both showed after death secondary deposits in the liver and right lung. Rabbit (11) was a buck, which received, *per perinæum*, at the same time as the preceding two does, a like amount of the same septic fluid. This animal recovered.

For the next four experiments, pus from the subcutaneous abscess found in the subject of Experiment 4, diluted with about an equal amount of distilled water, was the septic fluid used. A drachm of this mixture was inserted subcutaneously into a buck (Experiment 12) without producing any special symptoms. Fifteen minims of the same mixture, injected *per vaginam* into rabbit (Experiment 13), also had no lethal effect. Into a male rabbit (Experiment 14) was injected, *per perinæum*, half a drachm each of the same purulent mixture, and liquor potassæ permanganate (*B.P.*), causing death on the eleventh day after experimentation. The necropsy revealed an abscess at the point of injection, and secondary formations in the liver and scattered through both lungs. A buck (Experiment 15) received, *per perinæum*, at the same time as the preceding, equal portions (half a drachm each) of the same purulent mixture, and a solution of carbolic acid (1 to 20 water). It survived only sixteen hours, and the necropsy disclosed diffuse perineal suppuration, and secondary deposits in the liver, lungs, and ileum.

Now, for some months, our researches were interrupted by the calls of general practice. When we recommenced, we employed, at first, healthy (that is, normal) fourth-day lochia, from a multiparous patient who had passed through a natural labour. These Experiments (16, 17, and 18), forming Group C², were instituted with this septic fluid, and in only one instance did death occur. Rabbit (Experiment 16) received half a drachm of the lochial solution, *per vaginam*, brought forth subsequently a litter, which lived, and herself recovered without presenting any special symptoms. Another rabbit, a male (Experiment 17), was injected, *per perinæum*, with half a drachm each of lochial solution and carbolic acid solution (1 to 20 water), mixed, and survived one month and five days. After death, secondary deposits were found in the liver, in both lungs, and in the skin; while the lymphatic glands were observed greatly enlarged. The third member of this Group C² was a doe (Experiment 18), which received, *per vaginam*, three-fourths in amount of the same mixture as the last rabbit, and recovered.

The fourth (D²) and last group of this second series of experiments comprised three rabbit sand a dog, which received as septic fluid fourth-day lochial solution from a patient who, immediately after or during a normal labour, showed modified small-pox. A rabbit (Experiment 19) received *per vaginam* half a drachm of this lochial solution, and died nine days later, exhibiting secondary formations in the liver. A second rabbit, at the same time (Experiment 20), received a like amount in same manner, but recovered; while a third (Experiment 21) was injected *per vaginam* with a drachm of this septic fluid, and survived, bringing forth a litter about eighteen days after experimentation. In Experiment 22, a drachm of this lochial solution was injected *supra pubem* into the pelvic cavity of a fox terrier without producing any special symptoms, and the animal in due course recovered.

REMARKS.—This being the termination of our experiments with lochial solution, forms a suitable occasion to glance over the results derived. In thirteen out of the twenty-five experiments composing Series A, and in fifteen of the twenty-two constituting Series B, lochial solution was used to induce septicæmia. Of the former, five recovered and eight died; while, of the latter, seven recovered and eight died. As regards the methods employed for using this septic fluid, it is noteworthy that, in the four instances in which it was applied subcutaneously (Series A) by means of pellets of cotton-wool saturated with the lochia, no serious septicæmic symptoms were produced; while in the four experiments (Series B) in which the lochial solution was injected subcutaneously by the ordinary method, two recovered and two died. It is further worthy of remark, that the two fatal cases received portions of the lochial solutions which had not passed through the dialyser. This fluid, examined microscopically, showed actively moving bacteria, so that it may be regarded to have acted locally, like any other irritant organic fluid in which micrococcus organisms are found, and in addition to have induced the septicæmic condition characterised by secondary visceral formations, such as are invariably met with after death by injection *per vaginam*.

In four instances (Series A) the lochial solution was administered in drachm doses *per vaginam*, and only one of these recovered (Experiment 6, in which carbolic acid solution had been added to the septic fluid); while three others (Series A) received in like manner half-drachm doses, and all died. Further, rabbits 4 and 10, which received each a drachm dose, succumbed rapidly; while rabbits 20 and 21, having each had a half-drachm dose, lived for a week after experimentation. The lochial solution used in the former four experiments had a bad odour, showing that putrefaction had set in; but microscopical examination revealed no micrococcus forms; while the lochial solution injected in the latter three instances presented all the characters of freshly removed normal lochia. Of these seven animals, one (rabbit 6) received a mixture of an aqueous solution of carbolic acid and the septic fluid, and recovered; rabbit 7 was injected (also *per vaginam*) with a mixture of solution of sulphurous acid (*B.P.*) forty minims, distilled water twenty minims, and a drachm of lochial solution, and died in a month thereafter; while rabbit 22 was inoculated with half a drachm each of the lochial solution and an aqueous solution of cupralum, and succumbed in twelve hours.

As regards Series B, in six instances the dose used *per vaginam* was half a drachm, and two of the animals recovered; in two experiments, the subjects being male rabbits, inoculation of a like amount of septic fluid was made *per perinæum*, but with the same object, viz., to bring the septic solution into contact with the pelvic peritoneal cavity, and both died. Further, one of these animals (Experiment 17) received *per vaginam* half a drachm each of lochial solution and of an aqueous solution of carbolic acid, and died in one month and five days after experimentation. In one instance (Experiment 18) forty-five minims of this last mixture was injected *per vaginam*, and the rabbit recovered; while another rabbit (Experiment 21), which received similarly a drachm of lochial solution from a variolous patient, also recovered. These curious exceptions do not, however, appear to us sufficiently weighty to require us to lay aside as illegitimate the following conclusions. *a.* Normal human lochial discharge of the fourth day after delivery is septic to rabbits. *b.* It invariably induces in them septicæmia, as proved by *post mortem* examination. *c.* The fatal dose of the aqueous solution we employed, the method for preparing it having been already described, is from half a drachm to a drachm, according to the size of the animal operated on. *d.* When allowed to putrefy, it induces local suppuration, like other irritant putrid organic fluids, as well as its own special characteristic visceral formations. *e.* No special constitutional symptoms indicate the important [illegible]ic changes which are going on. *f.* The surest method of induc[illegible] constitutional alterations termed septicæmia by inoculation w[illegible] solution is to bring it into contact with the pelvic peritone[illegible]y, by injection *per vaginam* or *per perinæum*. *g.* Antisepti[illegible]utions mixed with the septic lochial fluid do not appear to modify its lethal influence. *h.* Micrococcus organisms are not present in, nor are they necessary for, the septic potency of the septic fluid.

Series C comprises seven experiments, which may for convenience sake be subdivided into two groups, and were carried out some time after the preceding, when opportunity offered. Group A³ includes five experiments, of which three consisted in the injection into rabbits *per vaginam* of purulent fluid from the abdominal peritoneal cavity of a patient; and, in the remaining two instances, rabbits received the same fluid by subcutaneous injection. Group B³ comprises two inoculations, one *per vaginam* and the other hypodermically, of sanguineous serum from the abdominal peritoneal cavity of a patient suffering from diffused carcinoma of the abdominal viscera. These experiments were instituted with the object of ascertaining (if possible) whether or not the lethal action of our typical and novel septic fluid (solution of human lochia) was due to its being derived from a serous or a mucous surface, or to its commixture with the fluid elements of pus. The peritonitic purulent fluid injected into the subjects of Group A³ had a very offensive odour, and exhibited microscopically actively moving bacteria, as well as organisms (vibriones, etc.), indicative of putrefactive changes. It will be noted that all the members of this group succumbed in from eight to fourteen days after experimentation. Further, it is striking to observe that the septicæmic condition thus induced was characterised chiefly by inflammation, subcutaneous or of the connective tissue. There were found, too, in nearly all the subjects of these experiments, secondary deposits in the liver, infarcts in one or both lungs, and, in one instance, secondary formations in the cardiac wall. As might naturally be expected, the subjects of subcutaneous inoculation exhibited most markedly the characteristic secondary products of inflammations of connective tissue, even at a distance from the site of puncture. Moreover, there is remarkable uniformity to be noted in the data of appearance of the septic-

æmic symptoms in this group (A^3) of experiments, namely, about the fifth day when inoculated *per vaginam*. The first rabbit to be inoculated weighed nearly double as much as the second, and received twice the amount of septic fluid, but both showed septicæmic symptoms, and died together on the same day. They also presented much the same *post mortem* appearances. Group B^3 was inoculated with sanguineous fluid from the abdominal peritoneal cavity of a patient suffering from diffuse visceral carcinoma. The fluid was injected soon after its removal, and presented no special appearances under the microscope. It was odourless, and exhibited no micrococcus organisms, nor those indicative of putrefactive or of purulent changes. Both rabbits recovered without showing any special symptoms.

Having now concluded the account of our observations, and drawn attention to the most important points to be noted in our three series of experiments, we desire to point out the lessons taught by the several injections of *purulent* fluid. Series A includes five injections of purulent fluid derived *post mortem* from two rabbits which had died from septicæmia; and of these, two (which had received the septic fluid subcutaneously) recovered. One of the three deaths was due to diffused phlebitis, as might have been anticipated from the nature of the experiment. Included in Series B are seven injections of purulent fluid removed after death from two rabbits which had died of septicæmia; and in two of these were antiseptic solutions admixed with the septic fluid, and injected *per perinæum*. Of these seven, three recovered. One inoculated subcutaneously with a drachm of purulent fluid recovered, another likewise after the injection of half a drachm *per perinæum*, and the third after the injection of fifteen minims *per vaginam*. The pathological appearances at the necropsy of the fatal cases were found in the liver, lungs, heart, ileum, etc., as well as in different areas of connective tissue. The dose of septic fluid in these instances was half a drachm. For Series C (as already stated), peritonitic pus was derived from a patient. All the inoculations proved fatal. Injection subcutaneously, as well as *per vaginam*, was lethal. In four out of the five inoculations forming this series, the dose was half a drachm; and, in this fifth instance, the rabbit was twice as large, and received a double amount. The pathological changes observed after death in the subjects of this series of experiments were similar to those met with in the fatal members of Series B.

We may, then, infer from our three series, consisting of fifty-four experiments; (1) that the fact of the septic fluid having been derived from a serous cavity, as the peritoneal, is not the cause of the septicity; (2) that the purulent condition (*de novo* or by admixture) intensifies its septic power; (3) but that pus alone is not necessarily septic to animals, as has been previously repeatedly proven by various experimenters; (4) that purulent fluid from a serous cavity (especially that from the abdominal peritoneal cavity) is more lethal than that derived from connective tissue; (5) that putrefaction or decomposition decidedly intensifies the septic or lethal action of a septic fluid; and that (6) the septic influence of human lochia on rabbits is due to some special property in it (*sui generis*), and is not connected with the presence in it of micrococcus organisms.

Résumé.—Series A: Infected 13 rabbits with a solution of lochia itself, or mixed with antiseptics.
Infected 4 rabbits and 1 dog with purulent fluid, diluted.
Infected 4 rabbits with an aqueous solution of macerated muscle.
Infected 2 rabbits and 1 dog with grumous fluid from the peritoneal cavity.
Of these, in 7 instances (rabbits), and in two (dogs), recovery took place.
In 11 experiments, the animal (rabbit) was inoculated by injection through the vaginal wall.
In 10 experiments, the animals (8 rabbits and 2 dogs) were inoculated subcutaneously.
In 3 experiments, the animals (rabbits) were inoculated by injection through the abdominal wall into the abdominal peritoneal cavity.
In 4 experiments, the animal (rabbit) received the septic fluid applied to an open wound.
In 1 experiment, the animal (rabbit) was inoculated by injection into a vein.
Series B: Infected 14 rabbits and 1 dog with lochial solution, by itself or mixed with antiseptics.
Infected 7 rabbits with purulent fluid, diluted or mixed with antiseptics.
Of these, in 9 instances (rabbits), and in one (dog), recovery took place.
In 10 experiments, the animals (rabbits) were inoculated by injection through the vaginal wall.
In 6 experiments, the animals (rabbits) were inoculated by injection *per perinæum*.
In 4 experiments, the animals (rabbits) were inoculated subcutaneously.
In 1 experiment, the animal (dog) was inoculated by injection *supra pubem* into the abdominal peritoneal cavity.
Series C: Injected 5 rabbits with freshly removed peritoneal purulent fluid from a patient.
Injected 2 rabbits with freshly removed sanguineous peritoneal fluid from a patient.
Of these, in the two last instances (rabbits), recovery took place.
In 3 experiments, the animals (rabbits) were inoculated by injection through the vaginal wall.
In 1 experiment, the animal (rabbit) was inoculated by injection *per perinæum*.
In 3 experiments, the animals (rabbits) were inoculated subcutaneously.

[*To be continued.*]

AN ADDRESS
ON
MEDICAL EDUCATION.

Delivered at the Fifth Annual Meeting of the Dublin Branch of the British Medical Association.

By GEORGE H. KIDD, M.D., F.R.C.S.I.,
President of the Branch.

[The President having thanked the Branch for the honour it had done him in electing him as its President, referred in appropriate terms to the great losses the Branch had sustained during the past year by the deaths of its President and President-elect, of Dr. Reuben Harvey, and of the several other members whose names were mentioned in the annual report.]

During the year on which we have now entered, we shall probably have the report of the Royal Commission on the Medical Acts laid before us. We shall thus be called on to consider, with all the care and gravity we can bestow on it, the great question of medical reform that has so long agitated the profession; and it may, therefore, be not unworthy of the occasion if, from this chair, some suggestions be offered on this important subject. In offering these, it is right to formally state that they are the suggestions of an individual; and though you have raised him to the proud position of president of your Branch, the opinions he may express can have no weight because of this, except in so far as they may meet with your concurrence and approbation.

Of the various points aimed at by medical reformers, there are but two to which I mean to invite your attention, but they are, I believe, regarded as the most important—in fact, the essential points, all the others being secondary. I mean the establishment of conjoint schemes of examination, and uniform standards of education, and penal clauses for the repression of unlicensed practitioners.

The establishment of an uniform standard of education by means of conjoint examination is a proposition calculated to obtain, at its first suggestion, the support of all; but, on closer investigation, it will be found that the objections to it are manifold and insuperable. In the first place, the standard must be a low one. This is now admitted by nearly all of those who most warmly support the scheme. The standard, they say, may be a low one. We will let no one into the ranks of the profession who has not obtained a certain amount of education. We will fix the minimum, but we will impose no limit to further progress. This means that the man who attains to this minimum standard of education shall have all the rights and privileges of the profession. He shall be registered, and sent out to the public with the Queen's stamp on him, showing that he is fit and worthy to be intrusted with the lives and welfare of Her Majesty's subjects. Is it necessary to show that this low standard of education would be the universal standard of the profession, and that thus we should be lowered and degraded in our own eyes, and in the eyes of society? A few enthusiastic or ambitious men might, it is true, seek a higher standard; but the recognised one would be a low one, and by this it is that we should be judged.

It was the recognition of this, that led a more recent class of reformers to add certain penal clauses to their Bill. They desired to establish a high standard, and sought these powers as the means of enforcing it.

As the law at present stands, there is no power to inflict fine or punishment on unlicensed practitioners. They cannot sue for fees for medical attendance; but of so little practical value is this power, that the fellows of the Colleges of Physicians have voluntarily contracted themselves out of it. They cannot hold public appointments, nor can they sign death-certificates or certain other documents, or assume medical titles that they do not legally possess. In all other respects, they are as free to practise medicine in all its branches as the most highly qualified men in the kingdom. When the Act of 1858 was passed—the Act that at present regulates the profession—Parliament deliberately refused to place any other restrictions on unlicensed practitioners. Our modern reformers, however, seek very much more; and consequently, in their Bill introduced during the last session of Parliament, asked for power to inflict a penalty of £20 for each offence on any person not registered under this Act who should for gain engage in the medical treatment of diseases. This Bill is said to have been prepared by a kind of "cabinet of all the talents". It has been approved of by the Association of which we are a Branch, and by all the leading medical reformers of the day, or at least by the most prominent of them. All experience, however, proves that such powers, even if granted, could not be enforced. Indeed, the only effect the enactment of such a Bill could have, would be to give an impulse and importance to unlicensed practitioners by making heroes and martyrs of them. It is well known that an unlicensed practitioner in this city has, for years past, found it to be for his interest to represent himself as a persecuted and injured benefactor of the human race. He cannot take payment, he pretends, for his advice, or charge for his medicine, but he will sell you a piece of straw, and give his advice and medicine for nothing. The reformers of the year of our Lord 1511 had power given to them, by an Act of Henry VIII, to inflict a fine of £5 per month on all unlicensed practitioners; and, in addition to this, it was further enacted, in the first year of Mary's reign, "that all gaolers must receive and hold all offenders and transgressors in the said faculty committed to their charge by the President and College". But notwithstanding these arbitrary powers of both fine and imprisonment, the unlicensed practitioners fought them and beat them. The guild of grocers sold drugs; then began to practise; then called themselves pharmacopolists; and finally, notwithstanding squibs and pasquinades, poems, imprisonments and fines, and many actions-at-law (some of them, indeed, causing nearly as much popular excitement as the trial of the seven bishops or other great State trials), became the great medical practitioners of England, and were incorporated as such in 1815 under the title of the Society of Apothecaries. Thus did the reformers of 1511 fail. From whatever cause it may have arisen, they did not supply the public with such medical attendants as they required, and the public created a new supply. So long as human nature is what it is, unlicensed practitioners of the healing art for love or gain cannot be suppressed. The reformers of 1511 failed, as must those of 1882 also fail, if, by making their standard too high, they limit the supply of practitioners below what the public require. Large classes of society would be unable to command, or, perhaps, to appreciate, the services of very expensively educated practitioners, and would seek the services of others. Again the demand would call forth a supply, and, just as when the physicians failed to meet the public want, the grocers, druggists, and pharmacopolists, were brought forward; so a new class of practitioners would arise, notwithstanding the penal clauses of the proposed Act.

But an uniform standard is unattainable for other reasons. It is, in fact, impracticable. At first, it was proposed to have one examining body for the whole kingdom; then one for each division. Even if it were possible to have all candidates examined by the same set of examiners, who could guarantee differences would not be made from national prejudice, favouritism, or other causes? And, in like manner, if there were three sets of examiners, one for each kingdom, what guard would we have that competition would not arise—that attempts would not be made to attract candidates by easy examination and consequent lowering of the scale by one or other of the conjoint bodies? But, even if the establishment of a high and uniform standard were practicable, it would not be desirable, for it would produce stagnation and retard progress by putting an end to all competition. It would not be difficult to show that the competition of the several licensing bodies, even under the present unfortunate condition of its existence, has been the source of almost every important improvement in the medical education of these countries. It has been shown by Dr. Lyon Playfair that the evil effects of uniformity have manifested themselves, by checking competition wherever it has been established. In France, before the great Revolution, there were twenty-three universities, each with a separate autonomy. These Napoleon I conjoined into the University of Paris, making it the single university for France; and the result has been, in the opinion of all the most eminent Frenchmen, to produce a sterility of intellect that, more than any other cause, has led to the humiliation of France as a nation. Indeed, the unanimity with which the most eminent men of all grades and professions—politicians, lawyers, ecclesiastics, physicians—ascribe the intellectual paralysis of the nation to the centralisation of administration and examination by the University of France, is surprising. Uniform standards of education have been fatal to intellectual progress wherever they have been tried. It was the observation of this that made Germany abandon its old centralised system of State examination. Germany is the typical country of universities, for it counts twenty-four of them, containing 20,000 matriculated students; and its principle now is to give each university a separate autonomy and the utmost liberty of teaching and examination. With this view, the examinations are now carried on at the several universities by the professors, assisted partly by assessors appointed by the State; and thus competition is fostered among them, as to which shall maintain the highest character and best provide for the advancement of learning and culture of thought.

Important as are the lessons to be learned from these experiences in the Old World, not less valuable are those to be learned from the New. The progress in art, literature, and science, that has been so marked a feature in the recent history of the United States of America, has only been surpassed by that made in medicine. Instead of depending, as formerly, on reprints of imported books for their literature, the citizens of the United States have raised a literature of their own, and their medical and other works are now taking the highest places in all European schools. Their industry, fertility of invention, boldness of action, practicality, and perseverance in patient scientific investigation, have enabled the medical men of America to advance our knowledge of the healing art by rapid strides. With them, there has been none of the paralysis so deplored in some of the older schools as affecting all scientific pursuits, including medicine, and which has been so clearly traced to the attempt to reduce intellectual operations to the uniformity that constitutes the perfection of a military drill. Their institutions enjoy freedom of action, and they are determined to maintain it. In 1861, there were thirty-seven medical schools or colleges in the United States, each separate and independent of the other, and each having the power to confer medical degrees. Very possibly there may now be more, for the power to confer degrees is granted to all organised bodies seeking it. They allow the law of supply and demand to regulate the growth, and exclude all interference, governmental or other, that might hinder free development and successful progress.

The same lesson is to be learned nearer home. The pre-eminence of Scotland for widely diffused and thoroughly sound education, both general and professional, is recognised the whole world over. As a school of medicine, the University of Edinburgh has long held a position unapproached by any other. That this is due to the healthful competition of the four universities with one another, is well known and fully appreciated by the Scotch people, and they are consequently determined opponents to all conjoint schemes and uniform standards. Feeling the benefit of free competition, they guard and protect the freedom even of institutions that are satisfied with standards of a lower class than the universities aim at. In 1863, when some reformers, anxious to introduce the uniformity of the drill-sergeant, wished to unite the four universities into one conjoint examining board, and procured a Royal Commission for the purpose, the evidence presented to the Commissioners obliged them to report that such a measure "would not be expedient".

It is unfortunate that the Royal Commission, whose report we now await, sat with closed doors; and that we have had no knowledge afforded us of their proceedings, or of the tendency of the evidence laid before them by the selected witnesses for whom they called; but, if rumour speak truly, we are to have a modified conjoint scheme proposed, which will embody and concentrate, possibly magnify, all the evils such a system could produce. It is, therefore, the more important that we should be prepared to examine and discuss any proposition to establish an uniform standard of education and conjoint scheme of examinations with all the light that experience and reflection can bring to bear on the subject. Are we prepared (we must ask ourselves) to adopt in any form a system that has been found so injurious in France that the reformers there are obliged to put forward as their programme a demand, to use the words of M. Loraine, one of the Professors in the Faculty of Medicine, for "the destruction of the University of France and the creation of separate universities": a system that has been tried in Germany, and been given up, as calculated to produce a paralysis of intellect. "When the Government takes graduation in hand," says Lyon Playfair, "and stamps our intellects, as it does its sovereigns, with one uniform die, the power at its disposal will be immense; but, as in France, the intellects will in time be crushed under the stroke, and then will not be worth the coining." We must consider whether

it would not be better to retain our nineteen examining bodies, and try whether we cannot induce them to compete with one another as to which should have the highest character, do most to improve education, and so elevate our professional character.

This it is that seems to me to be the all important object at which we should aim, to stimu'ate our examining bodies to compete as to which should have the highest character. Hitherto the competition has, it is said, been as to which could make its examinations most easy, and so attract candidates to its portals. This may be true of some; but when such a charge is brought against us, we can lift our heads with pride and refute it by pointing, not to one, but to the majority of our examining bodies, and showing that their cry has ever been "onward". and that never have they swerved from the path of true and honourable progress. It must be admitted, however, that the tendency of the system under which we are at present governed is to induce a competition for candidates by lowering the standard of education and examination. This has been greatly and sadly aggravated by the Act of 1858, the last great Medical Reform Act—an Act that can only be designated as a mockery, a delusion, and a snare.

By this Act, the best educated and most highly qualified medical man in the kingdom is placed on exactly the same level with the man who has obtained the lowest qualifications, with the smallest possible modicum of professional or other knowledge. They are both sent out to the public, bearing a Government stamp, affirming that they are equally qualified to hold places of professional trust, to perform prefessional duties, and consequently to take charge of the lives and health of her Majesty's subjects. Thus the public are mocked with a guarantee that is valueless—they are deluded into a sense of safety that is fallacious, they are ensnared into a course of conduct that may lead to disaster. Formerly, when a hospital or other professional appointment was vacant, candidates relied on the character of the college whose diploma they presented, of the school at which they had been educated, and on their professional attainments, as the grounds on which they sought the appointment. Thus the public were educated into a knowledge of the merits of the various schools and licensing bodies, and I am old enough to know they weighed them carefully; but now all this is changed. All candidates, the highest and the lowest, bear the Government stamp. All are recognised by the law as equally qualified. The question is not now as to education or qualifications, but as to religion or politics. Is he a Catholic or a Protestant, a Conservative or a Liberal, a *protegé* of this one or that one? Thus it is that the Act of 1858 has stimulated some licensing bodies to compete with others by lowering the standard, and has impeded the efforts of all who desire to elevate and improve the profession. Other causes no doubt contribute to the same end. The ignorant, the lazy, and the indolent, demand an easy and cheap qualification, and the demand calls forth a supply. This, however, is the abuse of competition, and we must apply ourselves to its correction. As the programme of the French Reformers commences with a demand for the destruction of the University of France, ours must commence with a demand for the repeal of the Act of 1858. The public must no longer be deluded into the belief that all diplomas and degrees have their value guaranteed by the Government stamp. They must be taught to form for themselves a correct estimate of their value. Hitherto, an incorrect and altogether false value has been attached to them. Even university degrees in medicine have been given a position and rank altogether different from degrees in arts, and infinitely below them. In arts a degree confers no privileges, no benefits—it is a token that its holder has had a liberal education, and derives its sole and exclusive value from the prestige of the university from whence it issues.

On the other hand, the university degree in medicine, or a college diploma, is looked on as a licence to enter the ranks of the medical profession; and, as this privilege attaches equally to all such degrees and diplomas, they have all come to be regarded as of equal value, no matter how or whence obtained. This it is that has made the competition take a wrong direction, and work injuriously. A writer on Irish University reform puts it thus. "The stamp of an university, a college of physicians or surgeons, confers the privilege of entering a money-making guild. The stamping process is a lucrative process, and the institution that makes most doctors makes most gain. The result is simple: among medical and surgical corporations there is going on a competition as to which can put the stamp on the greatest number of doctors; and, of course, the quality tends to deteriorate." This assumption, that the university degree or college diploma confers the exclusive privilege of entering a money-making guild, does the harm, and yet it is altogether false and erroneous. In the present state of the law —and no British statesman or Parliament will alter it—any *man*, male or female, may, as already stated, practise medicine for gain or love without degree, diploma, or licence.

In America, university degrees and college diplomas confer no privileges. The practice of medicine is open to all. Let us, too, give up the idea of protection. So long as we know and attend to our business, we need not fear the rivalry of any quacks. Let colleges and universities cease to claim for their degrees, diplomas, or licences, any privileges. Let that which is actually the case be openly avowed. Let the public learn that no licence is necessary to enable any man to practise medicine. Thus, and thus only, will degrees and diplomas in medicine rise to the rank of degrees in Arts. Thus will the university degree come to be recognised as a patent of superiority, a proof that the holder has had a high and liberal education, and cease to be recognised as "a licence to enter a money-making guild"; and then the competition will be as to whose degree shall have the highest value, and be most highly estimated. Students will cease to look on examinations as the whole aim and end of their lives, and devote themselves to real study. The public will soon come to know, with thorough accuracy, the value of the stamp borne by each man that comes before them; and young men entering the profession, who have the ambition, and think they have the talents to seek the highest positions it affords, will find it their interest to go to the universities and colleges whose degrees are most difficult of attainment, and therefore most thought of. The less ambitious will seek their education on easier terms; and thus society will be provided with medical attendants suited to their requirements; and the competition of the colleges will serve to improve medical education, to further the progress of medical science, to elevate and improve the status of the profession, and to fulfil the requirements of society.

THE SURGICAL TREATMENT OF HÆMORRHOIDS.

By WALTER WHITEHEAD, F.R.C.S.Ed., F.R.S.Edin.,
Surgeon to the Manchester Royal Infirmary.

THE surgeon's sphere in the treatment of hæmorrhoids is defined, when the blood-equilibrium in the hæmorrhoidal vessels is not merely disturbed but actually destroyed, and when structural changes have so far advanced to them that neither constitutional measures nor local applications offer any reasonable prospect of altering these conditions; when, in fact, the hæmorrhoids have become a substantive disease and can no longer be regarded as mere symptoms of either inherent local weakness or of indirect and remote functional derangement. Previously to this state, the treatment of hæmorrhoids naturally remains within the domain of the physician.

There is no disorder of the human economy more frequent than hæmorrhoids, and there is probably no operation in surgery where procrastination in their removal is more bitterly regretted. Years of relievable suffering are needlessly endured by patients, and temporised with by medical men, when an operation of a simple and radical character is capable of effecting a cure, which is generally complete and permanent.

The intention of the operation is to remove from the lower segment of the rectum the diseased, dilated, and tortuous vessels, and the adjacent tissues, hypertrophied and consolidated by plastic exudation. These diseased structures are situated beneath the mucous membrane of the rectum, and rest upon the circular fibres of the internal sphincter; and it is the object of the operation to clear them away from the anal orifice, where they act as obstructions to defæcation, and excitants of periodic and distressing spasmodic muscular contractions.

Numerous operations have been designed to fulfil this intention, and several have been specially planned for this exceptional purpose, involving deviations in practice which we should hesitate to adopt in the removal of more formidable tumours from any other region of the body. The excuses advanced for these departures from the ordinary principles of surgery appear to be founded on the fears and blunders of a past generation, rather than upon any real danger to be avoided, or upon any obvious and substantial advantage to be gained.

During the last five years, I have excised hæmorrhoidal tumours on a plan which I venture to believe to be more in harmony with the principles of modern surgery than the operations to which I have alluded; and I have abandoned those pyrotechnic aids and cumbersome appliances which at one time I regarded, I must confess, as indispensable.

The following cases, selected out of a large number, will perhaps explain the manner of conducting the operation, and the principles upon which it is founded, better than a more formal description.

In June 1880, I saw, at the request of Dr. Leech, a lady of robust figure who had suffered for nine years from internal hæmorrhoids. She had been advised seven years previously to have an operation for their removal, but feelings of delicacy had interfered with her consenting to follow the advice. Her life had become a burden, in consequence of

the absorbing demands imposed by the hæmorrhoids. Her nervous system was demoralised by the concentration of her thoughts on her trouble; and the habits of her life had to be regulated by the exigencies of her ailment, until finally she felt compelled to submit to any plan of treatment that could afford her a prospect of relief.

After it had been decided to excise the hæmorrhoids, a day in the following week was fixed for the operation, and in the meantime the patient was very carefully prepared by diet, aperients, and rest. The operation was conducted under chloroform, with the patient in the lithotomy position. As a preliminary measure, the functions of the sphincter were suspended by forcible dilatation. Two thumbs were introduced into the rectum, and the circumference steadily kneaded in every direction until all resistance was overcome, and the sphincter rendered absolutely passive. The patulous condition of the rectum thus obtained enabled the whole mass of piles to be protruded through the anus, by introducing two fingers into the vagina and depressing the recto-vaginal wall. The hæmorrhoids in size and appearance resembled an average ripe tomato, and were mapped on the surface into four irregular and unequal lobes.

The lobes were next divided into four segments by longitudinal sections in the axis of the bowel, and in the furrows marking the intervals between the several lobes. This was accomplished without the loss of any blood. Each portion was then secured in succession by ring-forceps, and dissected with scissors; first, transversely from the anal margin, and then the dissection was continued upwards in the cellular plane to the highest limit of the hæmorrhoidal growths, in this case about an inch and a half. Each segment was thus converted into a quadrilateral wedged-shape mass, the base below consisting of the hæmorrhoids, and the apex above of the healthy mucous membrane of the bowel. The mucous membrane at the highest point was next transversely divided, leaving the hæmorrhoids simply attached by loose cellular tissue, and the vessels proceeding from above and supplying the mass below. The forceps containing the hæmorrhoids were then twisted until a connection was severed and the hæmorrhoids removed. The divided surface of mucous membrane was next drawn down, and attached by several fine silk sutures to the denuded border at the verge of the anus.

The other portions having been treated in the same manner, the operation was completed. The sections throughout were made by scissors. The loss of blood during the operation did not exceed a couple of ounces. The patient made a complete recovery, and regained the full capacity to discharge her domestic duties and social engagements.

Another case was operated upon with Mr. Sutcliffe, of Stretford Road.

The patient was a young lady, twenty-five years of age, whose health and strength had been alarmingly reduced through nine years' pain, mental distress, and hæmorrhage occasioned by internal hæmorrhoids. Such, indeed, was her anæmic condition, that, had I felt less confidence in the small amount of blood likely to be lost, I certainly should have hesitated before undertaking the operation. The piles were unusually large and exceedingly vascular, jets of arterial blood projecting from minute orifices in the tumour upon the application of the slightest pressure. The operation was conducted on the same lines as the previous case, and with equally satisfactory results. The loss of blood during the operation was so slight, that only one sponge was used. Immediately after the patient was returned to her bed, a two-grain belladonna suppository was introduced into the rectum, and a quarter of a grain of morphia administered subcutaneously. The patient suffered no pain whatever after the operation, and her convalescence was complete in a couple of weeks, and remains permanent.

Another example affording considerable interest, and associated with features of unusual character, occurred in the case of a married lady on whom I operated in the summer of 1879. The hæmorrhoids would appear to have originated from the pressure exercised by a retroverted uterus. The position of the uterus not only interfered with the circulation in the rectal vessels, but also, by impinging on the sacrum, acted as a kind of valve and intercepted the descent of fæces. The use of aperients only increased her difficulties, by causing increased straining and a firmer impaction of the uterus. She also suffered from excessive and occasionally alarming loss of blood. Ten years of suffering, with intervals of relief during the latter stages of three pregnancies, were endured by this patient before she would submit to any operation. In order to convey an idea of the ignominy to which humanity may be reduced by hæmorrhoids, I may mention that this lady, who possessed feelings of the greatest refinement, admitted that during the last five years she had been forced by experience to adopt the revolting expedient of relieving her bowels by the use of her fingers. The retroversion was corrected by a suitable pessary, and the hæmorrhoids were operated upon in the same manner as the other cases. An attack of cystitis supervened, and complicated what would have otherwise been an excellent recovery. The bladder-symptoms, however, speedily responded to simple remedies, and the patient left town for her home in fourteen days after the operation. Since that time there has been a relapse of the uterine troubles, but, so far as the hæmorrhoids are concerned, the cure has been entirely successful.

These three cases may be taken as representing a large number on which I have operated, in hospital and in private practice, during the last five years, and all have been followed by uninterrupted recoveries and admirable results; no cases have been complicated by secondary hæmorrhage or any constitutional ill effects.

The amount of pain following the operations has not been uniform. In some cases there has been an absolute freedom, whereas in others pain has been complained of during the first few hours after the operation. The number of instances and the amount of pain, has, however, gradually diminished as experience has been gained in the manner of conducting the operation and in the treatment subsequently adopted.

There are points in connection with the operation which will perhaps admit of further explanation.

The operation is based in the first place upon the anatomical foundation, long since demonstrated by Quain, that the arteries in the lower part of the rectum descend from above, running vertically in paralled lines towards the end of the gut in the cellular tissue between the mucous membrane and the muscles. It is from this arrangement of the vessels that the surgeon is enabled to leave the torsion of the arteries to such a late stage of the operation.

The dominant influence of the sphincter, as a factor in the causation of hæmorrhoids, is found equally potent as an agent during the after-treatment; and unless its influence be totally compromised by forcible distension, secondary hæmorrhage may be concealed within the rectum, and much subsequent suffering endured from spasmodic contractions. With the sphincter dilated, however, secondary hæmorrhage ceases to be a consideration of importance; and if during the operation collateral arteries be divided and bleed freely, they are treated on ordinary principles and twisted without difficulty.

In the healthy rectum, the mucous membrane is loosely connected with the adjacent muscle and readily detached, but in this operation it is one of the objects, and a main feature in the cure, to obtain adhesion between the mucous membrane and the muscular coat of the bowel, in order to counteract for the future the tendency to hæmorrhoidal stasis by giving a substantial support to the vessels; and this is gained by uniting the healthy mucous membrane from above to the verge of the anus—an advantage which cannot be overestimated. It closes what would otherwise be an open wound in one of the most undesirable localities of the body, and, by protecting the raw surface from the irritating influences of passing fæces, prevents a considerable amount of after-suffering, and admits the only possible chance of immediate repair.

A contingency that will at once suggest itself to the minds of those who read this description is the risk of stricture likely to follow the cicatrix resulting from this plan of operation. I may mention that, wherever it is feasible, with strict regard to removing every evidence of any hæmorrhoidal growth, I invariably leave longitudinal strips of mucous membrane continous with the skin; but in severe cases, requiring the removal of the entire circumference, I have no fear of the bowel being inconveniently contracted when mucous membrane alone is sacrificed; and believe that undue contractions only take place when annular cicatrix is formed at the expense of integument. I have taken great pains to ascertain that this fear is groundless, and I have watched most of my cases for a sufficient length of time to relieve my mind from any further anxiety on this point; at the same time, I fully realise that the progress of such contractions is slow.

The preparation of the patient, previously to operation, requires a considerable amount of forethought and personal supervision.

The patient must be induced to remain recumbent for at least three days previously to operation. An immense gain is secured by this—the hæmorrhoids are reduced to their least possible dimensions; whereas, if the patient be allowed to go about as usual, he frequently exerts himself in making unusual arrangements in anticipation of the operation, and by such means increases the vascularity of the hæmorrhoids, and consequently adds unnecessarily to the difficulty and the extent of the operation. It would be obviously unscientific to operate upon piles during an "acute attack"; and it is equally evident that, the more the circulation can be reduced to a quiescent condition, the less will be the bulk of tissue requiring removal.

The diet must also be regulated by strict rules. In ordinary cases fluid farinaceous food should alone be taken, and, unless specially indicated, all stimulants should be interdicted.

Suitable aperients must be prescribed, and the character of the

evacuations should be inspected, in order to ascertain that no solid fæces remain, and to secure an empty rectum on the day of operation. An enema of water containing a little glycerine may with advantage be administered each morning. A digital examination of the rectum the day preceding the operation may prevent the unpleasant discovery at the last moment of an obstinate accumulation in the rectum, notwithstanding these precautions.

The lithotomy position for the patient during the operation, though perhaps the least delicate, is for the same reason the most convenient, as it permits what is most desirable—an unincumbered view of the parts to be dealt with ; and further, it secures, when the hips are elevated and the thighs well flexed on the abdomen, a relaxation of the muscles likely to interfere with free manipulation. I have always found an ordinary dressing-table convenient for the patient to lie upon during the operation, and I prefer sitting on a low chair in front of the patient.

When the patient is in position, I generally commence by compressing a soft sponge about the size of an orange, and passing it six inches or more up the rectum ; this precaution prevents the escape of liquid fæces during the operation ; and it is hardly necessary to state that the sponge must not be forgotten at the completion of the operation. During the operation, sponges wrung out of spirit and water, one in six, will be found superior to water alone for purposes of clearing blood from the surface of the wound.

In operating on men, the hæmorrhoids must be hooked down with a finger, or secured by ring-forceps and withdrawn. Attempts to obtain a prolapse of the hæmorrhoid by the efforts of the patient, or the use of an enema previously to the administration of an anæsthetic, are undesirable and opposed to sound principles.

The advantages of the operation may be briefly summarised, by stating that the immediate and ultimate results are in every respect satisfactory ; and my opinion with regard to the operation may be considered of more moment, when I state that I have had perhaps unusual opportunities of forming an unprejudiced opinion as to the comparative merits of the numerous operations that have been advocated for the removal of hæmorrhoids, and I have, I believe, given them each in turn an adequate and impartial trial.

Dupuytren, Sir Astley Cooper, and Sir Benjamin Brodie excised hæmorrhoids at the early part of this century ; and, although Cooper and Brodie eventually abandoned excision in favour of the ligature, Dupuytren continued the practice to the end of his career. When we compare the dangers and difficulties attending excision before the advent of chloroform, the practice of dilating the sphincter, and the torsion of arteries, it is not difficult to understand a preference having been given to the more rapid ligature ; but with all the modern aids to sound surgical practice at command, and time a secondary consideration, more precision and greater accuracy are demanded, in order to secure all the advantages which surgery is now capable of affording in this burdensome affliction.

ON THE TYPHOID FEVER AT CANNES.

By C. J. B. WILLIAMS, M.D., F.R.S.,
Physician Extraordinary to Her Majesty the Queen.

ARTICLES have appeared in several recent English journals on the subject of the prevalence of typhoid fever at Cannes during the present season ; and, as these contain many inaccuracies and much exaggeration, it is right that the truth with regard to this favourite health-resort should be made known.

Although residing in Cannes, I have for some years retired from practice, and, being personally disinterested, I am requested by Dr. Frank, in the name of the English physicians practising in Cannes, to communicate to the BRITISH MEDICAL JOURNAL an exact statement of the principal facts of the case.

It may be well to premise that the present population of Cannes is estimated at 24,000, including 6,500 visitors, and 2,500 Piedmontese workmen.

Among the English visitors of Cannes, during the present season from October 1st to January 25th, there have been thirteen cases of typhoid fever and four deaths. In two of these, the malady had in all probability been contracted before the arrival in Cannes.

Among the French and other visitors or residents in the same time, as far as can be ascertained, there have been thirty-two cases of typhoid, with eight deaths, thus making a total of forty-five cases and twelve deaths, English and French. Of the deaths from typhoid one occurred in October, five in November, five in December, and one in January.

There has been no new case of the disease since January 12th, and of the convalescents, only four remain at present under treatment.

The mortality from other causes amounted to 229 during the same period.

On referring to the last season, we find that in the six months from October 1st, 1880, to March 31st, 1881, there were among the English five cases of typhoid fever, with one death. Among the French and others the exact number of cases has not been ascertained, but there were twelve deaths ; and during the summer, from April 1st to September 30th, there were five more deaths, also among the French.

Although, therefore, it appears that there has been an increase in both the number of cases and the number of deaths during the present season, it has not been to such an amount as to justify serious alarm or to warrant the absurd reports which have gone abroad. The disease has now almost disappeared, and it is satisfactory to be able to state, as the unanimous opinion of all the physicians, that its origin has been traced to local causes, which may be, and in all probability will be, corrected and removed.

Dr. Frank informs me that among the English, the fever was distinctly of the typhoid or pythogenic type. In two cases the deaths were from intestinal hæmorrhage, one was from perforation of intestine. In two instances, there were two cases in the same house, and in one instance three ; and the two were among those where the sanitary arrangements were most flagrantly in fault. Cesspools imperfectly emptied, and without any, or with faulty ventilation, under, or unduly close to the habitation, (in one case discharging effluvia into the larder) were the common evils discovered. Out of one cesspool, thirteen cartloads of very offensive ordure were removed. Under such outrageous violation of all health-preserving rules, it is only wonderful that the results were not worse than they have proved ; and there is no need to look further for the unhealthiness of Cannes, which is thus traced to evils which, we trust, will be promptly and thoroughly rectified.

The authorities are now fully alive to their responsibilities in this matter. On the representation of the Vice-Consul and some of the English residents, the Mayor immediately convened separate meetings of the English and French medical men, to discuss and give advice on the subject ; and he expressed the determination of the council to do all in their power to carry the recommendations into effect. The Mayor, M. Gazagnaire, an enlightened and energetic man, is prepared further to get enacted stringent regulations for the prompt and safe removal of sewage ; and to establish at the *Mairie* a permanent sanitary bureau to attend to all matters of public health.

The town of Cannes, like every other in the south of Europe, has no complete system of drainage ; and although various plans have been proposed, and are still under consideration, there are great difficulties in the way of carrying them out. In the meantime, the plan of a cesspool to each habitation at a proper distance and depth, water-tight, yet with a high ventilating tube for the escape of pent-up gases—a punctual and complete emptying at fixed times—seems the plan best suited to the wants and habits of the country ; and is far safer and more effectual than any partial system of drainage. The emptying process is safely effected once or twice a year ; the sewage being conveyed, in steam vacuum carts, to gardens or other lands, where it should be buried or thoroughly mixed with the dry earth of the country, which completely deodorises it and renders it a fine fertiliser of the soil. Soil-pipes from water-closets to the cesspools must be carefully trapped, and made air-tight ; and ventilating tubes carried up to the roof of the house to permit the free escape of foul air.

The nuisances of Cannes and of all other towns in the south, and therein the causes of typhoid fever, are the too long retention of sewage, or its leakage under or near human habitation ; and one of the most common and most pernicious is, where cesspools are allowed to discharge themselves into the *ruisseaux* or little brooks, one or more of which runs down each of the numerous valleys between the series of rocky hills, on which Cannes stands. These *ruisseaux* carry down the surface-water, and after rain are swollen into little torrents, which are used for washing, etc. The law strictly forbids their contamination by any discharge from cesspools. The present mayor has prevented much evil by strenuously enforcing this law. The leakage of cesspools into wells would be another fertile source of disease, were it not that now Cannes is so abundantly supplied with pure water from the Siagne Canal, that the old wells are little used.

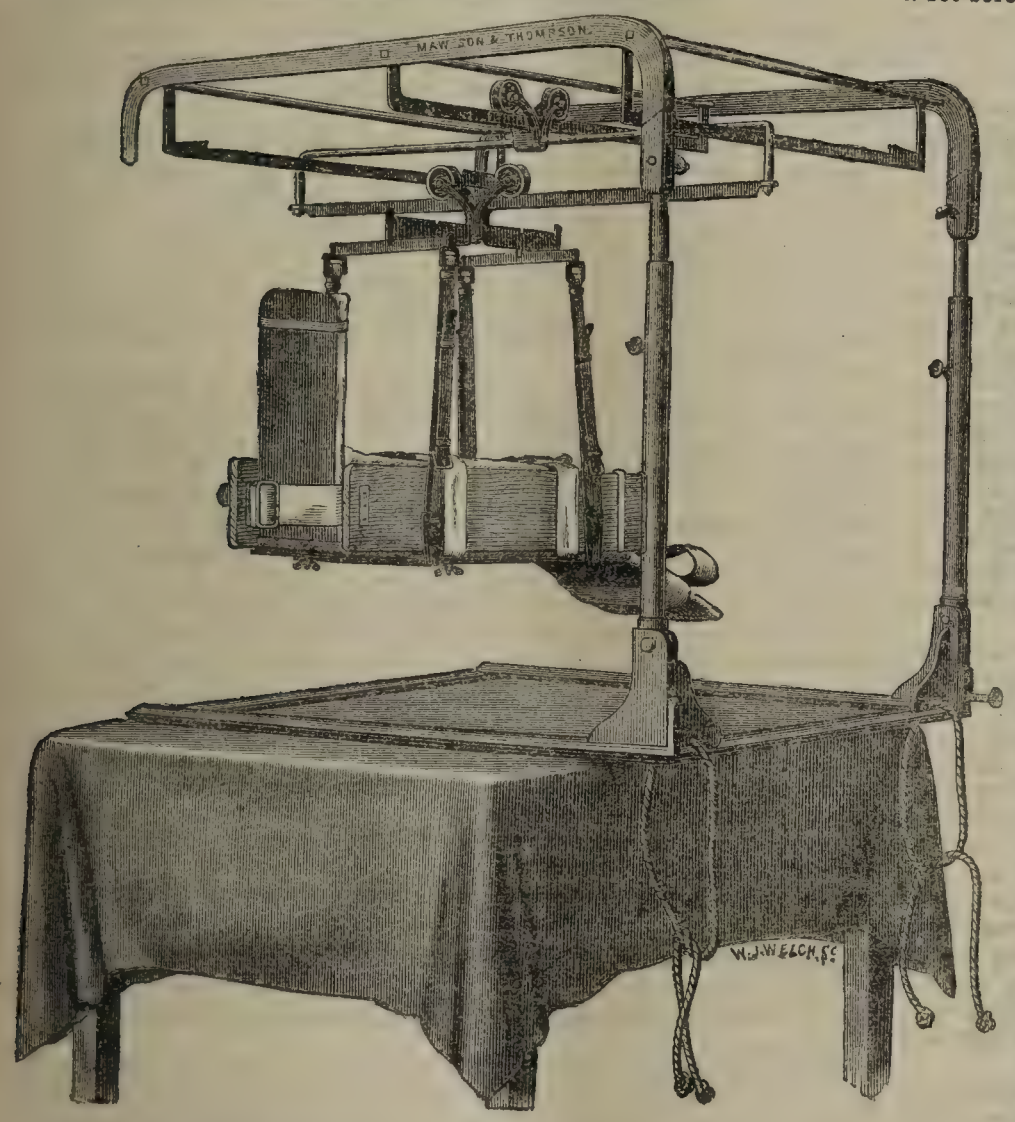
With the exception of the cases of typhoid fever above enumerated, which in point of numbers cannot be considered formidable, taking into account the large increase of the population, the physicians of Cannes unanimously report the season to have been remarkably healthy. Four cases of scarlatina in one hotel, and three in one villa have also been reported ; but almost all of the mildest character.

THE VALUE OF SUSPENSION IN SURGERY.*

By HENRY GREENWAY, M.R.C.S., Plymouth.

THE value of suspension in the treatment of fractures and certain other injuries and diseases of the extremities may be described in a few words —viz., the prevention of motion in the part suspended, the affording comfort to the patient, and thereby aiding in the reparative process; for it is well known that whatever adds to the pain and discomfort of such patient is a hindrance to Nature's efforts to cure. To gain these ends, everything will depend on the manner in which the suspension is carried out.

The idea of slinging an injured limb was, I believe, first put into practice in this country by Mr. Luke, and in the simplest manner possible, by merely placing the limb in a couple of loops of broad webbing attached to the top of an ordinary cradle. Up to a very late period, this plan was adopted more with a view to afford relief to a bedridden patient than to form a part of the treatment.



In 1850, whilst a student in London, I devised a jointed iron frame, having two longitudinal rails on the top, from which hung four leather straps for suspending my "grasping-splint"; but it had no other recommendation beyond the power of simply suspending, and portability. About the same time, Mr. Salter introduced to the notice of the profession a "leg-sling", which not only suspended the limb, but afforded longitudinal motion, and, by means of a swivel, allowed the body to lie somewhat diagonally on the bed. This longitudinal movement, although a great gain, is comparatively seldom brought into play; and the swivel can only be acted on by moving the whole body on its short axis, an act not frequently performed, and only possible to a slight extent, on account of the narrowness of the framework from which the sling is hung. In 1864, I instructed Messrs. Weiss to make an apparatus whereby I hoped to gain every movement that could be desired. These instructions were carried out; but my success was only partial. After making a number of experiments to accomplish my purpose, I was able to bring before the profession an invention whereby a patient would be enabled to move his injured limb about the bed with nearly the same freedom as he would his sound one (see *Lancet*, February 24th, 1866). This apparatus I have since improved in certain matters of detail, and it is now described in the catalogues of some of our instrument-makers as my "unilateral limb-suspender". I have also added to it a convertible splint for upper or lower extremity. Other surgeons have suspended limbs after their own fashion; but I am informed the appliances are all of an unpretending character. My apparatus consists of a base about two feet square; two shifting telescope-pillars, terminating above in an overhanging top, to which is attached traversing gear—namely, a central longitudinal rail and trucks (the only parts common to the sling known as "Salter's"); two side rails, also placed longitudinally; a transverse rail and trucks; and a swivel-bar, with shifting yokes for receiving straps which suspend a splint-holder. At the outer angles of the base, contrivances are fixed whereby the pillars are supported, and any inclination of the top can be corrected. For the sake of portability, the pillars can be folded underneath the top by removing a set-screw. (See engraving.)

To apply the suspender, the base is placed in the required position underneath the mattress from the side of the bed and its outer side is tied with cords to the bedstead. A back-splint, fixed to the holder, and padded, is placed underneath the fractured limb; and the latter having been attended to, the other portions of the apparatus are placed in position by dropping the pillars on to their supports at the edge of the bed, the traversing-gear overhanging the limb. The splinted limb is then slung by means of the straps and yokes from the swivel-bar. In the event of the limb not being properly balanced when the yokes are placed at the ends of the swivel-bar, the yoke at the depressed end should be moved to a notch nearer the swivel. The equilibrium will thus be obtained as in a steelyard. If the base of the apparatus were placed on a bedstead which dipped in the middle, the pillars would naturally incline inwards, and the top would cease to be horizontal. This evil is overcome by laying hold of the upper ends of the pillars and pulling outwards (their supports beings hinged at the base) until they are perpendicular. By now turning a screw at the foot of each pillar to the required extent, their upright position will be maintained. If, during the treatment of the limb, the surgeon may require to remove the suspender from the bed, he has simply to slide the yokes off the swivel-bar, and then lift the pillars off the base, the latter remaining undisturbed. In certain rare instances, where the patient is lying on a thin mattress, the apparatus—even at its shortest—may be considered too lofty. This objection is done away with by placing an extra mattress on the bedstead. Where the opposite condition obtains, then the pillars can be lengthened by means of the telescope arrangement. A little oil or grease should be occasionally smeared over those parts of the traversing gear subject to friction.

Having described the apparatus, and the manner in which it should be applied, I would make a few remarks as to the advantages it offers, and therein embody my argument. The following are the principal advantages. Motion is prevented *in* a limb moved horizontally in any direction. The longitudinal trucks and rail, as in Salter's and certain other leg-slings, allow the patient to draw himself upwards or downwards in the bed, and prevent motion at the seat of injury or disease during such movement. This action, however, as I said before, is comparatively seldom brought into play. The transverse rail and trucks, the most frequently used, allow the body to be moved sideways, and, in conjunction with the swivel-bar, allow the patient with perfect safety to abduct or adduct his limb, or to lie in a diagonal position across the bed. The form of the instrument being unilateral, it can be used for the upper extremity; and a sound leg is not thrown aside from its fellow by any intervening framework, thus preventing distress in the hip and obviating other inconveniences. The base of the apparatus being placed underneath the mattress, there is no possibility of the under-bedclothes bulging up against the back of the limb and interfering with its free and easy movement. I have purposely omitted to provide for the patient's turning on his side, as I think the act would prove injurious.

It has been said, that the longitudinal movement should take place, for the sake of steadiness, on two rails instead of on one—and for the same reason that railway travelling on a broad-gauge line is superior to that

* Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Ryde, August 1881.

on a narrow gauge. I think that argument cannot be accepted. In the case of the railway, the object to be moved is supported on wheels, and is consequently subject to oscillation, and might be upset; whilst, with the leg-suspender, the object to be moved is suspended from the wheels, and is therefore at its lowest point of gravitation, and is always tending to keep the wheels upright. An example of the steadiness of a body supported on two wheels, side by side, compared with that on one wheel only, may be seen in the case of a two-wheel handcart and a wheelbarrow. With the former, comparative steadiness is observed during motion; whilst, with the latter, a lurch takes place, answering to the movements of the wheeler's body. If, however, there be any service in having more than one rail, my suspender is amply furnished, although not for the object just mentioned, for it has three rails—a central one, on which run trucks, as guides, and two side rails (the bearing-bars) on which slides the arm connected with the longitudinal truck-holder. It will be thus seen the longitudinal motion in my instrument is gained by means of sleighs and wheels. The transverse trucks and swivel-bar, combined, answer like a "tell-tale" or a safety-valve to every side movement of the limb, whether voluntary or otherwise, thus obviating all strain or shock which occurs to an object suddenly brought to. Concussion of opposed surfaces is also reduced to a minimum. This action is not only a comfort to the patient, but it plays an important part in the actual treatment of a diseased joint or a fracture. To prevent motion in a limb, or strain on a limb, there must be no obstacle to the voluntary or involuntary movement of a limb, horizontally, in any direction. So perfect is the rest thus obtained, that splints might almost be dispensed with; and fractures, hitherto considered beyond the pale of treatment, have by this appliance been treated successfully. In many cases of severe fracture of the leg, treated in the ordinary way, the surgeon knows he has to a great extent to thank the patient for the successful issue; by the penance he has endured in the shape of watchfulness and caution. The swinging motion is very slight, owing to the straps being mediately connected with lateral and longitudinal trucks, and not hanging from a fixed point. If necessary, even this slight undulatory motion might be obviated by having a rigid connection between the splint and the suspender instead of the yieiding straps; but I do not think the substitution will ever be required, as the sensation is rather pleasant than otherwise. The moment there is any tendency to a swinging movement, the trucks begin to act. To gain a thorough lateral swinging motion, a swing must be suspended from a point which cannot be moved laterally. The patient should be instructed not to abuse the freedom thus given. Care should also be taken in seeing that the upper bedclothes do not touch the toes in any sweep the limb may make.

What is the result then, when a limb, fractured or diseased in its joints, is slung in an ordinary two-sided apparatus having only longitudinal action, and not embodying the advantages just set forth? Quite the converse. In the first place, if the apparatus be placed on a soft bed it sinks into the bedclothes, and causes the mattress to bulge up against the back of the leg, and thus to interfere with the free movement of the limb. This obstacle, when the limb swings against it, causes a jolt which is immediately felt in the part affected. Another objection to the narrow two-sided framework is, that one of the sides interferes with the comfort of the sound limb. In the next place, there being no transverse trucks, any voluntary or involuntary movement of the limb, sideways, is checked, thus causing a strong swinging motion and a lateral strain on the limb, which is sure to have an evil effect at the seat of injury or disease. Anything which hinders or impedes movement in a given direction is, for the moment, an opposing force.

Although my apparatus was designed for suspending fractured legs, it is evident it would be equally useful in any case requiring the removal of the "dead weight" of a limb from the bed, as in all fractures and diseased joints of the extremities, cases of resection, important wounds, gout, etc. When both legs are broken, I use my broad two-sided suspender, which covers both limbs, and has two sets of trucks on the transverse rail. In certain severe injuries of the upper extremity, where the patient is confined to his bed, suspension plays an useful part in the treatment. I have not had occasion to use my apparatus for such purpose in my own practice, but I was informed by Mr. Berkeley Hill, that it was used successfully in University College Hospital in a case of resection for ununited fracture below the elbow, when another mode of slinging had failed. The remarks I have made respecting the value of suspension in the treatment of fractures, are of still greater force when applied to the treatment of inflamed joints, where the slightest movement produces intense suffering. We all know there are many cases of simple fracture which do well without any special care, but even in such instances the suspension of the limb adds greatly to the patient's comfort.

A HOSPITAL AND ACCIDENT AMBULANCE SERVICE FOR LONDON.*

By BENJAMIN HOWARD, A.M., M.D., F.R.C.S.E.

It is now over seventeen years ago since the first ambulance system ever established had its earliest opportunity of proving its value as a distinct organisation. On that occasion, when over ten thousand men lay on the field about Antiatam, by the sudden disability of Dr. Letterman, the supreme responsibility was, by special order, placed upon me. Thus initiated in a work in which my interest has been active from then till now, it was, I can assure you, in no spirit of criticism I called attention, when in London three years ago, and again in the medical journals last July, to the manifest need of an ambulance system in this quasi-battlefield of London.

The Committee of the London Hospital having, upon my urgent representations, decided, last September, to adopt a hospital and accident ambulance service; and having now further arranged for a conference of the other general hospital authorities with themselves, within a few days, to be presided over by His Royal Highness the Duke of Cambridge, to consider the organisation of a hospital and accident ambulance system for London, it has been deemed of first importance that, in advance of this public meeting, the whole question be submitted to this Society, which so largely represents the profession of the entire metropolis.

As briefly as I may, therefore, after glancing at some general reasons for an ambulance system, I will allude to the pre-eminent force of these and other reasons when applied to this particular locality; will give some accounts of the different systems already in operation or adopted in other cities; describe the system recently initiated at the London Hospital; and lightly touch upon such points as are likely to invite special attention in the future determination of such system or systems, as may be practicable and best for this heterogeneous and unparalleled metropolis.

Some General Reasons for an Accident Ambulance System.—The influence of a right or wrong first care, and good or bad transportation, not only in surgical, but in many medical, emergency cases, towards determining the recovery or death of the patient, is not easy to exaggerate. In the present absence of system, the earliest diagnosis between apoplexy and "drunk and incapable" is made by the policeman. The treatment on the spot is as miscellaneous as the rival sympathisers can make it. As regards transportation, this, in two or three respects, has, since the middle ages, been slightly modified. The police-stretcher, or the shutter formerly carried by the hands, with the advantages of suspension, is now more usually borne upon the shoulders of unequal men, with the hoisting, lowering, jolting, risk, exposure, and fright, thus unavoidable. A wheelbarrow-litter has lately been occasionally used, in a description of which, under the head of "Police cruelty", the *Lancet* has denounced it as "worse than useless from every medical standpoint." A vivid description of the scenes attending an average transportation, in these ways, of a criminal or a patient, may be found in a pamphlet published last November by Mr. Harrison of Liverpool.

The other modification which I would fain not even mention is the cab, familiarly known as the "growler". In other respects, while the treatment of emergency patients within the hospitals has in every particular marvellously progressed, the provision for their first care on the spot, and their transportation to hospital, is in the main what it was a century ago.

Whatever the sex, age, rank, be the case one of cardiac syncope, or apoplexy; of fracture, dislocation, or "drunk and incapable", whether the one or the other of the means of transportation above mentioned be used, is left exclusively to the indiscrimination and convenience of the policeman. For the worst fracture in the most distinguished patient, there is no choice in removal except risking his reputation on the police-stretcher, or his life perhaps in the impossible cab.

For assurance against volunteer maltreatment of emergency cases and street accidents on the spot; against detention or rejection at the nearest hospital; for assurance that the first care shall be prompt, exclusive, skilful; that the transportation shall combine ease with seclusion, the only resource according to experience is such co-operation of police, hospital, and other authorities, as is implied in a hospital and accident ambulance system.

The Importance of an Ambulance System for London pre-eminently, as compared with other Cities.—The considerable proportion of the twenty-two thousand patients received into five only of the London hospitals in 1880, and all of the nearly three thousand due to horse

* Read before the Medical Society of London.

and vehicles accidents that in some years form but a fraction of the emergency cases whose annual aggregate is vastly greater in London than in any other metropolis. Not only the volume of the traffic, with its dangers, excitements, and delays, but the distances patients frequently have to traverse to reach the nearest hospital, are greater than in any other city. Owing to the unequal distribution of the general hospitals, a fracture, from the site of the accident within the registration area to the nearest general hospital—notably, if to the London, to Guy's, or to St. Thomas's Hospital—may have to be transported four to seven miles. This fact gives not only magnitude to the estimate of the avoidable evils arising from the absence of an ambulance system, but to all the reasons which suggest themselves for the adoption of such a system.

An Account of the Leading Points in the Ambulance Systems working or projected in other Cities.—Although the manner of working is not in each city alike, in all cases there are four invariable factors: these are —the police, the hospitals, the horse ambulance carriages, and the electrical communication. The points of difference in different cities concern chiefly the location and *personnel* of the ambulance carriage.

In Chicago, the principal hospital is at the outskirts of the city. With the police-stations, of course, it is otherwise; and at these the ambulances are kept. The *personnel* consists of policemen only. For the ambulance summons, an unique provision exists. At the corner of numerous streets are what resemble the ordinary pillar-post in miniature. Any one of several keys kept in the houses or shops in the immediate vicinity of one of these posts, on being introduced into the keyhole of its corresponding post, sounds an ambulance alarm at the police-station of that particular district, and, as quickly as it could be done by a fire-engine, the ambulance, at a gallop, appears on the spot. As a check to false or reckless alarm, each key, which is registered and numbered against the name of the holder, is so constructed that, once introduced, it can be withdrawn only by the ambulance driver, who delivers it back to its holder, and takes the patient to the hospital of the respective district.

In New York, Boston, and Philadelphia, the ambulances are kept at the hospitals only, horses for which, as is common to the system everywhere, are kept harnessed night and day. The *personnel* includes a house-surgeon, or substitute. The ambulance summons is sent by telephone from the police-station nearest the site of the accident to the head-quarters of the police, where, on a chart, is seen at once the hospital district of the address where the ambulance is required, and the telephonic summons is then forwarded to the hospital of that district. A diagnosis blank is filled up by the ambulance surgeon before removing the patient; and, immediately on returning to the hospital, this, with the time of departure, arrival, return, and other particulars, is entered in a book for that purpose. If, after the necessary attention, the patient desire it, and the surgeon approve of it, the patient may be transferred by the ambulance to his own home.

In Cincinnati, ambulances are kept at all the hospitals, and at some only of the police-stations. In Washington, they are kept at all the hospitals, and at every police-station. In each of these cities, the ambulances rival the fire-engines in promptness; and, from the general interest awakened by the ambulance carriages, not only amongst the police, but the people generally, there is so much familiarity with the provisions and rules of the system, that such intelligent co-operation as may be in any case expedient is rarely wanting.

In the neighbouring city of Paris, the project which has received the municipal approval consists in having horse ambulance stations, corresponding in their distribution to the former "Secours des Blessés" stations, forming together a distinct municipal organisation.

The Ambulance System and Ambulance Carriage of the London Hospital.—By reference to the diagram, it may be seen that, nearly equidistant and in different directions from the London Hospital, there are eight police-stations. If not in consequence of my suggestion, certainly in accordance with it, each of those stations, formerly in telegraphic connection with Scotland Yard, are now, by the cordial co-operation of Sir Edmund Henderson, being connected also with each other so as to form a distant, but complete, telegraphic ring around the hospital. Tapping this circle at one point, viz., the nearest police-station, by a telephonic wire thence to the hospital, it will be seen how, as represented on the diagram, the entire area round about the hospital is brought into direct communication with it. The cost of this wire for the first three months, I am given to understand, will be nothing, and afterwards, by special concession, below the usual rates. As one of the privileges of subscribers, and at no extra cost, this telephone may be connected at any moment with that of every other subscriber. Thus, every policeman within the London Hospital area having the addresses of the said subscribers within his beat, from the nearest private instrument of the already many hundred subscribers, the ambulance summons may be sent direct to the hospital. This is the outline of the plan I have submitted to the London Hospital Committee, and which, I trust, will soon be in complete working.

Fig. 1. *Explanation of Diagram.*—(Small circles) Police Stations.—(Single lines) Telegraphic Wires.—(Double lines) Telephonic Wire.—From Guy's Hospital south, there is no other general hospital whatever; from the London Hospital north, no other general hospital in any direction, except at Dalston.

The ambulance carriage, in the absence of which neither this nor any other scheme could take practical form, I thought at first to import from New York, that being the nearest place where any accident horse-ambulance could be procured. You will not regret to know, however,

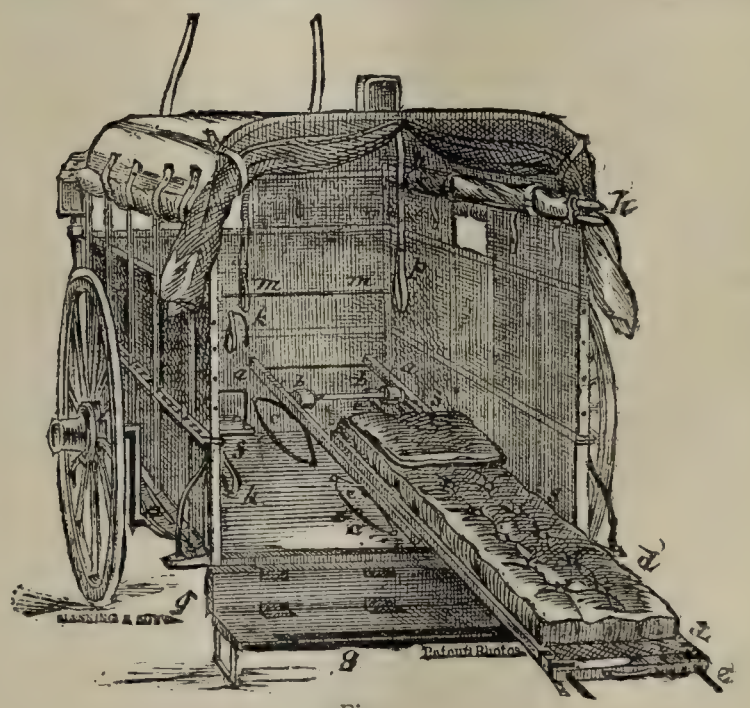


Fig. 2.

that as the ambulance of the London Hospital, which I shall show you to-night, was subsequently planned by me here, and built for me here, with express adaptation for the London service; it is, both in design

and in make, a London ambulance. In every leading particular, too, but one, it is different from any ambulance carriage previously constructed. The exception to which I allude is the interior counterpoise springs, used first in my military ambulance, so well described in Professor Longmore's book, and which, besides taking the highest International prize at the first Paris Exposition, were largely used in both the American and Franco-German wars.

The ambulance which I have now to describe, and which was presented to the London Hospital by its Vice-Chairman, is, I believe, the only accident ambulance carriage in civil life in Europe; certainly, I think the only one belonging to a general hospital. It is, briefly, a neat little apartment, 6 ft. 6½ in. by 4 ft. 1 in., in which, on a sliding litter with perfect surgical bed, the worst fractured patient, his attendant seated beside him, may be transferred, for example, from the most distant country seat in Scotland to the farthest Italian villa in safety, comfort, and seclusion. This seclusion may be maintained without a moment's disturbance until the patient, from the same litter, is shifted to his bed awaiting him in Italy. The size of this vehicle is arranged so that, whether shifted from road, boat, or rail, it requires no changes; and being all the time in running order, there need be no prolonged delays in the shiftings.

Fig. 3.

On looking at the outside, you see it is a light, rather pretty-looking, one-horse vehicle, the sides above the body-panels, as well as the front and rear, consisting of Brown ducts in detachable subsections, and small curtains. The floor of the vehicle is but twelve to fifteen inches from the ground; and between these the tailboard, when lowered, forms a firm, equidistant step. The hind wheel is large, and is in the centre of the body, the floor of which is below the axis of motion, while the spring from which the body is suspended is a very long semi-ellipse. The four wheels have India-rubber tyres. By a special contrivance of the running gear, the fore wheels and the entire carriage turn exactly on their own axis. Beneath the driver's seat is a box for medical and surgical appliances. Two red lamps beside the driver, and one in the rear, are used to prevent collision. The shafts are adapted to any cab-horse and harness. A centre-pole may be applied for two horses. In any case, however, it can, if necessary, be drawn by one man. The associate editor of the *Lancet* started and drew it in the shop with one little finger. This has been repeated by myself, even in an ordinary paved street. Looking at the interior, which is entered with the same ease as a room on the ground floor of any ordinary house would be, the right half of the floor is seen to be occupied by a light tramway, with India-rubber roller tires. The tramway rests on four light elliptical springs, the pair at the head being about six inches higher than those at the foot. Between the side of the tramway and the main body of the vehicle are India-rubber buffers. Resting upon the India-rubber rollers mentioned is a light cane-bottomed litter, with sliding handles. Upon the litter a waterproof thin hair mattress and pillow are used or not, as preferred.

The front litter-bearer walks into the ambulance far enough to rest his end of the litter on the rear roller, when, the rear bearer pushing with one hand, the patient is slid noiselessly, and with scarcely conscious motion, into position. With a very heavy patient upon it, I have done this myself with two fingers. Above the patient, from the roof, is a wide-looped pendant leather strap, by which the patient may steady or raise himself. A corresponding contrivance lower down can be attached for suspending a fracture, if desired.

In the other half of the interior is a detachable seat for the attendant, the remaining part of the floor being clear. Should two patients need transportation, a folding stretcher is detached from an angle of the roof, the handles of which are received by leather loops, and by which the second patient is suspended parallel with the first.

Should it happen that, on the arrival of the ambulance, the patient is already on an ordinary police stretcher, or should four patients need transportation, a horizontal iron bar receives the front handles of the stretcher, and the iron-shod top of the tailboard the rear handles. Thus there is avoidance of shifting in the one case, and easy transportation for four patients in the other case, without the slightest interference of the one with the other; the attendant having, in this case, simply to ride outside, where there is excellent accommodation beside the driver.

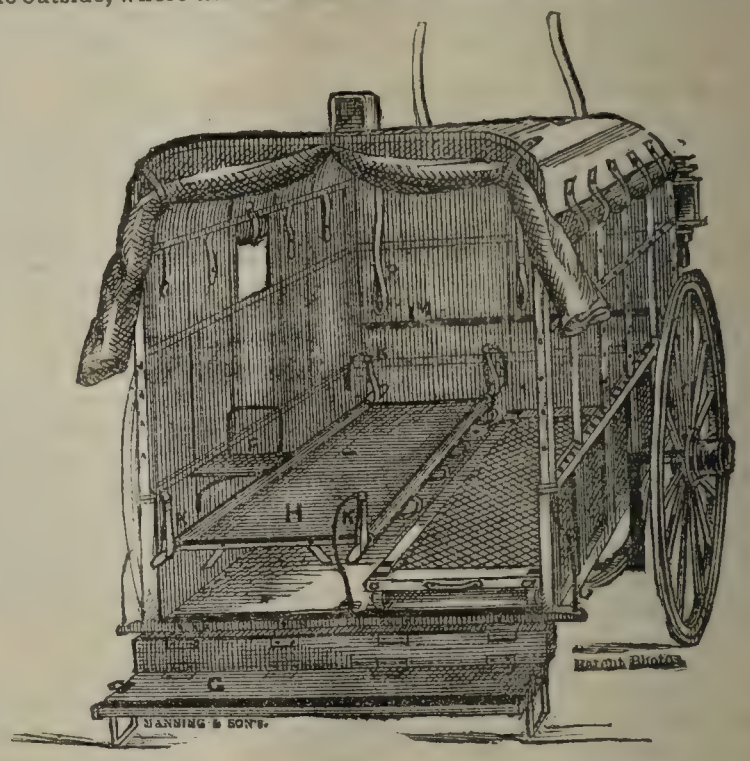


Fig. 4.

Figs. 2, 3, 4. *Explanation of Drawings.*—(*a. a.*) Tramway.—(*b. b.*) Rubber Rollers.—(*c. c.*) Counterpoise Springs.—(*d. d.*) Litter.—(*e. e.*) Sliding Handles.—(*f. f.*) Attendant's Seat.—(*g. g.*) Tailboard.—(*h. h.*) Folding Stretcher.—(*k. k.*) Suspension Loops.—(*m. m.*) Supporting Bar for Police Stretcher.—(*n. n.*) Canvass Handles of Carrying Sheet.—(*p. p.*) Patient's Aid-strap.—(*s. s.*) Lateral Rubber Buffers.—The position of the head in both litter and stretcher is six or eight inches higher than the foot, as is *not* shown in the drawings.

Although, when perfectly closed, the light and air are not insufficient, by means of the eight little upper curtains, these can be increased at pleasure, without exposure of the patient to public gaze. Where the latter is no consideration, the eight sections forming the lower part of the sides above the body can also be removed, forming simply an open but roofed carriage.

The principal objective points obtained in this ambulance are these.

(*a*) *Ease of Entrance and Exit.*—In every other ambulance, civil or military, as also in every fever-carriage, the height of the floor necessitates several attendants, and such hoisting and lowering, pushing and hauling, as is particularly alarming and objectionable. The lowering of the floor, which so completely obviates this, was I believe, never before attempted or suggested. This, with the additional arrangement of the rubber rollers in the tramway, may be fairly said, I think, to make the ease of entrance and exit complete.

(*b*) *Ease of Motion in Transportation.*—The central position of the axle, the largeness of the rear wheel, the lowness of the floor below the axis of motion, the length of the semi-elliptical mainspring, the suspension of the body from this, together with the India-rubber tires, never before applied to a horse ambulance carriage, have each combined to secure the highest degree of steadiness attainable for the body of the vehicle. This minimum motion of the body of the vehicle, instead of being communicated to the patient, is intercepted; its chief force being expended upon the interior counterpoise springs, which, vertically and laterally, poise the tramway. Mr. Adams, the senior surgeon of the London Hospital, lying upon this litter at varying speeds, said it seemed almost easier in motion than at rest; and, in running the ambulance over successive pieces of loose wood, the crossing of them he detected rather by the alteration in the planes of the interior than by any conscious jar they occasioned. A gentleman, who, on a recent trial trip, went to take notes of the action of this litter, soon after the start forgot his purpose in a gentle slumber, induced, strange to say, by the roughness of the road, or, in other words, by the easy oscillations in traversing a street under repair.

By the principle of suspension, as illustrated in the attachment of the canvas stretcher, the conditions, though for a fracture case not so desirable as those of the litter, are for a medical case scarcely less agreeable; the elasticity of the stretcher-poles, as thus used, preventing the propagation of jar or shock to the patient.

One feature in this stretcher is as conveeient as it is novel. Across the under side of the canvas, from which both poles and stretcher-bars may be easily and completely detached, are stitched four broad bands of the same material, terminating in firm loops slightly projecting beyond the lateral margin. On this carrying-sheet, to which the stretcher may be thus easily reduced, the patient may be carried easily and comfortably where the stretcher complete would not go. The ease with which it can be insinuated beneath, or withdrawn from under, a patient, or, when there, be left there, may be a great convenience, and avert much suffering.

(*c*) *Ventilation and Light, with or without exposure of the patient to public view, can be regulated to the utmost.*

(*d*) *Immunity from Contagion.*—The cane-bottomed litter is, without the mattress, sufficiently comfortable. The interior is then but wood and iron, and accessible to the quickest and most thorough cleansing.

(*e*) *Adaptability to other Uses.*—The tramway is readily detached from the floor. The interior, then quite clear, is adaptable to any purpose of pleasure or utility for which a vehicle might be desired in connection with an infirmary, hospital, or other institution.

My thanks are due to Mr. J. U. Burt, of the Swinton Street Carriage Works, for his patience and faithfulness in carrying out my designs in the construction of this vehicle.

Some of the Leading Questions which will arise in the consideration of an Ambulance System for London.

1. *The kind of Ambulance Carriage to be Employed.*—Should the carriage I have presented to your notice prompt somebody to the introduction of a better, my satisfaction would be so much the greater. To stimulate invention in this direction, the suggestion of prizes recently put forward by Sir Edmund Lechmere and Major Duncan would doubtless be of service.

2. *The Location and Personnel of the Ambulances.*—Shall they be stationed at the general hospitals, the police-stations, fire-stations, or at special ambulance-stations? If at any one of these only, which? If at more than one, at which other or others? For the police-stations, may be shown their superior number and distribution, the always available force at each; against them, the natural and rightful repugnance of the better classes, for whom the ambulances are equally intended, as well as indeed that of all other classes, to personal police attendance; while the absence of all good first care on the spot, and the uncertainties about admission, detention, or rejection, on reaching hospital, would be then as great as now. For the location of the ambulances at the hospitals, it may be said, the question is one of medical aid on the one hand, of public need on the other; affecting in a personal way, as no other question connected with hospitals could, those who, supporting the hospitals, are accustomed to look to them as the natural source of the best and rightful help, in a possible street-accident to themselves; and that the ambulance of the hospital would be but a natural and legitimate extension of the help it now gives, to the time it is first and perhaps most critically needed, and thus it would but complete the function it now partially fulfils. The facility for a medical attendant would be greater; there would be a guarantee against hospital-yard detention, of possible rejection, and delayed treatment; the help afforded would be disassociated from the now humiliating and criminal suspicions. For the hospitals, there would be evoked higher esteem; more personal sympathy, concern, and help from the subscribing classes. As regards the *personnel*, the rank of the medical attendant would be of little consequence, his competency of much; the work would be no harder than that to be expected in country or in army practice. The hospital would have, by this service, a new prize and another useful certificate to offer the deserving candidate, for a term as short as may be found expedient. In America, as a rule, the ambulance system is strictly a hospital-ambulance system. The medical attendant is usually what corresponds to a senior or junior dresser. No part of the scheme has so much secured the success and popularity of the system, as the quick medical help it guarantees to the entire public.

3. *Special Ambulance Stations.*—These might be at the same time small emergency hospitals, and in the outer and almost destitute seven mile belt of London, might have a relation to the general hospitals, corresponding to that between the field and the base military hospitals; the patients bding drafted from the former into the latter as may be required.

4. *The Form and the Source of Ambulance Summons.*—In America the intercommunication between the respective police stations continues to be telegraphic—between the police and the hospitals it is telephonic, so that the call can be understood by anybody in attendance at either end of the wire. In regular course, the ambulance summons comes to the respective hospital from the head-quarters of the police; it may come, however, from any public or private telephone whatever. As an instance of the quickness of the service made possible by the telephone, only this morning Dr. Beckwith, of Washington, told me that on the occasion of an accident during the inauguration of President Garfield, he (Dr. Beckwith) himself telephoned from a neighbouring street; notwithstanding the unprecedented multitude in the streets, from the time of the summons to the arrival of the ambulance, was by his watch, exactly two minutes. Before long every police-station in London will be in telegraphic communication with every other. One of these stations is sure not to be very distant from a general hospital. One short telephonic wire therefore will put every police-station in communication with that hospital. Moreover every public and private telephone in London, by the ordinary method of connecting subscribers with each other, will thus be in communication also with every hospital telephone. A street accident occurring anywhere, a policeman guided by his list, from the shop or bank for example, next door perhaps, telephones to the respective ambulance the address where it is wanted. A purposely false summons would of course be a criminal act.

5. *The relation of the Police Department to the Ambulance System.*—This in any case must of course be integral. Whatever the system, it is necessary that every policeman should be intelligent as to the details of it, while the entire force must be in harmony with the other part of the organisation. On this point I am happy to say that by Sir Edmund Henderson, the Chief of the Metropolitan Police, I was long since authorised to state to whomsoever it might concern, that his practical co-operation may be fully relied upon.

6. *The Cost and how it is to be met?*—In America, as a rule, the hospitals have provided the necessary change in their premises; procured and maintained the ambulance horses, etc., complete, in working order, making themselves simply available; the municipalities have done the rest. The cost of the ambulance I show you will be, I think, from sixty guineas and upwards, little more than half the cost in New York of the ambulance there used. Telephonic communication costs at regular rates at present £45 a year, but for this service special concessions are promised. On the advent of the expected Government control of the telephonic service the subscription is expected to be lower and the distribution of it more general. An ambulance carriage is just the kind of thing many donors would like to give. An ambulance station is just the kind of thing many would like to endow, its daily benefit being to them daily visible. From my observation where the system is oldest, I believe that, if put on a voluntary basis, it would by its popularity probably elicit enough to support itself and do more than all things else combined to augment the hospital fund.

7. *The Expediency of attempted Complete Organisation at the outset or of allowing Gradual Development?*—This question confronted in its entirety, it must be admitted, promises no easy achievement. The hospital modifications, the police and telephonic arrangements, the harmonising of these with the heterogeneous and parochial administrations, like the obstacles which, incomparably greater, were surmounted by the railway, telegraphic, and fire-brigade systems, may not and should not be accomplished in a moment. The work, as initiated by the London Hospital, is, considering its importance, strikingly simple and easy. The neighbouring hospitals assuming a similar work for their respective districts, a fair proportion of the metropolitan area, as shown in the diagram, would be provided for, and the ultimate system or systems might be determined by gradual development.

8. *The Authority by which the ultimate Hospital and Accident Ambulance System for London shall be controlled.*—This must remain a question until, sooner or later, the time has fully come for the answer. The necessarily integral position of the police department in such system is suggestive. Of this I should venture to say there can be little doubt that, however successfully different districts may be separately worked, in order to the highest success, the entire organisation will ultimately be under one authority, so complete and absolute as to ensure corresponding responsibility and accountability in every subordinate whatsoever.

Some of the Results and Advantages which, from the Experience in other Cities, may be Reasonably Anticipated from a Metropolitan Hospital and Accident Ambulance System in London.

1. Quickest possible medical aid, and best form of transportation, to the house or to hospital, in street accidents and other emergencies.

2. A sense of security which, by the knowledge of this provision, will be imparted to every rank and class throughout the entire community.

3. A more personal interest, a deeper sympathy, and a closer relation will be induced between the subscribing class and such hospitals as by their ambulance service shall manifestly include this within their most important provisions.

4. The sense of public obligation thus induced, and of which the ambulance carriages as they pass will be a daily reminder, should sensibly augment the hospital revenues, both by multiplying contributions and by promoting endowments.

5. As a substitute for the much discussed redistribution of hospitals, it offers a simple form of hospital extension, the ambulance bringing the hospital to the spot, however distant, where the patient is.

From personal observation in nearly every city where an ambulance system exists, I should say that in everyone of them the ambulance department for the saving of life has come now to be deemed almost as important as the more expensive fire department for the saving of property; that now to abolish the one, would be as difficult as to abolish the other.

One of the earlier results of the "Hospital and Accident Ambulance Service of London" which I venture to predict, is a general expression of surprise it was not adopted before.

CLINICAL MEMORANDA.

NERVE-STRETCHING IN TETANUS.

My attention has been called to a letter in your issue of January 7th, from Mr. Henry Clark of Glasgow, in which he congratulates me on the successful result of my case of nerve-stretching in traumatic tetanus, lately published in the *Proceedings* of the Surgical Society of Ireland, but takes exception to my statement, that I believed it was the only case in which the operation had been done successfully, with that object, in the United Kingdom; afterwards referring to one unrecorded case, and to the published details of a successful case of traumatic tetanus which he treated by nerve-stretching. I mentioned in my communication that I knew of only one fully recorded case (Paul Vogt's). It was the first time the operation had been performed in Ireland for the cure of traumatic tetanus; and on information from undoubtedly good authority (already quoted) I based my convictions.

I have yet to learn by what means unrecorded cases can be alluded to; and regret Mr. Clark's case escaped my notice, as it would have afforded me pleasure to cite it, and it would have been an additional proof of the value of such procedure, in my opinion not yet sufficiently prominent before the profession. W. I. Wheeler, Dublin.

A CASE OF CATALEPSY.

The following case, which I met with on board a ship lately bound for Adelaide from London, is one of some interest. I was called one night to F. C., a passenger, a weakly nervous man, aged 26, who was stated to be in a fit. When I first saw him, he was struggling violently in the arms of those who held him, crying, and attempting to tear his hair, and calling now and again for his wife, whom he had left behind in England, and for his child, who, as I heard afterwards, died some months ago. He was plainly in a state of hysterical excitement, consequent on leaving home. In a few minutes, he suddenly became quiet, and remained perfectly still in the position in which he had been laid down. The eyes were wide open, the pupils equal and contracting under the influence of light, though not markedly so. Respiration was very shallow, but regular, and at the rate of fifteen per minute. Pulse 90, of fair quality. Sensation, or, at least, the power of reflex action, was abolished. The finger might be placed on the eyeball without exciting wincing: a pin driven into the skin of the arm was apparently unfelt. I placed his limbs in various unsupported positions; bent his fingers at any angle; shut his mouth, which was open; and closed one eye, without any effort on his part to alter the position of the parts as I had disposed them. He remained in this cataleptic condition for an hour and a half, when he gradually came to himself, and recognised those around him. In a few minutes, he fell into a natural sleep, having first stated that he had been aware of my presence all the time, and had heard the few words I had spoken. Next morning, however, he seemed to have no recollection at all of any matter between the period previous to his fit and the morning when he found himself in his berth. As he complained of sleeping badly, as a rule, I gave him a draught the following night at 10 P M, consisting of fifteen grains of chloral-hydrate, and twenty grains of bromide of potassium. At 10.20, he became again completely cataleptic; but in twenty minutes he again fell into natural sleep, without any interval of consciousness. He did not suffer again in this manner. The sea-voyage, combined with nerve-tonics and a liberal diet, seemed to have made a different man of him.

I should be glad to hear of similar cases of catalepsy, and to know the results of galvanism in this state. I was unfortunately without a battery of any kind.

C. Emilius Thompson, Adelaide, S. Australia.

A CASE OF PARALYSIS, TREATED BY ELASTIC EXTENSION.

A few months ago, a case of paralysis, of five months' standing, was brought to me. The patient was a young lad aged 15, and the disease at first came upon him gradually, he being able to walk, although with difficulty, for some weeks. There then occurred sudden and total loss of motor power in the lower part of the body, and he became unable either to stand or sit up. Sensation, however, remained intact everywhere.

Before coming to me, he had been systematically galvanised for three months, but without any benefit whatever. Reflex motor power was slightly impaired, but good. There was no tenderness in any region of the spine; but a peculiar forward protrusion of the chin, together with the above-mentioned symptoms, led me to diagnose curvature in the cervical region, leading to paralysis of motion from pressure upon the anterior columns of the spinal cord; and to adopt gradual extension in treating the case.

The patient was laid upon a bed, the head of which was very much raised. The body, from the shoulders downwards, was fixed to an upright pillar at the foot of the bed, by means of ropes attached to each side of a tightly fitting waistcoat; and extension of the head was then made by means of a halter with chin-strap, pulling in a direction running through the crown of the head.

The extending power was one I have seen used by Dr. T. J. Walker of Peterborough, and consisted of an elastic ring and metal chain, fixed to the halter. By putting the elastic on the stretch, and fixing the chain to an upright pillar at the head of the bed, continual gradual extension was secured, the chain being tightened a link or two as the elastic slackened. This apparatus was used during the day only, for two months, with very good results. In one month, the patient began to move his toes, and every day afterwards the motor power returned to his lower limbs, and he became able to get up. A pulley was then fixed to the ceiling, and he was instructed to pull himself up by the rope several times a day. In a few weeks, he was able to walk with assistance; and now (four months after the commencement of the extension) he can walk steadily and well without help.

I think, now, of applying an immovable support to the back and neck for a few months; and perhaps some member will give me his experience of supports for the neck, in plaster or other material. Plaster-jackets I have frequently applied after Dr. Walker's method; but there may be lighter and more suitable materials for the neck.

C. R. Illingworth, M.B., Clayton-le-Moors, Accrington.

THERAPEUTIC MEMORANDA.

NAPHTHOL IN PSORIASIS.

In the British Medical Journal of the 14th January, page 47, Mr. Balmanno Squire gives an account of the failure of this remedy to cure one case of psoriasis, and of its success (in the strength of 50 per cent., the patient being aged 12) in blistering the skin. He therefore takes a very unfavourable view of its efficacy—a conclusion which is hardly warranted by the solitary case he has published.

With reference to this point, Professor Kaposi, in the new edition of his work on skin-diseases (*Path. und Therapie der Hautkrankheiten*, ed. 2, p. 406), speaks as follows. "In psoriasis, an ointment of naphthol (ung. emoll. 100, naphthol 15) does not act so promptly as chrysarobin and pyrogallic acid, but still often with great rapidity, especially in old patches of the elbows and knees, and is especially to be recommended in psoriasis of the face, head, and hands, as it does not discolour the skin and hair. It should be painted on twice a day for six days, and washed off on the seventh with soap, etc.; or daily washing with soap and application of ointment may be used alternately. Occasionally, the ointment gives rise to a burning sensation in the skin, lasting for some time, which is alleviated by starch-powdering. Inflammation of the skin, boils, and eczema are never caused by it. Out of the plentiful stock of remedies and methods which have been enumerated, the physician has to choose the right one, always giving due consideration to the character and intensity of the disease, and to the individual peculiarities and external circumstances of the patient."

Perhaps, if Mr. Squire will attend to Professor Kaposi's recommendations, he may find himself more able "to support the observations of the able Viennese professor".

John Cavafy, Upper Berkeley Street.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

EAST LONDON HOSPITAL FOR CHILDREN.

CASE OF ROUND-CELLED SARCOMA OF THE RIGHT KIDNEY.

(Under the care of Dr. DONKIN.)

[Reported by H. A. FOTHERBY, L.S.A., Senior Resident Clinical Assistant.]

ROSE A., aged 2½ years, was admitted on October 3rd, 1881. Her mother gave the following history. Three months earlier, she had noticed a fulness about the child's belly; but, thinking it to be only increase of ordinary fat, did not attach any importance to it until about a fortnight afterwards, when she noticed that the child was poorly and fretful, and that the swelling was hard and one-sided. She then called in a local practitioner, who discovered a tumour in the right side of the abdomen. For the last month, the child had complained of pain at times in this part, and had been very languid and fretful, picked her nose, ground her teeth, moaned in her sleep at night, often complained of being sick, and had vomited once or twice. The bowels had been rather confined; the motions were said to be of good colour, and the urine passed to be rather milky in appearance. She had had no fits. On palpation in the right abdominal region, a large, apparently solid, ovoid mass could be felt occupying the right side of the abdomen; it extended upwards to the liver, from which it was separated by one finger's breadth of resonance; downwards to within one inch of Poupart's ligament, and forwards to within one finger's breadth of the umbilicus and the linea alba. On rolling the child over to the left side, the resonance of the colon could be made out posteriorly. On percussion, complete dulness was elicited over nearly the whole of the tumour, except to within about four fingers' breadth of the median line, where the tumour was probably overlain by resonant bowel. The area of dulness was only slightly altered by position. The tumour was fairly movable on palpation, and its surface was smooth and elastic. The superficial abdominal veins were gorged with blood, especially the superficial epigastric, which formed distinct plexuses. The abdomen had a circuit of twenty-one inches. The umbilicus was displaced to the left. The spleen was not felt. The liver extended two fingers' breadth below the ribs. The lungs and heart were apparently normal.

October 10th. The abdominal veins were still more turgid; the pulse was small and weak; the temperature was normal; and the tongue was somewhat furred. An exploratory puncture was made in two places with an aspirating syringe, under chloroform, to resolve any doubt there might be as to the solidity of the tumour. The temperature remained normal after the operation.

October 17th. The edge of the liver was felt on the right side three inches below the ribs; in the nipple-line, three-quarters of an inch below the ribs.

October 18th. The child was attacked in the afternoon with vomiting. The respirations became very hurried, and the temperature rose to 101°. She was sick again in the evening. The abdomen was much more distended, and her aspect was very worn and painful. On being touched, she broke out into a whining cry.

October 20th. The temperature on this morning was 101°. She had a hacking cough; and at the base of the right lung behind, respiration was distant, and dulness extended to the upper border of the tenth rib. The respirations were 41. The urine was intensely acid, loaded with urates, deposited large crystals of uric acid on standing, and contained a considerable trace of albumen. The child was very feeble and irritable. There were some puffiness of the face, and slight œdema of the lower limbs.

October 21st. In the morning, the pulse was 132, the temperature 101.6°, the respirations 72. Vomiting continued. The breath was very offensive, and there were sordes on the lips and gums. In the evening, the respirations became more shallow and rapid; the child grew very restless and irritable, and emitted a constant weak moaning cry. The face was of a dusky hue, and puffy.

Towards morning on October 22nd, she lay passive, with eyes half-closed and directed upwards. At 4 P.M., convulsive movements of legs and arms came on, followed by general convulsions, epistaxis, and a slight discharge of blood from the ears. Death occurred in a few minutes.

At the necropsy, the body was that of a fairly well nourished child. Rigor mortis was well marked. On opening the abdomen, the liver was seen occupying nearly the whole upper half of the cavity, extending from the right to the left hypochondrium, and downwards to within one finger's breadth of the umbilicus. A tumour was seen under the right lobe of the liver, covered with peritoneum, but with no coils of intestines over it, extending down to the symphysis pubis, and internally to the median line. The left half of the abdominal cavity was occupied by intestines and mesentery. There were no signs of adhesions or peritonitis present. On removing the liver and intestines, the tumour was found growing from the lower end of the right kidney, and was closely adherent to the inferior vena cava, which was distended with clot, and measured an inch and a quarter in diameter. The distal end of the vessel was atrophied, and with difficulty recognisable. The clot consisted of a thick fibrous decolorised mass, lining the vessel, and leaving only a lumen about the size of a goose-quill, filled with dark soft coagula. The thrombus extended from the level of the tumour through the rest of the vena cava into the right auricle, which was much distended; the clot here also consisted mainly of decolorised fibrin. Both the ventricles were empty; but the left auricle contained a little soft clot, and the left ventricle was slightly hypertrophied. The valves were healthy. On removing the peritoneal lining, the renal capsule was found spread out over the tumour, and adherent to it, but not to the kidney-tissue proper. The tumour, when removed, was found to have about the dimension of the fœtal head at term, but was more elongated and pyriform. Its length, including the kidney, was six inches and three-quarters, of which only one inch and a quarter consisted of kidney proper. Its broadest part measured four inches, and its thickness varied from two to four inches. On section, the growth was found infiltrating the whole of the medullary substance and the lower two-thirds of the cortex, the remainder remaining healthy. The ureters were pervious and healthy throughout. The general consistence of the growth varied in different parts. The central medullary portions were of a soft pulpy consistence; the peripheral hard and fibrous. Hæmorrhages into its substance had occurred, marking out the directions of its fibrous trabeculæ, which were seen dividing its substance into several large lobules about three-quarters of an inch in diameter. The lobules in the upper part of the tumour were oblong in outline, and of a much deeper colour than the interlobular tissue, highly vascular, and having a concentric arrangement of fibres and hæmorrhages; the lower ones, more circular, of a deep brown colour, non-vascular, and tending to break down into cavities, had a whorled arrangement not unlike the microscopical appearance of the bird-nest cells in epithelial cancer. There was one large hæmorrhage into the lower part of the tumour, probably due to the exploratory punctures. The left kidney was unaffected; it measured three inches and a half in length. The liver weighed 1 lb. 7 oz., showing, on section, evidence of great mechanical congestion, especially in its right lobe. The spleen was hard and congested. The intestines were healthy. The brain was not examined microscopically. The tumour was found to consist of round-celled sarcoma.

LIVERPOOL EYE AND EAR INFIRMARY.

OPHTHALMIC CASES.

(Under the care of Mr. R. WILLIAMS.)

[From notes by Mr. CHARLES ATKEN, House-Surgeon.]

CASE I. *Polypoid Growth of the Conjunctiva.*—E. S., aged 16, five months before admission, was hit in the eye by a handful of straw which was thrown at her. She went home and had the eye bathed. The eye had continued to discharge ever since. When she presented herself, there was a copious purulent discharge, and a flap-like polypoid growth was seen protruding from under the upper lid. On everting the lid, a fragment of straw about an inch long was found near the outer canthus. It had formed for itself a sinus with thickened walls in the substance of the lid. The growth, consisting of granulating hypertrophied conjunctiva, was easily removed, as was also the foreign body; and she made a rapid recovery.

CASE II. *Neuro-retinitis from Blow on the Forehead.*—T. E., aged 29, was thrown out of a trap on July 5th, 1881, and fell on the right side of his forehead. He was insensible for six hours. He vomited, and had epistaxis and violent headache. When the ecchymosis of the eyelids and conjunctiva subsided on the fourth day, he found he could not see with the right eye, and was therefore brought at once to the infirmary. There was complete conjunctival ecchymosis round the right eye. He had no wound of the forehead. He could not read Jäger 20. Central

vision and the inner field were quite lost. With the ophthalmoscope, the optic disc and the retina, extending outwards just past the macula, were seen very swollen, of a milk-white colour. The veins were engorged; the arteries were partially hidden; the macula was blood-red, and apparently enlarged to four times its normal size, being of a triangular shape, with the apex inwards. There were no hæmorrhages. The physiological cup of the disc was not involved. The left eye read Jäger 1. Ophthalmoscopic examination, made on November 6th, 1881, gave the following result. The optic disc was white. There were remains of pigmental displacement; the arteries were small; the veins irregularly narrowed. The macular region presented "washed-out-looking" patches on a deeper red ground. There was no perception of colours. He only perceived light in the outer field; there was no central vision. The muscles all acted normally. The pupil was sluggish. Sensation was normal.

REMARKS.—Cases of optic neuritis from injury are sufficiently rare to present quite a special interest. As in cases arising from extracranial causes, they are generally unilateral. The peculiarity of this case seems to be the considerable extension of the morbid process into the retina about the macula, and within such a short time after the accident. It may be contrasted with another case which came under observation some time ago, of a young man, a joiner, who fell from a scaffolding. As soon as he had recovered from the concussion, he found that he was blind in the left eye. The following day, he presented himself at the infirmary. His optic disc and retina presented nothing abnormal, though he had not even perception of bright light. No subsequent signs of inflammation ever showed themselves; but atrophy supervened, which in a few weeks became complete.

CASE III. *Solid Dermoid Tumour of the Eyeball.*—E. M., aged 15, applied at the infirmary for a "lump" which had been growing on her right eye since birth. When noticed first by the mother, it was only of "the size of a pin's head". On the lower and outer quadrant, situated one-third in the cornea, two-thirds in the sclerotic, was a raised, smooth, and firm tumour, of an elongated oval shape, constricted in the middle by a horizontal depression, evidently caused by the pressure of the edge of the lower lid. It was of a yellow colour, and firmly incorporated with the conjunctiva on the one hand and the deeper structures on the other. From the surface grew three small dark hairs. There was no pain, but inconvenience in closing the lids. It was removed. Granulations sprang up, and there was no recurrence two months after the operation.

CASE IV. *Large Quantity of Cholestearine Crystals in the Anterior Chamber.*—C. W., aged 34, came under notice ten days after receiving a blow on his left eye. He had iritis ten years before, leaving him nearly blind. The anterior chamber was more than half filled with a syrupy greyish fluid, in which floated myriads of sparkling cholestearine crystals. Vision was lost.

IGNITION OF ETHER AT AN OPERATION.—According to the *New York Medical Record*, at a clinic held recently by Professor Briggs, at the University of Nashville, and during the etherisation of a patient for the removal of a glandular tumour of the parotid, the vapour caught fire from the flame of the alcohol lamp of the spray-producer, and the clothes of the patient were ignited. Fortunately neither the patient nor attendants were injured, the flames having been speedily extinguished by the operator. Taking into account the number of times it is necessary to administer ether in more or less close proximity to the flame of a lamp, it is somewhat remarkable that accidents such as the one referred to do not occur oftener. In the great majority of cases accident is prevented by the extra precautions taken by administrators of the anæsthetic. In this instance, most of the conditions favourable to the result were present. "The spray-producer was held at the usual distance from the ether-inhaler, slightly below its level, and there was no draught of wind." The patient had been inhaling the ether for some time and the whole surroundings were saturated with the vapour. The vapour of ether, being much heavier than air, is quite likely to be ignited by any flame at a low level.

AN ORIGINAL VACCINATION CERTIFICATE. — Recently, Lord Clifton appeared at the Brighton Police-court to represent a working man named Lilley, who had been served with a vaccination summons, and urged that the defendant could not conscientiously submit his child to vaccination. His lordship appeared under the clause of the Act which allows the parent to appear by "himself or any other person", Lilley not being able to bear the expense of a solicitor. Lilley has undergone imprisonment at Leicester for a similar offence. The defendant had sent to the vaccination-officer a form of certificate stating "that the child had been vaccinated by Joseph Lilley, daily, with pure new milk, and that it was thriving well under the said practitioner". The usual order was made.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

FRIDAY, JANUARY 27TH, 1882.

JOSEPH LISTER, D.C.L., F.R.C.S., F.R.S., President, in the Chair.

Xanthopsis.—Mr. W. H. KESTEVEN read notes of a case. On July 15th, an exceptionally hot day, a married woman, aged twenty-three, exposed herself to the full heat of the sun, and was seized with acute pain in the occiput, and found that she saw all things red and green. As the pain passed off in the course of a day or two, this intense coloration diminished. The ophthalmoscope revealed the existence of a large patch of double-contoured nerve-fibres at the upper part of the disc of the right eye. This, when first seen, was very prominent, and gave evidence of the existence therein of some neuritis. The left disc was normal. The colour-vision of the left eye was normal, but with the right eye she saw all things yellow. This condition continued for rather more than three months, and then gradually passed away. The author suggested that the condition might be explained by the violent impression made by the rays of the sun impinging directly on the retina. The case was seen by Dr. Buzzard and Mr. John Couper, both of whom confirmed the ophthalmoscopic appearances described.

Nephro-lithotomy.—Mr. MARCUS BECK read a paper on this case, which closely resembled, in many respects, that communicated to this Society by Mr. Morris, differing chiefly in the fact that the stone could not be felt after the kidney was exposed, and its presence was only recognised by puncturing the gland with a fine needle, as recommended both by Mr. Morris and by Mr. Barker. The patient was a man, aged nineteen, who had suffered for twelve years from symptoms of renal calculus. One year before he applied at University College Hospital his symptoms had suddenly increased in severity, after a profuse attack of hæmaturia. From that time he was practically unable to earn his living, on account of the severe pain invariably brought on by any movement. He suffered from frequency of micturition. He only passed blood recognisable to himself on three occasions. He was admitted into University College Hospital on July 21st, 1881, and was treated by rest for three weeks without the slightest benefit. During the time no blood was noticed in his urine, but it always contained a very small quantity of pus. His symptoms while in the hospital were those ordinarily observed in cases of renal calculus. Examination of the loin under chloroform showed the absence of any recognisable renal tumour. A distinct fulness, which was always clearly visible in the loin, seemed to be due to contraction or hypertrophy of the muscles over the tender kidney. On August 16th, 1881, nephro-lithotomy was performed. The kidney was exposed without difficulty in its lower half. Manipulation failed to detect a stone. The kidney was then punctured with an ordinary needle held in a pair of torsion-forceps, and the presence and situation of the stone were easily recognised. A knife was passed into the kidney with its edge twisted upwards. The hæmorrhage, which was at first alarming, was arrested by the pressure of a sponge in less than one minute. The wound was then dilated with a pair of polypus-forceps, with which the stone could be felt, but not grasped. The finger was therefore inserted into the pelvis to guide the forceps, and the stone was easily removed. The hæmorrhage ceased at once. A large drainage-tube was inserted, with its deep end in the fat about the kidney, and the wound closed with sutures. The whole operation was performed under the carbolic spray, and the wound was dressed with carbolic gauze. The stone weighed 29 grains. It was heart-shaped, and had apparently been moulded to the form of a calyx. It was composed chiefly of uric acid. The shock after the operation was not great, and only lasted a few hours. There was much vomiting for the first thirty-six hours. He passed no urine for twelve hours, but at the end of that time twelve ounces were drawn off by a catheter, after which he passed it naturally. No urine escaped from the wound until the seventh day; it then flowed abundantly till the eleventh day, when it ceased to pass by the wound. At the end of the third week he sat up in bed; in another week he was up; at the end of the fifth week the wound was quite healed. The temperature never rose above 101.5° F., and after the eleventh day it remained below 100°. He suffered no pain after the second day. The case presented all the conditions justifying the operation. The patient was wholly incapacitated from earning his living. It might be presumed that the stone was too large to pass by the ureter, as it had existed in the kidney for a period of twelve years. Treatment by rest had been tried without benefit. With the exception of the symptoms due to the stone, the man was in good health, and not too fat. The small quantity of pus in the urine showed considerable irritation

of the pelvis. Sudden alteration in the symptoms took place about a year before the operation, accompanied by profuse hæmaturia. Up to that time jolting, such as was caused by riding in a train, caused little pain, and there was no frequency of micturition. The attacks of pain were always brought on by prolonged walking. After that, there was gradually increasing frequency of micturition, and pain was caused both by jolting and walking. It seemed probable that the change was caused by the stone passing from a calyx into the pelvis of the kidney. The stone was originally moulded in a calyx, and at the operation it was found in the pelvis. A like difference of symptoms had been observed in other cases of renal calculus, in some the pain being brought on more by the movement of the muscles in the neighbourhood of the kidney than by jolting of the whole body. Frequency of micturition was also a very remote condition. As all the graver consequences of renal calculus arose from the presence of a stone in the pelvis, and as the chances of cure by the stone becoming encapsuled were certainly great when the calculus was lying in a calyx, it was important to distinguish these two conditions. Future observations might show some such rule as the following to be true. When the pain was induced by walking only, and there was no morbid frequency of micturition, the stone was probably enclosed in a calyx; when the pain was greatly intensified by jolting of the body as well as by walking, and when there was frequency of micturition, the stone was probably lying loose in the pelvis. With regard to the operation itself, the chief points of interest were the success of puncturing the kidney with a fine needle in finding a stone which could not be detected by manipulation; the rapidity with which the bleeding from the kidney was arrested by simple pressure with a sponge, and the simplicity and ease of the whole operation, which was no more difficult than an ordinary perineal lithotomy. To avoid too great loss of blood, the knife should be used as little as possible, the wound being enlarged by tearing. The rapid healing was in great part due to the thickness of kidney-tissue cut through, which prevented to a great extent the escape of urine by the wound. The depth of the wound, the decomposable matter lying in it, and the dangers of disseminated suppuration of the kidney and septic pyelitis, rendered the antiseptic treatment of the greatest importance.—Mr. H. BUTLIN described another case of renal lithotomy. The patient was a man aged twenty, who for ten or twelve years had suffered from severe attacks of neuralgia of the testis. The attacks occurred very frequently, and lasted from thirty minutes to two or three hours. After his admission into St. Bartholomew's Hospital in September, Mr. Willett discovered that the pain was seated in the right side of the abdomen as well as in the testicle, and that the symptoms were those of renal colic rather than of neuralgia of the testis. The urine contained crystals of calcium oxalate, and occasionally traces of albumen, but no blood or pus. In spite of the pain, the patient's health was fairly good. As treatment did not afford permanent relief, Mr. Butlin cut down on the kidney through a vertical incision in the lumbar region. The kidney appeared to be healthy, but a calculus was discovered and removed from the renal pelvis. It was composed of calcium oxalate, was about as large as a filbert, and quite prickly on the surface. The patient made a good recovery, so that, two months after the operation, which was performed on October 5th, he was discharged free from pain and quite well, except that a small quantity of pus was present in the urine. Lister's antiseptic dressing was employed, but this was abandoned two days after the operation, and the wound was healed, as far as possible, like an ordinary lithotomy wound. Urine ceased to flow through it, after about the seventeenth day. This case was of interest, not merely as a contribution to the successful treatment of renal calculus, but as an important contribution to its diagnosis. The absence of blood in the urine was especially remarkable when the situation and nature of the stone were considered.—Dr. WHIPHAM and Mr. J. W. HAWARD also contributed histories of two cases of nephrotomy for the removal of renal calculi. The first case was that of a married woman, aged twenty-three, who was admitted into St. George's Hospital under Dr. Barclay on September 10th, 1880. The patient gave a clear history of having passed a calculus seven years previously. It was a rough stone, which gave much pain. After this she remained in fairly good health; but, although she experienced no paroxysms of pain, yet she was never free from constant uneasiness in the left side. She had never been very robust. Nine weeks before she came under Dr. Barclay's care, the pain in the left loin recurred with great severity; she lost much flesh, and the urine became "very thick" and offensive; she experienced pain in micturition. While under observation, she complained of shooting pains in the left loin, weakness, and loss of appetite. The abdomen was flattened, and neither dulness nor swelling was detected on the right side. On the left side the muscles were firmly contracted, and therefore no tumours were found. There was great tenderness over the left hypochondriac and lumbar regions, and slight tenderness in the right groin. The urine contained much pus, and was alkaline. During the patient's residence in hospital, she suffered much pain in the region of the left kidney, and had occasional perspirations. Eventually the urine became acid and the pain was much relieved, and she was discharged, somewhat improved, on October 23rd, 1880. On March 21st, 1881, she was readmitted under Dr. Whipham's care, when she stated that she had in the interval never been free from pain, and that for the past week it had been intense. The urine had been persistently turbid, and she had vomited. On March 20th, she had noticed a few clots of blood in the urine. The abdominal tenderness was so great that no satisfactory examination could be made. As no improvement took place, Mr. Haward was called in consultation, and he decided on attempting to remove the calculus by nephrotomy. The patient having been placed under the influence of ether, a tumour was distinctly felt in the left loin, and an incision was made as if for lumbar colotomy. The surface of the tumour was exposed; a bistoury was thrust into it, and the finger passed into the dilated pelvis of the kidney. A firmly fixed stone was at once detected, and without much difficulty removed, together with a few small fragments. Very little blood was lost. The patient did extremely well, and on July 16th was discharged, there being still a little discharge from the sinus in the loin, and a small quantity of pus in the urine. The stone weighed 47 grs., and was composed of phosphate of lime. The second case was that of a woman aged fifty-six, who was admitted under Dr. Whipham's care on October 3rd, 1881. She had suffered from pain on micturition for several years. In 1879, both gravel and blood were present in the urine. She was not aware that she had passed a stone. In October 1880, she had a sharp attack of vomiting, followed by pain in the left lumbar region and hæmaturia. While under observation, she complained of an increase of this pain, and the abdomen was generally tender. There was great muscular resistance on the left side, with fulness and tenderness on pressure on the right side. Fluctuation was detected on October 6th in the left loin, and Mr. Haward, who saw the patient on that day, made an incision into the swelling. During the night a copious discharge of pus occurred, with great relief to the pain. No calculus could be found. The urine contained much pus. On November 3rd, the patient having become worse, the incision was extended, and the wound thoroughly explored; no calculus was found; but, as the kidney and tissues were firmly matted together, no further operation was deemed advisable. The patient died next day. At the *post mortem* examination, it was found that the kidney lay in a cavity, whose contents were purulent; that its pelvis was dilated, and communicated with this cavity by a large irregular opening, through which one or two fingers could be passed. Two or three small fragments of stone were found in the calyces. A large branching calculus occupied the calyces of the right kidney. These two cases were brought forward as illustrating the propriety of cutting into the kidney in cases where the diagnosis of renal calculus was clearly established, and as affording encouragement to the surgeon to perform the operation of nephrotomy in the earlier stages of the disease, rather than to postpone surgical interference until dilatation or suppuration of these organs had occurred.—Mr. CLEMENT LUCAS related a case in which he cut down upon the kidney, but failed to find a stone. The patient was a man aged 49, who, two years before, had suffered from acute pain and hæmaturia. These symptoms passed away, and he remained free from them for six or nine months, when he was again attacked with profuse hæmaturia, and became very anæmic. He passed triangular clots, presumably casts of the renal pelvis. After a month's observation, Mr. Lucas performed the exploratory operation under antiseptics. He regretted that he did not also explore the organ by acupuncture, but at that time thought this was a more dangerous procedure than it had been shown to be. Eleven days after the operation, the patient was sitting up, and on the seventeenth day he left the hospital with the wound soundly healed. Great relief was obtained. He had since returned with evidence of phthisis, so that it was possible he had strumous disease of the kidney. Mr. Lucas remarked on the simplicity of such exploratory measures, which he would recommend in any doubtful case.—Mr. BARKER said that the danger of hæmorrhage from the renal incision was not great. He referred to Professor Brandt's case of "hernia of the kidney", following a wound in the loin, the organ being removed on the fourth day after injury. Mr. Barker had related this case in his paper in the *Med.-Chir. Transactions* (vol. 63). In one case, he was struck with the rapidity with which the bleeding ceased after incision of the organ; and that was also shown in Mr. Beck's case, where very moderate pressure sufficed to arrest the bleeding. Such facts proved that incision or puncture need not be feared.—Mr. MORRANT BAKER pointed out the importance of recognising a totally different class of cases from those just recorded—such

as one which he related at the International Medical Congress, where there was a renal abscess; and, on exploration, a large branched phosphatic calculus was found, which was only dislodged with much difficulty and considerable hæmorrhage. The calculus weighed nearly two ounces. The patient never rallied, and died three days after the operation. This kind of case was distinct from cases where only small stones occurred; and it was a question whether, in such a case, it would not be better to remove the whole kidney.—Mr. BARWELL had not removed a stone from the kidney, but had removed the whole kidney. He thought it desirable not to let cases in which the presence of a stone was suspected go on with prospect of ultimate damage to the organ, when a simple incision and puncture would indicate the nature of the mischief. The incision, too, was made in a part free from danger. Hardly any pyrexia followed. It would be interesting to learn whether a stone would again form, or the kidney become mobile.—Dr. BARLOW said that Mr. Morris had laid great stress on the difference between cases in which the kidney was healthy, and those where pyelitis aad destructive changes existed. This point required to be insisted on, for cases such as that described by Mr. Baker belonged to the second class. About three years ago, he (Dr. Barlow) had under his care a Jewess, about forty-seven years old, passing pus in the urine, and who had had pain and swelling in the right loin for eight months. Mr. Couper was consulted, and a grating sensation was felt in the swelling. An incision was made, and pus escaped from the kidney, which contained three large calculi. The organ could not be removed. Death took place next day. It was manifestly unfair to nephro-lithotomy to contrast it with such cases as that.—Dr. LONGHURST pointed out that the successful cases appeared to be those in early life; the fatal ones in older subjects. He knew of a nobleman, the subject of renal calculus, who was advised by a surgeon in Paris to submit to this operation, but he would not accede, and a year later, after a similar attack, died. Both kidneys were found blocked by enormous calculi. In another case, a patient who had symptoms for eighteen months passed one or two small stones *per urethram*. Hence discretion should be exercised in the selection of cases for operation.—The PRESIDENT said the Society and the authors were to be congratulated on this important series of cases. They were of interest pathologically, for they dealt with calculi of different composition—oxalic, uric, and phosphatic; and as illustrating the long time that two calculi might remain in a kidney without increasing in size, so different from the case of vesical calculi. It seemed as if there were greater concentration of urine in the bladder than in the kidney. The question of diagnosis was also very interesting; almost the sole symptom in Mr. Butlin's case was the neuralgia in the testicle, hæmaturia being absent. It reminded him of one of John Hunter's cases of stone in the bladder, marked only by pain in the arm. As to the operation itself, the incision in the loin was devoid of danger, especially if antiseptics were used. He thought an acupuncture-needle more convenient to explore the kidney than the needle used by Mr. Beck, who, however, was not only able to detect the *presence* of the stone, but also to estimate its *size*. By such a method, the surgeon might decide whether the stone were too large to be extracted from the organ, which would then have to be removed entire. The free hæmorrhage, and its rapid arrest in Mr. Beck's case, reminded him (Mr. Lister) of the hæmorrhage that ensued on incision of the liver in a case of hepatic abscess seen with Sir Joseph Fayrer. Sir Joseph remarked that such free bleeding often occurred, and was of no consequence. In the renal operation, it seemed better to incise the renal substance than the pelvis.—Mr. HAWARD, in reply, said that he was glad to have heard the opinions in favour of early operation, and agreed with Mr. Baker that in advanced cases removal of the whole organ was preferable to attempted extraction of the calculus. Removal of the kidney in these cases was not always a simple matter, and sometimes impossible—*e.g.*, in the second case related by Dr. Whipham and himself.

MIDLAND MEDICAL SOCIETY.

WEDNESDAY, JANUARY 18TH, 1882.

J. MANLEY, M.R.C.S.Eng., President, in the Chair.

Latent Fracture of a Dorsal Vertebra.—Dr. BARLING exhibited a specimen of latent fracture of the tenth dorsal vertebra with pachymeningitis externa, in which symptoms were absent during life. The pedicle on both sides of the bone was seen to be broken close to the body, and the spine was tilted a little downwards; the fracture also extended transversely through the middle of the body of the vertebra, without causing displacement, and without rupturing the anterior or posterior common ligaments. On the external surface of the dura mater, opposite the seat of fracture, there was a deposit of the size of a shilling. The other membranes and the spinal cord itself were quite healthy. The patient was a middle-aged man, who, when driving under an archway, bent forward to avoid striking his head; the arch, however, caught him in the back, and caused a doubling-up of the body. Scarcely any pain was complained of in the back, but the interval between the ninth and tenth dorsal vertebræ was a little exaggerated. Death resulted eighteen days after the accident from injuries to the thorax, which set up pleurisy and pericarditis.

Fracture of Anterior Fossa of Base of Skull.—Dr. BARLING showed a specimen of fracture of the base of the skull confined to the anterior fossa, in which during life there was severe hæmorrhage from the nose; and, a few hours after admission into the General Hospital, a small quantity of clear serous fluid was discharged from the left auditory meatus. This continued for the thirty-six hours the patient survived the accident. At the *post mortem* examination, considerable brain-laceration was found, but no fracture of the petrous portion of the temporal bone existed; the left membrana tympani was ruptured. It was therefore concluded that the fluid exuded during life was secreted by the lining membrane of the tympanum.

Supracondylar Osteotomy for Genu Valgum.—Dr. WARDEN read a paper on this subject, and exhibited a patient, fifteen years of age, upon whom double supracondylar osteotomy had been performed. Instead of strictly following Macewen's method, the incision was made above the external condyle, and the femur divided with three osteotomes from without inwards. The result of the operation was very satisfactory; the malleoli, which formerly were twenty-four inches apart when the knees were approximated, could now be brought close together.—A discussion followed, in which Messrs. Furneaux Jordan, Freer, Jordan Lloyd, Chavasse, and Barling took part.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.

TUESDAY, DECEMBER 18TH, 1881.

HECTOR CAMERON, M.D., President, in the chair.

Aneurysm of Fauces.—Dr. BARR showed a woman, aged 52, with a small aneurysm behind the right tonsil, of probably the ascending pharyngeal artery. Hearing was perfect, but the patient suffered much from tinnitus aurium. The left pulse was weaker than the right, and the left pupil smaller than the right. The swelling was about the size of a marble, and its pulsation was distinctly seen and felt. There were no other symptoms.

Epithelioma of Upper Eyelid.—Dr. REID showed a man, aged 68, from whom he had removed this tumour. It had existed for about ten years, and occupied the greater part of the upper eyelid, extending downwards over the inner canthus. After removal, the lid was restored by a flap taken from the forehead, and turned outwards from the root of the nose. Sections of the tumour showed that it had taken origin from the sudoriparous glands. It was further mentioned that both the patient's father and elder brother had died from the same disease of the lip.

Removal of Foreign Bodies from Interior of Eye by Electro-magnets.—Dr. REID showed a patient, from whose eyeball he had removed a large splinter of steel by means of an electro-magnet; and mentioned some of the difficulties he had encountered in trying this mode of operating; describing also the various forms of electro-magnets he had employed. The chief difficulties were the small size of the wound, as compared to the size of the foreign body; the impaction of the body in the tissues of the eyeball; the viscidity of the vitreous body; and the difficulty of getting within "striking distance" of the body with a needle-magnet strong enough to extract it. On the recommendation of Sir W. Thomson, he had tried a hollow conical needle, the magnet being connected with a quart chromate of potash battery; and he had found that the lines of force were projected fully a quarter of an inch beyond the point of the needle.

Trichina Spiralis.—Dr. MACEWEN showed portions of muscle containing the parasite, together with microscopic specimens, obtained from the body of a patient who died in the infirmary from the effects of a severe blow on the abdomen. At the inspection, the serous membranes appeared as if dusted over with sawdust; and, on making section of the tissues, minute white bodies were found everywhere, which proved to be encapsuled trichinæ. In the intestines were found numerous larvæ, quite free and not encapsuled, indicating that the host had received the parasite within a few months previous to his death. According to his wife's account, the patient had always been healthy till five months before, when he suffered much from pain and weakness, and was unfit for work. He had been a heavy drinker, and, after his debauches, was fond of eating raw salt ham. As a result probably of the accident which sent the patient to the hospital, numerous small abscesses were

found between the folds of the intestine, near the liver, and a very large abscess was found behind the liver itself.

Curvature of the Spinal Column.—Dr. McKellar exhibited the collection of spines made by the late Dr. Foulis, with a view to determine the frequency of lateral deviation. Dr. Foulis's conclusions were: 1. That great lateral deviation may exist without external sign, and especially without any indication from the position of the spinous processes. 2. That there is no normal lateral deviation; but that, when it exists, it may lean to either side. 3. In many cases of great lateral deviation, nature gives additional support to the spine, by throwing out lateral masses of bone from the sides of the vertebral bodies.

Micrococci in Kidney.—Dr. Steven showed microscopic sections of a kidney, from a patient who had died from perinephritic abscess. This abscess communicated by a sinus with the surface of the body. In the tubules of the kidney were found numerous masses of micrococci and granular epithelium. No micrococci were found in the blood-vessels.

OBSTETRICAL SOCIETY OF DUBLIN.

Saturday, January 7th, 1882.

G. H. Kidd, M.D., in the Chair.

Hegar's Dilators.—Dr. Macan exhibited a set of Hegar's dilators for rapid dilatation of the cervix uteri. It consisted of twenty-five pieces, each one a solid cylinder of vulcanite, with conical apex, having a diameter increasing in regular order by one millimètre, thus forming a series in which each successive cylinder was one millimètre in diameter greater than the previous. They were to be introduced in the Sims's position, the neck of the uterus being pulled down. The advantages claimed for them over sea-tangle or other porous dilators were (1) less risk of septic infection; and (2) the rapidity with which dilatation could be effected at a single sitting. Dr. Macan had modified Hegar's instrument by making each piece somewhat conical throughout. The diameter of the apex and the base of each piece differing by one millimètre, so that in introducing them *seriatim* the base of the previous piece used was the same diameter as the apex of the next, he considered that their introduction would, by this means, be facilitated.—Dr. Kidd had not used the dilators shown by Dr. Macan, but thought that the question of rapid *versus* slow dilatation was, to a large extent, one of safety, and considered that sea-tangle was the safer method, as by its very slowness it permitted a certain amount of vital dilatation to take place, whilst the more rapid method must, more or less, tend to bruise and tear the structures of the cervix.—Dr. Atthill had used the dilators shown by Dr. Macan in several cases; and, whilst agreeing with Dr. Kidd that slow dilatation was in general to be preferred to the more rapid methods, yet in certain cases Hegar's dilators acted most satisfactorily, and were unquestionably superior to any of the instruments for rapid dilatation with which he was acquainted. He doubted, however, the advantages of the modification suggested by Dr. Macan.

Nitrous Oxide as an Anæsthetic in Labour.—Dr. Macan read a paper on this subject, in which, after tracing the history of the anæsthetics used in labour, and especially that of nitrous oxide gas, from its first introduction in America in 1844 by Horace Wells to its use under pressure by Paul Bert in 1878, and the various opinions held from time to time regarding its value as an anæsthetic, described the latest modifications introduced by Dr. Kilkowitsch of St. Petersburg, who employed the gas mixed with 20 per cent. of oxygen. The quantity of this mixture gas inhaled in each case varied from two to ten cubic feet, but its use might be continued for an unlimited time, as it was capable of supporting life, like atmospheric air, and was quite free from danger; the patient, though quite anæsthetic, never losing consciousness, neither did vomiting, nausea, or headache, result from its employment. Again, the amount of the intra-uterine pressure, as tested by the dynamometer, exerted during "the pains" was not in the least diminished, even when complete anæsthesia was produced, whilst chloroform and other anæsthetics were well known to produce marked diminution in the frequency and fulness of the uterine and abdominal contractions. The objections to its general employment were its expense and cumbersomeness.—Dr. Kidd had never employed nitrous oxide gas in labour cases, but thought that chloroform acted so well that no other anæsthetic could be better; he administered it with Murphy's small inhaler, which the patient could hold in her hand. He used chloroform in almost every case of labour, not pushing it to complete anæsthesia, but enough to "take the edge off the pains", and had never seen any ill results whatever.—Drs. Atthill, H. Kennedy, Pollock, and Doyle, also took part in the discussion which followed, and Dr. Macan replied that the great advantage claimed for nitrous oxide gas was the possibility of using it without detriment throughout the entire conduct of the case, whereas chloroform he considered inadmissible in the first stage of labour—a stage, however, in which the woman's sufferings were sometimes most acute. To kill pain without producing unconsciousness was the perfection of an anæsthetic; and that was the effect of the mixture gas used by Dr. Kilkowitsch.

REVIEWS AND NOTICES.

Die Albuminurie in Gesunden und Kranken Zustande. Von Dr. H. Senator. Berlin: Verlag von August Hirschwald. 1882.
Albuminuria in Health and Disease. By Dr. H. Senator. Berlin: A. Hirschwald. 1882.

This monograph deals with the whole subject of the presence of albuminous substances in the urine, in a very exhaustive and complete manner. Thus, the author does not confine himself to the consideration only of urine containing albumen coagulable by heat or precipitated by neutralisation, but includes peptone and propeptone; for, he says, and says truly, that the hard and fast lines which were formerly supposed to separate the significance of these substances are melting away; and that it is quite possible that serum-albumen may undergo changes after leaving the blood vessels of the kidney, by which it is converted into propeptone and peptone—a supposition which is rendered highly probable by the discovery of peptone in pus and other pathological exudations. He discusses, at length, the chemical relations of these substances and their occurrence in the urine.

Recent observations having placed it beyond doubt that albumen may appear in the urine of healthy men, he suggests that it is probable that the fluid which normally transudes through the Malpighian tufts is not quite free from albumen; and that, whenever it is concentrated or filtered under relatively low pressure, the percentage of albumen becomes high enough to indicate its presence by the ordinary tests. He also points out that the presence of the urinary salts plays a not unimportant part: the more there is of these, the more difficult it is to discover albumen; and that, under conditions of diminished blood-pressure, the secretion of the renal epithelium is probably lessened, as is that of all glands under similar circumstances. Excessive muscular exercise and digestion also seem to favour the transudation of albumen. Yet, again, another factor is the rate of absorption of the interstitial lymphatics of the kidney; this is known to vary with the blood-pressure, and we may assume that, under conditions of lowered blood-pressure, less albumen is taken up by the lymphatics.

The dependence of albuminuria on changes in the blood-pressure is discussed at length, in a chapter devoted to it. Dr. Senator finds reason to object to most of the experiments by which this question has been investigated. He thinks, however, that the increase of arterial pressure, produced by slowly raising the body temperature of an animal, is the least open to objection—so long as the temperature is not allowed to pass a certain point; and such experiments have shown that albuminuria occurs, as a rule, under such conditions.

Another chapter is devoted to changes in the renal epithelium as a cause of albuminuria. He rejects the theory of Küss; but thinks that, under normal conditions, the epithelium forms a bar to the passage of albumen from the interstitial vascular system of the kidney. He also thinks that the breaking down of the protoplasm of the cells may in itself lead to admixture of albumen with the secretion.

In the third place, he discusses changes in the blood itself as a cause of albuminuria; and maintains that the relative composition of the blood may be fairly regarded as a factor, as albumen filters through membrane more readily in proportion to the quantity of salts in the fluid.

In special cases, these factors are often combined: thus, in febrile albuminuria, we find at first the increased blood-pressure due to heightened temperature; then the increase of urea; and, finally, the diminished pressure from cardiac failure—each of which, doubtless, plays a part. In kidney-disease, we must distinguish between the inflammatory conditions in which the exudation contains albumen, just as inflammatory exudations do everywhere; and those cases in which alterations in the anatomical conditions, degenerated epithelium, etc., or the increase of blood-pressure, are the cause; these, too, may be and often are combined. In simple amyloid kidney, he thinks that the albuminuria is due to abnormal permeability of the vessels.

The essay is a masterly one; the references to the literature of the subject are very numerous; and, though it cannot be said that the problems have been solved, the many vexed questions have been treated in a broad and comprehensive fashion; and good service has been done by the able criticism to which the author has subjected all the theories and experiments which have accumulated in such chaotic profusion during the last few years. Dr. Senator's monograph affords a basis

for future investigation; and it will prove of great value, for this reason, to all those who are endeavouring to clear up the many dark places in the pathology of albuminuria.

SYPHILIS ET MARIAGE. LEÇONS PROFESSÉES À L'HÔPITAL SAINT-LOUIS. Par ALFRED FOURNIER. Paris: Masson. 1880.

SYPHILIS AND MARRIAGE. By ALFRED FOURNIER. Translated by ALFRED LINGARD. With Prefatory Remarks, by JONATHAN HUTCHINSON. London: David Bogue. 1881.

THE subject treated of in this work is one of great importance; it is also one on which probably none is better qualified to speak with authority than M. FOURNIER, who has long been well known in this country, as well as on the continent, as a clear and able writer on syphilitic subjects. In these lectures, of which Mr. Lingard's translation is now before us, the whole question of syphilis in relation to marriage is, for the first time, fully and completely discussed; and the book is the more welcome from the fact, that the subject is one on which much misapprehension still prevails—on which, indeed, until a comparatively recent period, but little trustworthy information was available.

After some preliminary remarks respecting the disastrous results that may follow too early marriage after syphilis, M. Fournier asks the question: Does syphilis constitute a permanent obstacle to marriage? To this he replies very confidently in the negative; and, in support of his opinion, brings forward eighty-seven observations of men who, having had syphilis, married without infecting either their wives, or any of the hundred and fifty-six children of which they became the fathers. But if a man who has suffered from syphilis may marry, he ought only to do so under certain conditions; and these the author next proceeds to consider. They are as follows: 1. Absence of actual specific symptoms; 2. Advanced age of the diathesis; 3. A certain period of immunity since the last specific manifestations; 4. A non-menacing character of the disease; 5. Sufficient specific treatment. This last condition is the one on which most stress is laid, and it is one of great moment; for all authors are not yet agreed as to what constitutes a sufficient course of specific treatment. M. Fournier says, a minimum period of three or four years, devoted to methodical treatment, ought to elapse before marriage is thought of. Even after this he advises further delay, but gives his consent if the patient have gone eighteen months or two years without symptoms, and if he be otherwise in good condition. It is with regard to this part of the subject that Mr. Hutchinson, in his excellent prefatory observations, remarks that, while agreeing in the main with the author's rules, he is "scarcely prepared to go the full length with M. Fournier in the direction of caution and prohibition". The question, doubtless, is one of extreme difficulty, and it is one of the highest importance; for there can be no doubt that persons—in this country at least—frequently marry much too soon after contagion, whether it be from ignorance, from carelessness, or from want of being properly cautioned by the medical attendant. However this may be, it ought certainly to be laid down as a rule, that no syphilitic subject be allowed to marry in less than three years after contagion, however mild the type of the disease may appear to have been. But whether specific treatment should be continued for such a length of time would, we think, depend on the nature of the case. Indeed, every case ought to be considered on its own merits, and in connection with many surrounding circumstances, respecting which no hard and fast rules can be laid down. For full information and valuable hints on all the points connected with this intricate subject, the reader is referred to the book itself; and, as such cases must frequently occur in the practice of every medical man, we advise every one to make himself acquainted with M. Fournier's views.

Mr. Lingard's translation, if not very elegant, is at any rate a faithful and literal one; and he deserves the thanks of those who are unable to read French. The diffuse style of the original, however, although it may be admirable in lecturing to students, is unsuitable in a translation intended for the busy practitioner; and, while condensation of the matter would not have diminished the value of the book, it would, presumably, have allowed it to be published at a price somewhat less than double that of the original work.

THE WATER-SUPPLY OF ENGLAND AND WALES. By CHARLES E. DE RANCE, F.G.S. London: E. Stanford. 1881.

THIS work supplies a want which has for some time been felt by those concerned in advising on questions of local water-supply; and the author has, not only in the performance of his official duties as a member of the staff of the Geological Survey, but also in such capacities as that of Secretary to the Committee of Inquiry appointed by the British Association, acquired a right to speak with authority on the subject with which he deals—namely: the water-supply of England and Wales in connection with geology, its underground circulation, and surface-distribution. The volume opens with an account of the rainfall in England—details being given, amongst other points, as to its composition; the degree to which it becomes contaminated in the neighbourhood of towns; the extent of its penetration, according to the nature of the strata upon which it falls; the varying quantity of water held in the pores of the different rocks; the several circumstances influencing its hardness; and the methods of softening.

A large portion of the work is taken up with a minute description of the various river basins, including such points as their geology, the character of the water derived from them, the nature of the various sources of water-supply within them; together with the names, population, and rateable value of their principal towns. The details as to the several river-basins necessarily vary according to local circumstances; but in many instances they are very complete, and supply all needed information. The account of the Thames basin begins at the time of the pre-Aryan Esquimaux, at the close of the glacial epoch; it describes the varying systems of control to which the river has been subjected by conservators and others; and it gives a history of the connection which has existed between it and the several London water-companies, both in the past and up to the present time.

Dealing next with the propagation of epidemic diseases by means of potable waters, historical reference is made to the outbreaks of cholera of 1832 and 1849; and the views, both of British and of foreign authorities, are referred to, in order to show how far the use of certain waters is associated with the production of certain specified infectious and other diseases.

Amongst the maps, which form part of the volume, is one showing what is the water-supply for the various registration subdistricts of London; a second indicates the need of water in the several counties, according to their population; a third shows the varying permeability of the several strata in different parts of the kingdom; and others indicate the catchment basins and the amount of rainfall throughout England and Wales.

In brief, Mr. DE RANCE's work gives skilled information concerning the facilities or otherwise of procuring a sufficient and wholesome water-supply in the different geological and other divisions of the kingdom; and the information is such as to make the volume, not only valuable as a general work of reference, but also of immediate and practical use to officers of health and others, who may have to advise sanitary authorities on the subject of water-supply.

NOTES ON BOOKS.

Liberty and Authority in Medicine. By J. WARRINGTON HAWARD, F.R.C.S. (London: Kegan Paul. 1881.)—This address, which was delivered at the opening of the session at St. George's Hospital Medical School, deals with a subject which ought distinctly to be impressed upon the minds of all students now-a-days by those who are responsible for their training. In a critical and rapidly moving generation, there is too much temptation everywhere, and perhaps especially in medicine, to believe that everything formerly accepted is very doubtful, and that we ourselves are quite wonderful people, and destined to strike out all sorts of new ideas. That, as the writer shows, is a very foolish state of mind. Even Hippocrates knew a great deal more than most of us give him credit for. And though no progress will be made by a blind following of authoritative doctrines, yet a reasonable modesty and caution in the pursuit of novelties is at least as necessary a condition of real advance, as the sentiment of emancipation and self-reliance. Mr. Haward recommends the student to cultivate modesty, toleration, and enthusiasm. We would only add one further counsel, and that is: that the student should seek to look at all his knowledge, old and new, always "from the point of view of the whole"; or, in other words, that, in the spirit of true science, he should be always seeking for the interconnections which bind series of phenomena together, and by which every truth, no matter how partial, has a bearing on and a relation to all other truths whatever. To those who study in this spirit, there will be no need to preach humility or caution, for their own ignorance will be always present to them. Neither will it be needful to insist upon enthusiasm, for the pursuit of truth to those who see what they are doing is the most exciting of all occupations.

VACCINATION.—Mr. Edward Watson, of Isleham, Soham, has received, for the second time, a grant for successful vaccination in his district of the Newmarket Union.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1882.

SUBSCRIPTIONS to the Association for 1882 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, FEBRUARY 4TH, 1882.

INSANITY AND RESPONSIBILITY.

THE trial of Guiteau in the United States, and that of Lefroy in this country, have recently caused much attention to be directed to the plea of insanity when urged in defence of crime. The question is beset with difficulty from the outset, for insanity has never yet been satisfactorily defined. It is agreed on all hands that the old test of the knowledge of right and wrong is of itself not only insufficient, but sometimes positively misleading. For instance, in the form of disease now universally recognised as *moral insanity*, this knowledge remains intact, the reasoning and intellectual powers being almost or quite normal. Dr. Beard of New York recently attempted to define insanity as "a disease of the brain in which mental co-ordination is seriously impaired"; and recommended experts to make use of this definition in the witness-box. Dr. Beard is, however, obliged to admit that insanity is not a disease of the brain, but a manifestation of a diseased brain; also that he is unable to explain what he means by mental co-ordination. His formula is therefore worthless. The most recent definition of insanity is that proposed, in the current number of the *Journal of Mental Science*, by Dr. Mercier. It runs thus: "Insanity is a failure in the process of adjustment of the organism to its environment." Without expressing any opinion as to its utility for scientific purposes, we may say at once that this definition seems to be eminently unfitted for use in a court of law. The best writers on the subject admit their inability to frame any definition which would meet all cases. Medical men who have had the greatest experience in lunacy know that there is no hard and fast line of demarcation between sanity and insanity; one passes insensibly into the other. Between those persons who are certainly lunatic and those who are undoubtedly sane, there are a great many on or near the borderland; and it is in these cases that difficulty arises when a definite judgment has to be pronounced one way or the other. The requirements of the law demand that a definite boundary shall be drawn, where science tells us that no natural frontier-line exists. Perfect mental health is probably as rare as perfect bodily health; and it is most difficult to decide what amount of departure therefrom should be held to constitute insanity, or to confer irresponsibility. It may fairly be argued that the commission of a brutal crime is in itself proof of the existence of an unhealthy state of mind; but it is certainly no proof of such a degree of insanity as would justify its perpetrator being held irresponsible for his act. There is no doubt that the power of self-control is less developed in the criminal classes than in educated persons and others, whose power of governing their passions has been strengthened by long habit. But the protection of society demands that all who have the power of self-control in any degree shall be made to exercise it, and shall be held answerable for their actions. Crime is punished by law, not from any desire for vengeance upon the criminal, but in order that he and others may be deterred from its commission in the future. It has even been held that the less the power of self-control, the greater is the deterrent required, and, consequently, the more severe should be the punishment. There is a germ of truth in this view, but humanity forbids its being adopted as a principle of action.

The only persons whom society can afford to hold irresponsible for their actions, are those whose mental condition is such, that either they cannot correctly appreciate the nature and consequences of their acts, or, having the knowledge of right and wrong, they are yet quite unable to control their impulses. Is this tantamount to saying that all persons who are sane are responsible, and those who are insane are irresponsible? Because, if so, we have approached very near to obtaining a definition of insanity, or at any rate of such a degree of it as might be recognised by law as conferring immunity from punishment for acts committed. But we fear that the difficulty is not to be thus easily solved, for it is certain that the great majority of lunatics who are confined in the county asylums of this country are able, in varying degrees, to control and to appreciate the nature and consequences of most of their acts. As a matter of fact, they live under a system of moral government, under which they are provided with rewards in the shape of tea, tobacco, the privilege of attending various amusements, etc. These rewards are held out to them as incentives to exert to the utmost whatever power of self-control they may possess. The result of this effort cannot fail to be beneficial to the patient, whatever his degree of success may be. As for punishment, the word is usually banished from the asylum vocabulary; and yet there is no doubt that the withholding of the above-mentioned privileges where they have not been earned, or the doctor's order that a patient may not attend some entertainment because he is in too excited a condition, is regarded by the inmates in the light of punishment, and as such is avoided by them. It is well known to all who have experience in the matter, that the general conduct of insane persons is greatly modified under the action of this system of rewards and trifling punishments. We thus arrive at the conclusion that, in order to prove that a man is quite irresponsible for his actions, it is not sufficient to prove that he is insane. This view has not been hitherto prominently advocated, and it is probably partly owing to its having been overlooked that many difficulties have arisen in the past. Insanity has always been regarded as the sufficient and only test of irresponsibility, and the question of insanity has been tried rather than the question of responsibility. It is a not unfrequent occurrence for medical experts to give evidence as to the mental unsoundness of a person whose general behaviour, conversation, and actions, are such that the judge and jury refuse to see in him an irresponsible agent. The truth is, that the medical and legal aspects of mental disease must, in the very nature of things, differ materially. They should not be confounded together, but kept apart. Many a man is properly the subject of medical treatment for mental symptoms, who could not legally be recognised as insane. The law can take no cognisance of mental disease, unless it be in nature or degree such as to justify interference with personal liberty or responsible action. The legal question should not in future be whether an accused person is sane or insane, but whether he is a responsible agent or not; whether his mental condition is such as to justify the plea of irresponsibility. We are free to admit that we thus only escape one difficulty to be brought face to face with another; but whereas a satisfactory definition of insanity was found to be unattainable, we have been able to indicate to some extent the lines on which the question of responsibility should be tried. The evidence of experienced alienists would still be necessary; but we think it may fairly be hoped that, under the altered conditions, it would not apparently militate against common sense views in the way that has hitherto occasionally happened.

It may at first appear somewhat startling, that a man should be held responsible for acts committed while he was insane; but no fears need be entertained on this head. Under the system now proposed, the man who should be proved to have shot his aunt while under the influence of the insane delusion that she was the devil, would still be acquitted on the ground that he was unable to appreciate the nature and consequences of his act. The difficulties which have heretofore arisen have been confined to cases of doubtful insanity, and for these a new

criterion would be provided, upon which to base an opinion. No person would be held answerable for acts which could be proved to have been committed during delirium, or as a result of uncontrollable impulse. "Irresistible impulse" is unfortunately no mere fancy, invented for the special benefit of accused persons; it has a real existence, and is known to occur specially in epileptics. How far a person should be held responsible for acts committed during a paroxysm of so-called ungovernable fury, must be decided on the merits of each individual case; the great object in view being to impress the community with the conviction that they must exercise restraint over their tendencies to passion, and not "give way" to fury of this nature. With regard to the question of the partial responsibility of the insane, upon which we have already touched, it may become possible, at some future time, to institute a system of punishments which will be in some measure proportionate to the degree of self-control possessed by the criminal; but for the present we must be content if some better criterion can be found, upon which to give judgment whether a given person is or is not to be regarded as responsible.

There are not a few patients in our pauper and criminal asylums, who are perfectly well aware of the irresponsibility of their position with regard to the criminal law, and who openly take advantage of it. Such an one will often, in cold blood, threaten the officials of the institution with murder, stating at the same time that he knows he is a lunatic, that the law will not hold him responsible, and that he can therefore do what he pleases without fear of punishment. This scheming lunatic will await his opportunity for months or years, and will then choose the most favourable time for making his attack. Medical superintendents of asylums know that such patients would exercise far more control over their homicidal inclinations, if they knew that they would be tried on grounds other than the mere fact of their insanity. They quite appreciate the nature of the act they contemplate, and they are capable of exercising a considerable amount of self-restraint.

It has for some time been notorious that the defence of insanity is often set up as a last resource upon the most unsubstantial and insufficient grounds. If it can only be ascertained that a near relative of the prisoner has at any time been insane, or even eccentric, this is sometimes thought sufficient evidence upon which to found a defence. Unfortunately, mental disease is so prevalent, that there are but few families absolutely free from it. Common sense demands, however, that a man's responsibility shall be judged by his own mental condition, and not by that of his relatives. It is no doubt perfectly right that in a case of doubtful responsibility all the facts, including the family history, should be brought forward. The weight attaching to them in the opinion of alienists should also be put in evidence before the court. There is no reason whatever why experts should not give evidence on both sides in a disputed case; it is, indeed, most desirable that both views should be clearly explained and advocated. A barrister does not necessarily believe in the innocence of the client whom he defends; but it is his duty to place his case in the most favourable light before the jury. In the same way, as long as the function of medical experts is confined to the giving of evidence, men will be found ready to advocate both sides in contested cases. There is no doubt, however, that a purely legal training does not enable a judge to discriminate nicely as to the value of this kind of evidence; and it is therefore most desirable that, when the question of responsibility arises, a neutral medical assessor should be called in, or the question should be tried before some competent medical tribunal.

HOMICIDE BY INFECTION.

SHOULD a medical practitioner, having under his charge a case of so-called "puerperal fever", give up, for a time, attending fresh labours? This is really the question which has to be answered definitely and clearly. If it had been proved that such a thing as puerperal fever existed, having a definite course, poison, and symptoms, like scarlatina, then clearly no practitioner attending a case of puerperal fever would be justified in going to deliver another woman in labour. But nothing of the kind has been proved. Nearly every case of puerperal fever has its own special symptoms and its own special origin. In one case, it may be traumatic; in another, the lying-in woman may be in a state of fever from infection carried to her from a patient suffering from some zymotic fever. Unfortunately, there is an idea abroad that puerperal fever is a distinct morbid entity, and that, therefore, any practitioner attending such a case should cease to attend further midwifery cases, and put himself in quarantine for a longer or shorter period, according to the supposed malignity of the particular case. This erroneous notion was further spread and fostered by an article in the *Times* newspaper, in which it was stated that: "It is the invariable practice of medical men, if they attend a case of this fever, to hand over the whole of their midwifery practice to other persons for at least two or three months; and it has been shown by ample experience that this course is absolutely necessary to preserve the lives of their patients."

As Dr. Matthews Duncan stated in a letter read at the discussion on puerperal fever, in 1875, at the Obstetrical Society of London, anything more inconsistent with truth it would be difficult to find. It is this error, ignorantly and irresponsibly promulgated by journals such as the *Times*, which gives rise to prosecutions for manslaughter against medical practitioners and midwives. The recent charge against Dr. Joseph of Brisbane happily broke down at an early stage of the proceedings. He was charged with manslaughter, by infecting one patient with puerperal fever by bringing the contagion from another patient of his. The prosecution contended that he had neglected the rules usually adopted by medical men in relinquishing midwifery practice whilst, and for a time after, attending a patient ill with puerperal fever. The medical evidence on this point was, however, so contradictory, that the magistrate dismissed the case before hearing any witnesses for the defence. At the discussion on puerperal fever at the Obstetrical Society, above referred to, the balance of opinion was certainly to the effect that puerperal contagion was carried by the hands and clothes, if carried at all; and that due care in disinfecting the hands was all that was necessary to the safety of the lying-in women. Dr. Arthur Farre then stated that he had long discarded the name puerperal fever, and used the term *post partum* fever. It is time, in the face of our present knowledge, for other obstetricians to follow his example, and banish from our nomenclature an unscientific, vague term, which is nothing more than an *asylum ignorantiæ*.

SYPHILIS OF THE LUNG.

DR. PANCRITIUS, a general practitioner in Berlin, has lately published a work on syphilis of the lung (*Lungen-Syphilis*, Berlin 1881, pp. 295) which is chiefly occupied with the clinical, and occasionally the pathological, records of one hundred and ten cases of the disease from his private practice. So large a collection of cases from the private practice of a general practitioner could not in any case fail to be interesting, and those recorded by Geheimrath Dr. Pancritius have the advantage of being set forth with a certain skill, and with a scientific and practical intention. It is in such a work as this, that we find the faithful transcription of all those small and great incidents in the health of private patients, which become known to the general practitioner as they occur, and which accumulate in his memory to form a body of knowledge and experience, differing from that which the clinical or consultant practitioner acquires, but not necessarily inferior to the latter, either in quality or in quantity. Knowledge and experience so gathered are too seldom communicated to the profession, and the reason of that is obvious enough. It requires a peculiar kind of skill to extract matters of interest from the common round of practice, a talent not unlike that which enabled White of Selborne to make, within the narrow limits of his Hampshire parish, a volume of observations which all the world unites to admire. It is with no disrespect to the general practitioner, that we would compare his observations to those of the field naturalist. The most famous scientific books of the century, the *Origin of Species*, and the numerous volumes that have followed it, are much more the work of the field naturalist than of the anatomist and

embryologist. There is a natural history of disease as there is a natural history of living things, and it is that aspect of disease which comes more particularly under the notice of the general practitioner. We do not say that the work of Dr. Pancritius is distinguished by any very unusual qualities; he has merely taken occasion to follow the constitutional symptoms, in a large number of cases, with a closeness and comprehensiveness that would have been hardly possible to any one single specialist, and that too in a disease where the complete picture, or the entire panorama of incidents from first to last, is absolutely indispensable. More than twenty years ago, he began to think that certain disorders of the respiratory system, of a sufficiently common kind, occurred with a good deal of uniformity in those who had contracted syphilis, and he has ever since been on the out-look for those pulmonary concomitants of syphilis. We gather from remarks dropped here and there in the book, that Dr. Pancritius has been regarded by some of his colleagues in Berlin as an enthusiast in this matter. But that is nothing more than the criticism which every prophet meets with in his own country, and fortunately the printed copies of his book do not carry the local atmosphere of unbelief with them. It is becoming daily more common to put syphilis and tuberculosis into the same class of diseases due to the introduction of a virus into the body, and the parallelism between the effects of the actual or supposed virus in the respective cases, and more especially the effects on the lungs, becomes daily more interesting. But it is from the practical point of view that the recognition of syphilitic lung-diseases claims the serious attention of everyone. It is of the utmost importance that we should be able to recognise among private patients, as well as among the multitudes who flock to dispensaries and hospitals with chest complaints, those cases upon which the too stereotyped expectorant and tonic mixtures would only be thrown away, and on which the antisyphilitic treatment should be tried.

In contending for the comparative frequency of syphilitic affections of the respiratory system, the author of this work does not profess to have discovered an unusual number of syphilitic patients who had gummatous nodules (or cavities resulting therefrom) in their lungs. On the other hand, the syphilitic affection of the lung, which he wishes to emphasise, is an interstitial pneumonia, an induration of the connective tissue following the track of the bronchial and pulmonary arteries for a certain distance from the hilus of the organ into its interior. It is essentially an affection of the middle region of the lung, and the affection is not one of the air-cells, but solely of the supporting connective tissue of the organ. The physical signs are found mostly in the interval between the base of the scapula and the vertebral column; they are nothing uncommon, being more or less diminished percussion-resonance, weakened respiratory murmur, and especially weakned or altogether absent expiratory murmur, and these variously extended or added to in intensity. Dr. Pancritius, being a general practitioner and not a thoracic specialist, has a wholesome appreciation of the limits imposed upon diagnosis by means of physical signs. At page 5 of his introduction, he gives expression to a sound and excellent maxim which we welcome all the more as coming from a country where there has always been a tendency towards detail for its own sake, *Die Technik beherrscht das Denken*—"technical skill lords it over the thinking faculty". His picture of pulmonary syphilis, from which we might almost leave out physical signs without seriously impairing its value, is somewhat as follows. There is first an active stage, in which the patient, often with the appearance of blooming health and feeling well in general, complains that there is, especially on exertion, a certain feeling of weight in one side of the chest (usually the right), with difficult respiration, and not seldom dyspnœa in the evening. After a time, these subjective indications become more intense; the dyspnœa while walking is marked, there is a dry cough, and sometimes in the evening some slight asthmatic attacks. A true pulmonary catarrh, without fever, may follow, the dyspnœa may become more intense, and there may be, with the cough, slight pains referred to the middle portion of the affected lung. These hardly distinctive symptoms, are gradually increased so that the respiration becomes wheezing, the asthmatic attacks come on oftener and last longer, and there is general disorder of the digestion, with a feeling of weight in the hypochondria. If the practitioner be on the look-out, he will hardly ever fail to find, in this first stage of the pulmonary affection, the usual indications of constitutional syphilis in the skin, the mucous membranes, the bones, etc. There may be also, rheumatic and nervous symptoms, sleeplessness, and blood-disorders such as chlorosis. In the second stage, the destructive or passive stage, there is more or less fever, purulent expectoration, even hæmoptysis, very severe and frequent asthmatic attacks, general disorders of the digestion and of the secretions, loss of strength, cachectic appearance, and, as the disease progresses, all the various indications of pulmonary phthisis may show themselves. Of those symptoms, the author specially dwells upon dyspnœa, asthma, hæmoptysis, and the characters of the sputa.

Reduced to the bald form of a systematised statement, the diagnostic marks of pulmonary syphilis do not appear very striking. The strength of the author's case lies, naturally, in his clinical histories, and it is only from their perusal that the reader will obtain an adequate impression in each particular case, either for or against the distinctive syphilitic character of these not uncommon lung troubles. There are records of the *post mortem* condition in about fifteen of the cases, and there is a very much larger proportion of cases, some of them truly remarkable, in which the more or less tardy adoption of an antisyphilitic treatment led to a rapid reduction of the symptoms and a permanent restoration to health. It sometimes happened that syphilis was at first stoutly denied by the patient, and only confessed to when the chances of recovery were seen to depend on telling the truth. It is worthy of note that the primary sore in 43 per cent. of the cases was of the non-indurated variety.

THE Royal Commission on the Medical Acts meets to-day (Friday) for the consideration of its report.

GRAY'S *Anatomy* has been translated into the Chinese language, and published in six volumes at Foochow.

THE Homage Jury of the manor of Fulham have granted £2000 to the West London Hospital for building a west wing.

AT the last meeting of the Committee of Council the expenses in the defence of Dr. Ferrier were approved and paid.

THE PRINCE OF WALES has appointed Wednesday, the 29th of March next, at Willis's Rooms, for the festival dinner of the Victoria Hospital for Children, at which his Royal Highness has consented to preside.

DEPUTY SURGEON-GENERAL MOORE, Honorary Surgeon to the Viceroy of India, has been elected for the present year as Dean of the Faculty in the University of Bombay.

A DEATH from chloroform is reported as having recently occurred at Munich, in the case of a woman on whom a dental operation was being performed.

PROFESSOR PANUM of Copenhagen has been chosen to preside over the next International Medical Congress; and Dr. Carl Lange has been appointed general secretary.

PROFESSOR TRENDELENBURG of Rostock has accepted an invitation to succeed the late Dr. Busch as professor of surgery at Bonn. The post was also offered to Professor König of Göttingen, but was declined.

MRS. CHARLES ROUNDELL has acted on a happy inspiration in opening a small convalescent home at Kilburn, in connection with Queen Charlotte's Lying-in Hospital. It is intended to be a temporary home for those single women with their first child who, on leaving the hospital, have no friends to whom to go, and who are not yet strong enough to return to service. Drs. Hope and Grigg, Physicians to Queen Charlotte's Hospital, will act as consulting physicians to this home.

DR. GILLEBERT D'HERICOURT, member of the Anthropological Society of Paris, is entrusted by the French Government with a mission to Sardinia, to collect anthropological information, and to study the ethnology of the population.

In the Hyderabad assigned districts the total deaths from "fevers" in 1880 was 31,027, or 1448 less than in 1879. The fever mortality was at the rate of 14.2 per 1000 of the population, the average rate for the previous five years being 19.9.

M. PAUL BERT has established at the Collège de France a laboratory of Physical Biology. Dr. Brown-Séquard, Professor of Medicine at the Collège de France, and M. d'Arsonval, are appointed directors of the newly organised laboratory.

WE learn that the Secretary of State for the Colony of South Australia recently wrote to the authorities at Washington, announcing that, under the amended medical laws of that colony, holders of foreign diplomas are entitled to be registered as duly qualified medical practitioners.

AT a meeting of the Collective Investigation Committee on Wednesday, Dr. Mahomed, Assistant-Physician to Guy's Hospital, was appointed Honorary Secretary *pro tem.* for the purpose of conducting the work of the committee, in place of Dr. W. R. Smith of Cheltenham, who has retired. Dr. Mahomed has all along interested himself much in the subject. His address is 12, St. Thomas's Street, London, S.E.

A LECTURE on behalf of the National Health Society will be delivered by Mr. Frederick Treves at the Town Hall, High Street, Kensington, on Saturday afternoon, February 25th, at four o'clock, on "The Dress of the Period". The lecture will deal with the present injurious follies of fashion—tight lacing, superfluous garments, and high heels. The chair will be taken by Dr. Andrew Clark.

THE vestry of the parish of St. George-the-Martyr, London, have caused notices to be issued throughout the district, calling attention to the danger arising from throwing orange-peel on the pathway, and intimating its intention to prosecute all offenders in this respect, who are liable to a penalty of from 40s. up to £5 for the offence.

THE annual congress of German surgeons will be held in Berlin on the last day of May and the first three days of June. The meeting is delayed this year, in consequence of many of the members residing at a distance having expressed a desire to be able to visit the Sanitary Exhibition in Berlin, which will be opened on May 15th.

It has been decided to erect in the south part of Berlin, where there is great want of hospital accommodation, a new hospital with 400 beds, on the barrack system. The cost is estimated at 1,500,000 marks (£75,000). Of this, one-third will come from a large legacy left to the city by the late Fräulein Beschort.

M. CAMESCASSE, prefect of the Paris Police, has issued directions concerning the inspection of dangerous, unhealthy, or inconvenient habitations. One principal inspector, six first class and six second class inspectors have been appointed. Each of these officials is obliged to inspect, at least twice a year, all the houses classed, and indicate the sanitary improvements required.

THE Prefect of the Police has issued to all the directors of the Paris prisons strict instructions to give immediate notice when a case of fever or any contagious affection declares itself among the prisoners. The following illnesses are comprised in the list furnished to each director; typhoid fever, scarlatina, measles, diphtheria, croup, sore-throat, whooping-cough, small-pox, scurvy, and cholera.

THE BRITISH MEDICAL BENEVOLENT FUND.

AT a special meeting of the Committee of the British Medical Benevolent Fund for the election of annuitants, on January 25th, three annuities of £20 were voted to candidates aged respectively 85, 84, and 66; one of £26 to M.D., F.R.C.S., aged 71; one of £10 to a lady aged 63. An annuity of £20 was also raised to £26 by the aid of the special fund. The annuitants of the age of 85 and 84 were worn-out members of the profession; the annuitant aged 66, a widow, who had made most strenuous and persevering efforts to maintain herself. The last mentioned lady was so overjoyed by the news of her election, that she had an attack of apoplexy and died.—At the monthly meeting of the Committee on Tuesday, January 31st, there were twenty-two applications for relief, to eighteen of whom grants were made, amounting in the aggregate to £242. Among the applicants were a medical man aged 78, incapacitated for practice, who had outlived his friends; and another stricken with hemiplegia; to each of whom the maximum amount in the power of the Committee to grant—viz., £24—was voted. More than £200 of the sum named will be distributed in weekly or monthly instalments. In addition to the above, £10 was voted to the daughter of a newly elected annuitant, who had died before receiving the first instalment.

THREE DEATHS UNDER CHLOROFORM.

DEATHS under chloroform are again recurring with distressing frequency. An inquest was held at Malvern Wells on Saturday, on the body of Charles Nelines, aged 51, who died while under chloroform. It appeared that deceased had sustained a dislocation of the shoulder; and he waited upon Mr. Haynes, surgeon, who attempted to reduce it by ordinary means, but failed to do so. Mr. Haynes then decided to administer chloroform; but, before doing so, he examined deceased's heart, but could detect nothing which should prevent him from administering chloroform. He accordingly gave the deceased small doses. Soon afterwards, deceased's legs became convulsed, and he held them; but death took place in a very short time. Dr. Pike and others said they should have acted precisely as Mr. Haynes had done. In cities and towns, it was easy to get a medical man to assist in administering chloroform; but it was different in the country. The quantity administered was not excessive. Mr. Brown, surgeon, who made a *post mortem* examination, said that deceased was in such a state of health that he might have died at any moment. The jury returned a verdict of "Died from natural causes, accelerated by chloroform judiciously and properly administered"; but some of the jury deprecated the practice of the profession in putting persons under the influence of chloroform "single-handed".—A case is also reported in the daily papers, of Mr. T. Fenton, of Broughty Ferry, near Dundee, who was about to undergo an operation for sympathetic ophthalmia. "Two medical gentlemen attended from Dundee, and Mr. Fenton was put under the influence of chloroform, but it had not been administered many minutes before he died." We should be glad to have medical details.—We hear also of a third case of death under chloroform, said to have occurred at the Royal Free Hospital this week, of which, however, we have not yet received details, or seen any published report.

COUNTER-PRESCRIBING BY DRUGGISTS.

DR. DANFORD THOMAS, the recently elected Coroner for Central Middlesex, is doing good service to the public by pointedly directing attention, in cases which have come before him in his official capacity, to the dangerous consequences arising from prescribing by druggists, which goes on so extensively both in London and the provinces. It is high time that an effort were made, either by the Apothecaries' Society or by one of the Defence Associations, to put a stop to a practice as illegal as mischievous; yet there is but too much reason to fear that a sort of undertaking entered into by the solicitor to the Apothecaries' Society about four years ago, not to authorise prosecutions in cases of counter-practice, has emboldened druggists to transgress the law, and has placed a serious difficulty in the way of those who desire to enforce

it. The position of the Apothecaries' Society in this matter is indeed a curious one. Originally a body of chemists themselves, they have acquired and well justified a status as medical examiners and diploma givers. It is thought by some medical reformers that the time has come when the Apothecaries' Societies should cease to exist as medical authorities, and certainly if the English Society desire to seal its own fate, it cannot do better than continue to connive at illegal practices.

THE CASE OF DR. ABRATH.

THE trial of Dr. Abrath, of Sunderland, for alleged conspiracy with a patient named McManus, to defraud the North-Eastern Railway Company, has, we are glad to say, terminated in the only possible way—in a verdict of acquittal; and Dr. Abrath has, in the words of the jury, left the court without a stain upon his character. The case is too well-known to need detailed comment from us. It was alleged by the prosecution, that Dr. Abrath had induced McManus to simulate the results of injuries received in a railway collision; and, by inference, it was suggested that the now, as was admitted, paralysed condition of McManus was in reality due to injuries inflicted by his medical attendant. Few will, we think, be inclined to believe that, for a few hundreds of pounds, any member of the profession could be guilty of such shocking barbarity as was alleged. The direct evidence for the prosecution mainly rested upon the evidence of witnesses, who, even according to their own statements, were deeply perjured; and the medical evidence for the prosecution was not strong. Probably the railway company by this time deeply regrets its too hasty action; but probably nothing can repair the injury done to Dr. Abrath. No doubt railway companies are frequently defrauded by persons claiming compensation for imaginary injuries; but the day will, indeed, be a sad one for our profession, when members will deliberately support, and even suggest, the simulation of fictitious injuries. Dr. Abrath is to be congratulated on having successfully resisted the prosecution instituted by a powerful public company, and on his character having undergone successfully so severe an ordeal.

NEPHRO-LITHOTOMY.

THE debate which occurred at the last meeting of the Clinical Society will go far towards placing the operation of nephrotomy for the removal of renal calculi upon a definite basis. The discussion was introduced by Mr. Marcus Beck, who related the steps which he had taken for the removal of a renal calculus, which was supposed to have existed for twelve years in a man aged 19. Manipulation, when the posterior surface of the kidney had been exposed in the loin, failed to detect the pressure of a stone; the kidney was then punctured with a needle, and the presence, situation, and size of the stone were demonstrated. The kidney was then incised, and a calculus of uric acid, weighing 29 grains, removed. The bleeding, which had been considerable, ceased directly the stone was extracted. The operation was performed under carbolic spray, and the patient made an excellent recovery. Urine escaped by the wound from the seventh to the eleventh day; the wound was quite healed in the fifth week after the operation. Mr. Beck added some carefully chosen remarks upon the case, which will be found fully reported elsewhere (at page 158). Mr. Butlin next detailed a somewhat similar case, operated upon by himself in St. Bartholomew's Hospital. This calculus was composed of oxalate of lime, and was "about as large as a filbert". The patient was twenty years of age, and made an excellent recovery. Dr. Whipham and Mr. Haward then related two cases. The former was that of a woman, aged 23, from whom a phosphate of lime calculus, weighing 47 grains, was removed. This patient also did extremely well. In a second case, where the patient, a woman, was fifty-six years of age, there was a prominent swelling in the left groin, which was incised by Mr. Haward; a copious discharge of pus occurred, and pain was relieved, but no calculus could be found. The kidney and tissues were firmly matted together, and, after an enlargement of the wound a month after its original production, the patient sank. After death, the kidney lay in a purulent cavity, with which its pelvis communicated by a large irregular opening. Fragments of calculi existed in the calyces of the kidney; and a large calculus was found in the right kidney. These three successful cases in early adult life clearly indicate that the dangers of nephro-lithotomy are no greater than care and caution on the part of the surgeon may reasonably be expected to guard against; and that the renal tissue is not to be considered charmed ground, upon which the surgeon's knife may not venture. But the fatal case detailed by Mr. Haward, as also another related by Mr. Morrant Baker, in which there was a sacculated kidney, with much pus and a phosphatic stone weighing two ounces, and in which the patient also sank, indicate that caution is necessary in the choice of cases for the operation. In the fatal cases, the ages of the patients were more advanced, being fifty-six and forty-three respectively, apparently a point of some importance. The disease in each patient, too, was of old standing, and pus was present in the urine in large quantities. For this class of cases, Mr. Baker advised removal of the whole kidney where practicable. As Mr. Barwell suggested, it will be interesting to watch the successful cases, and see if there be any re-formation of calculus. The calculi were, as will have been perceived, of all kinds. As one result of this discussion, the operation of nephro-lithotomy cannot fail to become a recognised method of affording surgical relief, in a class of serious cases hitherto often considered to be beyond the pale of the surgeon's art.

ST. BARTHOLOMEW'S HOSPITAL.

THE preliminary arrangements for the erection of the new convalescent home for St. Bartholomew's Hospital are at present in rapid progress, and it is expected that the new home will be ready for occupation early in 1883. The purchase of fifteen acres of land for the purpose, near to Swanley Junction station, has been effected by Messrs. Dunn and Soman, 27, Bishopsgate Street Within; and Mr. G. Aaron, the architect, to whom has been entrusted the preparation of the designs, will superintend the work. The new home, which will enjoy all the advantages of a commanding situation (260 feet above the Thames), looking over an extensive tract of charming country, will be within a convenient distance of town, and will be one of the largest, as it promises to be one of the most complete, convalescent homes in England. The building, it is proposed, will accommodate eighty-five beds, three-fifths of these for males, and two-fifths for females. An important feature will be, that no one will be subjected to the trouble of obtaining letters of recommendation; but patients will be admitted to its benefits solely on the recommendation of the medical man in charge of the case. The inadequate accommodation afforded by its present home of thirty-two beds (for males only), which was presented by Sir Sydney Waterlow, and formally opened by the Prince and Princess of Wales in 1872, has long been evident; and Sir Sydney Waterlow, as treasurer of this institution, has more than once, at public gatherings, expressed the great want of a large and permanent home, offering facilities for both male and female patients. The liberality of one of its governors, Mr. Kettlewell, who has contributed £11,000, and other donors who, within the last few months, have contributed respectively £5,000 and £2,000, has led to the taking of immediate steps for the erection of a new convalescent home for St. Bartholomew's, which soon promises to have its realisation.

PAYMENT FOR THE REPORTING OF INFECTIOUS DISEASES.

THE Medical Officer of Health for Edinburgh has submitted his statement of the payments to medical practitioners in Edinburgh for the last half of 1881. These payments are made in virtue of a clause in the local Act, requiring medical men to give notice to the medical officer of health of all cases of infectious disease within their practice, and making a payment of two shillings and sixpence for each such case. It appears that 1,795 cases were so reported, for which payments were made to the amount of £224 7s. 6d. The reports were sent in by one hundred and thirty medical men, the number of reports from each me-

dical man varying from one to ninety-nine cases. This has suggested to us a calculation of the payments which would be paid to medical men, should a similar system of payment for infection become general throughout England. There were in England and Wales, during last year, 58,239 deaths from the principal zymotic diseases; and, although there is no basis at present for a satisfactory estimate, we cannot assume that those deaths represent less than twenty times as many cases of attack—including, as the diseases do, measles, whooping-cough, and diarrhœa. The cases of attack, therefore, in England and Wales last year, may be very roughly estimated at 1,164,780, or more than a million. This would signify, at an expenditure of two shillings and sixpence per case, an annual cost of nearly £146,000.

HOW SMALL-POX SPREADS.

In view of the growth of small-pox in the South of London, the guardians of the St. Olave's Union have determined, upon the recommendation of Dr. Stevens of the Local Government Board, to institute a house-to-house visitation in aid of vaccination. Dr. Stevens, who was present at the last meeting of the guardians, stated that he found the spread of small-pox to be due to three distinct classes of people. When an infant was taken out of the workhouse unvaccinated, it was seldom, if ever, traced; and, in support of this, it was stated that last year, out of two hundred children born in the Marylebone Workhouse, only seven could be accounted for as having been vaccinated. The second class was the unvaccinated and unrevaccinated; and the third was the badly vaccinated. If the advantages of vaccination could be brought home to the inhabitants of the parish during this house-to-house visitation by some clear and convincing statement of the real facts on the subject, the good done by such visitations would be immensely increased. At present, the persons employed for the purpose have never the time, and seldom the capacity, to combat the far-fetched and ridiculous objections which are instilled into the minds of the more ignorant classes by the copious propaganda of the antivaccinators; and the distribution to each house of a collection of plain unvarnished facts, such as that recently prepared by the National Health Society, and approved by the Local Government Board, would immensely save the time of the officials, and do much to counteract the mischievous influence of antivaccinators.

AN INTERESTING PATENT.

Among American patents published in a list before us are five compounds for obliterating small-pox marks, etc. (E. Marriott, February 9th, 1881). The ingredients are pumice-stone, elder-flower, glycerine, white soap, and fatty matter. Unfortunately, however, for the progress of science, it was "not proceeded with".

THE DEAD POOR IN HOSPITALS.

An application made on Jan. 27th, at the Southwark Police Court, brings forward again the disputed question as to the responsibility of union authorities for burying the bodies of poor persons who die in hospitals. The application was made by a man who resided in the St. George's Union, for assistance in removing the dead body of his wife from Guy's Hospital, and having it buried by the parish. He said that himself and his wife had lodged at a common lodging-house about a week, when the latter was taken very ill, and removed to Guy's Hospital, where she died. He had seen the superintendent of the hospital, and told him he was too poor to remove and bury the corpse; and he learnt that, unless the remains were removed at the end of five days, they would be taken to the dissecting-room. The hospital authorities had no funds at their disposal to assist the friends of the poor who died there; and the applicant was advised to see the relieving officer of the district from which his wife had been taken to the hospital. The relieving officer of the St. George's Union had told the applicant that he was unable to render any assistance, and suggested that the applicant should attend before the Committee on the following Wednesday, by which time the corpse, if it remained in the hospital, would have been taken to the dissecting-room. The magistrate, on hearing these facts, sent for the relieving officer, who contended that, as Guy's Hospital was situated in the St. Olave's Union, it was the duty of the relieving officer of that union to go to the expense of removing the corpse, and burying it. The magistrate, on the other hand, considered that, as the deceased and her husband had lived in the St. George's Union until her removal to the hospital, it was the duty of that parish to remove her, and bury the body. After some discussion, the relieving officer agreed to see that the body was removed and buried, the magistrate undertaking to pay all the expenses in the event of the amount being disallowed by the auditor. The question here raised, as to the responsibility of an union to bury poor persons from other unions who may die in hospitals, could, we think, be settled by Section 31 of the 7th and 8th Vict., cap. 101, under which it is competent for the guardians to undertake the burials referred to. It does not appear, however, that it is at all compulsory for them to do so; and it seems a matter left entirely to their discretion. Nevertheless, it is to be hoped, for the sake of common humanity, that no miserable haggling about the responsibility of one or another authority for the burial of a dead pauper will prevent the body from receiving decent interment in due course, however sore pressed for subjects our medical schools may be, and actually are.

MANCHESTER MEDICO-ETHICAL ASSOCIATION.

The thirty-fourth annual meeting of this Association was held at the Grosvenor Hotel on Friday, January 27th. The report of the committee showed the growing prosperity of the Association, the number of members and the funds being steadily increasing. The following is a list of office-bearers and committee for 1882:—*President:* Mr. Hardie. *Vice-Presidents:* Mr. Dacre Fox, Dr. John Roberts, Dr. Henry Simpson, Dr. Stevenson. *Treasurer:* Dr. Joseph Stone. *Secretaries:* Dr. A. Wahltuch; Mr. J. Broadbent. *Committee:* Dr. Barlow, Mr. Crosbie, Dr. Cullingworth, Dr. A. M. Edge, Dr. A. Emrys Jones, Dr. Mallett, Dr. Pierce, Mr. Reston, Dr. D. Lloyd Roberts, Dr. Thorburn, Mr. Walmsley, Mr. Westmorland.

THE PARKES MUSEUM.

An important meeting of the Executive Committee of the Parkes Museum was held on Friday, January 27th, 1882—Professor Berkeley Hill in the chair—when Mr. Basil Field was appointed Honorary Solicitor to the Museum. The Curator, Mr. Mark H. Judge, as Secretary of the recent International Medical and Sanitary Exhibition, presented the final report of the Exhibition Committee, which, after giving a detailed account of the origin and success of the undertaking, concluded as follows. "The work for which the Exhibition Committee were appointed having now come to an end, they have the satisfaction of handing over to the Executive Committee of the Museum the sum of £933 11s., together with furniture and fittings to the value of £100, while contributions to the Guarantee Fund to the amount of £86 19s. have been transferred to the Parkes Museum Building Fund, making the financial result of their labours a profit to the Parkes Museum of £1,120." The report was signed by Mr. John Eric Erichsen, F.R.S., the Chairman, and the Secretary. On the motion of Professor Hayter Lewis, seconded by Dr. W. R. Gowers, it was unanimously agreed that the report was eminently satisfactory, and that it should be entered on the minutes. The Honorary Secretary, Dr. G. V. Poore, read a communication from the Council of University College, in which that body agreed, with some modifications, to proposals which had been made on behalf of the Museum to the Council of the College, in reference to the erection of a building for the Museum. After a long discussion, in which Professor Berkeley Hill, Professor Hayter Lewis, Dr. W. R. Gowers, Professor Corfield, and Mr. Rogers Field took part, the modifications suggested by the Council of University College were accepted; and it was resolved that steps should be taken to obtain the funds necessary for carrying out the scheme, which embraces—1. The building of an addition to the north wing of the College for the purposes of the Museum; 2. An endowment for the maintenance and management of the Museum: 3. The Museum to be

open free to the public, and to be placed on a somewhat similar footing to the North London Hospital—*i. e.*, to be autonomous, with due representation of the Council of University Council on the Execuiive Committee of the Museum. It is estimated that £30,000 is the sum that will be required to thus permanently establish the Museum as a national institution. Towards this, Mr. Thomas Twining of Twickenham had written to say that he would subscribe the sum of £100, if one hundred promises of a similar amount were obtained. Promises of subscriptions may be sent to the Curator at the Parkes Museum, University College, Gower Street. Subscriptions may be paid to the account of the Parkes Museum at the Union Bank, Argyll Place, Regent Street.

THE INSANE IN HOUSES.

A GROCER at Easthorpe has been indicted, under the Lunacy Act, for undertaking the care of a lunatic without the requisite certificate; and further charged with neglecting and ill-treating him. The facts of the case were admitted. The only question for dispute was whether Brocklesby was really a lunatic or not. Dr. Tate, superintendent of the Nottingham County Lunatic Asylum, had no doubt whatever that he was of unsound mind, and had not been properly cared for. The witness further stated that, two years ago, the patient had an attack of delirium tremens, and that, since that attack, his mental condition had become worse. Witnesses were called, including the medical man of the district and the rector of the parish, who stated that, in their judgment, he could not be described as of unsound mind, though they agreed that he was of weak intellect. The jury returned a verdict of Not Guilty, and no evidence was, therefore, offered on the second indictment.

PAINLESS SLAUGHTER.

THE promoters of the movement which has been started for bringing about a reform of the methods of killing animals for food have held a preliminary meeting at the rooms of the Society for the Prevention of Cruelty to Animals, Dr. Richardson in the chair. The objects of the movement are stated to be sanitary as well as humane, and embrace the abolition of private slaughter-houses, the establishment of a model abattoir under efficient inspection, and the training of slaughterers. With the invitations to the meeting, the promoters circulated a printed paper setting forth the numerous evils, direct and indirect, of the present system.

CERTIFICATES OF STILL-BIRTHS.

MR. CORYN, surgeon, of Acre Lane, Brixton, has been summoned at the Lambeth Police Court, for having unlawfully made a false statement as to a child born alive having been still-born, and also given a false certificate under and for the purposes of the Births and Deaths Registration Act of 1874, knowing such certificate to be false. It was proved in evidence that the defendant delivered the mother of the child, which was at that time alive, but died a few hours afterwards. Mr. Coryn, in answer to the charge, said that he did not know, when he gave the certificate, that he was doing an unusual or illegal act. The child in this case was an eight months' child, with scarcely any life in it; and he knew from the first that it could not live. He therefore gave the certificate that the child was still-born, to save the parents, who were poor people, the expense of an ordinary burial. He further stated that he had occasionally given such certificates to the poor during the course of a twenty-one years' practice. Mr. Chance, the police-magistrate, in giving his decision, said that he trusted that such a practice would not be followed in future, and pointed out what assistance such a course might be to crime. Looking, however, to the high character hitherto borne by defendant, and the fact that there was no desire on the part of the guardians of Lambeth parish, who had taken out the summons under the direction of the Registrar-General, to press for a heavy penalty, Mr. Chance ordered him to pay a fine of twenty shillings and costs, at the same time expressing a hope that the proceedings would prevent such a thing from taking place again.

EXAMINATION OF MIDWIVES AT THE OBSTETRICAL SOCIETY OF LONDON.

THIS examination has been greatly increasing in popularity during the last two years. Last year, forty-four candidates presented themselves for examination for the Society's diploma, as against twelve candidates in 1879. Of the forty-four candidates, thirty-nine received the diploma. Dr. Aveling, the chairman of the board of examiners, stated in his report at the annual meeting of the Obstetrical Society, on Wednesday last, that the degree of knowledge shown by a large proportion of the candidates was due to the careful teaching they received from the physicians to the several lying-in hospitals in which they had studied. The Obstetrical Society instituted the examination provisionally until the passing through Parliament of a Bill for the Supervision and Registration of Midwives.

THE GERMAN HOSPITAL.

THE annual meeting of this hospital took place on the 25th ultimo, under the presidency of Baron H. de Schröder. The report of the committee stated that during the past twelve months, nearly 21,000 persons had been benefited through the agency of the hospital. The one hundred and twenty-five beds which the hospital now held had constantly been occupied, and in many cases applicants had to be turned away for want of room. Nevertheless, 1,609 in-patients had been received during the year, and in a great many instances their stay at the hospital had been extended over many months. The number of out-patients was 19,390. The expenditure during 1880 was £8,628. This amount, however, included £832 for repairs and alterations, which exceeded that of last year for similar purposes by £500. The receipts amounted to £9,297 including the award of £95 from the Hospital Saturday Fund for the year 1880. In legacies £250 had been received; about £200 less than last year; whilst the annual subscriptions amounted to £2,279. One of the resident medical officers, Dr. Adolph Schreiber, having tendered his resignation, the committee had chosen Dr. Bernhard Spatz, who would enter upon his duties in the beginning of March next.

INFECTIOUS DISEASES.

MEANS for the prevention of the spread of infectious diseases formed the subject of discussion at a meeting of the St. George's, Hanover Square, and Westminster Committees of the Charity Organisation Society, held at the residence of Canon Farrar, on Tuesday last. A number of gentlemen and clergy were invited to attend. Canon Farrar presided, and related a circumstance which had come under his own observation, where a case of scarlet fever caught by a little girl visitor while riding across London in a cab, had spread until it had attacked nine persons in Canon Farrar's house, including Mrs. Farrar. With sixty boys also resident, the Canon had, by isolation and disinfection, prevented the spread of the disease amongst them. Mrs. Johnstone, of the Hastings Sanitary Aid Association, read a paper describing the organisation formed in the towns of Hastings and St. Leonard's to combat with infectious diseases. She pressed upon her hearers the fact that these infectious diseases were preventable; and described the course which was adopted by the Sanitary Aid Association of Hastings, the principles of which could be applied to the population of any other town. The association acted in conjunction with the local resources for dealing with poverty and sickness, and was auxiliary to those resources, as well as to the sanitary authorities. The association had women instructors, who, when an infectious case broke out, visited the case, and gave instructions as to the course to be adopted—in fact, instructed the heads of the family as to the treatment of disease; and the relief given in poverty depended upon the fulfilment of these instructions. Isolation was practised in the treatment of cases at home; and where there were bread-winners in a family, who would otherwise have to be in contact with contagion, lodgings were obtained for them. Then, when the case was recovering, it was necessary to keep the patient from mixing with the general population. If the patient were a child, it must be kept from school for at least eight weeks, while twelve weeks would be necessary in some cases; and she

insisted that a quarantine of at least eight weeks was necessary in all cases—sanitary action going on meanwhile, both as regarded the patient and the house. At the conclusion of the reading of the paper, Sir Henry Cole thanked Mrs. Johnstone for her interesting address, and urged that, by there being a "guild of health" in every parish, the origin of contagion might, to some extent, be cured. Dr. Bond said that, by attention to the rules laid down by Mrs. Johnstone, the endeavours of the physician to lessen epidemic disease would be materially aided. Mr. Michael, Q.C., urged the necessity of personal attention being given in each household to sanitary needs in a house. It was stated that it is purposed to introduce a Sanitary Aid Association into Westminster, on the Hastings model. A vote of thanks to Mrs. Johnstone closed the proceedings.

HOSPITAL SUNDAY IN LIVERPOOL.

JANUARY 8th was the eleventh anniversary of Hospital Sunday in Liverpool, which is always observed on the second Sunday in the new year. By a coincidence, it chanced to be the same date as that of the first Hospital Sunday in 1871. The weather was unfavourable; but the results are fairly good, the total sum realised exceeding £7,300.

PROFESSOR VON BISCHOFF.

THE fiftieth anniversary of the doctorate of this eminent professor of anatomy and physiology in the University of Munich was celebrated on January 16th, a large assembly being present. The King of Bavaria sent him the insignia of commander of the order of St. Michael, and also a congratulatory telegram. The University of Heidelberg conferred on him the honorary title of Doctor; and congratulatory addresses and telegrams were received from the Universities of Munich, Erlangen, Giessen, Marburg, Halle, Leipzig, Königsberg, Bonn, Strassburg, Kiel, Vienna, and Prague; also from various medical and other learned societies in Berlin, Vienna, St. Petersburg, Amsterdam, Brussels, Erlangen, Helsingfors, Frankfort, etc.; several of which elected Dr. Bischoff an honorary member.

OBSTETRICAL SOCIETY OF LONDON.

THE following were elected officers of the Society for 1882, at the meeting of the Fellows on Wednesday last. *Honorary President*, Arthur Farre, M.D., F.R.S. *President*, J. Matthews Duncan, M.D. *Vice-Presidents*, John Bassett, M.D.; Jonathan Hutchinson, F.R.C.S.; Clement Godson, M.D.; John Brunton, M.D.; John Thorburn, M.D.; John Williams, M.D. *Treasurer*, J. B. Potter, M.D. *Librarian*, F. Champneys, M.D. *Secretaries*, A. L. Galabin, M.D.; G. E. Herman, M.B. *Council*, H. Oldham, M.D.; R. Barnes, M.D.; J. Hall Davis, M.D.; Graily Hewitt, M.D.; J. Braxton Hicks, M.D.; W. O. Priestley, M.D.; E. J. Tilt, M.D.; T. Spencer Wells, F.R.C.S.; W. S. Playfair, M.D.; P. L. Burchell, M.D.; J. Henry Bennet, M.D.; O. H. Carter, M.D.; E. Charles, M.D.; E. Malins, M.D.; D. Lloyd Roberts, M.D.; F. W. Salzmann; C. Brodie Sewell, M.D.; J. Knowsley Thornton, M.B.; H. C. Andrews; J. Ford Anderson, M.D.; H. Strange; F. Wallace; G. E. Jarrow, M.D.; G. P. Bate, M.D.; W. Rigden; Edward Taylor.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following is the programme of the course of lectures on the morphology of the mammalian skull to be delivered by Professor W. K. Parker:—1. February 6th—Introductory. On the vertebrata as a group, and on the vertebrate embryo. 2. February 8th—On the development of the endoskeleton and a comparison of its cranial and spinal regions. 3. February 10th—On the superficial cartilaginous skeleton, labial, oral, and pharyngeal; on the limbs; and on the dermal (bony) skeleton. 4. February 13th—The endocranium, proper, in its gradation and development throughout the vertebrate series. 5. February 15th—The histological changes undergone by the endocranium: (*a*) The membrano-cranium, (*b*) the chondro-cranium, (*c*) the chondrosto-cranium, (*d*) the osteo-cranium. 6. February 17th—The sense capsules of the vertebrata. 7. February 20th—The visceral arches and cranial nerves in the branchiata. 8. February 22nd—The visceral arches in the abranchiata; their abortive development and modification in relation to the sense capsules, especially in the mammalia. 9. February 24th—Recapitulation, and conclusion.

THE JACKSONIAN PRIZE.

WE hear that five essays have been received at the College of Surgeons for the Jacksonian Prize, on the Pathology and Surgical Treatment of Diseases of the Hip-Joint. The following is the subject for the prize for the present year: Wounds and other Injuries of Nerves: their Symptoms, Pathology, and Treatment. Essays for this and the Collegial triennial prize must be sent in on or before the 30th of December next.

SCOTLAND.

DR. RATTRAY, who has acted as chemist and dispenser to the Royal Infirmary, Aberdeen, for the long period of forty years, has sent in his resignation to the Committee of Management.

A MEMORIAL statue has been erected over the grave of the late Dr. Simpson, of the Indian Medical Service, whose premature death on the eve of his departure for India cut short a life of great promise. The granite tablet was subscribed for by former friends and fellow students of Aberdeen University.

THE GLASGOW ASYLUM FOR THE BLIND.

THE fifty-fifth annual meeting of the supporters of this institution was held on the 16th instant, when the annual report was read and approved. From the report, we find that 158 persons received the benefits of the institution during the past year, of whom 73 were resident in the place, while the remainder lived among their relatives or in their own homes; but we regret to observe that, though nothing could be more satisfactory than the work carried on at the institution, it has not been successful from a pecuniary point of view. This is no doubt easily accounted for, when it is remembered that many of the articles manufactured by the blind, when brought into competition with those produced by workmen who have sight, and more particularly with those produced by machinery, must be sold at considerable loss. The directors are very properly turning their attention to this matter, so as to introduce the manufacture of other articles likely to be more productive. The new buildings which it has been decided to erect on the site of the old ones are now making rapid progress to completion; and, though funds will be needed to carry out the original plan of the building, no doubt they will be forthcoming, and a short time will see an institution built and equipped with all the appliances and requirements of the present day necessary for carrying on the work of such a necessary charity as the Glasgow Blind Asylum.

COMBE LECTURES IN THE NORTH OF SCOTLAND.

THE final lecture of this course was delivered by Dr. Stirling in Montrose, on Tuesday evening, when the hall was filled by a very large audience. The subject of lecture was "Respiration and Ventilation". The lecture was illustrated by a very large number of experiments, to show the properties of the gases which compose the air, and the changes which the air and blood undergo in respiration. The properties of oxygen, nitrogen, carbonic acid, and organic matter, were all shown by means of experiments. In speaking of respiration, attention was drawn to the giving off of organic matter by the lungs, and how injurious to life is air which contains even a trace of this matter. Unlike carbonic acid, it is not so readily got rid of from a room by merely opening the windows, as it has a tendency to adhere and cling to articles of furniture. The various simple means which may be adopted to secure efficient ventilation in our rooms were shown, including Bird's plan, Tobin's tubes, Arnott's valve, Sheringham's valve, etc. Every room ought to have a fireplace, and the damper ought to be up. Special attention was directed to the ventilation of

bedrooms, where, of course, one spends about a third of one's existence. A bedroom-window opened for an inch at the top is usually all that is required to admit sufficient fresh air. A hearty vote of thanks was awarded to the lecturer and to the Combe Trustees. These lectures have been thoroughly successful, as night after night the hall has been crowded; and we are sure the Combe Trustees are doing a good work in thus educating the people in the great problems of public health.—In Aberdeen, Dr. Stirling delivered the third lecture on Saturday evening, to an overflowing audience, every foot of floor-space being occupied. The physiology of the muscular system was illustrated by experiments on the legs of a frog, and the hygiene by practical remarks on the necessity for muscular exercise, more especially for ladies. The greater part of the lecture was taken up with the subject of food and feeding. A large number of the commoner foods were placed on the lecture table and their properties were described. The increased use of good vegetable food, such as our best cereals, was strongly advocated, and several foods were mentioned which working men might advantageously use as substitutes for part of the butchers' meat, for which they have to pay so high a price. The comparative values of flours for bread making were mentioned, and maccaroni which is made from the hard dry glutinous wheat of Northern Italy was mentioned as a food which ought to be used more extensively than it is in this country. The comparative merits of white fine flour "Reform meal" and "Whole meal" were next dwelt upon, the principle which ought to guide the miller in the manufactures of flour being this: that he ought not to remove too much of the bran; above all, he ought to retain the layer in the wheat grain lying next the starch, as this layer contains about 14 per cent. of gluten. A short reference to the beverages in common use closed the lecture.

IRELAND.

DR. H. S. PURDON has been appointed Certifying Surgeon for the Belfast district, in the room of his father, the late Dr. Charles Purdon.

THE Fancy Fair recently held in aid of the funds of the Ballymena Cottage Hospital has realised the very handsome sum of £350.

SIR GEORGE B. OWENS, M.D., has been appointed by the Lord-Lieutenant a member of the Board of Superintendence of the Subsidised Hospitals in Dublin.

AN election for a coroner in the barony of Loughinshollin, county Derry, took place on the 27th ult. There were three candidates for the vacancy, two being medical practitioners, viz., Dr. McIver of Moneymore, and Dr. John Murdoch of Magherafelt; but, at an early period, the latter gentleman retired from the contest. Dr. McIver was successful, having polled a majority of 188 votes over his opponent.

QUEEN'S COLLEGE, BELFAST.

IT is stated that the number of students entered for the present winter session amounts to 565, being an increase of about ten per cent. upon the previous winter session. Of these, 355 have been enrolled in the Faculty of Medicine, making the medical school of this College the largest in Ireland.

HOUSE OF INDUSTRY HOSPITAL.

DR. C. E. FITZGERALD, Ophthalmic Surgeon to the Queen in Ireland, has resigned the post of Ophthalmic Surgeon to the Richmond Hospital, in consequence of his numerous other pressing engagements. It is understood that Dr. A. H. Jacob, late Ophthalmic Surgeon to the City of Dublin Hospital, and to the Dublin Eye and Ear Infirmary, and Oculist in Ordinary to His Excellency the Lord-Lieutenant, will be appointed successor to Dr. Fitzgerald. The board of governors have lately created an assistant-surgeoncy to the Richmond Hospital, and Mr. J. V. Lentaigne has been appointed to fill the office.

SMALL-POX IN BELFAST.

THE disease has slightly increased during the past few weeks; and, on January 21st, there were 129 cases under treatment in the Union Hospital, 30 patients having been admitted with small-pox during the week. A rumour having prevailed in Belfast to the effect that the guardians intended erecting a disinfecting apparatus on the workhouse premises, a deputation of the citizens waited on the board last week for the purpose of requesting them not to sanction such a proceeding. The rumour, however, was unfounded, the guardians never intending anything of the kind, as they were of opinion that an arrangement of the kind mentioned would be most injurious to the inmates; and considered that a piece of ground on a place called the "Twin Islands" would be the most suitable site for a disinfecting apparatus. In consequence of the extra demand put at present on the medical staff by the prevalence of small-pox, it was suggested that an extra medical officer should be appointed, but the board decided not to do so for the present.

BELFAST HOSPITAL FOR SICK CHILDREN.

DURING the year, 295 intern, and 6,721 extern, patients received treatment at this hospital, the mortality only amounting to three deaths. The expenses exceeded the income by nearly one hundred guineas. The building-fund has been closed, and a "rent-extinction" fund to fine down the head rent has been formed, the amount standing to the credit of the latter being £226. It is gratifying again to record an increase in the number of students of the Queen's College, Belfast, attending the hospital, thirty-seven having been enrolled during last year, the largest yet registered. As their attendance is voluntary, it shows the value they derive from the clinical teaching they receive at the institution.

PRESENTATION TO MR. B. WILLS RICHARDSON.

AT the last meeting of the Surgical Society of Ireland, on the 27th ultimo, Dr. Barton, Vice-President of the College of Surgeons, who presided in the unavoidable absence of the President of the College, presented the late secretary of the society (Mr. Richardson) with a silver salver and a tea and coffee service of silver plate. This presentation was made by the members of the society in recognition of Mr. Richardson's services to the society, as one of the honorary secretaries, for a period of twenty-five years.

ULSTER EYE, EAR, AND THROAT HOSPITAL.

THE annual meeting was held last week, and we learn that, during the past year, 1898 new cases were under treatment, and 174 admitted to the wards of the hospital. Some of the extern patients were admitted free, others at a nominal entrance fee of one shilling; and the same principle, of requiring all those who were able to contribute to their support to do so, has been pursued in the intern department; but, in the majority of cases, the cost of maintenance has been met by the Poor-law unions, or by those interested in them. In this way, a sum of £363 was obtained from patients. It was announced that the late Mr. George Benn, who formerly had given a donation of £1000 to the hospital, had left a bequest amounting to a similar sum. As regards financial matters, the debt on the hospital has been considerably reduced, and the funds appear to be in a very favourable condition. A vote of thanks to the office-bearers of the institution, including Dr. McKeown, was adopted by the meeting.

FOOTBALL: THE HOSPITALS' CHALLENGE CUP.—On Tuesday last, in the presence of a good muster of spectators, St. Bartholomew's (the present holders of the challenge cup) and St. George's met at the Half Moon Ground, Putney. A more exciting game could hardly be imagined. In the first portion of it each side had twice to act on the defensive, while the second half of play, so far as results were concerned, proved a counterpart of the earlier one, each team having again to touch down twice in self-defence. The play all round was exceptionally good. When "No side" was called the match was left drawn, both fifteens being accredited with four touches-down. These clubs will therefore compete in the third ties.

SIR ROBERT CHRISTISON, BART., M.D., D.C.L., LL.D.,

VICE-PRESIDENT OF THE BRITISH MEDICAL ASSOCIATION.

WE regret much to have to announce the death of Sir Robert Christison, which took place on January 27th at his residence in Moray Place, Edinburgh. He was in his eighty-fifth year. For more than half a century Sir Robert has not only been a prominent character in the Scottish medical world, but has been held in the highest esteem both in his own country and wherever medical science is cultivated. Having, after a course of study and graduation in Edinburgh, studied toxicology under the celebrated Orfila, he was appointed Professor of Medical Jurisprudence in the University of Edinburgh in 1822, and held the office until 1832, when he was transferred to the chair of Materia Medica. This he held for forty-four years, retiring from it in 1877. The jubilee of his professorship was celebrated in Edinburgh in 1872. In 1875 he presided over the meeting of the British Medical Association in Edinburgh, and on his retirement from the office in the next year was appointed a vice-president for life. When the General Medical Council was first established in 1858, he was appointed the Crown nominee for Scotland, and held the office until 1873. His remains were interred on Wednesday in New Carlton burying-ground, Edinburgh. The funeral was a public one, and was attended by the principal pnblic bodies of the city, the senators, academicians, students, and others. Large crowds lined the streets through which the procession passed. We will give next week a biographical sketch of this eminent and esteemed man.

BRITISH MEDICAL ASSOCIATION: COMMITTEE ON THE STUDY OF AURAL SURGERY.

AT a meeting of this committee held on January 25th, twelve members being present, it was announced that, in addition to those already mentioned in the JOURNAL, the following otological teachers had joined the committee, viz.: Messrs. A. H. Benson (Dublin), J. P. Cassells (Glasgow), C. E. FitzGerald (Dublin), W. P. Keall (Bristol), P. McBride (Edinburgh), and H. R. Swanzy (Dublin). It was also proposed that the following gentlemen elected at the previous meeting had signified their willingness to serve on the committee, viz.: Messrs. T. Appleyard (Bradford), T. G. Atkins (Cork), E. A. Browne (Liverpool), J. W. Browne (Belfast), Lennox Browne (London), Andrew Clark (London), T. C. Denby (Bradford), J. H. Drew (London), R. Ellis (Newcastle), H. L. Ferguson (Dublin), T. S. Floyd (Birkenhead), F. Hamilton (London), L. Holland (Newcastle), G. Holmes (London), C. G. Lee (Liverpool), S. Macaulay (Newcastle), F. Matheson (London), J. S. Metford (Clifton), D. Nesbitt (London), A. Orwin (of London), J. Pickett (of London), Llewellyn Thomas (London), R. Torrance (Newcastle), G. E. Walker (Liverpool), C. Warden (Birmingham), W. C. Wicks (Newcastle), J. St. S. Wilders (Birmingham), and W. W. Wilson (Birmingham). The subject to be considered by the meeting was then discussed at length, and a resolution carried conveying the opinion of the meeting in regard to the principle to be adopted in their report. A sub-committee of four members was appointed to draw up a report embodying this principle, which after circulation amongst the members will be submitted to the committee at their next meeting. Notice of the meeting will be given by the hon. secretary as soon as the sub-committee have prepared their report. Communications on the subject should be addressed to the honorary secretary, Cresswell Baber, Esq., 4, Preston-street, Brighton.

THE SANITARY STATE OF CANNES.

WE have received a copy of the following communication which the English Physicians at Cannes are forwarding to the Mayor, together with the sanitary recommendations which they suggest.

"Mr. Mayor,—We have the honour to forward for your consideration the enclosed reccommendations relating to the sanitary requirements of Cannes. We rejoice in finding the energy and intelligence of the Mayor so earnestly enlisted in the cause of sanitary improvement. Some of the most obvious and crying abuses which are offensive to the senses, and not only suggestive of evil and danger, but probably operative in lowering the general standard of health, especially in the case of unseasoned visitors, will be removed by the rigid enforcement of the regulations embodied in the latest *arreté* of the municipal authority, on the disposal of stable manure and other refuse, and by devoting still further attention to the scavengering of the town and its environs, the many difficulties connected with which we fully recognise. While these efforts promise immediate results, we look confidently forward to the far extending benefit which the main-drainage scheme has in store for us, and trust that no efforts will be spared in removing all delays to the carrying out of the necessary works for this undertaking. The proposed organization of a Sanitary Bureau at the Mairie, opens an encouraging prospect for the future of hygienic reforms in the station. In the mean time pressure brought to bear by ourselves and the house agents upon the proprietors of villas, whose interests are in jeopardy through the continuance of the present state of things, will go far towards diminishing the prevalence of faulty sanitary arrangements to which the cases of fever so alarming to visitors, and so discreditable to the reputation of a health-resort, are directly traceable. It is in this sense that we venture to offer some suggestions, which merit attention as the outcome of practical experience in domestic sanitation. Neither these nor any other proposals briefly sketched in the accompanying memorandum lay claim to any originality, many of the measures having already been anticipated by the Mayor in his sanitary regulations, to the value and importance of which we gladly testify.

"*Recommendations on the Sanitary Requirements of Cannes, addressed to the Mayor and Municipal Councillors of the Town.*—1. That the carts for the removal of night-soil be prevented from passing through the public thoroughfares during the day; and that the emptying of the cesspools be restricted to the hours between 8 P.M. and 8 A.M. 2. That measures be taken to prevent, as much as possible, the practice that prevails of committing nuisances along the roads, pavements, gutters, and ground, in the immediate vicinity of paths along which people pass, and that in any cases in which police regulations on this score are infringed, arrangements should be made for having such nuisances removed without delay. 3. As one means for combating a widely spread practice, it should be rendered compulsory, whenever any large work, either of a public or private nature, is being carried out, that a latrine of simple construction be provided for the workmen. At present, it is believed that thousands of imported labourers are congregated in Cannes, without suitable arrangements having been made for them. 4. That police regulations be strictly enforced about the disposal of house and kitchen rubbish; and that the system of public collection be extended as far as practicable beyond the present limits. That rubbish, so collected, shall not be sold or disposed of to those who will so use it as to become a source of danger or annoyance to the occupants of any villa within the municipal limits. 5. That regulations be framed to limit the evils caused by the flow of water from wash-tubs, kitchen-sinks, and other such house-drainage, on to the public thoroughfares. The gutters, where defective in such respects, should be relaid—so as to ensure a regular and uniform fall, free from all impediments to the easy discharge of their contents into openings provided for the purpose. Such sanitary defects as gutters becoming a succession of stagnant pools of dirty water, contaminated with badly smelling products of decomposition, merit special attention. 6. That rules be promulgated to prevent night-soil, the overflow of cesspools, the connections of house-drainage, or the dirty water from oil-mills or other manufactories, from entering the mountain-torrents flowing down to Cannes. 7. That the drains opening into the sea should be covered ones for a certain distance out from the shore. 8. That the various points all along the Plage, at which offensive smells are so often encountered, should be carefully examined, and in any cases where they are found due to private drainage arrangements, that means should be taken to abate the evil. 9. That an official be attached to the Sanitary Bureau, whose sole duty it shall be to inspect all cesspools, drains, latrines, etc., and that such "Inspector of Nuisances" shall daily report in writing to the authorities any defects that he may find, and that such reports may be available for the inspection of any medical man desiring to study them. That it shall be the duty of this official to receive written complaints from the public, on matters to which they desire to attract official notice, and to examine into and report upon the points complained of, for the information of the authorities. That the Inspector of Nuisances be charged with the systematic inspection of the premises of those engaged in the manufacture of aerated waters, and in the supply of milk, so that the arrangements for their drainage and water-supply may be kept in a state of efficiency and free from the danger of contaminating the supplies with which they provide their customers. 10. That a small museum be formed in connection with the Sanitary Bureau, in which shall be exhibited the plans for showing water-closet and other house-drainage, and other sanitary arrangements that are in general use in England, as also a few specimens of pans for water-closets, traps for soil-pipes, sinks, and other adjuncts connected with the sanitary arrangements in a house. 11. That regulations be drawn up similar to those in force under the Local Government Board in England, prohibiting the construction of cesspools within a certain distance of any new houses that may be built. Insisting that all cesspools shall be carefully constructed to insure their being water-tight, that their bricks shall be laid in cement, that the

foundations and interior shall be carefully lined with cement, and the exterior be backed with puddled clay, or some additional security to prevent leakage—compelling all cesspools to be freely ventilated, requiring all soil-pipes to be fixed outside the house, and to be carried up to a safe position on the roof, advising the ventilation of syphons connected with the soil-pipe, the separate disposal of bath-water, slops, and kitchen drainage, and in general terms directing prominent attention to the special points on which English sanitary engineers are in the habit of insisting, such as having a separate water supply for the waterclosets from that provided for drinking and other general purposes, the cistern for the one being guarded from that of the other with scrupulous care. 12. That the municipality shall make every exertion to carry into effect the provision of some general and complete system of drainage that would ensure the removal of the night soil of Cannes to a convenient distance from the town, and put a stop to the inconveniences felt by even a portion of it finding its way to the sea. Any such scheme would also include arrangements for the removal of the other different forms of house drainage for the disposal of which, at present, it is so difficult to provide. 13. That the canal authorities be warned against permitting the use of bunches of brushwood or other vegetable materials to direct the current of water or otherwise regulate the stream. 14. That a careful guard be kept over the canal banks to prevent possible contamination with night-soil, and that in the event of any public or private works being undertaken in their vicinity, to prohibit latrines, drains, or cesspools, from being constructed on a higher level, without the most absolute certainty being provided that any contamination shall be impossible. 15. That the filters in connection with the canal be carefully tended, and the filtering media be changed sufficiently often to ensure absolute purity of the water that passess through them. 16. That the annual closure of the canal for cleaning out its bed and executing repairs should be so arranged that the water supply may be in complete working order on the 15th October of each year. 17. That the municipal authorities encourage, by every means in their power, any proposal to substitute a system of iron pipes for the open canal that now provides the water supply of Cannes. 18. Other points of general hygiene, as the regular inspection of cow-sheds, etc., the fixing of the maximum number of animals to be accommodated in each building with regard to the available cubic space; the surveillance of slaughter-houses, the careful examination of the carcases of all animals to be used as food, to ensure the rejection of those in which the lungs are not freely permeable to air, or other internal organs are diseased; the prohibition of the sale of meat not slaughtered on authorised premises, and other kindred considerations affecting the general health of the community have found no place in our recommendations—not because we consider them unimportant, but because we believe them to be outside the scope of the more narrow questions to which we have been asked to apply ourselves."

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL:

NOTICE OF QUARTERLY MEETINGS FOR 1882: ELECTION OF MEMBERS.

MEETINGS of the Committee of Council will be held on Wednesday, April 12th, July 12th, and October 18th. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary not later than 21 days before each meeting, viz., March 22nd, June 22nd, September 27th, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

November 4th, 1881. FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

LANCASHIRE AND CHESHIRE BRANCH.—*Preliminary Notice.*—A special meeting of this Branch will be held at Manchester on Wednesday, February 8th, at 5 P.M., to consider the subject of Compulsory Notification of Infectious Disease.—A. DAVIDSON, Honorary Secretary, 2, Gambier Terrace, Liverpool.

STAFFORDSHIRE BRANCH.—The second general meeting of the present session will be held at the Railway Hotel, Stafford, on Thursday, February 23rd, at 3.30 P.M. VINCENT JACKSON, General Secretary.—Wolverhampton, January 29th, 1882.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.—The fifth meeting of the session will be held at the Medical Institute, Birmingham, on Thursday, February 9th, 1882. The chair will be taken by the President, Mr. Bartleet, at 3 P.M. Paper: Mr. J. S. Gamgee: The Benefits conferred by Vivisection on Human Surgery. Members are invited to exhibit Patients, Pathological Specimens, New Drugs, Instruments, or Appliances, at the commencement of the meeting. N.B.—Members are requested to pay their subscriptions to Dr. Rickards.—E. MALINS, M.B., 8, Old Square; E. RICKARDS, M.B., 14, Newhall Street, Honorary Secretaries.—February 1st, 1882.

PROCEEDINGS OF THE COMMITTEE OF COUNCIL.

AT a meeting of the Committee of Council, held at the Council Room of Exeter Hall, Strand, London, on Wednesday, January 18th, 1882: Present, Mr. C. G. WHEELHOUSE, President of the Council, in the Chair; Dr. W. Strange, President-elect; Dr. W. F. Wade, Treasurer; Dr. Clifford Allbutt, Mr. Alfred Baker, Mr. T. H. Bartleet, Surgeon-Major Boileau, Dr. L. Borchardt, Dr. A. Carpenter, Dr. C. Chadwick, Dr. J. Ward Cousins, Dr. A. Davidson, Dr. Charles Drage, Dr. W. A. Elliston, Dr. B. Foster, Dr. E. Long Fox, Dr. W. C. Grigg, Mr. A. J. Harrison, Dr. C. Holman, Professor G. M. Humphry, Mr. W. D. Husband, Dr. Leslie H. Jones, Dr. D. J. Leech, Mr. C. Macnamara, Mr. F. E. Manby, Mr. F. Mason, Mr. R. H. B. Nicholson, Mr. H. Power, Dr. S. Rees-Phillipps, Dr. C. Parsons, Dr. R. C. Shettle, Mr. S. W. Sibley, Dr. E. M. Skerritt, Mr. H. Stear, Dr. A. P. Stewart, Dr. E. Waters,

The minutes of the last meeting were read and found correct.

Read letters of apology for non-attendance from Dr. Duffey, and Dr. Eyton Jones.

Read letter from Dr. Sieveking suggesting that the medal for distinguished merit be given to certain officers of the Association.

Resolved: That the President of the Council be requested to write to Dr. Sieveking, and inform him that the Committee of Council do not consider the carrying out his suggestion advisable.

Read communication from Dr. Urban Pritchard, the late Mr. Douglas Hemming, and Mr. Baker, asking that the Section Otology be recognised as a separate Section at the annual meeting.

Resolved: That, in compliance with the request, Otology be recognised as a separate Section at the annual meeting in August next at Worcester.

Resolved: That, on the occasion of the jubilee meeting, to be held at Worcester in August next, there be three vice-presidents in each of the Sections.

The President-elect reported that he had received an intimation from the Mayor of Worcester that it was his intention to invite the members of the Council to accompany him officially to divine service in the cathedral.

Read letter from Mr. R. E. Power of Portsea, suggesting that the list of members should be enlarged, giving particulars of each member's titles, and that an alphabetical list of members should be added.

Resolved: That Mr. Power be informed that the Committee of Council does not see its way to carrying out his suggestions with regard to increased information in the list of members.

Read resolutions of the East Anglian Branch, of which the following are copies.

Resolutions of the autumn meeting of the East Anglian Branch, viz.:

1. That it is, in the opinion of this meeting, desirable that steps should be taken at once to investigate thoroughly the subject of syphilis, and its effects upon the civil population of Great Britain, and more particularly of the great maritime and mercantile centres.
2. That the British Medical Association, representing so large a body of the guardians of the public health, is at the present time the only organisation capable of carrying out this investigation successfully.
3. That a copy of these resolutions be forwarded to the President and Committee of Council of the Association, with a request that they would take into consideration the expediency of forming a central committee of investigation, with power to appoint local committees in such places as they may think desirable; such subcommittees to consist not only of members of the Association, but of all medical men living in the place or neighbourhood, who are willing to assist in the work; to lay down the lines upon which these subcommittees are to work, and to receive and digest their reports.

Resolved: That the resolutions of the East Anglian Branch be referred to the Collective Investigation Committee.

The election of eighty-three candidates was then considered.

Resolved: That the election of one member be referred to the Council of the Lancashire and Cheshire Branch on the ground of suspected homœopathy.

Another candidate was referred to the Council of the Metropolitan Counties Branch.

Resolved: That eighty-one be, and they are hereby, elected members of the Association, and that two of the candidates be referred to the Councils of the Branches of the districts in which they respectively reside.

Resolved: That the minutes of the Journal and Finance Committee be received and adopted, and the recommendations carried into effect.

The minutes of the Journal and Finance Committee contain the report on the examination of the monthly accounts, amounting to £4,041 os. 9d., and the auditor's quarterly report on receipts, amounting to £5,431 18s. 2d.; and recommendations to empower the Treasurer to invest £2,000.

Resolved: That the seal of the Association be attached to the instructions for the payment in future of dividends due from the London and North-Western and Midland Railway Companies direct to the Bank.

Resolved: That the minutes of the Scientific Grants Committee of to-day's date be approved and carried into effect.

The minutes of the Scientific Grants Committee contain recommendations of further grants, to the amount of £50.

Professor Humphry, as Chairman of the Committee, reported that the Collective Investigation Committee had nominated Dr. William Robert Smith of Cheltenham for election by the Committee of Council as Secretary to the Collective Investigation Committee; but that he had received a letter of this date, stating that circumstances had occurred which prevented Dr. Smith's acceptance of the appointment. Under these circumstances, the Committee would reconsider the appointment of Secretary.

The President of Council reported that steps had been taken to support Dr. Ferrier, F.R.S., in the recent prosecution for vivisection.

Resolved: That the report of the President of Council, with regard to the steps taken in the prosecution of Dr. Ferrier, F.R.S., for vivisection, be approved, and the legal expenses, amounting to £75, paid out of the funds of the Association.

Dr. Alfred Carpenter gave notice that he would move, at the next meeting,

That the resolution appointing a Commission to inquire and report upon the Transmissability of the Diseases of Animals to Man by way of Flesh or Milk used as Food, be rescinded as far as the members of the Commission is concerned, and the subject of the investigation be referred to the Collective Investigation Committee.

DUBLIN BRANCH: ANNUAL MEETING.

THE fifth annual meeting of the Dublin Branch was held on Wednesday, January 25th, 1882, in the hall of the King and Queen's College of Physicians; Dr. JOHN T. BANKS, Vice-President of the Branch, in the chair. There was a large attendance of members.

The minutes of the last annual general meeting were read and confirmed, and letters of apology from some of the officers of other Irish Branches, who were unable to accept the invitation of the Council to attend the annual meeting and dinner were read.

Report of Council.—Dr. GEORGE F. DUFFY, Honorary Secretary, read the annual report of the Council for the past year as follows:—

"In presenting the Fifth Annual Report, your Council has the melancholy duty, in the first instance, of reminding the members of the great losses the Branch has sustained during the past year. Seven of its members, including its President and President-elect, have died since the last annual meeting. And the earth is still fresh over the grave of a member of your Council, Dr. Reuben J. Harvey, prematurely struck down by the same disease as that which, in the beginning of the year, took away the life of the deeply regretted Dr. Peele. The fatality which removed such valuable lives as those of Drs. Hayden and McClintock, the two chief officers of the Branch, also deprived it of two of its original promoters and most active members. Both took the greatest interest in its success; and spared neither time or trouble in contributing towards establishing the position the Branch now holds as well by their energies and talents, as by the support derived from their position and reputation.

"Your Council feel assured that the Branch received with the greatest satisfaction the sincere expression of brotherly feeling conveyed to it in the resolution of condolence adopted by the Council of the Metropolitan Counties Branch (which was published in the JOURNAL and in the daily Dublin papers), on the occurrence of the deaths, at so short an interval, of the President and President-elect of the Branch. By the deaths of Dr. Cryan and of Deputy Inspector-General Battersby, the Branch has also lost two of its original members; and by that of Surgeon T. Pakenham Walsh, A.M.D., a member who only joined the Branch last year.

"Owing to changes of residence and other causes, eight gentlemen have resigned their membership; and two members have been removed from the roll by the Parent Association, in consequence of non-payment of arrears of subscription. From all these losses, and from the fact that only eleven new members have joined the Branch during the year, an increase in the number of members on its roll cannot this year, as on all former similar occasions, be announced. We now number 168 members, which is seven less than the total last year. There is reason, however, to anticipate the accession of several new members, and no reason to fear for the vitality of the Branch.

"Your Council held four meetings during the year. The Bill introduced by Mr. Gray, M.P., for the Notification of Infectious Diseases in Ireland, received its careful and anxious consideration. The Council approved of making the notification of infectious diseases general throughout Ireland instead of merely local. It also agreed that the provisions of the proposed Bill should be compulsory, and apply generally to every sanitary district, instead of its adoption being left to the wishes of any sanitary authority. It regretted that the direct method of notification by the medical attendant was that adopted in the Bill, instead of the method approved of by the British Medical Association; as the Council was aware that a large proportion of the profession throughout the country strongly object to the former method. The Council, therefore, urged Mr. Gray to modify this clause in his Bill in such a manner as to make it acceptable to the bulk of the profession. This the Council believed might have been done by the adoption of what is known as the "dual method". The Council was also strongly of opinion that a fee of at least 2s. 6d. should be payable to the medical attendant for each certificate sent by him to the sanitary authority. Mr. Gray received the opinions of your Council courteously, and expressed his willingness to accede to most of them. Owing, however, to opposition to the Bill it could not be proceeded with last Session. But your Council are glad to inform you that they have been recently engaged, in conjunction with the Committee of Council of the Irish Medical Association. in framing a Bill, the provisions of which they trust will be acceptable to the members of both bodies, and which it is hoped may be introduced next Session. The text of this proposed Bill will be laid before this meeting, and a resolution proposing its adoption by the Branch, submitted to you.

"Your Council has given its best attention to all other subjects that have come under its notice. They are pleased to observe that one of their members, Mr. W. Stokes, has been selected by the Committee of Council to deliver the Address in Surgery at the next—the Jubilee—meeting of the Association. The funds of the Branch, which have been audited by Dr. E. H. Bennett, up to the 24th inst., show a balance in favour of the Branch of £29.

"With the object of continuing the custom which has heretofore existed, of filling the Presidential chair by a Fellow of the College of Physicians and a Fellow of the Royal College of Surgeons alternately, the Council has nominated Drs. Kidd and Banks, Vice-Presidents, as President and President-elect, respectively, of the Branch; and Mr. Edward Hamilton and Dr. Lombe Atthill as Vice-Presidents.

"The thanks of the Branch and of the Council are again due to the President and Fellows of this College for their readily accorded and courteous permission to hold our meetings within its walls."

Dr. J. W. MOORE moved: "That the report of the Council as now read be received and adopted."

Mr. PORTER seconded the motion, which was adopted.

Election of President.—The CHAIRMAN then declared the ballot open. He proposed, however, that Dr. George H. Kidd be elected President by acclamation. This was a pleasing duty, for he could not propose for the office one more worthy to fill it. He trusted that when they next met in that hall on a similar occasion they would not have to deplore such heavy losses as they had to lament that day.

Dr. KIDD then took the chair amid applause.

The Notification of Infectious Diseases Bill.—The HONORARY SECRETARY then read the draft of a Bill suggested by the Committee of Council of theIrish Medical Association, and by the Council of the Dublin Branch, to provide for the better Notification of Infectious Diseases in Ireland. The principal sections of this Bill, which we are unable to print *in extenso*, are the 3rd and 4th, which are as follows.

"3. If an inmate of any building used for human habitation is suffering from any of the infectious diseases specified in Schedule A to this Act, the person in charge of such inmate, or, if such person be prevented by disease or otherwise, the occupier or any other person having the management or control of such building, shall forthwith cause notice thereof to be given, by letter or otherwise, to the sanitary authority of the district in which such building is situated, as nearly as possible in the form contained in Schedule B to this Act."

"4. Every medical practitioner attending or called in to visit any person suffering from any of the diseases set forth in Schedule A to this Act, may, if he shall think fit, notify the occurrence of such case of disease to the sanitary authority of the district in which the person suffering from such disease resides; and every medical practitioner so notifying shall forthwith fill up, sign, and deliver, or cause to be delivered, or shall transmit by post to such sanitary authority, a certificate according to the form set forth in column 2 of Schedule C to this Act, or in a form to the same effect, stating the name and place of residence of the patient, and the nature of the disease from which such patient is suffering; and shall also fill up, sign, and deliver to the person having charge of such patient, or to the person having charge of the building in which the patient resides, a further certificate in the

form set forth in column 3 of Schedule C to this Act, the production of which certificate shall be a good defence for such person against any penalties for breach of the terms of this Act.

Dr. ROBERT MCDONNELL said he had had the advantage of reading over the proposed Bill, and of studying its provisions. He moved: "That the draft Bill to provide for the better notification of infectious diseases in Ireland, as suggested by the Committee of Council of the Irish Medical Association and by the Council of the Dublin Branch of the British Medical Association, be and hereby is approved of and adopted by this Branch; and that the Council of this Branch be authorised to take such steps as may seem to it advisable to procure the introduction of said Bill into Parliament during the coming session." Some members of the Branch, he said, might have some little difficulty as to the merits of the Bill. Some might wish it to go further—others might consider it had gone too far; but everything of the kind was a matter of compromise. They should give and take. The Bill, he thought, was a good one, and if the Branch came to a unanimous resolution on the subject it would help forward a Bill which would eventually be one of incalculable benefit to the public at large.

Dr. JACOB, in seconding the resolution, said the members of the medical profession were under no compulsion in this matter, and thus the element which was most distasteful to some members, including himself, had been got rid of. They could not shut their eyes to the fact that notification by medical men was much more efficacious than any other, and therefore they tried to introduce into the Bill a clause which would practically effect notification by medical men. That they did by the fourth section, which provided that when a medical man was called in to attend a patient suffering from infectious disease he might in the exercise of his discretion make the notification. He was not forced to notify the disease, but he might do so at the request of the patient; and for giving notice to the sanitary authority he should receive a small fee. That would relieve the householder from all liability under the circumstances. Thus a physician on entering a sick room would do so entirely unfettered. The plan proposed was deserving of trial, and he believed it would work in a way beneficial to the public.

Mr. CHAPLIN (Kildare), President of the Royal College of Surgeons, expressed his approval of the Bill, which saved the medical man from an invidious position, while at the same time its provisions left him free to serve the public in a matter of great importance. He fully concurred in the observations made by Dr. M'Donnell and Dr. Jacob, and he was prepared to give the Bill his most strenuous support.

Dr. JOHNSTON, President of the King and Queen's College of Physicians, also expressed his full approval of the Bill, and said that all objections to the measure were removed by Clause 4.

Dr. J. W. MOORE said that the public, through the members of Parliament, asked for direct notification by the medical attendant. The profession preferred doing it in an indirect form, and the form proposed in this Bill solved the difficulty. The Bill was most necessary. For the last two months measles had been a widespread epidemic in Dublin, and three or four weeks, or more, had passed away before the *habitat* of that epidemic was found out. Time was lost and the epidemic spread. The consequence was that the death-rate of Dublin had been raised to an extent that was a disgrace to the city. Dr. Moore then spoke of the effective manner in which the provisions of the Bill would be carried out by the forms provided in the schedules annexed.

The resolution was then put and adopted unanimously.

President's Address.—The President, Dr. Kidd, delivered an address on "Medical Education." It is published at page 146.

Vote of Thanks.—Dr. JOHNSTON proposed, and Mr. CHAPLIN (Kildare) seconded, a vote of thanks to the President, Dr. Kidd, for his admirable address. The vote was carried by acclamation, and the President expressed his acknowledgments.

Election of Officers.—The following were elected officers and council for 1882. *President:* G. H. Kidd, M.D. *President-Elect:* John T. Banks, M.D. *Vice-Presidents:* Edward Hamilton, M.D.; Lombe Atthill, M.D. *Council:* E. H. Bennett, M.D.; Thomas Darby, F.R.C.S.I.; J. M. Finny, M.D.; Samuel Gordon, M.D.; T. W. Grimshaw, M.D.; Rev. S. Haughton, M.D., F.R.S.; J. W. Moore, M.D.; E. D. Mapother, M.D.; Robert McDonnell, M.D., F.R.S.; H. R. Swanzy, M.B.; P. C. Smyly, M.D.; William Stokes, M.D. *Representatives on the General Council:* Isaac Ashe, M.D.; Thomas Darby, F.R.C.S.I.; Rev. S. Haughton, M.D., F.R.S.; James Little, M.D.; R. McDonnell, M.D., F.R.S.; J. W. Moore, M.D.; G. H. Porter, M.D.; W. Stokes, M.D. *Honorary Secretary and Treasurer:* G. F. Duffey, M.D.

The proceedings then terminated.

The Dinner.—In the evening, the members and their friends (to the number of seventy-six) sat down to dinner in the great hall of the College of Physicians—Dr. KIDD, President, in the chair. Amongst those present were: the High Sheriff of the City, Mr. E. D. Gray, M.P.; the Right Hon. Edward Gibson, M.P.; Sir Patrick O'Brien, Bart., M.P.; Sir William Carroll; Sir George Owens; Mr. Maurice Brooks, M.P.; Dr. Lyons, M.P.; Mr. Charles Meldon, Q.C., M.P.; Mr. Findlater, M.P.; the President of the Royal College of Surgeons; the Vice-President of the King and Queen's College of Physicians; the President (Dr. Banks) and the Honorary Secretary (Dr. Chapman) of the Irish Medical Association; the Governor of the Apothecaries' Hall; the President of the Pharmaceutical Society of Ireland; the President of the Obstetrical Society of Dublin; Dr. Croker King, Local Government Board; the Registrar-General; Master Pigot; Dr. Jacob, etc. After dinner, in addition to the usual loyal toasts, the toast of "The Houses of Parliament" was given by the President, and responded to by Mr. Maurice Brooks, M.P., Sir Patrick O'Brien, M.P., and the Right Hon. Edward Gibson, M.P. The President next gave "The Colleges of Physicians and Surgeons", to which the President of the College of Surgeons and the Vice-President of the College of Physicians responded. Dr. Lyons, M.P., proposed "The British Medical Association and its Dublin Branch". The President responded, and proposed "The Irish Medical Association", to which Dr. Banks (its President) responded. The toast of "The Visitors" was responded to by the High Sheriff, Mr. E. D. Gray, M.P.; and that of "The Press" by Mr. J. A. Scott and Dr. Jacob. Dr. McDonnell proposed the health of the Honorary Secretary, in eulogistic terms, and the toast was most warmly received. Dr. Duffey replied, and gave the toast of the gentlemen who had contributed towards the enjoyment of the evening by their finished and effective singing. To this toast, Mr. Martin responded; and the company soon afterwards separated.

CORRESPONDENCE.

THE BRITISH MEDICAL BENEVOLENT FUND.

SIR,—I have received from Dr. Henry, honorary secretary to the Metropolitan Counties Branch of the British Medical Association, the first list of subscriptions and donations to the British Medical Benevolent Fund received by him in response to an appeal on behalf of the fund; issued, by the authority of the president and council, with the usual annual circular asking for the subscriptions to the Association and Branch. The subscriptions to the fund amount to £54 18s. 6d. the donations to £60 11s. 6d., making, with a donation of ten guineas sent separately by the President of the Branch to Dr. Jonson, chairman of the committee of the fund, a total of £126.

This result surpasses our most sanguine anticipations, and goes far to make the reaffiliation of the fund to the Association an accomplished fact. The South Wales and Monmouthshire Branch is also employing the organisation by which its own subscriptions are collected for obtaining subscriptions to the fund; were this done by all the branches, not only would a larger amount of money be available for the relief of distress among members of the profession and their families, but the existence of the fund would be made known more widely and a larger number of cases would be reached.

That the fund would worthily represent the charitable department of the Association will be admitted, when it is stated that it distributes £1,800 yearly in grants for the immediate relief of necessitous applicants, and £900 in annuities.

I enclose a list of the subscriptions and donations received through Dr. Henry, and beg to remain, your obedient servant,

W. H. BROADBENT, Treasurer.

34, Seymour Street, Portman Square, W., January 23, 1882.

THE GRAVE SOCIAL PROBLEM.

SIR,—During the sixteen years that I have been a head master, I have been two or three times informed by my assistant-masters that they had grave reasons for suspecting the existence of this great social evil in the school. What I did then was this. I spoke to the boys as soon as they were all next assembled together in the large schoolroom, as follows; at least, this is an outline of what I said to them:—"Boys, it distresses me much to learn that many of you are in the habit of indulging in a vice—a secret, solitary, horrid vice—which, if persisted in, must inevitably be the ruin of your souls and minds and bodies. Universal experience assures us of this. Your happiness here and hereafter will be destroyed by the self-indulgence I allude to. Many of you know what I mean; many of you do not, and God grant that you may never know! How terribly guilty is he who first, whether by precept or example, teaches another the way to sin! That the vice I refer to is a *sin*, you all yourselves in your very hearts must feel. And

this vice is also, like every other kind of sin, *unnatural*. The reason it is unnatural is this. Conscience is entirely opposed to it, and so is a true regard for our own interests (or self-love, as it is called); and everything must be called unnatural that is opposed to these two great principles of our nature—conscience and self-love. One dreadful feature of this vice is that it grows through indulgence. Excess draws on excess; and one seldom gives up this habit once contracted, until it is too late—until health and strength at last give way, and death comes to remove the sickly, wearied victim of his passions from the world. Consumption, madness, mental and bodily weakness, and a thousand other ills, all result from indulgence in this vice. If you continue to indulge in it now, you will probably not be able to marry; and if you do marry, you will probably never have any children, (and what unhappinesses may spring from this!) and if you have children, they will be probably like their parents—weak and delicate and sensuously disposed; for children, of course, always inherit their parents' propensities of all kinds. We masters find it by no means difficult to recognise the boy who indulges in this vice. Debility, dislike to outdoor games, inattention at class, want of memory, proneness to reverie and moping about by himself, are among his principal characteristics. For God's sake, therefore, boys, and for your own; for your parents' sakes, whether these be dead or alive; and for your children's sakes, in case you may ever have any, stop, and stop at once, this vice,—those of you who may have indulged in it. Take, as it were, the pledge against it; mentally resolve never again, while life lasts, to be guilty of it; pray earnestly and trustfully to God for grace and strength to enable you to for ever keep this your resolution, and to remember your prayers. Play more than you have been hitherto doing; give not place to reverie; learn your lessons more vigorously; in short, be *always either at work or at play*, and you will presently find yourselves growing happier and healthier in mind and in body, and the less and less inclined to commit this sin."

Warning and advice of this kind will never be found to fail. Such warning, such advice, when affectionately and kindly given, will be always effectual; and boys will be even grateful for it. And as a schoolmaster may address his boys in general, so, of course, *mutatis mutandis*, can a schoolmaster or a father address any individual boy. There can be no doubt, boys ought to be informed about the fearful evils that arise from indulgence in this vice. Otherwise, how on earth can they know about them? Perhaps I should add, that I once called in the aid of our medical attendant in the case of one boy. The wretched lad was, I felt, destroying his intellectual and physical health by his apparent inability to restrain himself. Between the doctor's treatment of him and my advice, a total reformation has been, I rejoice to believe, effected in the once miserable boy.

It is a grave error to suppose that boys addicted to this vice are always brutal, low-minded, worthless fellows, etc. They are very often quite the opposite of all this—a fact that should not be lost sight of by schoolmasters and parents.

It may be urged that there is a danger of actually teaching a boy this vice, while striving to warn him against it. This is true. Discretion is necessary in this as in every other matter. However, if the advice be given vaguely and in general terms in the way that I have sketched out, it is only the guilty ones that can know what is meant. The innocent ones only know that something awful is being spoken of, and that the less said about it the better. And when, in due course of time, a knowledge of the evil referred to may come to them (and to what man or schoolboy does it not come sooner or later?) then the early words of warning will be sure to recur to them, and be remembered not in vain.

So much has been lately written in your JOURNAL about the prevalency of this vice that I trust, sir, you and your readers will forgive me for my audacity in venturing to describe a plan which I, myself, have found not unsuccessful in preventing and stopping it.—I am, yours faithfully,

MAURICE C. HIME, M.A., LL.D.

Foyle College, Londonderry, January 27, 1882.

THE MORTALITY FROM DIPHTHERIA AT DIFFERENT AGES.

SIR,—In the recently issued *Transactions* of the International Medical Congress, there is a table given at p. 85, of vol. iv, containing some very extraordinary statements, or as I believe mis-statements, with regard to this subject, which, from another table given by the writer of the paper (Dr. A. Jacobi, of New York), on a subsequent page, appear to me to convey as nearly as possible the exact opposite of what the author meant. It is in hope that, before these valuable *Transactions* are despatched to the uttermost ends of the earth, some means may be found of correcting the obvious error which has crept in somewhere in framing this statistical table, that I ask permission to draw attention to the subject in your columns.

The paragraph immediately preceding the table which I am about to quote, states that of 9,354 reported deaths of diphtheria in the United States, only 445 occurred under one year, 778 in the second, 1,034 in the third, 1,011 in the fourth, 991 in the fifth; thus 4,219 under five years (45 per cent.); 3,057 between the sixth and tenth, that is, as many as in the three years beginning with the third and ending with the fifth year. Between 10 and 15 there were 1275, about as many as in the first and second together, and but few more than in either the third, the fourth, or the fifth year. Then comes the table which states that "there were between"

15	and	20	years	329	less	than	in the first year.
21	,,	25	,,	112	,,	,,	
26	,,	30	,,	57	,,	,,	
31	,,	35	,,	28	,,	,,	
36	,,	40	,,	28	,,	,,	
41	,,	45	,,	18	,,	,,	
46	,,	50	,,	13	,,	,,	
51	,,	55	,,	10	,,	,,	
56	,,	60	,,	10	,,	,,	
61	,,	65	,,	4	,,	,,	
66	,,	70	,,	2	,,	,,	
71	,,	75	,,	2	,,	,,	
75	,,	80	,,	2	,,	,,	
81	,,	85	,,	2	,,	,,	
86	,,	90	,,	1	,,	,,	

If we desire to ascertain from this table what proportion of the total reported deaths from diphtheria took place between the ages say of 15 and 20 years, we must first subtract from 445, the number given as the total for the first year, 329, leaving 126 as the number of deaths between those years. Similarly, if we want to know whether more or fewer deaths took place between 56 and 60 than at the above ages, we must substract 10 from 445, and compare the result, 435, with 126 as given above. Finally, when we get to the bottom of the table we shall be astonished to learn that the deaths from diphtheria between 86 and 90 amounted to 444, or only one less than during the first year of existence.

Statistics such as these, if they could be considered correct, would go far to disprove the author's opening statement, that diphtheria is pre-eminently a disease of childhood. But they are obviously not correct, and are proved not to be so by another table given at p. 89, from which it appears that the total of deaths from the disease between 55 and 60 was 10, between 85 and 90, only 1, and so for all the others. The numbers given in the above table as so many less than in the first year, really represent the absolute number of deaths, between the stated ages, which took place out of a total of 9,354. The table, however, as it stands in the printed volume of *Transactions*, is incorrect and misleading.—I am, etc.,

H. NELSON HARDY.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE number of small-pox cases and deaths at Camberwell have happily diminished. During the past fortnight two deaths from the disease have been registered in Peckham, and four others (due to the parish) have occurred in hospital. Twenty-eight fresh cases of small-pox came under notice during this period, of which number twenty-one were sent to the hospital by the guardians.

WHO IS TO BLAME?

We have received a letter with this heading from Jarrow-on-Tyne stating that a case of measles occurred in a common lodging-house, registered to accommodate forty-six inmates; that an order was obtained on the 10th December for the union medical officer, who visited on that day; and on the 12th, the child not being removed, he sent a notice to the sanitary authority, which the inspector communicated to the medical officer of health. Another medical practitioner spoke to the inspector on the subject, and eventually the mother removed with the child to some other locality. "The sanitary authority blames the Poor Law authority and *vice versâ*." This seems to be no uncommon occurrence at Jarrow, as the sanitary authority has no hospital for infectious diseases, and the Poor Law authorities have in one instance removed a scarlet fever case to the Fever Hospital of South Shields, which is in the district. The answer, under these circumstances, to the question, "Who is to blame?" is quite clear, viz., that the relieving officer, on

receiving the certificate of the parish surgeon, should have immediately removed the child to the Fever Hospital. This case shows the muddle which often happens from the present state of the law, which although as regards paupers is clear enough to those who are acquainted with it, yet is very uncertain as regards other people, because there is no legal or authoritative definition as to what constitutes a pauper. In the metropolis this is to a great extent avoided by the relieving officers removing, in most parishes, to the Asylums Board Hospitals all those who are unable to provide proper medical attendance, nursing, and food for themselves. The medical officer of health is called upon to remove those who are without proper lodging and accommodation, and object, if paupers, to be removed by the relieving officer. Much time is sometimes lost by the friends of infected persons going to the wrong officer, and it is therefore highly necessary that something should be done to place the law upon a more satisfactory footing. It is true that the sanitary authority may provide a hospital for infectious diseases, but very often neglects to do so, in which case the medical officer of health is powerless. It is to be hoped that the Royal Commission on Hospitals now sitting will make some recommendations for the abatement of this dangerous state of the law, and for placing these matters on a more satisfactory footing.

SMALL-POX AT LEEDS.

THE outbreak of small-pox at Leeds seems to be assuming proportions which are somewhat alarming, in view of the inadequacy of the isolation accommodation at the disposal of the sanitary authority. Last week, the Mayor and other members of the Town Council attended, as a deputation from the Corporation, a meeting of the subscribers of the Fever Hospital, and stated that the Corporation were in a somewhat serious difficulty with regard to the treatment of infectious cases. The guardians had represented that it was absolutely necessary to provide an institution for dealing with infectious diseases, and which would receive pauper cases. The Fever Hospital Committee promised to consider a proposal to rent a portion of their hospital—a building constructed in 1870, and capable of containing about eighty beds. How far, however, this building is adapted for the present wants of the borough, does not appear to be clear. Meanwhile, small-pox is growing in the town, and the medical officer of health expresses himself as "at his wit's end how to deal with it".

SMALL-POX IN THE UNITED STATES.

WE understand that, in consequence of the spread of small-pox in the United States, the Executive Committee of the National Board of Health have declared the disease to be epidemic, and have insisted upon the adoption of vigorous measures, including the establishment of quarantine stations, with a view to prevent its spread. The United States have no compulsory vaccination law, such as exists in our own land, and the number of unprotected persons that accumulates between one epidemic and another is therefore very great. The last annual report of the State Board of Health of Massachusetts, in dealing with the disregard into which vaccination has fallen in the United States, gives as an instance that, amongst the children at the schools in an important town in the State, having large railroad connection with all parts of the country, more than one-half of the children of nine years old and under had never been vaccinated; the practice of vaccination having apparently fallen into disuse since a period of about nine or ten years ago, when the prevalence of an epidemic of small-pox called attention to its necessity. Dr. Adams, who reports on the whole subject, suggests that a State Vaccine Establishment should be formed, the chief business of which should be to propagate vaccine lymph by animal transmission, or in other ways, and from which all the physicians in the State should be supplied. This lymph should be proved by constant testing, and all the recipients should be compelled to report the results obtained. With the matter should be sent a recommendation to each physician to vaccinate, if possible, every infant born in his district, after so many months of its birth; also such instructions as may best prevent imperfect vaccinations. Dr. Adams thinks that vaccination should be forbidden by law, except by the hand of those to whom lymph is intrusted by the institution; that all the schools of the community should be subjected to an annual inspection, and that revaccination should be insisted upon whenever the protection of the public health requires the adoption of such measures. The Board of Health have not thought fit to adopt these recommendations, believing that the present laws of the State, if enforced, are sufficiently effective. The question becomes one of great importance, in view of the increasing prevalence of the disease in Philadelphia and New York, and the fact that inquiry and inspection in many towns have shown that the provisions of the statutes in respect to vaccination have been much neglected.

OBITUARY.

ANDREW WOOD BAIRD, M.D.,

PHYSICIAN TO THE DOVER HOSPITAL.

DR. ANDREW WOOD BAIRD was born at Colchester. In 1817, he began his studies at the University of Edinburgh. At the commencement of his medical studies, he resided with his mother's uncle, Mr. Andrew Wood, and, on his demise, with his mother's cousin, Mr. William Wood; both of whom filled the office of President of the Royal College of Surgeons of Edinburgh, and helped to make the name of Wood a power in the Scottish medical world. In 1821, he became a Licentiate of the Royal College of Surgeons of Edinburgh; and, in 1823, he took the degree of M.D. at the Edinburgh University. In 1824, he established himself as physician at Ipswich. In 1827, he became a Member of the Royal College of Physicians of London. He was, in connection with Mr. R. D. Alexander, banker, of Ipswich, the means of establishing the General Hospital for East Suffolk, to which he was physician. He also enjoyed one of the largest consulting practices in the county, and was, in every respect, the trusted and valued physician and friend both to rich and poor. In 1852, he left Ipswich. On leaving, he was presented with a valuable microscope and a purse of gold. As he had been in Ipswich, so he became in Dover—trusted and loved both by rich and poor. He continued to practise his profession to within a few days of his death; one of the greatest wishes of his life being thus fulfilled. He held for twenty-nine years the office of physician to the Dover Hospital. He died on January 10th, and it may truly be said of him that his end was peace. His remains were interred at Copthill Cemetery, Dover, on Monday, the 16th ult. The inhabitants showed, by closing shutters and attending at Copthill, the esteem in which he was held.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF OXFORD.

ELECTION OF MEMBER OF MEDICAL COUNCIL.—A convocation will be holden on Tuesday, February 14, at two o'clock, for the purpose of holding an election of a person to represent the University in the General Council of Medical Education and Registration in the United Kingdom, for the period of five years, in place of the late Professor Rolleston.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted as members on January 26th, 1882.

Beevor, Charles Edward, M.D.Lond., 129, Harley Street, W.
Bradshaw, Alexander Frederick, Devonport.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, January 26th, 1882.

Gilbert, James William Thornton, Linden Gardens, Chiswick.
Larmuth, Leopold, Cheadle.
Shillito, William Alsop, Broomhall, Sheffield.

The following gentlemen also on the same day passed their Primary Professional Examination.

Sutton, John Bland, Middlesex Hospital.
Tomalin, William J. Clarkson, Guy's Hospital.
Wholey, Thomas, London Hospital.

MEDICAL VACANCIES.

THE following vacancies are announced :—

BOROUGH OF BRIDPORT—Medical Officer of Health. Salary, £40 per annum. Applications to the Town Clerk by February 4th.

BRADFORD FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION—Assistant Medical Officer and Dispenser. Salary, £120 per annum. Applications by February 9th.

BRISTOL GENERAL HOSPITAL—Physician's Assistant. Salary, £50 per annum. Applications by February 18th.

BRITISH LYING-IN HOSPITAL, Endell Street, W.C.—Honorary Physician. Applications by February 13th.

CARNARVONSHIRE AND ANGLESEY INFIRMARY, Bangor—House-Surgeon. Salary, £100 per annum. Applications by 11th February.

CRAIGLOCKHART HYDROPATHIC, near Edinburgh.—Resident Physician. Applications to the Managing Director, Craiglockhart Hydropathic Company, Limited, 40, Frederick Street, Edinburgh, by 6th February.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Dental Surgeon. Applications by February 13th.

GENERAL HOSPITAL AND DISPENSARY FOR SICK CHILDREN, Pendlebury, and Gartside Street, Manchester.—Physician. Salary, £300 per annum. Applications by February 8th.

GLASGOW ROYAL INFIRMARY.—Extra Dispensary Physician. Applications to H. Lamond, Secretary, by February 4th.

GLASGOW ROYAL INFIRMARY.—Extra Dispensary Surgeon. Applications to H. Lamond, Secretary, by February 4th.

GLENMADDY UNION.—Medical Officer for Williamstown Dispensary District. Salary, £120 per annum, with £25 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 17th instant.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident Clinical Assistant. Applications by 11th instant.

LIVERPOOL EYE AND EAR INFIRMARY—House-Surgeon. Salary, £80 per annum. Applications by the 10th February.

MONTROSE ROYAL LUNATIC ASYLUM—Assistant Medical Officer. Salary, £120 per annum. Applications to Dr. Howden.

RADCLIFFE INFIRMARY, Oxford.—Junior Resident Medical Officer. Salary, £60 per annum. Applications by February 22nd.

ROTHERHAM HOSPITAL—Resident House-Surgeon. Salary, £100 per annum. Applications by February 28th.

ST. ASAPH UNION—Medical Officer. Salary, £83 per annum. Applications by February 8th.

ST. BARTHOLOMEW'S HOSPITAL—Assistant Surgeon. Applications by 14th February.

ST. BARTHOLOMEW'S HOSPITAL—Surgeon. Applications by 14th February.

ST. BARTHOLOMEW'S HOSPITAL, Chatham.—Assistant House-Surgeon. Salary, £80 per annum. Applications by February 13th.

ST. MARK'S OPHTHALMIC HOSPITAL, Dublin—House-Surgeon. Salary, £52 10s. per annum. Applications to the Registrar by February 18th.

THE CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—Assistant Surgeon. Applications by February 7th.

MEDICAL APPOINTMENTS.

BERNARD, A., M.D., appointed Surgeon to the Liverpool Lock Hospital.

CARSON, S., M.B., appointed Medical Officer of Health to No. 1 District for Alston

FRETZ, W. Henry, L.R C.P.Ed. appointed Medical Officer to the Second District in the Civil Service of Nevis.

HAMMOND, G., L.D.S., appointed Dental Surgeon to the National Dental Hospital.

LOUGH, J. J., M.B., appointed Medical Officer of Health to the City and East London Dispensary. *vice* E. A. Snell, M.B., resigned.

LOWNDES, F. W., M.R.C.S., appointed Senior Surgeon to the Liverpool Lock Hospital, *vice* William McCheane, F.R.C.S.

MCCHEANE, William, F.R.C.S., appointed Consulting Surgeon to the Liverpool Lock Hospital.

MORRIS, W. Cameron, M.B., appointed Medical Officer of Health, Public Vaccinator, District Medical Officer, and Surgeon to the Workhouse of the Chester-le-Street Union, *vice* Ralph Linton, M.R.C.S., deceased.

NORMAN, C., F.R.C.S.I., appointed Resident Medical Superintendent to the District Asylum, Castlebar.

NOWELL, W., M.R.C.S., appointed Consulting-Surgeon to the Halifax Infirmary and Dispensary.

PICKWORTH, A. J., L.R.C.P., appointed Medical Officer of Health to No. 2 District of Alston.

PIKE, C. J., M.R.C.S., late House-Physician, appointed House-Surgeon to University College Hospital.

SYMES, E. W., M.D., appointed Honorary Surgeon to the Halifax Infirmary and Dispensary, *vice* W. Nowell, M.R.C.S., resigned.

THORNTON, Bertram, M.R.C.S., L.R.C.P.Lond., appointed Junior Resident Medical Officer to the Royal Sea-Bathing Infirmary, Margate.

WATERS, W. H., B.A., appointed Demonstrator and Assistant Lecturer in Physiology to Owens College, Manchester.

WHITFORD, William, M.D., M.Ch., appointed Honorary Assistont-Surgeon to the Stanley Hospital, Liverpool; and also Honorary Assistant-Surgeon to the Liverpool Cancer and Skin Hospital.

WILLCOCKS, F., M.B., appointed Medical Registrar to the Charing Cross Hospital.

WILLIS, J., M.R.C.P., appointed Visiting Physician to the Infirmary for Consumption and Diseases of the Chest and Throat.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

HOBSON.—January 30th, at Lower Addiscombe Road, Croydon, the wife of John M. Hobson, M.D., of a son.

MARRIAGE.

CURETON—ROBERTS.—On the 1st inst., at Leintwardine parish church, by the Vicar, the Rev. E. J. Green, Edward Cureton, Belmont, Shrewsbury (Physician to the Salop Infirmary), and third son of the late George Cureton, of The Beam House, Shropshire, to Jane Elizabeth, eldest daughter of George Roberts, of Whitton, Leintwardine, Herefordshire.

THE late Professor Pirogoff died of epithelial cancer, which perforated the hard palate. By his will, he has left 500,000 silver roubles £75,000).

PROFESSOR LEIDESDORF of Vienna, the eminent psychologist, has received the cross of knighthood of the order of Francis Joseph.

THE tercentary festival of the University of Würzburg will be celebrated during the first three days of August.

SMOKE ABATEMENT.—William Scrivener, builder, of 8, Fitzroy-road, Regent's Park, was summoned to the Marylebone Police-court for using in his business a furnace not constructed so as to consume its own smoke. Mr. Sandeson, the Government inspector, proved that the furnace was not constructed for consuming the smoke, and a police-sergeant deposed to seeing volumes of black smoke coning from the chimney. Mr. De Rutzen said any one who had observed the weather in London during the last month could say that nothing was wanted to make it worse than such furnaces. This furnace had no kind of apparatus, and it was absolutely necessary in the interests of the public that this thing should not be allowed. There would be a fine of £5, with £1 13s. 6d. costs. The defendant said he should appeal.

HEALTH OF FOREIGN CITIES.—A table in the Registrar-General's last weekly return supplies the following facts and figures, which afford trustworthy indications of the recent health and sanitary condition of various foreign and colonial cities. According to the most recent weekly returns, the annual death-rate was equal to 40.6 in Calcutta, and 34.2 in Bombay; no return appears to have been received from Madras. Cholera caused 38 deaths in Calcutta and 37 in Bombay, while the "fever" fatality was as usual exceedingly high in both cities. The death-rate in Alexandria, during the second week of January, was equal to 31.0; the 126 deaths included 6 fatal cases of typhoid fever. In twenty-one European cities, the death-rate averaged 30.9, and exceeded by 6.1 the average rate prevailing last week in twenty-eight of the largest English towns. The death-rate in St. Petersburg rose again to 48.5; 44 deaths from typhus and typhoid fevers and 29 from diphtheria were recorded. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate did not average more than 26.5; measles caused 15 more deaths in Christiania and 4 in Copenhagen. In Paris, the death-rate was equal to 29.6; 74 deaths resulted from diphtheria and croup, 35 from typhoid fever, and 15 from small-pox. The rates of mortality in Geneva and Brussels were 29.3 and 23.2 respectively; a fatal case of small-pox was reported in Brussels. The death-rate averaged 26.6 in the three principal Dutch cities, and was equal to 25.4 in Amsterdam, 26.6 in Rotterdam, and 26.9 in the Hague. Fevers caused 3 and whooping-cough 8 deaths in Amsterdam, and a fatal case of small-pox occurred in Rotterdam. The Registrar-General's table includes returns from seven German and Austrian cities, the death-rate in which averaged 29.2, and ranged from 23.1 in Berlin, to 35.5 in Munich and 37.5 in Buda-Pesth. Small-pox caused 15 deaths in Buda-Pesth, 14 in Vienna, and 2 in Prague. In three of the principal Italian cities, the death-rate averaged 28.4, and was equal to 25.4 in Venice, 28.8 in Naples, and 29.5 in Turin; typhoid fever continues to show fatal prevalence in Naples and Turin. No returns have been received from Rome since the middle of September last. The average death-rate in four of the principal American cities was equal to 27.9; these rates ranged from 24.0 in Philadelphia, to 32.0 in New York. Small-pox caused 23 deaths in Philadelphia and 9 in New York; scarlet fever and diphtheria continue to show fatal prevalence in New York and Brooklyn.

THE SOCIETY OF ARTS.—A paper has recently been read at the rooms of the Society of Arts, by Dr. Thudichum, On Recent Researches into the theory of the living Contagium, and their Application to the Prevention of Certain Diseases in Animals. Dr. Frankland presided.—Dr. Thudichum said that, in all cases a contagium was a material particle or number of particles transferred from a specifically sick person or animal to a healthy person or animal. In order to understand how such a contagium could be living, it was necessary to be acquainted with the nature and properties of the smallest organisms occurring in nature. From the consideration of all that was known on the subject, it followed that contagia which could be distinctly recognised as consisting of a number of similar individuals belonged, not to the animal, but to the vegetable kingdom. An interesting description was given of the experiments made upon animals. It had been found that inoculating them in a mild form with diseases to which they were liable, acted as a protection against the severer forms of disease. There were not wanting objectors to the protective inoculation of animals, as there were not wanting objectors to vaccination. They would do good by opposition if founded on experiment. Probably the stamping out of disease by isolation of cases and germs might be preferable to general inoculation. But antidotes—true medicines—were wanted for most of the virulent diseases, and it was in this discovery that the chemical method of investigating disease would in future meet with its greatest success.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Third Lettsomian Lecture, by Mr. H. Royes Bell, on Acute and Chronic Orchitis.—Odontological Society of Great Britain, 8 P.M. President's Introductory Address. Casual communications from Messrs. Sewill, Hutchinson, Dr. Campbell.—Royal College of Surgeons of England, 4 P.M. Professor W. K. Parker: On the Morphology of the Mammalian Skull.

TUESDAY.—Pathological Society of London, 8.30 P.M. Specimens to be shown: The President and Dr. Goodhart: Addison's Disease. Dr. B. Fenwick: Incompetence of Tricuspid Valve. Mr. Shattock: Congenital Tumour of Neck. Dr. S. West: 1. Cardiac Hypertrophy; 2. Fatty Degeneration of the Heart. Dr. Norman Moore: 1. Specimens of Gout; 2. Osteoma of Tibia. Dr. Hale White: Changes in Medulla Oblongata causing Sudden Death. Mr. H. Morris: Unreduced Dislocation of Hip. Dr. Roger Williams: 1. Sarcoma of Bladder: 2. Acute Suppurative Arthritis. Mr. Davies Colley: 1. Congenital Hypertrophy of Toes, etc.; 2. Inguinal Hernia. Mr. H. Bendall: Acute Farcy in Man. *Comparative Pathology:* Fracture of Femur in a Puma; Pneumothorax in a Coati; Cystic Kidney in a Pig.

WEDNESDAY.—Hunterian Society, 7.30 P.M., Annual General Meeting for the Election of Officers. 8 P.M., The Hunterian Oration will be delivered by Dr. Robert Fowler in the theatre of the London Institution.—Royal Microscopical Society, 8 P.M. Annual Meeting for Election of Officers and Council.—Royal College of Surgeons of England, 4 P.M. Professor W. K. Parker: On the Morphology of the Mammalian Skull.

THURSDAY.—Abernethian Society, St. Bartholomew's Hospital, 8 P.M. Dr Stowers: Skin-Diseases in relation to Syphilis.

FRIDAY.—Clinical Society of London, 8.30 P.M. Mr. Knowsley Thornton: Case of Threatened Suppression of Urine after Ovariotomy; Arms packed in Cold Wet Towels; Recovery. Mr. Balmanno Squire: Case of Erythema Iris. Dr. D. W. Finlay: Case of Aneurysm of Ascending Aorta (patient will be shown). Mr. R. J. Godlee: Case in which a Piece of Grass swallowed by a Child made its Exit in an Intercostal Space.—Royal College of Surgeons of England, 4 P.M. Professor W. K. Parker: On the Morphology of the Mammalian Skull.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following were the questions submitted to the candidates at the examination for membership on the 13th ultimo. *Surgical Anatomy and Principles and Practice of Surgery.* (Four questions at least to be answered, including one of the first two.)—1. Enumerate the Structures that must necessarily be divided in Removal of the Clavicle, and name the important parts in danger of being wounded. 2. Mention the Structures which are in contact with the Male Urinary Bladder. 3. Describe a case of Acute Abscess of the Mammary Gland, and give the appropriate Treatment throughout. 4. Mention the Obstacles to Reduction which may exist in the case of a Large Scrotal Hernia. 5. Describe the Symptoms and Treatment of Gonorrhœal Ophthalmia. 6. Describe the Appearances presented on Dissection in a case of Necrosis of the Shaft of the Tibia, in an advanced stage.—*Midwifery and Diseases of Women* (three questions to be answered). 1. What are the Causes of Hæmorrhage during the first stage of Labour? How would you treat them? 2. What are the difficulties and dangers special to Labour with the Head presenting? How would you deal with them? 3. What are the Signs and Symptoms of Pregnancy at the seventh month? Mention those on which you would rely in making a diagnosis. 4. How would you distinguish between Fibrous Polypus of the Uterus and Inversion of the Uterus?—*Principles and Practice of Medicine* (three questions, including the fourth, to be answered). 1. What are the causes of Hæmorrhage into the Brain? In what parts does it commonly occur? And what are the symptoms which result from it? 2. What are the causes, morbid anatomy, signs, prognosis, and treatment of Typhlitis? 3. What are the causes of general Dropsy? How would you distinguish its several varieties, and how treat them? 4. State the effects, uses, and doses of the following drugs: Iodide of Potassium, Bromide of Potassium, Creasote, Acetate of Lead, Dilute Hydrocyanic Acid, Liquor Morphiæ Hydrochloratis, Liquor Strychniæ, Vinum Colchici, Tinctura Aconiti, Tinctura Nucis Vomicæ.

At the recent first examination of candidates for the membership of the Royal College of Surgeons, the following were the questions submitted to the candidates, who were required to answer four, and no more, of the six questions in each series. *Anatomy.*—1. Describe the Thorax as a whole. 2. Describe the different kinds of Diarthrodial Joints, and give examples of each kind. 3. Describe the attachments and give the relations and nervous supply of the Omo-hyoid Muscle. 4. Describe the anastomoses around the Ankle-Joint, and the course of the vessels entering into the formation of these anastomoses. 5. Describe the course and distribution of the Lymphatics of the Bladder, Penis, Scrotum, and Testis. 6. Describe the course of the Nerves supplying the Muscles of Mastication, and mention the position where they severally enter the respective muscles. *Physiology.*—1. Give the structure of a medium-sized Artery and Vein; and compare the conditions under which the blood moves in these vessels respectively. 2. State the average Air-Capacity of the Lungs. How may this be determined? How is Respiration affected by external conditions? 3. Describe the microscopical structure of a Lobule of the Pancreas, and the changes that take place in its cells during the different phases of their secretory activity. 4. What are the functions of the third Pair of Cerebral Nerves? How may these functions be determined? 5. Define and explain the terms Systole, Inhibition, Astigmatism, Summation of Contraction; and distinguish between tone and quality of Sound. 6. Describe the Structure of the Mucous Membrane of the Large Intestine. What are the uses of the Large Intestine?

DR. S. E. STONE.—We have communicated with Mr. Spear, who has kindly given directions to forward to our correspondent a copy of the report which he made to the Local Government Board on the subject of woolsorters' disease.

HOSPITALS IN SCOTLAND.

SIR,—Referring to paragraph on page 58 of the JOURNAL of January 14th, I beg to state that the *Medical Directory* is in error, so far, at least, as concerns the county of Nairn, which possesses a fully equipped hospital capable of accommodating twenty patients, and quite sufficient for the wants of the district.—Yours, etc.,

Nairn, January 18th, 1882. B. CRUICKSHANK, M.D.

"CURIOSITY" is, we fear, destined to remain unsatisfied; we do not possess the information required.

SURGEON (Canning Town) should bring the matter before the Council of his Branch for discussion as to what is best to be done. Subjects such as these are best discussed, in the first instance, in the Branch, and the discussion may then with advantage be reported in the JOURNAL; but, as presented, it will partake of the character of an *ex parte* statement.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

MEDICAL ATTENDANCE ON THE POOR.

SIR,—It is no doubt often an anxious and difficult question for a medical man to decide where the "necessity of living" for himself and his right to fair payment for services, and often for medicines, supplied, should give way to claims for such service, without payment, on the grounds of the urgency of the claim. Upon humanitarian grounds, every sick and suffering person is, *per se*, an object of compassion. On the other hand, it is the regular way of livelihood of doctors to be paid for their efforts to relieve such suffering and sickness; and there are a great number of voluntary organisations in which doctors take their special part to afford relief where poverty prevents such payment, as well as a great State organisation, to support which doctors pay rates and taxes in common with other citizens. Nevertheless, the doctor who does not respond to the special appeal to his free service, which is so often made, is apt to be taxed with heartless inhumanity; and lately such headings and paragraphs have multiplied more than usual. I subjoin one, which is, I think, a good test case. Can we lay down among ourselves any rules? I should like to have the opinions of some of our fellow-members on this paragraph.

"Mr. S. F. Langham held an inquest relative to the death of John B. G. Manchester, aged 15, of Elliott's Row, Southwark.—Augusta Manchester deposed that the deceased was her son. He was in the employ of a carriage-builder, and left home apparently in good health, and went to work. About 11 A.M., witness was suddenly sent for to go to the lad, who had been taken ill while at Messrs. Alfords', carriage-builders, Newington Butts, having been sent there on an errand. When she got to him, he was in a kind of fit, and quite unconscious. A neighbouring doctor was sent for (Dr. Lamb), who ordered his immediate removal home in a cab, and told witness to come to his surgery at once for some medicine, as the case was most urgent. Upon going to the surgery a few minutes afterwards, the medicine was ready, but the doctor (Dr. Lamb) said she must pay 2s. 6d. for it before he could let her have it. Witness was in such a state of anxiety about her boy, that she never thought about money on leaving home; and, as she had not got the 2s. 6d., he refused to give her the medicine.—By the Coroner: He told me the medicine my boy needed was of the most expensive kind, and he must have the money first. I begged of him to let me have one dose for the sake of the boy's life, but he would not. He told me he must insist on my returning home, and getting the money. I thought this very hard, especially as he had told me the case was urgent, and I was alarmed at every moment's delay. I then went for Dr. Matcham, but before he came my boy was dead.—Mr. A. Matcham, surgeon, deposed to being called to see the deceased, and to life being extinct upon his arrival. From what he could learn, he was of opinion that the boy had been suffering from brain-affection for some time, and all the symptoms pointed to death being the result of apoplexy.—By the Jury: It was a rare thing to find a person so young dying from apoplexy, but witness had seen cases at even an earlier age.—The Coroner: You have heard what Mrs. Manchester has stated with respect to Dr. Lamb's refusal to supply her with medicine unless she first got the money. Do you think, if medicine had been given, that the life of the deceased might have been saved?—Witness: From all I can see, the case was hopeless from the first.—A verdict of Natural Death was recorded."

Supposing that what is alleged in evidence is true, what are the principles on which a medical man should act in such cases? What is the experience of medical men as to cognate cases? what is their practice, and what their rules of conduct? I observe that you are manfully grappling with some of these hard cases. If you will admit this letter, and any subsequent correspondence, I think it might let in some light, and help you to assist us to settled principles and conclusions.—I am, sir, yours faithfully,

G. P.

SIR,—Your remarks in the JOURNAL of January 14th, in the article on "Medical Attendance on the Poor", would lead one to ask more than ever, and yet once again, Why should a medical man give his services to a case when he has great doubts of receiving a penny in payment, more than a tradesman should give his wares to one he never expects to pay for the same? If the latter refuse a customer on such grounds, the public back him up, and say "quite right too"; but, if we refuse giving our time, and (in respect of the case in point) I may add health too, and any *contretemps* like the present arise, everyone blames us; but rarely, as in this instance, our brethren.

Let me narrate an incident which occurred soon after I arrived here. I often wonder how it was terminated; and if fatally, for want of attendance, who would be blamed? One very cold night, a respectably dressed man, apparently a mechanic, rang at my bell, and implored my immediate attendance on his wife, hourly expecting her confinement; but, as I was expecting to be called out hourly myself, I had to refuse him, though he informed me he had been to eight medical men, none of whom he could induce to turn out. I think those who read the case will thank the coroner for his charitable view of the case; for, if a medical man, he may speak from the experience of many of us, who can tell of many a sleepless night spent without receiving a ghost of a fee.

I only wish we could unanimously follow the example of the admirable co-operative stores, and reduce, if necessary, our fees, but demand cash payment. Surely our advice is as valuable to those who seek it, as the contents of our stores are to those who purchase there; why should, then, the latter be always paid for, whilst the former so often has to take its chance—and that a poor one.—Yours, etc.,

A MEMBER.

*** We have many times referred to the excellent system of paid night service in vogue in Paris, New York, and other capitals, by which system such difficulties are avoided.

OZÆNA.

SIR,—Would some of your readers kindly inform me whether there is any prospect of a patient with ozæna deriving benefit from residence in another climate; and what district and country they would recommend? I have already tried innumerable sprays and other local applications, but with only slight advantage.—Yours truly,

G. A.

S.—The alleged conduct of E., in sending for republication in a lay newspaper, matters relating to medical ethics is, we consider, very objectionable. As S. was not aware, at the time that he notified the case to the sanitary authority as one of measles, that there was any dispute as to the diagnosis, he was quite right in reporting it. It does not appear, from the information before us, that E. visited the case the second time in his official capacity as officer of health, but as the medical attendant who had previously had charge of the case, and for the purpose of satisfying himself as to its nature.

ELECTION OF AN UNQUALIFIED PRACTITIONER TO A FRIENDLY SOCIETY.

SIR,—Will you kindly express your opinion in the following case? A qualified registered physician and surgeon and an unqualified man contest the appointment of medical attendant on the members of a lodge of a registered friendly society. By the registered rules of the said society only a qualified man is eligible. The unqualified man gets the majority of votes, and is declared elected. Is not the qualified man nevertheless duly and legally elected under the circumstances? and on these grounds? 1. He was the only eligible candidate who applied. 2. All votes given in favour of the unqualified, and thus totally ineligible, man, were as if never recorded, and thus null and void. 3. The unqualified man recorded just two votes more than the qualified man, and the lodge is a strong one.—Yours, etc.,

LODGE SURGEON.

*** The Medical Act of 1858 prohibits a person from holding any appointment as a physician, surgeon, or other medical officer to any friendly society unless he be registered. We are also of opinion that the unqualified individual referred to by our correspondent as having been chosen to fill the appointment of medical attendant to the members of a lodge of a registered friendly society was not legally elected, inasmuch as we are informed that, by the certified rules of this association, only a duly qualified medical man is eligible for such a post. In Pratt's *Law of Friendly Societies*, it is stated that "great strictness must be observed in following the rule as to the appointment of officers"; and the case of Roberts *v.* Price on this point materially corroborates such assertion. According to this, the election of a treasurer to the Overton Friendly Society was declared to be void by Mr. Justice Coltman at the Flint Assizes, and this decision was subsequently affirmed in the Court of Common Pleas, on the ground that the whole of the members of the committee in whom the duty of electing officers had been vested by the society, had not been summoned to the meeting in question. Although it does not appear to us, after referring to the Friendly Society Acts, and the cases decided in connection with them, whether our correspondent is legally elected as medical attendant to the lodge, we are of opinion that he is lawfully appointed to this position according to the decision in the case of the Tipperary Election Petition, tried before the Court of Common Pleas in Ireland in 1875; and which judgment is, we believe, applicable in many respects to the appointment of officers to associations and other corporations. In this case the election of Mr. John Mitchell as member for the county of Tipperary was declared to be void, on the ground that he was disqualified from being elected a member of the House of Commons, and that, upon a notification of this incompetency to the electors who voted for him, their suffrages were useless, *and the candidate in the minority was entitled to the seat.*

MEMB. BRIT. MED. ASSOC., who writes a letter concerning the Collective Investigation Committee, is reminded of the rule which requires every person to append his signature to a letter for authentication, though not necessarily for publication. If the "Member" wish for any further information on the subject, he should address the General Secretary of the Association, at 161A, Strand; or the Chairman of the Collective Investigation Committee, Professor Humphry, Cambridge.

COMMUNICATIONS, LETTERS, etc., have been received from:—

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REPORTS
TO THE
SCIENTIFIC GRANTS COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION.

THIRD CONTRIBUTION TO THE LIFE-HISTORY OF CONTAGIUM.

By PETER MURRAY BRAIDWOOD, M.D., F.R.M.S.,
AND
FRANCIS VACHER, F.R.C.S.Ed.

(*Continued from page 146 of last number.*)

Microscopical Observations.

These are based on a careful examination, with low powers and with moderately high powers (x 350), of several dozen sections, prepared for us by Messrs. A. C. Cole and Son, of viscera, containing secondary deposits removed shortly after death from the animals in which we had induced artificial septicæmia. The subjects used for this purpose were rabbits, forming Experiments 7, 8, 10, 12, 13, 17, 19, 20, 21, and 22 in Series A; the victims of experiments in Series B; and those of Experiments 1, 2, and 3 in the third (C) series. Our sections were for the most part tinged with carmine; but, in some instances, we had sections stained with methyl-aniline dye, with the object of endeavouring to detect micrococci or other organisms in the tissues; in this, however, we failed. As in the case of the microscopical observations described in our former two reports on contagium, the tissues were immersed in pure spirits immediately after their removal from the cadaver, and were not subjected to any form of manipulation excepting section-cutting.

Experiment 7. *Lung.*—The blackish-red spots were seen under the microscope to consist of alveolar extravasation arising from capillary embolism. A portion was distinctly observed, under a low power, to be composed of air-vesicles filled with exuded blood. The small artery in the immediate neighbourhood showed its channel occluded by a clot, and so also did a capillary branch adjacent. Under a high power, the same conditions were more distinctly observable, while the borders of the alveoli were sharply mapped out by rows of highly tinged corpuscles heaped together. *Lung.*—White spots showed thrombosis of small blood-vessels and their capillary branches, giving rise to isolated patches of hæmorrhagic extravasation at the pleural margin of the lobules, and thickening of the superimposed serous membrane. *Liver.*—With a low power, at the circumference of the section, was observed a spot showing obliteration of the hepatic cells, in its centre surrounded by a ring of deeply tinged cells and a projection outwards of the neighbouring serous capsule. The adjacent hepatic lobules appeared healthy. Under a high power, in the centre of this spot were seen very minute capillaries occluded by clots, causing exudation of serum and of blood-corpuscles, which pushed aside the hepatic cells. At the margin of the spot, the hepatic cells were seen elongating, as if forming a capsule to enclose the extravasated blood. Here and there, even in the healthy hepatic tissue, were to be seen blood-vessels with thickened walls and more or less occluded cavities; these belonged to the hepatic system, and the coats of the arterial capillaries seemed to be most altered.

Experiment 8.—The *liver*, under a low power, showed the viscus infected with secondary deposits, consisting of exuded blood, and encysted and broken-down tissue. These deposits, on section, had the appearance of walled irregularly shaped cavities, with villous-like processes projecting into them. Examined under a high power, the same appearances were observed more distinctly, and the hepatic veins in the centres of the lobules were seen to be filled with blood-clot.

Experiment 10.—The *heart*, both on transverse and in longitudinal section, showed only blood-clots in the capillaries.

Experiment 12.—The *lung*, emphysematous, showed, under a low power, immediately under its serous covering, minute cystic cavities with surrounding thickening. The interalveolar tissue was greatly increased in amount. On examination by a high power, no embolism could be detected, but here and there the alveoli were seen filled with blood.—The *liver* was seen under the microscope to be healthy, except at one spot, where a plugged capillary led to a congested patch; the hepatic vessels for the most part showed thrombosis.

Experiment 13.—The *lung* showed healthy tissue with minute clots scattered here and there, filling the larger capillaries and their branches.

Experiment 17. *Liver.*—This organ, to the naked eye, exhibited various-sized whitish spots, slightly raised above the surface, of irregular outline on their surface, and not surrounded by a red zone, as was noticed in the secondary deposits of the preceding livers. The smaller of these spots, under a low power, were seen to consist of cavities lined by a membrane, and occupied partly by oval-shaped bodies, partly by a coagulated caseous substance, which fell out of its place for the most part when the section was being made. The larger spots had a similar appearance under a low power. Both series of cavities were bounded each by a distinct wall, and most of them were subdivided by a partition. In many of the sections, plugging of the capillaries, especially of the hepatic vessels in the centres of the lobules, could be seen distinctly. Under a high power, the caseous material in the centres of the cystic cavities was seen to consist of granular cells, and free deeply tinged nuclei embedded in a hyaline substance; while the walls of the cavities were formed of newly developed fibrous tissue, and the hepatic tissue in the immediate neighbourhood of the cavities was greatly congested.

Experiment 19. *Spleen.*—A section tinged and examined with the naked eye presented, scattered here and there, spots of extravasation, which, examined under a low power, showed embolism of the main blood-vessel to a Malpighian corpuscle, and exudation of blood into the tissue. Under a high power, nothing more distinctive could be discovered in this section.

Experiment 20. *Liver.*—The hepatic veins in the centres of the lobules were seen to have distinctly thickened walls. The secondary deposits were markedly encysted, occupying apparently the centres of the lobules, and pushing aside hepatic tissue. The section closely resembled that of the liver in Experiment 17. Under a high power, the wall of the cyst was seen to have a markedly fibrous character, and its contents to consist of coagulated serum pretty deeply stained. In the wall of the cyst and in its contents were seen embedded peculiar oval bodies, with very sharply defined dark margins, enclosing granules not unlike hydatid cysts. The hepatic tissue itself appeared healthy. The walls of the hepatic vessels in the neighbourhood of the secondary deposits were seen to be thickened, and in some parts the lumen of these vessels was seen filled by an embolus of coagulated fibrine.

Experiment 21.—The *liver*, under a low power, showed clots or emboli filling the hepatic veins in the centres of the lobules, and causing extravasation followed by softening, which for the most part was limited to the centres of the lobules—in fact, exhibited a centrifugal character. Under a high power, the softening just described was seen to be induced by plugging of the central vessel in the lobules, thickening of the coats of all the vessels, destruction of the hepatic cells composing the affected lobules, and a fibrous development between the vessels in the lobules. The hepatic tissue surrounding the secondary deposits was evidently congested and swollen. *Kidney.*—Excepting coagula filling the blood-vessels at intervals, and an abnormally distended state of the tubules, nothing was discernible by a careful microscopical examination of this organ.

Experiment 22. *Lung.*—Under a low power, a capillary was seen terminating in a round extremity, which appeared to be a blood-clot enclosed in a cyst or in a distension of the blood-vessel. The pulmonary tissue was thus thrust aside, and the branches of this vessel were seen to be also occluded. Under a high power, the wall of the cyst was seen to be distinctly fibrous in structure. It appeared as the swollen end of a capillary, with subsequent thickening of its coats, and the deposit of fibrous tissue round them, while it enclosed coagulated blood. The pulmonary alveoli immediately surrounding the secondary deposits had thickened walls, and all the blood-vessels in the neighbourhood, were plugged.

From this narration, it is evident that the microscopical changes to be observed in the viscera of the rabbits on which we experimented were very similar; so much so, that we have not deemed it desirable to lengthen out this report by detailing the results of our examination of the numerous sections we obtained from the rabbits employed in our second and third series of experiments. To appreciate more correctly the value of our microscopical observations, this portion should be studied along with the explanation of our drawings; and it will become evident that, while the causation of these secondary visceral lesions consists in embolism, exudation, and softening or caseation, the microscope shows distinct changes in those secondary deposits induced by the injection of lochia different from those to be seen in the viscera of rabbits infected by the injection of putrid fluids swarming with organisms.

EXPLANATION OF ENGRAVINGS.

A³. Section of human skin on the second day of measles, about forty-eight hours after the first appearance of the rash, magnified about 35 diameters. It shows swelling of the true skin, especially from infiltration of the rete Malpighii and glandular structures.

B³. Section of human skin on the second day of measles, × 350. Here are well seen the corpuscular infiltration and proliferation in the true skin. At *x* are to be observed aggregated very minute untinged sparkling bodies, probable vehicles of contagium. They are situated principally between the glands and the lymph-spaces.

C³. Section of human skin on the sixth day of measles, × 35. Showing changes similar to those in Fig. A³, but more developed.

D³. Section of human skin on the sixth day of measles, × 350. Proliferation and infiltration much greater than in B³, and contagium-particles much more numerous, forming groups (*x*).

E³. Section of human lung on the sixth day of measles, × 350. Air-vesicles seen more or less filled up as in ordinary pneumonia. Scattered here and there are seen deeply tinged minute particles, probably serving as vehicles of contagium.

F³. Section of human skin on the twelfth day of measles, × 35. The true skin is seen returning to its normal appearance; swelling has almost disappeared, and the glandular structures are contracting.

G³. Section of human skin on the twelfth day of measles, × 350. The proliferation and infiltration formerly seen have almost disappeared; but there are a greater number of contagium-particles, and these are of larger size.

H³. Section of human lung on the twelfth day of measles, × 35. * shows a small bronchial tube filled with mucous exudation; the air-vesicles are seen filled with exudation, but some of them seem to have broken down and to have coalesced.

I³. Section of the same lung, × 350. The tissue is so dense that the contour of the air-vesicles is no longer observed. There are to be seen, scattered and in groups, deeply tinged particles, probably vehicles of contagium.

K³. Rabbit's lung, Experiment vii, A series, as seen by the naked eye. Shows minute secondary deposits; some of these are whitish, surrounded by a red zone; others appear as dark hæmorrhagic extravasations. The lower Fig. K³ represents one of these whitish secondary deposits (*v*) magnified about 35 diameters. At the bottom of this figure is seen the capillary of this part occluded; while at * a neighbouring capillary is observed with its walls greatly thickened.

L³. Rabbit's lung, same as K³. Section of one of the dark hæmorrhagic spots, under a low and under a high power respectively. The former shows the air-vesicles filled with exudation, and a capillary with its internal coat shrunken and corrugated. More highly magnified, this capillary shows great proliferation of cells in its walls; while the exuded matter in the air-vesicles is seen to be composed partly of blood-corpuscles, partly of inflammatory products. To the left hand of this latter figure is seen a capillary cut obliquely.

M³. Rabbit's liver, Experiment vii, A series, as seen by the naked eye, and on section × 35. The former shows whitish secondary deposits encircled each by a zone of congested vessels; the latter represents a capillary * occluded, leading to exudation into the surrounding tissue, so much as to push outwards the peritoneal covering of the liver.

N³. Section through a secondary deposit in cardiac wall of rabbit, Experiment x, A series. Magnified × 35, shows the capillaries leading to the secondary deposits each occluded; while magnified × 350 the walls of these vessels are seen thickened, and proliferation of the cells of the tissue is taking place.

O³. Rabbit's liver, Experiment xvii, A series. To the naked eye, the secondary deposits are large, irregularly shaped, prominent, caseous-looking spots, which, slightly magnified (× 35), as seen in the figure below, appear as abscess-cavities surrounded by a thickened wall (*), enclosing broken-down hepatic tissue, and with the afferent capillaries occluded.

P³. Rabbit's intestine, Experiment xvii, A series. Showing to the naked eye on its surface subperitoneal minute hæmorrhagic extravasations (*); and studded over the head of the cæcum are minute whitish secondary deposits.

Q³. Rabbit's (*a*) mesenteric glands, (*b*) spleen, and (*c*) intestine, Experiment xix, A series. To the naked eye, the spleen shows minute secondary deposits, raised above the surface, caseous, and, when incised, imparting a gritty feel; the mesenteric glands appear indurated, yellowish, and of caseous consistence; while the inner surface of the intestine seen shows a small capillary occluded, causing circumscribed exudation.

R³. Rabbit's liver, Experiment xxi, A series, × 35. Shows the hepatic tissue appearing worm-eaten, with emboli in capillaries, but no breaking down of tissue.

S³. Rabbit's lung, Experiment xxii, A series, × 35. Shows a capillary occluded, and proliferation of cells in immediate neighbourhood, with exudation into the adjacent air-vesicles. While × 350 the capillary wall is seen greatly thickened, the surrounding proliferation is more distinct, and the embolus composed of blood-globules and other blood-elements.

T³. Rabbit's liver, Experiment iv, B series, × 35, shows a thickened abscess-wall, enclosing broken-down tissue, exuded blood, etc., and some dark oval-shaped bodies unconnected with septicæmia.

V³. Rabbit's liver, Experiment xv, B series, naked eye appearance. The secondary deposits are of irregular form, raised above the surface, and *not* surrounded by a zone of congestion.

W³. Rabbit's liver, Experiment iii, C series, naked eye appearance. Secondary deposits large and irregular in form; streaks of lymph to be seen on the surface.

X³. Rabbit's heart, Experiment iii, C series, naked eye appearance, shows minute white spots in close proximity to blood-vessels. On incision, these deposits are seen to be not merely superficial, but actually embedded in the cardiac wall.

Y³. Section of one of the deposits seen in Fig. X³, magnified 35 diameters; shows capillary embolism, with consequent exudation.

NOTE.—Figs. K³, L³, M³, N³, R³, and S³ represent the effects of inoculation with septic fluid in which organisms were *not* detected. These secondary deposits are typically circular, not raised about the surface, with soft contents, and surrounded each by a zone of congestion. On the other hand, Figs. O³, P³, Q³, T³, and W³ show the effects of inoculation with septic fluid abounding with bacteria or with organisms indicative of putrefaction. To the naked eye, this latter class of secondary deposits appear yellowish-white, with irregular contour, not surrounded by a capillary zone, raised above the surface, and on incision impart a gritty feel to the knife. Examined microscopically in both classes of deposits, the cause of the secondary changes is found to be occlusion of one or more capillaries. This is probably due to some alteration in the blood rendering it preternaturally coagulable, seeing we have not been able to detect colonies of organisms as the *origo mali*. Exudation and softening follow; but, in secondary deposits induced by septic fluids abounding with organisms, it is to be noted that this last stage progresses extremely rapidly. In the latter, the site of secondary lesion is surrounded by a dense wall of abnormal tissue, while the centre breaks down rapidly, and in some instances assumes a caseous density.

General Literature of Pyæmia.

The study of literary history of a disease furnishes us with the means of measuring medical knowledge, at different dates, and in various countries. Probably, no better opportunity for so doing exists than that afforded by the medical lore on pyæmia and purulent infection. It is not, however, within the scope of this "Report" to enter fully into this matter; and we would, therefore, refer those thus interested to the Astley Cooper *Essay on Pyæmia* (1868), for a detailed account of the views held by older writers, from Hippocrates downwards.

From the year 1848, we find experimental inquiry sharing with clinical study the attention of those who wrote on this subject. Of such are Castelnau and Ducrest, Sédillot, Henry Lee, and others. Solly referred this disease to occult atmospheric influences; mental anxiety being, in his opinion, an important predisposing cause. Wood (of Philadelphia) considers the alteration of the blood in pyæmia to be of the nature of a zymosis—an opinion expressed also by the theory Professor Polli (of Milan) of the fermentative character of pyæmia. Röser regards this disease as presenting a primary form dependent on the introduction of a specific poison into the system (as occurs in scarlatina); and also a secondary form, in which the system becomes infected by a poison developed in some individual organ of the patient's body. He supports the septicæmic theory of pyæmia, by the progress of its symptoms; by anatomico-pathological data; and, as he asserts, by its mode of spread through contagion in the air. Billroth and Weber also subscribe to the septicæmic theory; while Follin and Legouest advocate the eclectic theory, which recognises numerous causes. The late Sir J. Y. Simpson regarded pyæmia as an analogue of puerperal fever, both diseases being developed by special causes arising from a vitiated or diseased condition of the general circulating fluid. Erichsen's observations on the *post mortem* table led him to the conclusion that pyæmia, though frequently associated with suppurative phlebitis, is not a necessary consequence of that disease. Sir Joseph Fayrer, in 1865, advocated the frequent causation of pyæmia from osteomyelitis; while Virchow, discussing the subject from the standpoint of pathology, considers that it is a puriform, but not a purulent substance, which infects the system, and induces pyæmia. He regards thrombosis to be the initiative step in the development of secondary visceral abscesses. The symptoms induced by pyæmia may, according to this distinguished pathologist, be due to three varieties of causes: to thrombosis, resulting in mechanical obstruction, caused by the arrestment of a fragment of foreign matter in the capillaries; to ichorous infection (septicæmia), "a dyscrasia, in which ichorous substance has made its way into the body, displaying its effects in an acute form in the organs which have a special predilection for such matters"; and to leucocytosis, where there is irritation of the lymphatic glands. Guérin, in favour of the zymotic theory as applied to pyæmia, states, as his reasons for holding this opinion: "On the one hand, the etiological conditions—*i. e.*, the heaping together of the wounded and of those operated on; the analogy of the mode of development of purulent infection and telluric infection, of typhus and other zymotic diseases; on the other hand, the absence of agreement between the local phenomena of the wound, and the gravity or rapidity of the symptoms of infection; the rapid death produced in rabbits by the simple inoculation of parts of the carcase; lastly, the intestinal alterations, the psoriasis of pyæmic patients resembling that of typhus patients." O. Heubner, in his work on pyæmia, based on the result of one hundred experiments, shows that pyæmia "has the ways of specific infection, independently of various forms of traumatic fever". Verneuil considers that septic matters are formed in the wound, and that a wounded person rarely escapes their influence. According to him, sometimes the fever is so slight as to be detectable only by thermometric observations; and that at a later stage suppuration itself may be a source of poison, and then is manifested the secondary fever—the fever of suppuration. The latter may, according to Verneuil, induce purulent infection. If, he says, hectic fever or the fever of consumption be superadded, the ladder is complete. Orth (*Untersuchungen ueber Puerperal Fieber*, in Virchow's *Archiv*, Band lviii, page 437) states that he found numerous micrococci, but no bacteria, in the peritoneal fluid of patients who died from puerperal fever. He also obtained similar results, as regards the form of the inflammation and the presence of organisms, in animals into whose abdomens he injected this fluid; and observed that the inoculation of corneæ with this fluid, and of other corneæ from those so inflamed, produced the appearances described by Eberth.

Mr. Callender (in Holmes's *System of Surgery*, vol. i, page 266)

remarks that "an animal or septic poison, introduced into the system, is the exciting cause of the primary disease, systemic infection. It is connected in some subtle manner with a vitiated condition of the blood. The blood undergoes decomposition, or, as some please to have it, passes into a state of fermentation, but withal does not present any appreciable change". He distinguishes septic infection from pyæmia, and considers the appearance presented by the veins in pyæmia to be due to softening clots.

Dr. Wilks holds the opinion that pus, or its elements or germs, give rise to purulent deposits—as cancer-germs originate cancerous growths at a distance. The channel of infection is probably a small vein, which absorbs the morbid matter; and this latter matter causes coagulation of the blood, with congestion, terminating in suppuration or sloughing. He considers that pyæmia occurs sometimes without any prior local mischief, and frequently without previous suppuration anywhere. He says: "There is little support to any doctrine which assumes phlebitis, or even thrombosis, to be a necessary link in the chain of causation." (*Guy's Hospital Reports*, 1861.) "Pyæmia", he remarks, "is ushered in, preceded by constitutional disturbance, or constitutional irritation." Distinct and distant structures or organs may sympathise with each other, or the whole may sympathise with the condition of any part, through the medium of the blood. An injury may, by exciting morbid or abnormal action, lead to the formation of certain matters which may provoke constitutional disturbance by affecting the blood.

Mr. Savory (*St. Bartholomew's Hospital Reports*, 1866) states "that thrombosis may exist without any evidence of phlebitis, and that it very often occurs without being followed by pyæmia; that phlebitis may occasionally exist without thrombosis, and often occurs without being followed by pyæmia; that pyæmia often exists without any evidence of thrombosis or phlebitis; and that, therefore, it has not been satisfactorily shown that either phlebitis or thrombosis stands, in any special or peculiar manner, in relation to pyæmia as cause and effect". He considers the recurrence of rigors to indicate the repeated introduction of fresh doses of the poison—the intensity of the rigor being probably in proportion to the intensity of the forthcoming mischief. He believes that there is no evidence that pyæmia is contagious, nor that "it depends upon the introduction into the system of any specific matter from without". He holds, further, that the distinction between ichorrhæmia or septicæmia and pyæmia cannot be established; and that pyæmia may be not only chronic, but also transient and recurrent. The causes of the local congestions and suppurations in pyæmia he classifies thus. "Stasis due to mechanical action: a blockade produced by the impaction of solid particles, according to their size. Arterial embolism: by fragments too large to pass through the smaller arteries. Capillary embolism: by fragments small enough to pass into the capillaries. Stasis due to change in the blood, produced by the admixture of morbid fluids: the local effect of blood-poisoning properly so-called, capillary obstructions. Stasis due to a combination of the two above-mentioned causes. The subsequent changes are determined by the action of the morbid fluid, or obstructing substance—the changes it provokes—and by the constitution and health of the individual."

"While", says Savory, "cases of simple embolism must be referred to the action of solid particles, the terrible disease known as pyæmia must be due to the action of some putrid fluid poisoning the blood. The effects of the subtle poison are, moreover, proportionate to the intensity of the poison, the quantity introduced, and the rate of its absorption."

Mr. Baker, in his "Reply to the British Medical Association", after reviewing briefly the history of pyæmia, and detailing concisely the various theories propounded and facts ascertained regarding it, remarks that he considers there is ample ground for the suspicion that the entrance of pus into the blood of human beings is one of the causes of pyæmia. "At present", he says, "we cannot estimate the frequency of this cause, nor can we determine dogmatically the modes in which pus gains entrance to the blood, or the process, zymotic or otherwise, by which it induces the symptoms and pathological changes which attend that disorder." He considers that "pyæmia may result from phlebitis of a suppurative kind, although such a source of blood-disorder is believed to be of unfrequent occurrence; and that the same effects may be produced by embolism in the minute ultimate arteries, from chronic disease invading arteries of larger size. In the introduction of foreign matters, whether hurtful or otherwise, into the blood, the capillaries have by far the most active powers of the whole system of blood-vessels".

Dr. Bristowe says: "We do not see how the embolic theory explains satisfactorily those cases of pyæmia, starting from some portion of the systemic nervous system, in which the lungs escape in great measure or entirely, while secondary depositis are found, it may be, abundant in other organs. Lastly, it seems to us as erroneous to regard the corpuscular elements of pus only as pus, as it would be to attach that name to the 'liquor puris' exclusively. On the whole, we are disposed to believe that, owing to some form of unhealthy process supervening in the region of primary disease, unhealthy pus, or the elements of unhealthy pus (call it ichor if you will), find their way into the circulating fluid, and poison it; that this poison partly shows itself in producing in the blood a tendency to coagulate in the smaller vessels, partly shows itself in inducing more subtle, but even more serious, effects upon the system at large. We are not", continues Bristowe, "disposed to deny that some of the local effects may really be due to embolism, some even to the infarction of coagulated masses of pus-cells; but we believe that thrombosis alone is the more general explanation of that obstruction of the minute vessels which leads to the secondary deposits."

Dr. Matthews Duncan believes that there is a most intimate connection between phlebitis, inflamed lymphatics, erysipelas, pyæmia, putrid infection, and puerperal pyæmia. He considers that all existing evidence brings puerperal pyæmia into the closest alliance or identity with surgical pyæmia. He denies that epidemics of puerperal pyæmia (puerperal fever) ever occur, and states that it follows a very different law to small-pox or cholera; its ravages vary as those of pneumonia.

Dr. Hüter (BRIT. MED. JOURN., Feb. 17th, 1873) says: "Rigors, with the increase of temperature which is peculiar to them, denote the shutting off of a large number of the cutaneous vessels from the circulation, by being blocked up with white corpuscles and monads." He "believes, further, that the enlargements of the liver, spleen, and kidneys in fevers, are due to disturbance of the circulation through the obstruction caused by monads. This explanation", he says, "agrees very closely with that given by Klebs of the phenomena of pulmonary metastasis after injury, and with that of Birch-Hirschfeld, of the swelling of the spleen in rabbits after the introduction of putrid blood."

Dr. Birch-Hirschfeld (BRIT. MED. JOURNAL, June 21st, 1873) found that, "with the ushering in of the first symptoms of pyæmia, the pus from a wound showed also a corresponding change, consisting in the presence of micrococci, either in pairs, strings, or colonies (the latter especially when pyæmia was far advanced or rapid in its course), and in an altered appearance of the pus-corpuscles, which were finely granular, or had less definite outline and lustre, showing their nuclei very distinctly on the addition of any re-agent. The blood of such pyæmic patients contained similar micrococci, and its white corpuscles had undergone a change very like that of the pus-corpuscles."

Kiegel, Klebs, and Eberth consider pyæmia and septicæmia to be identical, but Birch-Hirschfeld asserts that they differ.

Dr. B. W. Richardson states that, from the serous fluid from a pyæmic patient (a case of ovariotomy), he had obtained "septime"—a poisonous alkaloid from which he had made salts, "hydrochlorate and sulphate". He concluded, from his experiments with this alkaloid and its salts, that: 1. All the organic disease-producing poisons are modified, *i.e.*, poisonous secretions. 2. The secretions are rendered poisonous by two processes: *(a)* by contact with organic poison pre-existing; *(b)* by direct decomposition. 3. The poison of each secretion possesses several qualities; it can only be absorbed by particular channels, and it can only provoke further disease by coming into contact with a secretion allied to that from which it was itself derived. 4. The reproduction of the poisons depends on the continuance of the process of physical changes in a continuous secretion. The force of secretion is the force of reproduction. 5. The poisons kill by various means: *(a)* by the secretion causing obstruction of necessary function; *(b)* by exhaustion from excessive secretion; *(c)* by extreme irritation of nerve and reflex injury; *(d)* by the absorption of the poisoned secretion into the blood, and disorganisation." (BRIT. MED. JOURN., March 27th, 1875.)

Since 1865, somewhat similar results have been obtained by Coze and Feltz, Davaine, Béhier, Vulpian, Unna, Thin, and Clementi.

Dr. B. W. Richardson found next that "it was the property of all the septinous poisons to liberate oxygen from that solution of oxygen known as peroxide of hydrogen". The septinous matter appears to be derived "either from fibrine or from cellular tissue, or from derivations of these bodies". His theory is, "that the septinous product acts upon the blood in the extreme circulation, when it has accumulated in sufficient quantity by liberating a portion of the oxygen". Moreover, as the "poisonous organic product is itself destroyed in the process, the effects it produces may remit, until a new charge of the poison has been produced in sufficient quantity to cause a repetition of the febrile state". In the most malignant forms, "the blood may be so charged with septinous matter as to be unable to take in oxygen in the process of respiration, then death takes place by asphyxia after a brief period of

febrile heat. In another variety of cases, the liberation of the oxygen is so persistent that remission of the fever is hardly perceptible; and in other exceedingly light cases, where the quantity of poison is very small, and is not reproduced, one sharp paroxysm of febrile phenomena may be all that is witnessed" *(loc. cit)*.

M. Gosselin, in 1874, stated, as the results of experimentation on animals and of careful clinical study: (1) "that absorption readily takes place from the marrow of bones and from the surface of wounds; and (2) that, in cases of injury of bone with exposure of the medullary canal, the marrow itself is apt to become putrid and poisonous where it is exposed to the air, and that wounds contain besides abundance of material, by whose absorption in the earliest stages traumatic fever is produced, whilst the absorption of other (and presumably different) gangrenous matters, at a latter stage, causes a graver febrile condition with the metastatic abscesses of pyæmia." (*British and Foreign Medico-Chirurgical Review*, April, 1874, p. 369.)

A *brochure* on *Intestinal Septicæmia* (*Septicémie Intestinale*), published in 1873, by Dr. G. Humbert, deserves here a brief notice. The author of the pamphlet applies this name to a certain constitutional state, which he fully describes, and believes to be originated by the poisoning consequent on the passage into the blood of putrid substances into the canal. He considers that septicæmia may be caused, not only by agents which are developed outside the blood-vessels, and accordingly may be regarded as veritable foreign bodies, but may be induced by substances produced by the physiological processes of ordinary digestion and nutrition. In confirmation of this opinion, Dr. Humbert cites the division of septic substances into three classes given by M. Blum (*De la Septicémie Chirurgicale Aiguë*, Thèse de Strasburg, 1870, p. 1)—viz.: "*a*. Excremental substances abnormally retained in the organism, and occasioning the affections known under the name of uræmia, cholæmia, ammoniæmia, etc.; *b*. Septic substances formed at a spot resulting from certain alterations, still badly defined, of its anatomical elements (inflammations, suppurations, gangrene); *c*. Septic substances developed from without the patient, and absorbed by him (miasmata)." Humbert regards putrefaction as only an act of general disassimilation, the rapidity of which is favoured both by the surrounding medium and by the want of reparatory materials; and he considers the products of disassimilation and of putrefaction to be alike septic, and that they are similar in chemical composition. An essential quality of the septic substance developed by either process he regards to be, putridity. He sums up the conclusions he has arrived at thus. "1. Septicæmia is not a morbid entity, a malady so-called; this word expresses only the combination of the phenomena resulting from the introduction of septic materials into the blood. It is poisoning by septics, as narcotism is poisoning by narcotics. This is only the specific name; while the varieties are indicated by the terms surgical, puerperal, and typhoid septicæmia. 2. Septic substances are only the products of the more or less advanced combustion of organic matter. Putridity exists from the moment when this combustion exceeds the limits in which the matter is fit to form tissues. Putrid matters have one common origin and nature: their differences consist only in a variation in the proportion of their elements, or in the viruses with which they may be impregnated."

(*To be continued.*)

SCROTAL CALCULUS.—Dr. Lippmann reports, in the *Centralblatt für Chirurgie*, April 23rd, 1881, an unique case of this affection. The patient was a peasant aged 68, who stated that fifteen years previously, finding great difficulty in micturition, he consulted a medical man, who removed from the scrotum a calculus weighing 120 grammes (about 4¼ ounces). From this there resulted an urethral fistula, which gave passage to the urine, first easily, then with increasing difficulty. The fistula was situated a little behind the point of the junction of the penis and the scrotum. All attempts at catheterism failed, that portion only of the canal situated in front of the fistula being permeable. The scrotum was distended to the size of the head of a fœtus, and was of hard consistence. The testicles were retracted towards the external inguinal ring, and extremely atrophied. When a catheter was introduced into the fistula, a calculus stopped the way. The next day, an incision of the length of the scrotal raphe was made, and four calculi, weighing in all forty grammes (about an ounce and a half), were removed. They were rough, of a greyish-yellow colour, presented facets, and were made up of phosphates. When joined together, they were about the size of a goose's egg. The cavity was afterwards washed out with carbolic acid. The wound healed quickly, leaving a fistula, through which the patient passed his urine. Later on, he emptied his bladder by the help of a catheter of his own invention, which was simply a goose-quill.

REMARKS
ON
THE TREATMENT OF GUNSHOT-WOUNDS OF THE ABDOMEN IN RELATION TO MODERN PERITONEAL SURGERY.

BY J. MARION SIMS, M.D., LL.D., etc.

[*Continued from page 973 of vol. ii for 1881.*]

IN 1864, Sir Joseph Oliffe and myself assisted M. Nélaton in an ovariotomy. There was nothing unusual in the case. It was a multilocular tumour without adhesions; just such a case as would now be promptly and certainly cured.

Twenty-four hours after the operation, I saw that the patient must die, and told M. Nélaton she was dying from an effusion of a reddish serous fluid in the peritoneal cavity, and I suggested to him then to puncture the *cul-de-sac* of the vagina, to let it run out. It was not done; and she died forty hours after operation. I assisted M. Nélaton and Sir Joseph Oliffe at the *post mortem* examination, and we found precisely what I had predicted, viz., a large effusion of a sero-sanguinolent fluid—a quart or more—in the peritoneal cavity. She died of septicæmia, but we did not then understand it. However, from this time, the idea that septicæmia and not peritonitis was the usual cause of death after ovariotomy, took complete possession of my mind, and I was on the look-out for other *post mortem* reports.

Within a year from this date (1865), Mr. Spencer Wells published his standard work on ovariotomy (*Diseases of the Ovaries*, by T. Spencer Wells, F.R.C.S., etc., London, 1865), giving the necropsies of all his fatal cases. I ran hurriedly through it, and analysed its *post mortem* reports. These confirmed my previous views, and fully established the fact that the great majority of deaths following ovariotomy was the result, not of peritonitis, but of septicæmia; septicæmia caused by "bloody serous" or "ichorous serous" fluids in the pelvic cavity. Mr. Spencer Wells's necropsies established this great truth—one of the most important as yet developed in the progress of ovariotomy. He did it, not knowing what he had done, and not realising at the time the grand results that would follow. And when I published my views on this subject (1872), proving their correctness by analysis of Mr. Spencer Wells's thirty-nine fatal cases, and by my own subsequent personal experience, he, in common with the majority of ovariotomists, at first rejected my interpretation of his facts.

In New York, I was for a while alone in the advocacy of the universality of the doctrine of septicæmia in deaths from ovariotomy. Dr. Gaillard Thomas was, I believe, amongst the first to accept it; but it was not generally accepted till indorsements came from Europe, first from Professor Humphry of Cambridge, and them from Professor von Nussbaum of Munich. They were followed by others, mostly in Germany. The indorsement of German surgeons had much to do in influencing opinion amongst us. At last, Listerism (1876) was applied to ovariotomy, and this was the complete triumph of the doctrine of septicæmia in ovariotomy, as in other departments of surgery.

It would be an odd and unique freak in the laws of nature, if other wounds of the peritoneum should not follow the same course as those made by the surgeon's knife in ovariotomy. How easy, then, the transition of this law from ovariotomy to gunshot and other wounds of the peritoneal cavity. Nothing could be more natural; nothing more logical.

After the analysis of Mr. Spencer Wells's cases, I was convinced that we should find the same pathological appearances in shot and other wounds of the abdomen, that we found in fatal cases of ovariotomy; but my convictions remained only such, till the following case occurred to prove their truth.

In November 1869, Mr. Richardson was shot in the abdomen, in the *Tribune* office, New York. The poor fellow lived five days. The *post mortem* examination was made by Dr. J. Cushman, assisted by Drs. Finnell, Morton, Swan, and Clark, ten or twelve hours after death. They found "a gunshot-wound of the abdomen, five inches below the left nipple, and a half-inch to the left of the median line. The direction of the wound was inward, downward, and backward, and to the left of the spinal column, one inch above the crest of the ilium. The ball traversed the left lobe of the liver, two inches from its anterior border, passed through the stomach and

ileum, and then along the lower end of the kidney to the point at which it was extracted. The abdominal and pelvic cavities contained *about thirty-two ounces of bloody fluid*. Death, in our opinion, was caused by peritonitis".

I had looked forward with the greatest interest for this *post mortem* report, and was not the least surprised when I heard that the peritoneal cavity was full of bloody fluid. The peritonitis was only of the agglutinative character; such alone as showed nature's efforts to protect vital organs by the exudation of plastic lymph.

This was a case that, with the lights now before us, might have been saved by timely operation. Richardson lived five days and a half, an unusual length of time after such wounds. The wound of the liver was not necessarily mortal. The perforation of the stomach and the ileum could have been safely sutured, and the peritoneal cavity cleared of the quart of bloody fluid, which caused death by septicæmia.

We all remember the death of Mr. James Fisk of New York, the great financier. He was shot in the abdomen (January 6th, 1872), as he was ascending the private stairway in the Grand Central Hotel. As soon as I heard of the shooting, I told some of the doctors in attendance that he could be saved only by abdominal section, clearing out the peritoneal cavity, and repairing the damage done by the bullet to intestines and blood-vessels; otherwise, he would die of septicæmia. He died in eighteen hours. *Post mortem* examination was made by Drs. Janeway and March eleven hours after death. Drs. Wood, Sayre, Phelps, Trepler, Fisher, Beach, and Shine were present. The ball "entered six inches above the umbilicus, and one inch and a half to the right of the middle line; passed downward and to the left through the omentum and mesentery, piercing two loops of the small intestine, and was found in the left inguinal region, about twenty-two inches below the point of entrance. There was little or no hæmorrhage." I was present at the necropsy. There were from four to six ounces of bloody serous fluid in the pelvic cavity. I was standing by the distinguished surgeon James R. Wood at the time, and called his attention to it. No importance was attached by those who made the necropsy to the presence of the reddish serum, as no allusion was made to it in their *post mortem* report.

Here there were two perforations of the ileum and a wound of the omentum and mesentery, all easily reached and remediable by the present resources of our art. This was only nine years ago; but at that day and time the old dread of opening the peritoneal cavity still hung like a pall over the medical mind. Peritonitis was then the bugbear that it had been for ages; but we have stripped it of its terrors; for, with the light of science and the confidence of experience, we now constantly explore the abdominal cavity with the utmost impunity.

It was said that Mr. Fisk died of shock. The term *shock* covers up a vast deal of ignorance. What would some of us do if it were not for the words *malaria*, *neuralgia*, and *cold?* So it is with shock. I do not pretend to say that men may not die of shock; but death from shock, uncomplicated with hæmorrhage or septic influences, is rare indeed. To say that a man like Mr. Fisk died of shock is begging the question. He was in the prime of life, and in robust health. I have never seen the *post mortem* examination of a man so absolutely perfect physically. Not a flaw was to be found in any of his organs. He had no weak, flabby, or fat heart, and no valvular trouble. His kidneys and all other organs were in a perfect state. About ten hours after the shooting, reaction was sufficiently established for him to dictate his will to a lawyer, and then to see his wife. In three or four hours more, his mind wandered a little; he became comatose, and died eighteen hours after the wound.

It is absurd to say that a great, strong, healthy man died of shock, when there was only a perforation of two superficial loops of small intestine to account for it; but it is quite reasonable to say he died of septicæmia, when there was sudden perforation of intestine, with extravasated flatus and fluids, especially when we find bloody serum or other foreign fluids in the peritoneal cavity, even in small quantities. In the case of Mr. Fisk, there were from four to six ounces of bloody serum in the pelvic cavity. It is not the quantity, but the quality, of the exudation, that kills. In some of Mr. Spencer Wells's earlier ovariotomies, he saw blood-poisoning produced by very small quantities of "ichorous fluid" in the peritoneal cavity; and in one case his own hands suffered from it.

We have yet to learn that the vital powers may be as suddenly overwhelmed by septic agents in a concentrated dose as by opium in a concentrated dose.

I have seen nausea, vomiting, exhaustion, incoherent talking, dizziness verging into coma, instantly relieved by washing out two or three teaspoonfuls of turbid sero-purulent matter from a septic pus-pouch behind the body of the uterus; and then, in two or three hours more, all those symptoms of prostration and blood-poisoning would be reproduced, and then relieved in the same way, again and again, till a counteropening was made in the bottom of the sac, which permitted continuous drainage through the vaginal *cul-de-sac;* this saved the life of the patient. One must see such things, to realise the rapidity of blood-poisoning by concentrated septic material. Let me repeat that there is no more reason why the system should not be suddenly overwhelmed by the rapid absorption of concentrated septic fluids, than by the rapid absorption of an overdose of morphia. Opium in sufficient quantities may kill in from eight to twelve hours. Septicæmia may do the same thing often in less time.

When I went to Sedan, as Surgeon-in-chief of the Anglo-American Ambulance, in August 1870, I went hoping that I might be able to do something to elucidate the subject of the treatment of gunshot wounds of the abdomen; but, unfortunately, the cases that came under my observation were moribund, and therefore beyond all hope of relief. But I learned this great truth—that they all died of septicæmia, the *post mortem* examinations showing large quantities of bloody serum in the peritoneal cavity in every case, evidently the source of blood-poisoning; while there was not the slightest trace of peritonitis. There was not a single exception to this. From what we saw there, I felt more convinced than ever that all cases of shot-wounds of the abdomen, that did not speedily die of hæmorrhage, always died from septicæmia, the result of large quantities of bloody serum in the peritoneal cavity, and not from peritonitis.

In ovariotomy, we see patients dying of septicæmia when bloody serous fluid is retained in the peritoneal cavity; and we see them recovering if we prevent the exudation of this fluid, and recovering with equal certainty if we drain it off after or as it is formed. This is an important lesson in peritoneal surgery. The principle established by it is applicable to all other wounds of the peritoneum, whether made by accident or by the surgeon's knife, by puncture, or by bullet. In other words, wounds of the peritoneum, however made, have a common course to run, and are all amenable to the same general laws. Here, then, is the similitude between deaths from ovariotomy, from perforation, and from gunshot wounds of the peritoneum. In all these, patients may, and do, die of peritonitis; but this is not the rule. It is not the universal law; it is rather the exception. And, even if peritonitis should complicate a septicæmic case, there is no reason why we should not proceed precisely as if such complication did not exist. Indeed, I am convinced that the time will soon come when peritonitis, properly so called, will be treated by abdominal section and clearing out morbid products from the peritoneal cavity. Nature cures peritonitis in its early stages by uniting contiguous inflamed surfaces by intervention of plastic lymph. But, if the inflammatory process go further than plastic exudation; if it terminate in pouches of pus in folds of the intestines, or in purulent effusion in the peritoneal cavity, as seen in puerperal peritonitis—then death follows from the absorption of these puriform collections, which produce blood-poisoning, whether called septicæmia or pyæmia. In this stage, why should we not open the abdomen before it is too late; liberate adhesions; remove matter, whether imprisoned in pouches or free in the pelvic cavity; clear out deadly foreign products, and thus get rid of septic agents, just as we do with bloody serum after ovariotomy? In the one case, the source of poison is generally locked up in little pouches; in the other, it is free in the peritoneal cavity, and usually in the pelvic portion of it. In searching out and removing the products of peritonitis, it would be necessary to examine every inch of intestine and every portion of omentum involved in adhesions. This can be done, and it will be done; for it is but the imitation of nature's clumsy efforts in this direction; and, when we follow the laws of nature, we are sure of going in the right course.

Bristowe says: "In a large number of cases, and especially in such as result from the perforation of some viscus or sac, and the escape of irritating matters, general peritonitis of the ordinary adhesive character is at once excited, and the effused matters consequently become confined to some limited district or districts. In many cases, a circumscribed abscess is thus produced, which may possibly undergo cure by the discharge of its contents, either externally or into the bowel." It would be better to do this work promptly by surgical interference, than to wait for the slow and uncertain efforts of nature.

But, to return to our subject; let us look at blood-poisoning from a peritoneal point of view. Septicæmia and pyæmia are caused by the absorption of putrid fluids. The septicæmic putrid fluid is bloody serum in the peritoneal cavity. Pathologists will give us its peculiar characteristics. The pyæmic putrid fluid is vitiated pus, generally in peritoneal pouches, the result of peritonitis. Septicæmia often kills rapidly; peritonitis always more slowly. Death may result in a few hours from the one, while it takes days for the other. Peritonitis poisons more slowly, and is really less dangerous. The reason of this

is very simple; but I do not know that pathologists have explained it. It is this. In septicæmia following ovariotomy, the septic bloody fluid is exposed to an immense absorbing surface—the peritoneum—which takes it up as rapidly as does the cellular tissue a hypodermic dose of morphia. In peritonitis, the septic purulent deposits are segregated and in small quantities, and exposed to small absorbing surfaces. The difference, then, is in the large amount of poisonous material and the large free absorbing surface in the one case, and the smaller amount of septic material and the smaller area of absorbing surface in the other. Besides this, sepsis by bloody serum is a more concentrated poison than sepsis by pus or puriform collections.

Pyæmia from peritonitis kills more rapidly than pyæmia from purulent collections in other parts of the body. Perhaps the reason is to be found in the fact that the pus-pouches, bounded all round by convolutions of intestine, may be thus exposed to osmotic influences of intestinal gases and germs. The distinctions here drawn are not in accordance with the doctrines of the day; but they are not based on theory; they are the result of clinical observation and *post mortem* examinations. True, I have seen but few fatal cases of peritonitis following ovariotomy. According to my experience, they are about as one in ten, compared with septicæmia.

(To be continued.)

EXTRACT FROM A LECTURE ON TUBERCLE,

In the Course of Pathological Anatomy at the Middlesex Hospital Medical School, January 1882.

By SIDNEY COUPLAND, M.D., F.R.C.P.,
Physician to and Lecturer on Pathological Anatomy at the Middlesex Hospital.

Gentlemen,—Having, in my last lecture, given you as explicit an account of the general pathology of tubercle as far as I understand it, I propose to-day, before leaving this subject, to recapitulate to you these facts in the form of a concise summary. In doing so, you must allow me to adopt a somewhat aphoristic and dogmatic method; for I feel that upon this subject, of all in pathology, it is necessary for us to have clear and definite ideas. There is hardly any pathological question that has been so swayed by every wind of doctrine as this of tubercle; not even the subject of inflammation has been viewed from so many standpoints, and received so many and varied explanations. The conclusions I am about to give you do not claim to be anything else than the formulated expression of ideas gathered from time to time from various sources. They embody simply the essential points I have learned from others, confirmed, so far as opportunities have been given me, by my own *post mortem* experience. Therefore, they are in no way original or novel. I hope they may be nearer the truth in consequence; as near, that is, as our present knowledge allows us to go. My sole aim is to teach you the facts which are established, and the inferences that appear to flow from them, in the simplest and plainest manner.

1. Tuberculosis is an infective disease to which man and the higher animals are liable.

2. It is characterised anatomically by the formation of minute nodules or "granulations", composed of elements like those met with in granulation-tissue, the result of simple reparative inflammation.

3. These nodules, or elementary or primary "tubercles", may occur in an isolated manner, or, by their confluence, may form larger or smaller conglomerate masses.

4. The typical structure of each fully formed primary nodule consists in *(a)* a collection of lymphoid round cells, enclosed in a delicate fibrillar meshwork or stroma; *(b)* in an internal zone, more or less evident, of larger nucleated epithelioid cells; and *(c)* a central multinucleated or giant cell.

5. These "tubercles" arise apparently in connection with the lymphatic tissue that pervades the body. No region is exempt from them. They may occur in the substance of organs, in the bones and muscles, in serous membranes, as the pia-arachnoid, pleura, pericardium, and peritoneum; in synovial membranes; in mucous membranes (arising in the submucous stratum), as in the mouth, pharynx, larynx, trachea, bronchi, intestines, and genito-urinary tract.

6. Being ill supplied with blood-vessels, they can only attain a certain size, and then perish. The central cells degenerate first, because they are the farthest removed from the nutrient blood-stream, and mutual pressure due to their increasing growth hampers their vital activity. They become fattily degenerated, soft, opaque, caseous, forming "yellow" tubercles, which, when isolated, are larger and manifestly of older formation than the miliary translucent grey granules. Where such tubercles are confluent, larger and more irregular caseous masses are formed. Caseation may pass into cretification. On the other hand, there is no doubt that occasionally the tubercular nodules take on a fibroid change, passing from the stage of "granulation-tissue" to one resembling "cicatricial tissue".

7. Almost invariably there occurs, in the vicinity of the tubercular formation, some reactive inflammation. This may be protective by ultimately leading to encapsulation by fibrous tissue of the caseated tubercular focus; or, as more frequently happens, it aids in the disintegration of the surrounding tissues, and leads, with the necrosis of the tubercles themselves, to destructive ulceration.

8. Individuals who are prone to the development of tubercle are called "tubercular". The disposition may be inherited. Probably what we recognise as "struma" or "scrofula" is only one form of this: a tendency to tuberculosis of lymphatic glands especially; just as in phthisical subjects we have a tendency to pulmonary tuberculosis.

9. The tubercular manifestation is, in the majority of cases, at first local, *i.e.*, limited to one organ or tissue. It may remain so limited throughout life—may not even endanger life—or may lead to death by the local destruction to which it gives rise. On the other hand, it may be more or less widely diffused throughout the body of the same individual. This diffusion may be due sometimes to the simultaneous development of tuberculosis in many parts. More frequently, it is due to secondary dissemination, by a process of infection.

10. This dissemination takes place, as in cancer, in two ways: viz., by direct extension, or infection of neighbouring tissues by contiguity; and by general distribution of the tubercular virus through the medium of the blood-system (including lymphatics).

11. The tubercular virus seems to be most potent, or, at any rate, to retain its potency, *i.e.*, its infective property, in the caseous state.

12. Examples of the local extension of tubercle, or of propagation by contiguous infection are seen: (1) in the development of peritoneal tubercle from intestinal*; (2) in the spreading of tubercle from one part of an organ (*e.g.*, lung) to another part; (3) in extension from lung to pleura*; (4) in bronchial, laryngeal, and intestinal ulceration excited by the passage over their mucous membrane of material expectorated from a phthisical lung; (5) in tuberculosis of bladder and vesiculæ seminales following upon renal or testicular tubercle, etc. The mode of its local extension approximates tubercle to the neoplasmata, viz., by its elements exciting in the tissue they infect changes leading to the formation of cell-masses resembling the primary focus.

13. The generalisation of tubercle is shown in the disease known as acute miliary tuberculosis, which is characterised by an eruption of miliary granulations in diverse organs and tissues. Its mode of occurrence may be (as above) compared to the general dissemination of secondary cancer, or, perhaps with equal truth, to the metastatic suppuration of pyæmia. With few exceptions, it appears to necessitate a primary tubercular focus to give rise to it. It is believed that the infective virus, whatever it be, enters the blood-stream at this local focus, and is thence widely disseminated, the resulting growths being for the most part miliary, grey, and translucent; life not, as a rule, being prolonged for a sufficient length of time after the occurrence of the generalisation to permit of the growths becoming confluent or caseous. As the membranes of the brain are generally involved in this widespread infection, death occurs early.

14. Lastly, tuberculosis is inoculable. In this respect, it resembles pyæmia, and differs from the cancers; for there is reason to think that it may be and is communicated from one human being to another, *e.g.*, from husband to wife, and *vice versâ;* and that it can be inoculated in animals from man (artificial tubercle). There is, further, a possibility, based on certain peculiar morphological resemblances of the formations, that bovine tuberculosis is communicable to man.

15. If the foregoing data be true, it follows that tuberculosis is an infective disease, probably due to the presence of a virus, which gives rise to the development of peculiar tissue-formations, capable of localised or general propagation in the body, and characterised mainly by their tendency to early disintegration.

16. Until the nature of the virus is known, it is impossible to formulate data concerning the conditions under which the disease arises in subjects free from inherited taint.

* In these cases, probably by extension along lymphatic channels.

ON ACUTE TRAUMATIC MALIGNANCY.*

By RICHARD BARWELL, F.R.C.S.,
Senior Surgeon to Charing Cross Hospital.

THE title of this communication, "Acute Traumatic Malignancy", is intended not as denoting a distinct doctrine, but as a means of eliciting opinion and confirmatory facts, of which latter I cannot but think several are probably in the note-books or the memory of others in the profession. The cases on which the name is founded made a great impresssion on my mind, leading me to think that occasionally, under the stimulus of severe irritation, the tissue-elements which, under favourable circumstances, would assume only the additional activity necessary for repair, may take on a more prolific cell-germination, culminating in a rapid form of malignant disease in one of those forms, be it named myeloid or round-celled sarcoma, or encephaloid cancer, which consists of little else than heaped up cells and their progeny. Without further preface than these few words, I will proceed to read the cases.

CASE I. Mr. B., aged 17, in playing football, fell violently on his shoulder, and was disabled: this happened on April 24th, 1875. He rested the arm in a sling, and applied cold lotions, and, in about ten days, was so much better, that he began to use the limb again; but, after about a week, pain slightly returned; then some swelling was observed, which, increasing rather quickly, alarmed his father, who then brought him to me.

May 19th. I found the shoulder enlarged, the tumefaction being most marked in front; it was soft, but not uniformly so, there being some patches, ovoid or circular, harder than the rest, but which seemed to float on a soft substratum. The swelling did not rotate with the bone. Behind the joint, little or no enlargement was perceptible. The arm below was considerably shrunken. I gave a very guarded diagnosis and prognosis, the tumour having the appearance of malignancy.

May 25th. The shoulder was considerably increased in size, the skin a little tense, the surface white and waxy; a meshwork of large veins marking themselves out under the skin; the texture soft and doughy, with a sense of false fluctuation, chiefly manifest in front and on the outer aspect. I passed in an exploratory instrument, and, pushing the cannula home after withdrawal of the trocar, was fortunate enough to extract a shred of tissue. Under the microscope, this showed a congeries of large cells, with a number of brilliant nuclei. I gave my view that excision of the shoulder must be at once performed. Mr. B.'s father said he must think it over.

I saw nothing more of this patient until June; he had, I believe, in the interim, consulted other surgeons. Although the disease had so far advanced as to render operation of doubtful value, as I at the time stated, I nevertheless thought it my duty to afford the chance; and therefore, since no glands, either in the supraclavicular space or in the axilla, were involved, I excised the shoulder. The disease, however, returned shortly afterwards, and the young man died in about three months.

I am sorry not to be able to bring the specimen, which is in keeping at the Charing Cross Medical School; but our removal into the new premises has not yet afforded time for putting all our museum in order, and the subcurator in charge is ill. I must, then, simply describe it as a round-celled sarcoma, commencing apparently in the subsynovial tissue. It is only necessary to call attention to the fact that, twenty-six days after receipt of injury, the growth had so far advanced as to bear pretty strong evidence of its nature. It therefore probably commenced not later than six or eight days after traumatism, perhaps sooner.

CASE II. John G., aged 63, stevedore, first came under my notice when seeking admission into Charing Cross Hospital, October 11th, 1881, suffering from the effects of falling down a ship's hold eighteen days previously, severely bruising his left side.

History.—His own and his relatives' account is that, up to the time of his accident, he had been a perfectly healthy, and, for his age, a remarkably vigorous man, with the exception of a slight winter-cough. After the fall, he had considerable pain in both sides; kept his bed, and put on poultices. About a week before application at the hospital, he first noticed a little swelling on the right side. The man appearing ill and suffering, I followed him shortly into the ward, expecting to find a localised traumatic empyema.

Condition.—The man was weak, pale, and suffering a good deal of pain, increased on inspiration. About three inches outside the angles of the ninth and tenth ribs was a lump about the size of half a small egg, its lesser end projecting outward and backward. It was very slightly or not at all painful on pressure, and felt solid, or semisolid. The tumour itself, and a considerable area round it, were dull on percussion. On going further, I also found the whole left chest dull, and the respiratory sounds very weak, and apparently distant. An exploratory puncture in the lump produced merely a little blood.

I do not think it worth while to follow the short history of this case. There seemed nothing surgical about the state, and Dr. Pollock was kind enough to take charge of the case. He, in consultation with medical colleagues, detected signs of some fluid in the left pleura, which was punctured, and about five ounces of turbid serum withdrawn; but the man became rapidly weaker, and died October 24th, thirty-one days after the receipt of the injury.

Post mortem examination, October 25th (twenty-four hours after death).—The appearances were such as certainly had not been diagnosed or even suspected during life. The specimen is on the table. The whole left pleura (parietal) is one mass of malignant growth, in places three-quarters of an inch thick, nodulated on the surface, and white. The lung is infiltrated with a like material. The right pleura (parietal) is, at its lower part, in the same condition, but traced upwards, the amount of growth diminishes, and, quite at the apex, disappears also. Through the right lung, isolated masses of this substance are scattered. It is curious to observe that while, on the left side, the parietal pleura is most affected, on the right the visceral layer is most diseased; and that, while the left kidney was healthy, the upper part of the right kidney contained a like mass of the neoplasm.

The new growth was an oat-shaped or oval-celled sarcoma. There were no giant-cells. In that part which was examined, there was no stroma or intercellular substance; or, if any, it was perfectly homogeneous. The cells were $\frac{20}{1000}$ of a millimètre long, $\frac{8}{2000}$ broad (thousand is the denominator as an entity of measure which we mark with the Greek letter μ). A few of them were caudate at one or both ends; others had no prolongations. Nuclei were large, often multiple.

One other case I feel sure I am justified in shortly relating. I was speaking to Sir J. Paget about this latter case, asking him if his experience had brought him in contact with cases of malignant disease rapidly following injury. He stated that, many years ago, a man came into St. Bartholomew's Hospital, under the care of Mr. Lloyd, with a fractured fibula. The limb remained the usual time in splints; and, when they were removed, a peculiar and unusual swelling was observed about the parts. Shortly afterwards, this was diagnosed as a malignant growth; the limb was amputated, and the diagnosis verified by anatomical examination. The man left the hospital well.

Now these cases, although they do not justify me in a dogmatic assertion that traumatism may call forth in a previously healthy individual a rapid development of malignant growth, do, I hold, more than justify me in calling attention to the possibility of such occurrence. Of course I have not lost sight of the other alternative; namely, that, in all these cases, malignancy may have been present previous to the injury. But, if we take the circumstances of the three cases, the hypothesis of previous malignant disease necessitates the concurrence of a series of coincidences such as could hardly arise. For example, in my first case (Mr. B.), and in Mr. Lloyd's case, the very part injured would have to be the part previously affected by malignancy. In those two cases, the presence of such disease elsewhere is negatived by the course of events; while in my case No. II we can hardly conceive the pleura, previous to injury, to have been at all like that now shown. Even if we suppose such disease, how strange that it should cause no symptoms till the moment of the injury, and then give very marked ones; and how still more strange that in this case also the injury should fall on a place occupied by such severe and such singularly occult or quiescent disease.

We must also consider the possibility that the man's kidney alone was affected previous to injury, and that afterwards the disease spread into the chest; but the right kidney is the diseased one; the left pleura most involved. Nevertheless, if we grant this supposition as possible, it rather goes to prove my contention, when taken in connection with Cases I and III, in which no other malignant manifestation is present. For, I presume, the development of tumour depends upon two factors—the tendency to neoplasm, what Billroth calls tumour-diathesis, and a local irritation, the nature of which is generally quite occult, sometimes is mechanical and long continued. It must always be understood that irritations, either mechanical or chemical, produce in healthy individuals only common or traumatic inflammations resulting in thickening, suppuration, or other of the usual terminations. So, after an ordinary wound of the skin, a scar, which slowly more and

* Read at a meeting of the South London District of the Metropolitan Counties Branch.

more assimilates itself to normal skin, results. But, in persons endowed with a form of tumour-diathesis, all skin-wounds, however slight, even little points of acne, result in a small fibroma, to which we give the name of *keloid*. So also we find that epithelioma of the lip is in many cases attributed to the habit of smoking short clay-pipes; of the tongue, to manifold *irritamenta;* certain sarcomata are apt to form at the site of ancient, sometimes of forgotten injuries. If, then, in persons possessing the tumour-diathesis, wound or other irritation is often the local provocative of a neoplasm, the fact of traumatic tumour, therefore evidently of traumatic malignancy, is in reality already established. The only additional point in the sequence is the doctrine concerning the acute character such growth may assume. Acute or rapid formation of malignant growth is not, however, an unknown condition. Occasionally, after operations in which every part of a tumour seems to have been removed, a fresh development sometimes, in the as yet unhealed wound, will grow so rapidly, as in a few days to overwhelm and involve all the neighbouring tissues.* We cannot, therefore, refuse to believe that, when a constitutional proclivity to new growth is present, some fortuitous traumatism may set up a similar rapid development of malignancy at the site of injury.

In the instances I bring before you, there must have been tumour-diathesis. The point to be remarked is this, that injury supplying the local irritation was followed immediately, not merely by a more or less slow and chronic growth of tumour; but by an acute and violent outbreak of local malignancy, such as is evidenced by the history of these cases, and more particularly is demonstrated by the condition of pleura and lung now before you. In other words, these cases—I do not see how they can be otherwise interpreted—point to the existence of an acute traumatic malignancy.

ON FATAL ERETHISMUS MERCURIALIS FROM INUNCTION.

By JOHN LOWE, L.R.C.S.I., Lichfield.

I BELIEVE that death from the topical use of mercurial ointment is not usual; hence my reason for placing on record a case which came under my notice some months ago, when assisting a gentleman in a large London practice.

The patient was a woman aged 35, of dissolute habits, and without any fixed abode. She had been taken ill in a house where she lodged for a night; and, as she was unable to leave, a medical man was called in to see her. I understand that he treated her for five days as a case of cardiac weakness and bronchitis. He was one of a class of practitioners who boast of visiting fifteen to twenty cases in an hour, which makes his error capable at least of comprehension, if not of excuse.

When I saw the woman referred to, she looked the picture of wretchedness and misery, and appeared more than twenty years older than she really was. She had the mercurial tremor in every limb, and all her movements lacked precision. She was much troubled with what might be called an abortive cough; her respiration was almost gasping; and her pulse was feeble, irregular, and too rapid to be counted; the tongue was swollen and grey-coloured, and salivation was slightly excessive; vomiting and diarrhœa were almost incessant. The mercurial fœtor of her breath was perceptible at some distance. When helped to her feet—for she was sitting up when I saw her—she would have fallen but for our support, owing to loss of muscular power. Her features were sunken and haggard-looking, and of a copper-coloured hue. She could neither masticate nor speak clearly. Thirst was a prominent symptom, in spite of the salivation. The vomited matter contained blood and mucus, and the stools were also bloody; so was the urine to a slight extent. This fluid was scanty, and highly albuminous. There were no symptoms present that pointed to the existence of Bright's disease.

I have roughly sketched what I observed on the occasion of my first visit; so that the experienced can complete the picture. As time went on, no urine was voided; and the power of speech was lost sixteen hours before death. Her sufferings would doubtless have gone on increasing in severity, had I not stayed their terrible progress, until death ended the scene, just fifty hours after I first saw her.

This was plainly no case for the remedies which chemistry or chemical physics suggested, but one to be treated as common sense would dictate. I prescribed warm milk and brandy *ad libitum*, and a mixture of chlorate of potash, opium, and bark. A sense of relief was soon afforded by these remedies, which lasted some hours; the heart's action improved, and so did respiration and facial expression. With the return of former distressing symptoms, she started suddenly from the bed, and fell dead.

I never aimed at cure in this case, but tried to "smooth the stormy passage to the grave"; and thus far I succeeded. Iodide of potassium would, I believe, have increased the ptyalism, and exaggerated all the symptoms of erethismus. It is well known that mercury combines with albuminous substances throughout the body, forming insoluble compounds, which are deposited in the tissues, and that these compounds are especially soluble in the iodides of the alkalies. Iodide of potassium, by redissolving these compounds, brings them again into the circulation, and so subjects the system once more to their influence. Holding these views, it will be evident that I adopted the more scientific course. But, in cases of milder severity, I would give the iodide; for instance, when a small amount of mercury has been taken during a short time, yet has caused salivation, the iodide will effect the separation of the metal through the urine, before its presence in the circulation has had time to produce dangerous results.

And now for the inadvertence which gave rise to the case I have been describing. The poor woman's scalp presented a very disgusting sight, being a complete sore, fissured, and swarming with lice. No doubt, tinea and dirt together combined to produce this filthy state of things; and it was to get rid of the lice that she procured from a druggist the unguentum hydrargyri. It was applied in the most incautious manner for some days; and, as she neglected to wash her head, there was no getting rid of the tormentors. She even continued using the application during the attendance of the medical man referred to; and, as she did not tell him of this, I presume he did not consider it worth his time to sift the history of the case. I could not ascertain the amount of ointment used, but what I did see remaining was the unguentum hydrargyri of the *Pharmacopœia*.

For obvious reasons, this was a sad case indeed; and my readers may wonder why it eluded the diagnosis of an experienced practitioner. They need not. I can assure them, from direct experience, that such glaring errors are common enough in large London practices, where "minute visits" are not only usual, but boasted of. A patient of considerable intelligence told me—and, indeed, his medical attendant admitted it to myself, that when the latter was asked by the former how he could, in a minute, satisfy himself as to the condition of a patient suffering from inflammation of both lungs, replied: "I am not like a young fellow learning to spell; you see, I have learned to read as I run." Low tact of this kind is specially cultivated by such practitioners; and their practice is far more obnoxious, to my mind, than that of druggists and unqualified men.

To suggest a proper remedy for such a state of things would be difficult, if not impossible. We hear a great deal in these times of Defence Associations: is this what they propose to defend? The fault is not so much outside the profession as in its very ranks; and the profession is a splendid field for drifting through to the basest and most ignoble ends.

SURGICAL MEMORANDA.

SELF-MUTILATION.

AT the present time, when the subject of self-mutilation is of so much interest, the following case may be worth notice, not, perhaps, from a medico-legal point of view, as the one recently under public notice, but as showing that some persons will inflict severe pain and injure themselves, at the risk of their own lives, from various motives.

Several years ago, when assistant-surgeon in a foreign naval service, my ship was stationed for three weeks in an extreme northern port of America. During our stay, several men contracted syphilis from the half-breeds (Indian and French). Three weeks or a month afterwards, when we had returned to our depôt, I was summoned to the surgical room to see a stoker, said to be dying. On arrival, I found him pallid, with a weak pulse, and very exhausted. On removal to the sick bay, I noticed a discoloration of the trousers about the thighs; and, on examination, detected bleeding from the penis. On retracting the prepuce, a jet of red blood spurted out. Calling in the assistance of my chief, we succeeded in stopping the hæmorrhage by pressure and styptics, but, as may be imagined, not without some trouble. It transpired that the poor fellow, an Irishman, of a low mental type, had a chancre. He thought to get rid of it by incision; and, in doing so, wounded the dorsalis penis artery. The pocket-knife with which he cut himself was in his pocket, one blade having a smear of blood on it. Had a little longer time elapsed before he was noticed, death would

* This rapid fresh formation is more frequent in myeloid and round-celled sarcomata than in carcinoma, even when every part of the capsule appears entire in the severed part.

have ensued, perhaps leading to various surmises; and, as he was disliked by his mates, this might possibly have caused unjust suspicions against one or other of them.

THOMAS PARTRIDGE, M.K.Q.C.P., M.R.C.S.E., Stroud.

CONTRACTION OF THE PALMAR FASCIA.

SINCE reading the recent communications on this subject, the following well marked example in a woman has come under my care.

Mary B., aged 78, has always had good health; never had swollen or painful joints; and has no family history of rheumatism or gout. She has been a washerwoman the greater part of her life. A year ago, her right hand "began to get drawn", and her right shoulder to be painful and stiff; for six months she has had pain in the right palm, near the fingers, when grasping anything. The right palmar fascia is now greatly thickened; distinct processes can be seen and felt passing from the middle of the palm to each of the digits; the hand to the ring-finger is thick and cord-like, and the first phalanx is strongly flexed; the other digits are only slightly flexed. When the thumb is extended, a band of fascia stands out prominently, going to the thumb along the anterior margin of the thenar eminence; and from the middle of this band, a piece of fascia passes forward to join the process to the index finger. At their point of union, the skin is much dimpled; the palm is also puckered in other places. The skin of the left palm presents marked puckerings, but the processes of fascia are less distinct than those of the right hand; the band going to the left thumb is the most prominent. The right shoulder is somewhat stiff and tender; movements of the joint are painful, and grating is felt when the arm is moved. On the outer side of the joint, some bony nodules are distinctly felt; they seem to be connected with the capsule. The right knee is tender, and slightly swollen. Other joints are unaffected. The heart is normal.

The two chief factors in this case seem to be old age and occupation. No doubt transitional anatomical forms can be traced between the joint-changes in this partial variety of arthritis deformans, and those of acute articular rheumatism; but, taking into consideration its localised character, its first appearance so late in life, and the absence of rheumatism from other members of the family, it seems difficult to admit a rheumatic diathesis; at the same time, senile degeneration does not afford a complete explanation.

The thickening and contraction of the palmar fascia is possibly the result of a chronic inflammatory process set up by constantly washing and wringing clothes. Thickening of fibrous elements may also be partly regarded as a degeneration incident to age.

J. S. BURY, M.D., B.S., Manchester.

CLINICAL MEMORANDA.

CASE OF SPINA BIFIDA: SPONTANEOUS CURE.

THERE are, perhaps, few congenital malformations of childhood more commonly met with than spina bifida; and whilst, in the great majority of such cases, the prognosis must be unfavourable, yet recovery does sometimes take place, and usually in one of three ways, viz.: (1) spontaneously, and generally by elongation of the pedicle, and consequent obliteration of the opening communicating with the spinal canal; (2) and, still more rarely, after rupture of the sac itself; and (3) as the result of operative measures. In some cases, also, although the tumour increases in size, yet such increase, not being disproportionate to the general growth of the individual, produces no grave symptoms, and may not eventually cause death. Spontaneous cure in these cases is, however, so comparatively rare, that I feel justified in publishing brief notes of the following case which occurred in my practice, and which, I think, affords several features of especial interest.

Mrs. V., a healthy woman of the labouring class, free from any hereditary taint so far as I could ascertain, was delivered by my assistant of a female child, which was found to be the subject of spina bifida, although in all other respects healthy and well developed, in October 1879. The mother received instructions as to local treatment, especially as regarded careful nursing. The tumour, about three inches in diameter, and circular, was situated over the last two lumbar vertebræ in the median line, where a large sulcus could be felt. It was semitransparent, fluctuating, evidently the result of arrested development in the spinous processes and laminæ, and the largeness of the sulcus in the canal enabled the tumour to assume the non-pedunculated form. The tumour was very tense and shining whilst the infant was held in the sitting position, and I had no doubt that it communicated with the cavity of the theca. In February 1880, when the child was more than three months old, the diameter of the tumour had increased to five inches, thus giving about fifteen inches as the circumference; and it projected one inch and a half from the plane of the body. Otherwise, there was no apparent difference; and, in the meantime, the child had thriven well, and been free from any symptoms of hydrocephalus, convulsions, paralysis, or local inflammation.

When the child was six months old, the tumour began to lessen, and at the end of ten months it had entirely disappeared. When sixteen months old, I had an opportunity of making another examination, when there was nothing to be seen but an indurated cicatrix, almost level with the surrounding skin. The bones were completely ossified, and the child in perfect health.

REMARKS.—From the extreme tension and thinness of the cyst-wall, it is very surprising how it escaped rupture; and this fact witnesses to the extreme care with which the child had been nursed by its mother, especially as no padding or other special protective means had been applied; experience in other cases having taught me the desirability of non-interference, with the exception of ordinary precautionary measures, so long as there were no urgent symptoms, or complications of any kind. No remains of the cyst were left; and, as the tumour had entirely disappeared, and complete ossification resulted, the case must be regarded as a most satisfactory example of spontaneous cure.

R. A. DOUGLAS LITHGOW, LL.D., M.R.C.P.Ed., etc., London.

OBSTETRIC MEMORANDA.

INSTRUMENTAL *v.* NORMAL PARTURITION.

THE following case may be interesting, and is not unimportant as bearing on the question of "Instrumental *v.* Natural Parturition".

I attended Mrs. B., in September 1880, with her first child. The presentation was normal; the brim and outlet of the pelvis of average capacity; and the child's head of about the average size. The labour was rather a lingering one; and, owing to the excitability of the mother, and her intense desire for the termination of the case, I decided to use forceps about eight hours after the commencement of labour. At this period, the head was about half through the pelvis, and the os uteri fully dilated. With little trouble, I delivered her of a healthy living child, and with no more laceration of the perinæum than occurs at nearly every birth, and the mother convalesced without a single bad or even troublesome symptom.

Last November, I was again summoned to attend her in her second confinement. This time, on arrival, I found labour very advanced, the child's head being almost on the perinæum; the pains were strong, but not unusually violent, and occurred about every three or five minutes. Although my patient almost implored me to use "instruments", I now refused to do so, as I thought nature would in all probability very soon accomplish her delivery, and with more safety. I remained about an hour watching the case; the "pains" gradually becoming stronger. The perinæum was somewhat rigid, and did not dilate readily, and I endeavoured to protect it as far as I could, as the head was now pressing strongly upon it. However, in spite of all I could do, during a series of strong "pains", it was suddenly born; but, at the same time, I felt and heard the ominous sound of something giving way. I knew there was some laceration of the perinæum, but, on examination afterwards, it did not seem a great deal. My patient convalesced well, and did not complain much; but, a week or two ago, she came to my residence, complaining of her womb coming down, and to such an extent that the cervix was slightly protruded through the vulva.

Now, in this second case, the child's head was certainly not larger than in the first; and the question rises in my mind—whether, had I used forceps, I might have saved the laceration of the perinæum? I should be glad to learn the experience of any other member of the Association in such cases.

M. GREENWOOD, jun., 18, Queen's Road, E.

ST. JOHN AMBULANCE ASSOCIATION.—It was reported at a meeting of the Central Executive Committee on January 27th, that four well-attended classes for women and one for men have been opened at Cannes, where an inaugural public meeting was held on the 21st. The lecturer is Surgeon-Major F. B. Baker, Grenadier Guards, one of the head-quarter staff, who has been sent out for this special purpose. Classes have also been formed at Nice and Mentone, where Dr. Armand Leslie formerly on the staff of the National Society for Aid to the Sick and Wounded in War, will lecture; while other classes have already been commenced at Malta, long the principal stronghold of the order of St. John. The Metropolitan Railway has purchased several of the Furley pattern stretchers for deposit at their stations; and the London and North-Western Railway Company has ordered one of the "Ashford Litters" on trial.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

QUEEN'S HOSPITAL, BIRMINGHAM.

FRACTURES OF THE EXTERNAL AUDITORY PROCESS OF THE TEMPORAL BONE FROM INDIRECT VIOLENCE.

By JORDAN LLOYD, M.B., F.R.C.S.Eng., Casualty Surgeon to the Hospital.

THE two following cases illustrate very well an accident of unfrequent occurrence, and one, I believe, hitherto undescribed.

CASE I.—J. E., a labourer aged 25, came to the Hospital under my care, on Sunday evening, August 7th. He was suffering from an irregularly contused wound transversely across the extreme point of the chin; the wound was one and a half inches long, and extended down to the bone. He complained, besides the injury, of pain in front of both ears, in the situation of the maxillary articulation, and also down the rami of the jaw. He said that, shortly before coming to hospital, he had fallen down in a fit, and had struck his chin on a quarried floor at the time of his fall. The jaw was carefully examined, and found free from fracture; the wound was dressed with oiled lint, secured by an ordinary four-tailed bandage. On awaking the following morning, he found nearly a tablespoonful of blood on the pillow, which had escaped from his right ear during the night; the bandage had slipped from his head. When he again came to hospital, I found blood in the right ear. The coagulum was removed; and, by means of Brunton's otoscope, I detected a small irregular longitudinal wound in the anterior and inferior part of the auditory canal, about three quarters of an inch from the meatus. The channel was swollen and diminished in calibre. He complained of tenderness in both ears, increased by pressing the lower jaw backwards. There was also some swelling in the left auditory canal. The wound of the chin was dressed, and another bandage applied. During the night of the 9th, there was a little more oozing from the right ear, and also a trifling hæmorrhage from the left. On the morning of the 10th, the left ear contained a small blood-clot, and presented on careful examination a wound, similar to that on the opposite side. The hearing on both sides was dull. The jaw was more firmly secured by a "halter" bandage, and instructions given that a fluid diet should be taken. From this period, no other symptom occurred, and in a month he was quite well.

CASE II.—W. H., a carpenter aged 26, came under my care at the hospital, on August 3rd, suffering from a contused transverse wound, about one inch long, laying bare the bone, across the point of the chin. He complained of pain up the rami of the jaw, and was particularly tender about the right maxillary articulation. Whilst at work that morning, laying a boarded floor, he had slipped through the joists, and, in coming between them, had struck his chin violently on one of the beams. He did not lose consciousness. No fracture could be detected. The wound of the chin was dressed with lint held in position by a four-tailed bandage. On the following morning, he told me there had been an escape of blood from his ear on to the pillow during the night. On examining the right auditory canal, which contained blood-clot, I was unable to detect any wound; the channel was swollen, but not discoloured. Pressure of the jaw backwards gave him pain behind the articulation. I could not detect crepitus. The jaw was firmly secured by a "halter" bandage; there was no more bleeding; and, in the course of three weeks, the pain and stiffness passed off and he was cured.

REMARKS.—The accident I have ventured to diagnose in these two cases is that of compound fracture of the external auditory process of the temporal bone, in the first case of both sides, caused by the impact of the condyles of the lower jaw, the force being applied in the direction of a line passing from the point of the chin through the middle of the auditory canal. The force required to produce this injury must be severe, as was clearly the case in each of my patients. The symptom of hæmorrhage from the ear not coming on at the time of the accident, I should explain by assuming that, in the first instance, the fracture was simple, and had become compound subsequently by the movements of the jaw during mastication. The absence of crepitus may be explained by the smallness of the fractured surfaces, and by the difficulty of diagnostic investigation necessitated by the situation of the injured process between the mastoid eminence and the lower jaw. I am supported in my diagnosis by a study of the parts in the dead subject. I fail otherwise to see how a blow on the chin can cause bleeding from the ear. Fractured base of the skull, I take it, is out of the question; for, with such a lesion, we should most certainly find more free hæmorrhage associated with other symptoms. The fracture in neither of my cases, I conclude, communicated with the cavity of the articulation, such a complication being doubtless prevented by the intervening strong posterior part of the capsular ligament.

The accident is of interest, not from its severity or danger, but from the mechanism of its causation and from its simulation, in one case by the occurrence of bleeding from both ears, to fracture of the base of the skull. It is also interesting for the reason that, so far as I can at present ascertain, it has not been previously recorded.

SALOP INFIRMARY.

CASE OF OÖPHORECTOMY.

(Reported by EDWARD CURETON, Physician to the Infirmary.)

E. P., aged 30, a housewife, residing in Shrewsbury, was admitted into the Salop Infirmary under my care on August 19th. She stated that she had been married nine years; that she had had six children, all living; that she had had three miscarriages. Since her last confinement, seven months ago, she had not been well, and had suffered from symptoms which were clearly due to subinvolution and anteversion of the uterus. She had had profuse menstrual hæmorrhages, and the duration of her menstrual periods had been prolonged and painful. The uterine sound sank one inch deeper into the uterine cavity than normal, and moved about freely inside, the uterus being anteverted. She had had considerable pain and tenderness over her ovaries, more especially the right one, combined with an endless amount of hysterical symptoms. She said she was quite unable to walk. She had three or four hysterical fits since her admission. She had taken as medicines, at various periods, ergot, valerian, bromide of potassium, and strychnia; and a hot vaginal douche had been used daily. I applied carbolic acid and iodine, and subsequently fuming nitric acid to the interior of the uterus, for the relief of the subinvolution; and, since these applications, her losses at each menstrual period had not been so great. Her uterus now remained fixed in its abnormal situation, and any efforts to replace it were attended by great suffering. She was at present quite a burden to herself, a victim to the various phases assumed by hysteria, so that it was next to impossible to tell what was real and what was hysterical in her symptoms.

After a consultation of the hospital staff, it was decided that the operation of oöphorectomy would be justifiable in this case. Accordingly, on Monday, November 1st, the patient being placed under ether in the ward, she was then removed to the operating-theatre, and my colleague Mr. Eddowes performed the operation of oöphorectomy. On removal of the left ovary, it appeared normal, weighing forty grains; but, when the right one was brought to light, it appeared quite double the size of its fellow, and presented, on its upper and outer surface, a distinct oval elevation, which was of a dark purple hue, with tortuous vessels filled with dark blood running over its surface; and, at its lower and posterior aspect, there was a small ovoid cyst with translucent capsule: it was about as large as a bean, and was suspended by a pedicle about three-quarters of an inch long, hanging loose in the abdominal cavity. The weight of the right ovary was one hundred and eighteen grains, the weight of the cyst being four grains; and, on the outer aspect of the left ovary, two ovisacs were plainly visible through the stroma. The right ovary measured in length an inch and a half, in width one inch, in thickness half an inch. On section, the bluish elevation proved to be a cyst with yellowish gelatinous contents; the stroma appeared to be unusually dense and fibrous. Before the operation, the patient said she particularly wished to point out to me the spot where she had suffered and was then suffering, the most pain. She then placed the index and middle fingers of the right hand over a spot corresponding in situation to the right ovary. With reference to the result of the case, the patient made an uninterrupted recovery so far as the wound was concerned, her temperature never exceeding 100° Fahr., the union taking place by the first intention. She left the Infirmary in about a month; she then went to Buxton for about another month.

January 16th, 1882. I have seen E. P. at her own home. She says she is free from pain, and she feels in fairly good health. She has walked about one mile without feeling much fatigue, and states that she thinks she is gaining strength daily, and is able to perform her usual domestic duties.

INTELLIGENCE of another outbreak of yellow fever in the Senegal River has reached Liverpool, and it is stated that vessels arriving from Senegal at ports on the coast are placed in twenty-eight days' quarantine.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, FEBRUARY 7TH, 1881.

SAMUEL WILKS, M.D., F.R.S., President, in the Chair.

Addison's Disease, with Fibroid Degeneration of the Suprarenal Capsules.—The PRESIDENT and Dr. GOODHART showed the suprarenal capsules from a well marked case of Addison's disease in a young man. The disease had lasted about two and a half years. The diaphragm and all the adjacent organs were removed *en masse*, and it was found that the suprarenal capsules were represented by a thin band of fibrous tissue. The semilunar ganglia showed, Dr. Goodhart thought, increase in the amount of fibrous and nuclear tissue, with diminution in the number of the nervous elements. Dr. Goodhart remarked that Addison had, in his later years, believed that there was only one morbid change which could produce the disease, and this view had been adopted by the President and by Dr. Greenhow, though Virchow held the opposite opinion. It was known, however, that, in some cases, the capsules were destroyed at an early period of the disease, while in other cases they were not attacked at all. It was evident, therefore, that the cheesy change was not the essential point in the disease, but rather that that was to be found in some diseased condition of the abdominal sympathetic; in a chronic neuritis, in fact. This case, if, as he supposed, it was an instance of subchronic neuritis, lent support to the theory that any condition—tubercle, no doubt, in the greater number of cases—that could set up this chronic inflammatory condition in the sympathetic, would lead to the bronzing and characteristic cachexia. In some instances, chronic cheesy changes in the abdominal glands had led to more or less well marked symptoms of Addison's disease. Dr. Davy of Exeter, Dr. Goodhart added, had met with a similar case. The patient was a man, aged 25. At the *post mortem* examination, the suprarenal capsules could not be identified, and it appeared that they had completely wasted away.—Mr. EASTES had had a similar case; this patient suffered from severe melancholia at an early stage of the disease. The suprarenal capsules were so atrophied, that they were with difficulty recognised; they were, in fact, no larger than peas.—The PRESIDENT said that, when Addison first made his observations, he certainly thought that any morbid state of the suprarenal capsules could lead to this disease; and he himself propounded the theory that the symptoms were due to implication of the central sympathetic system. To make Dr. Goodhart's theory complete, it would be necessary to produce a case in which the disease in the sympathetic occurred without any implication of the suprarenal capsules.—Dr. NORMAN MOORE referred to a case published by Dr. Wickham Legg, in which the capsule on one side could not be discovered. He thought the nerve-cells in Dr. Goodhart's case looked remarkably healthy under the microscope. He was, in fact, inclined to doubt whether there were any decided change in the suprarenal ganglions.—Dr. PYE-SMITH said that he had seen Dr. Goodhart's case, which had all the clinical phenomena of well-marked Addison's disease. There were now two or three such cases on record. He thought that it had been pretty conclusively proved that other diseases—for instance, malignant disease—did not produce the characteristic bronzing. The suprarenal capsules were, he believed, of no functional importance during adult life. It would not, therefore, be expected that experimental ablation of the organs would give rise to any symptoms. In some cases, where chronic inflammation was experimentally set up in the capsules in animals, no bronzing followed. Was there, he asked, any case on record of chronic interstitial disease of the capsules without Addison's bronzing? and was there, on the other hand, any case of bronzing without such disease of the capsules? Judging from some observations he had made on ganglia in rabbits, he was inclined to think that the sections of the semilunar ganglion shown were perfectly healthy. Was there any evidence to associate any form of pigmentation from any cause or of any kind with disease of the abdominal sympathetic?—Dr. COUPLAND thought the symptoms of pregnancy afforded an instance of the symptoms set up by disturbance of the sympathetic. The vomiting and the pigmentation of pregnancy might be compared with those of Addison's disease. In one case of Addison's disease which he had seen in a man, vomiting, evidently of a nervous kind, and exactly resembling that of pregnancy, was a prominent symptom. In this case, manifest changes, not only in the capsules, but also in the sympathetic nerves and ganglia in the neighbourhood, were found *post mortem*. He was, therefore, inclined to think that there was evidence in favour of connecting the bronzing and other symptoms of Addison's disease with some lesion of the abdominal sympathetic.—Dr. CREIGHTON thought that Dr. Pye-Smith was not justified in saying that the suprarenal capsules had no function during adult life. The outgoing blood from the suprarenal capsules differed in its reaction with chromate of potash from any other blood in the body. In such cases as those brought forward, and in most of the "classical" cases, there was such a disturbance of the circulation that there was a practical cessation of the functions of the suprarenal bodies. In cancerous disease, the circulation was not affected; while in an atrophied or caseous capsule the circulation could not go on.—Dr. FOWLER had recorded a case, observed at Cambridge, in which there were well-marked symptoms of Addison's disease without any implication of the suprarenal capsules; but in the abdomen there were large tumours, which pressed upon and involved the sympathetic.—Dr. BEDFORD FENWICK remarked that Dr. Creighton's statement with regard to the function of the suprarenal capsules lent support to the theory advocated by him at a recent meeting of the Society.—Dr. GOODHART, in reply, said that he agreed with Dr. Pye-Smith and other speakers that where, at the bedside, the ordinary symptoms of Addison's disease were met with, it might be confidently diagnosed that the caseous change would be met with in the suprarenal capsules. That was the rule; he wished merely to point out that there were exceptions.—The PRESIDENT said that he was not inclined to call malignant disease involving the capsules disease of the capsules. On *à priori* grounds, he would be inclined to expect symptoms due to interference with the functions of those bodies only where some chronic interstitial change occurred. He was led to take this view from the standpoint of general pathology, and from the analogy of the kidneys and other organs.

Incompetence of Tricuspid Valve.—Dr. BEDFORD FENWICK, after relating the clinical phenomena noted during life, which consisted chiefly in a double cardiac murmur, œdema, and marked cyanosis, said that the mitral orifice was much contracted, while the tricuspid was much dilated. He thought it an instance of secondary tricuspid incompetency. He could only find fifteen such cases so recorded as to be of any use for statistical purposes. He found that stenosis occurred more often in women. He thought that this was due to two causes: first, to the lesser strain on the heart in women, which allowed greater rest to the valves and more prolonged opposition; and, secondly, to the fact that the valves were relatively larger in women.

Congenital Tumour of Neck.—Mr. SHATTOCK showed this tumour, which had been sent to him by Dr. Herman. The tumour was congenital, and bore some resemblance to the congenital sacral tumours, several of which had lately been shown before the Society. This tumour probably originated in some aberrant embryonic structure, and not, as some had supposed in similar cases, from Luschka's gland.—Mr. R. J. GODLEE remarked that this tumour, in naked-eye structure and in situation, resembled those described by Mr. Thomas Smith as cystic fibroma; it was, however, certainly not of that nature. It was interesting to note how closely these congenital tumours could resemble other tumours of a totally different nature; the observation had an important bearing on practice.—Mr. TREVES thought that the tumour was rightly classed with congenital sacral tumours, and pointed out that the occurrence of fœtal structures in these latter negatived the theory that the former were connected with Luschka's gland.—Mr. R. W. PARKER said that he had a child now under his care who had a tumour of this nature in the axilla—a very unusual situation, he believed. As to treatment, he remarked that he had succeeded in curing one such case by repeated puncture of the cysts and injection of iodine.

Fracture of Femur in a Puma.—Mr. HENRY MORRIS showed this specimen for Mr. Sutton of the Zoological Society's Gardens. The right thigh had been the seat of an old injury; the acetabulum was occupied by a mass of fibrous tissue; the femur was displaced, and the head of the bone was probably represented by a small bony mass attached to the ilium by ligaments, and still freely movable.

Pneumothorax in a Coati.—This specimen came from the same source. The pleura presented the ordinary appearances of pneumothorax as seen in man. Another coati had recently died in the gardens from the same condition.

Acute Farcy in Man.—Mr. HOWARD BENDALL (Birmingham) showed some microscopical sections, and read the notes of the case, which were briefly as follows. The patient, an adult male, was admitted into hospital suffering from an erysipelatous condition of the right foot, and from a number of swellings, varying in size from a pigeon's to a turkey's egg, scattered over the limbs. Two of these swellings, softer than others, were opened; and the pus evacuated was found to contain a considerable quantity of free oil. Three days later, the characteristic pustular skin-eruption appeared, and there was nocturnal delirium. A couple of days later, some pus was seen in the sputum, and there were physical signs of pneumonia at the left base.

The dyspnœa, which was now evident, rapidly increased, and seemed to be out of all proportion to the physical signs. Two days later, a thin yellowish acrid fluid commenced to exude from the nostrils. Eight days after admission, he died comatose. The necropsy was made twenty-four hours after death. The blood was dark and fluid; but the right ventricle contained a large partially decolorised clot, which extended along the pulmonary arteries. The lower lobe of the left lung contained three abscesses, one of which had burst into a bronchus; the base of this lung was consolidated. Both lungs showed bronchitic changes. There was no ulceration of larynx, trachea, or bronchi. In the nasal cavity and on the roof of the mouth were numerous ulcers; these were covered, some with sloughs, others with a foul mucopurulent discharge. Some of the ulcers extended on to the fauces and pharynx. The spleen was enlarged and pulpy; but the other abdominal viscera were healthy. The left tunica vaginalis was obliterated by adhesive inflammation, and a few purulent points were seen on section of the testicle. Scattered throughout the muscles of the limbs, and more especially in the neighbourhood of the joints, were large numbers of abscesses, containing sloughy blood-stained pus; in all, there were forty or fifty such abscesses. The skin of the chest and forehead was scattered over with small pustules; some of these had burst, leaving ulcers from one-eighth to one-fourth of an inch in diameter. Examination of microscopical sections of the lung from the neighbourhood of the pneumonic nodules showed that the arterioles were more or less completely plugged with oil, which also enormously distended some of the capillary vessels. The mucous membrane of the hard palate had undergone intense disintegrative inflammation. In some regions, chiefly near the side or floor of the ulcers, granules of fat could be seen in clusters. The skin of the forehead in the region of the ulcers was in a similar condition. The sebaceous glands seemed to have undergone extensive fatty necrosis. Mr. Bendall pointed out that it was of great interest to notice the concurrence of this free oil in the abscesses, and of this curious form of fatty degeneration of the skin and mucous membrane, with the fat embola in the lungs. Dyspnœa appeared to be an almost constant symptom in the later stages of acute farcy, and might own this origin.—The PRESIDENT inquired why the term "acute farcy" was used. He had seen four well marked cases in which the symptoms were exactly such as described by Mr. Bendall, and he had looked upon them as cases of glanders.—Mr. R. J. GODLEE said that the author of the article in Ziemssen's *Cyclopædia* maintained that there was only one disease, and that such cases as these ought to be called acute glanders. He referred to two cases which he had seen at University College Hospital.—Dr. HOGGAN had examined the tissues from one case. He had found the lymphatics dilated and filled with pus-cells, but after prolonged examination he had failed to find anything specific in the charges; all the tissues were being replaced by embryonic indifferent tissues, as was seen in all acute inflammations.—Dr. COUPLAND had recorded a case as acute glanders, in which there was no affection of the nose; he based the nomenclature on the occurrence of the characteristic tumours.—Mr. HENRY MORRIS observed that the occurrence of fat embolism was the interesting point in the case; he knew that it occurred in fractures, but its presence in farcy or glanders was, to him, at least, a new fact.—Mr. BENDALL, in reply, said that he used the term farcy for the general disease restricting the term glanders to the cases where the point of inoculation and the primary seat of the mischief was the nasal cavities. He had not seen any pus-cells in the "buds" in his preparations, the purulent-looking material seemed to consist entirely of broken-down tissue.

False Membranes in a case of Scald of the Pharynx and Glottis.—Mr. DAVIES-COLLEY showed the lungs and air-passages of a child who died after a severe scald produced by drinking, on January 31st, out of a tea-kettle. A whitish membrane developed on the soft palate on February 3rd, and the child died on February 6th with symptoms of bronchitis; the fauces, the pharynx, the œsophagus as far as the stomach, and the larynx as low as the ventricles, were covered with a false membrane. The trachea was free from inflammation, but at the base of the lungs there was some broncho-pneumonia. He brought the case forward as an instance of a croupous membrane produced as a result of mechanical injury; he thought the pneumonia was comparable to the pneumonia found in the second stage of extensive burns of the surface, and pointed out that some of the deaths from pneumonia after tracheotomy attributed to that operation might really be due to this cause.

HOSPITAL SUNDAY AT SHEFFIELD.—It is stated that nearly £2,000 was collected last Sunday in the Sheffield places of worship in aid of the local medical charities, although the weather was most inclement, preventing a good attendance.

CAMBRIDGE MEDICAL SOCIETY.

FRIDAY, JANUARY 6th, 1882.

GEORGE E. PAGET, M.D., F.R.S., President, in the Chair.

Case of Cancer of the Œsophagus with Ulceration into the Aorta.—DR. PAGET related the case of a man, aged 56, who had died rather suddenly from hæmorrhage, after being treated for about seven weeks for cancer of the œsophagus. Three months before admission, he complained of pain on eating, sickness, and pain close to the left nipple. For a month before he entered the hospital, all food had been rejected. There had been neither hæmatemesis nor melæna. On admission he was pale and emaciated, had tenderness at the epigastrium, and cough; he felt hungry, but had not vomited for three days. The urine was healthy, and the chest abnormally resonant throughout. Five days later, he vomited after taking bread. A week later he was in more pain, and was ordered five grains of extract of hyoscyamus three times a day. After this, the pain and vomiting ceased till he died. About a fortnight before his death, he suffered from cough and copious frothy expectoration. He never complained of any difficulty in swallowing. One evening he brought up, apparently without effort, about half a pint of bright arterial frothy blood, and four hours later a larger quantity of similar character, and died immediately afterwards. The necropsy showed that the walls of the œsophagus (in that portion of its course in which it lies in the posterior mediastinum, in close proximity to the thoracic aorta) were, for about three inches, infiltrated with cancerous deposit. In the same situation the œsophagus was dilated into a cavity about the size of a hen's egg, the tissue lining it being deeply ulcerated. A free passage of communication existed between this cavity and the aorta. The stomach was distended by two enormous blood-clots, weighing together nearly three pounds, the larger clot forming an almost complete cast of the interior of the stomach. The aorta was somewhat atheromatous, the communication with the œsophagus being situated at the junction of the descending portion of the arch with the thoracic aorta. The lungs were emphysematous, and in the left were numerous cancerous nodules chiefly on the surface, varying in size from a pea to a hazel-nut. Several of the mediastinal glands were enlarged and infiltrated with cancer. Dr. Paget remarked that the case was peculiar from the absence of ordinary symptoms, and pointed out that there was no complaint of difficulty in swallowing, nor was there any rising of glairy fluid in the mouth, which is a frequent symptom in such cases; and that what was described as vomiting was probably regurgitation of food from the pouch at the point of ulceration. The mode of termination was also rare.—Dr. ANNINGSON had made microscopical sections of the thickened walls below the ulcer, and found the histological characters to be essentially scirrhous, but the fibrous and cellular elements to be more uniformly diffused than is usual in scirrhus. A secondary growth in the lung tended to prove the scirrhous character.—Dr. PAGET had seen cases of spasm of the œsophagus associated with organic disease relieved by minute doses of morphia and Indian hemp, and the power of swallowing facilitated by such treatment even in the face of local disease. He referred, also, to the case of a man who, after taking a quantity of pepper to relieve discomfort produced by an enormous meal, had literally burst his œsophagus in an effort to vomit, and the left pleural cavity had been found after death to contain beef and other food recently swallowed.

Remarkable Dislocation of the Patella Edgeways.—Mr. G. WALLIS gave particulars of a case, recently under his care. The patient was a lad, aged 16. He had slipped off the end of a truck, and struck the inner side of his left knee. On his arrival at the hospital, it was found that the inner edge of the left patella was wedged between the condyles of the femur and the head of the tibia, its outer edge projecting forwards under the stretched skin. The patient was etherised, the limb was raised, and by a little manipulation the bone was returned to its natural position. This form of dislocation is said to be very uncommon, and its reduction sometimes to be a matter of great difficulty. Mr. T. Bryant says he has only seen one case. The cause is supposed to be a sudden blow on the patella while the knee is bent.

Sudden Death caused by a single Blow with the Fist.—Dr. BACON brought forward a case in which a chronic lunatic, in Fulbourn Asylum, aged 46, had been killed outright by one blow with the naked fist. The victim was rather a spare man, apparently in average health. Another patient struck him a blow under the right mastoid process, with some force, and from behind. The man who was struck fell on the floor without knocking against any object, and after some convulsive movements died within five minutes. The whole affair was witnessed by two sane men who stood only a few yards off. An extravasation of blood was found at the base of the brain; there was a clot in the fourth ventricle; and the effused blood compressed the medulla oblongata. No

fracture could be found, and the effusion of blood was due to the rupture of a vessel at the base of the brain. There was blood-staining of the membranes, more particularly on the opposite side. Dr. Bacon mentioned that the case was peculiar from the suddenness of the death, as, though many died from blows on the head in drunken brawls or from street accidents, very few cases occurred in which death ensued so quickly; and the case had considerable medico-legal importance, as the facts were beyond dispute and the assault was witnessed by competent observers.

REVIEWS AND NOTICES.

NAVAL HYGIENE. By J. D. MACDONALD, M.D., F.R.S., R.N., Ex-Professor at Netley. London: Smith, Elder and Co. 1881.

THIS is a small volume, but we think it eminently calculated to do good service on board all ships of the navy and mercantile marine that carry surgeons. It does not contain such elaborate treatises on every conceivable point of hygienic science as that by the late Professor Parkes, but in it we find very closely packed, instructively told, and well illustrated by diagrams and tables, all that meets the actual requirements of a ship's medical officer; and the navy may be proud of having one who has made himself so proficient to teach a subject on which there are but few authorities.

Dr. MACDONALD has brought up to the level of modern science all his doctrines on the construction and ventilation of ships, whether of wood or of iron, exhibiting the principal facts by an understandable series of diagrams, that will be as instructive to the old officer as much as to one now entering the service. These are so multifarious that the study of them, although foreign to general medical readers, must be essential to all who take to the sea from proclivity or from necessity—the mother of invention; and we would expect to find, within a moderate period, that medical officers of the navy, being so richly instructed, will offer far more suggestions of hygienic value in their sphere than have seen the light in the previous part of the current century, which will demand greater attention from the authorities than has hitherto been the case. We are far from depreciating the works of eminent men who have written earlier on the Diseases of Seamen, their Prevention and Cure, which, if they had fallen on willing ears or hands, would have saved the lives of thousands of sailors. Such literary labours as those of Lind, Blane, and Trotter, in the last century, are classical works in our medical libraries that are still worthy of reprint and of re-editing up to the march of modern science; and we think that a new volume that should condense all these, and give all to be gathered from the ample statistics and papers published in the annual reports of the navy through the last fifty years, would give us an invaluable guide to the hygienic and curative management of dwellers in ships in every climate.

If the suggestions offered by naval medical officers had been received and attended to, the navy would have been purged from scurvy a century and a half earlier. So with regard to contagious fevers: the principles laid down by them, being acted on, would have led to their eradication at least eighty years before they ceased to be the scourge of our fleets; and the same may be said of the phagedænic ulcer, dysentery, and liver-diseases that were, not very long ago, the scourges of our fleet. In truth, hygienic and non-hygienic causes may be said to have been studied, and their sound principles laid down, by naval medical officers, within their sphere, before they were taken up by the general body of the profession.

If proofs were wanted that, at the present moment, the navy possesses a body of accomplished students of all these matters within their sphere, this volume amply affords these in its numerous quotations, raising hopes that the proposals will not be wanting in efficiency when called into action under unusual circumstances.

Concerning the ventilation of ships, this work is replete with information on the various plans that have been proposed since 1736, when the question was first raised; and, strangely enough, all the modern plans in use are only adaptations of the systems of propelling by fanners (the *plenum* system), and that of exhausting by furnaces (the *vacuum* system), which were offered by Desaguliers and by Sutton respectively, when the question was first raised a century and a half ago. There is, however, one plan, not adverted to by Dr. Macdonald, that deserves notice, it being the most recent patent for the *vacuum* process, brought to us from Boston, United States. It consists of a pair of iron cylinders, working in outer cylinders, two-thirds filled with water, resembling a pair of small gasometers, working alternately at the extremities of a long lever beam playing on its centre. To these cylinders valved pipes are fitted, through which the foul air is drawn from every part of the vessel into the cylinders, and then expelled through other pipes into the outer air. It is said to act well at the Criterion theatre, where it is credited with the out-take of 4,000 cubic feet per minute, worked by a two-horse engine; and it was tried lately at Portsmouth in a screw-vessel, the *Ceylon*, sent out by our Government to chase slave dhows off Zanzibar. The principle is the same as that of Perkins—using a water-medium, in double tanks, for expulsion, but working it mechanically, by steam-power, and not automatically by the roll of the ship, as Perkins's plan does. It seems to be applicable to sailing vessels and to all ships not requiring the fullest *plenum* power, by propelling air into the vessel, which fighting turret-ships must absolutely require.

Dr. Macdonald next affords all the modern teachings concerning purity of water, and the mode of providing it by means of condensation of the steam formerly wasted, which is now provided in ships of war by the complete apparatus of Dr. Normandy; the proper tests for ascertaining impurity having been for many years past, with directions for use, supplied by the Admiralty to the surgeons of their ships. Paramount to these, or, at least, tantamount with them, is the vital question of diet. Although more slowly productive of baneful results, yet it has been the theme of many a chapter since Dr. Cockburn, physician of the fleet, wrote on the subject, so long since as 1696, without any good results in reforming the dietary of the navy. But the question has made such vast strides in the present century, that the ordinary rations now allowed surpass that of the sick in 1800, and may be still open to improvement. Comparing the chemical and the nutritious values of the naval daily rations from 1720 to about the year 1800, with what they are at present, Dr. Macdonald affords data in proof that the nutritive value of the dietary was 24.81 between the former dates, as compared with 33.57 existing now, which shows an improvement of nearly one-fourth in hygienic value. No one can doubt the importance of this fact, which is exemplified in the comparative health-results—if judged by the successive reports on the health of the navy—when scurvy and contagious fevers have disappeared; and dysentery, once common in every channel squadron, is only met with in tropical climates, and there only under special conditions, under which it is found impracticable to supply condensed drinking water to the crew.

By ventilation or supply of fresher air, fevers of contagious character; by fuller and better diet, with lime-juice, scurvy; and by condensed water or a supply of uncontaminated water, dysentery—have all been almost expunged from the reports of the health of the navy; but generations of naval surgeons have had to contend for each of these hygienic measures in turn.

CATALOGUE DES PIÈCES DU MUSÉE DUPUYTREN. Publié sous les Auspices de la Faculté de Médecine de Paris. Tome v. Par M. HOUEL, Conservateur des Collections de la Faculté de Médecine de Paris, Agrégé de la Faculté, Chevalier de la Légion d'Honneur, etc. Paris: Dupont et Masson. 1881.

IN these days of international congresses, technical catalogues and text-books in foreign languages are of great value; for few dictionaries contain a satisfactory assortment of modern scientific terms, and no foreign grammar or exercise-book includes a dialogue between medical men, or enters into the idioms employed in hospital wards or in societies. Such a want may yet be supplied by the production of a work published as a kind of pendant to technical lexicons like those of Drs. Cutter and Fancourt Barnes. This catalogue will teach the English reader a good lesson in medical French. Errors as to the gender of "foie", "cyste", and "vagin" (all masculine) may, by its perusal, be avoided. The first word reminds the Englishman too much of the more familiar term "la foi"; the second deceives many by its feminine appearance and associations; and still more so does the third, which is a curious exception to the rule that French nouns are of the same gender as the Latin words whence they are derived. Then the British reader should remember that "pièce", and not "spécimen", is the right equivalent for specimen. This fifth volume concludes the catalogue, excepting the teratological section. It includes the series of injuries and disorders of the respiratory, genito-urinary, and part of the digestive organs; and the specimens and figures illustrating skin-disease. The description of each specimen is remarkably concise; but there is a great want of histories, and those that are inserted are often too long and full of unnecessary details, for which there is no excuse when reference can be made to complete histories already published elsewhere. The absence of any records of the majority of the specimens is not the fault of M. HOUEL, but of the donors. The compiler's duty was to prepare condensed but comprehensive descriptions of each "pièce", as they say on the other side of the Channel. This duty has been admirably performed; so that the catalogue is of value, through its descriptive merits, even to those who cannot go to Paris to visit the Musée Dupuytren.

NOTES ON BOOKS.

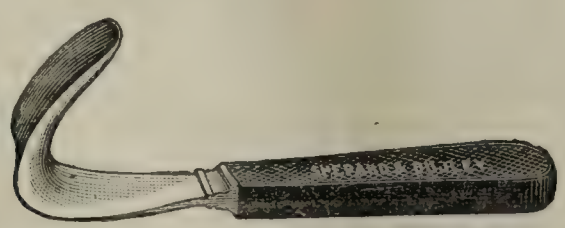
An Introduction to Commercial Organic Analysis. By ALFRED H. ALLEN, F.C.S. Vol. II. (Churchill. 1882.)—We have received an advance sheet of this useful and important work from the author. We have examined that portion of the work devoted to toxicological research for the presence of alkaloids; and find that it contains a mass of useful information, expressed clearly and with great minuteness of detail. The book is one which will prove of essential service to the public analyst, and to the medical men engaged in toxicological and physiological investigations. We forbear from detailed criticism, merely remarking that, for the separation of strychnine by Stas's process, Mr. Allen prefers a mixture of chloroform and ether to either of those solvents of the alkaloid employed singly—a method on which the late Dr. A. S. Taylor laid stress, and to which he refers in his work on *Poisons*. Mr. Allen appears, however, to claim the improvement as his own. In one point, our experience is in direct conflict with Mr. Allen's. He says that no morphia can be detected in the urine of patients who have taken large doses of the alkaloid into the stomach. We have found, in such a case, that a few drops only of the urine may suffice for the detection of the alkaloid.

Burdett's Official Intelligencer. London: E. Couchman and Co. 1882. MR. HENRY C. BURDETT, whose excellent and useful works on cottage hospitals and hospital organisation have met with their due meed of praise in our columns, has, since his appointment as secretary to the Share and Loan Department of the Stock Exchange, devoted his special aptitude for collecting and tabulating results to the service of the important institution in which he now holds so honourable a position. In less than a year from his appointment, he has brought out a huge volume, replete with the most minute facts as to every description of share, loan, and stocks negotiable on the English Stock Exchange. The amount of information brought together is curious and interesting, as well as being a monument of patient and discriminating labour, comprising as it does the origin, fluctuations, and present position of all these motors of the financial world. We cannot pretend, of course, to vouch for the accuracy of all the details contained in this remarkable volume, but we note that it has not been impeached by authorities capable of dealing with the subject. To investors in every description of stocks and shares, of whom our professional brethren we hope, form no inconsiderable proportion, a glance at this compendium of Stock Exchange lore will prove useful; throwing light as it does on the financial future, by the experience of the past and the facts of the present.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

A NEW SPECULUM.

THIS instrument is a modification of Sims's duck-bill speculum. The blade has been shortened, flattened, and set to an angle with the shaft of forty-five, instead of ninety, degrees. It was designed especially for use in Battey's operation, and the vaginal ovariotomy of Thomas; but experience has demonstrated its superiority in all operations to which the Sims is applicable. The blade being shortened, permits the uterus to be drawn downwards, and also exposes well the posterior vaginal pouch. Being flattened, the vulvar opening is increased, and room for manipulation is gained. The acute angle of the blade and shaft compells the point of the instrument to keep its proper place, well back in the hollow of the sacrum, out of the way of the operator—a valuable feature.

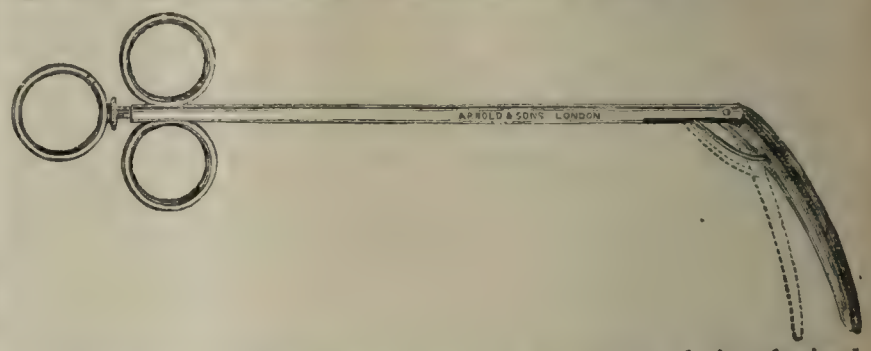


Simple traction in the line of the shaft is all that is required to keep the blade in position. When the traction is made, by a bit of rubber-tubing attached to the handle, and armed with a two-pronged hook to be engaged in the clothing of the patient, the instrument is completely self-retaining. The accompanying cut well represents the speculum, as made for me by Shepherd and Dudley of New York.

ROBERT BATTEY, M.D., Georgia, U.S.A.

THROAT-FORCEPS.

THE subjoined is an illustration of a throat-forceps, invented by me some time since, which I think may claim attention from those interested in throat-affections, for the following reasons; the small space occupied by the instrument when in the mouth; the minimum obstruction to light and sight being caused by the cylinder in which the piston-rod



acts which closes the near blade; and the steadiness of aim obtained through one blade being fixed, and no separation of the fingers, as in the ordinary throat-forceps, having to take place, but merely a sliding movement of the thumb in a revolving ring, which supplies ample power for the steady grasping of any substance by the blades. The instrument is made by Messrs. Arnold and Sons, West Smithfield, who have carefully carried out my intentions.

JOHN C. HOGAN, M.D.

DOLLY'S PATENT BEEF-TEA AND GRAVY EXTRACTOR.

IT is of great advantage to the general practitioner to have at his command several modes of preparing meat infusions, which he can recommend with confidence. Having, during several months past, indeed since its introduction into this country, used Dolly's beef-tea extractor very frequently, in hospital and in private practice, we can certify to its efficiency, and to the general satisfaction its employment has given. The infusion thus obtained is a pure juice of meat, without unpleasant or smoky flavour; and, in our experience, always appreciated by the patient as palatable. The principle of the apparatus consists in obtaining an infusion of meat by a temperature not exceeding 160° Fahr. within the vessel containing the meat. Dolly's "extractor" consists of a double vessel, made in two parts; "the outer vessel has an inner flange at the top, and the inner vessel has an outer flange, by which it is suspended upon the outer vessel, so as to leave a sufficient space between their respective bottoms; the inner vessel is made of porcelain." This space between the two vessels must always be left empty, for the air therein serves as the heat-conductor, which raises the temperature within the inner vessel to 160° Fahr., and maintains it there while the extraction is going on. The extractor is placed in a saucepan, about two-thirds full of water, and placed on the fire to simmer for two or three hours. Two points of detail require attention: the outside of the outer vessel should be well greased to prevent rust; and the cover should be screwed on gently, as very little force spoils the screw. This apparatus is obtainable from Messrs. Pelling, Stanley, and Co., Liverpool; or from T. G. F. Dolly, Dulwich, London.

BEQUESTS AND DONATIONS.—The Yeovil District Hospital and Dispensary has become entitled to £500, under the will of Mr. Cogan.—Mrs. Elizabeth Bunting, of Hertford, bequeathed £500 to the Hertford Infirmary.—The London Hospital, the Charing Cross Hospital, the Earlswood Asylum for Idiots, the Royal Hospital for Incurables, and the British Home for Incurables, have each received £250, additional, from the executors of the will of Mr. James Graham.—The Hospital for Women has received £100, under the will of the late Miss Georgiana Henderson.—Mr. James Packe has given fifty guineas to the Charing Cross Hospital.—Mrs. C. Abram has given £50 to the North London Hospital for Consumption, at Hampstead.—The Skinners' Company have given twenty guineas to the proposed Scarlet Fever Convalescent Home.—The Grocers' Company have given £50 to the Great Northern Hospital.—Mr. Robert Stein has bequeathed £550 to St. Michael's Hospital, Kingstown.—The Ulster Eye Hospital has been left a sum of £1000 by Mr. George Benn.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1882.

SUBSCRIPTIONS to the Association for 1882 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, FEBRUARY 11TH, 1882.

THE CONVICT WESTBY.

HENRY WESTBY, an office clerk, eighteen years of age, is now lying under sentence of death in Her Majesty's prison at Nottingham; and we do not hesitate to say that another instance will be added to the grievous catalogue of miscarriages of justice should he be left for execution. Condemned for the murder of his father, this youth actually committed two murders on the same day; and the only question really raised at his trial was as to his state of mind when he did so. That he killed his father, and a boy who was his companion in the solicitor's office in which he was engaged, was not disputed; and was, indeed, put beyond doubt by his own full and particular confession made while in prison, and by his plea of guilty when arraigned—a plea which he was only induced to withdraw, after considerable pressure had been brought to bear on him, by the presiding judge and the counsel appointed by the court to defend him; but that he was responsible for his actions when he committed this double murder was denied on his behalf; and much light is thrown on the defence set up for him by the circumstances of the homicides, and the motives which led up to them. As regards the homicides, they were singularly cruel and wanton; and as regards the motives, they were of an unmistakably morbid complexion. Westby beat in the skull and cut the throat of an unhappy boy, who was doing him a little service at the moment; and in the dead of night, in his own home, he shot his father, whom he had decoyed out of bed and within range of his revolver, not once, but thrice. For both of these murders he had made careful preparation, and for neither of them did he subsequently show the slightest compunction. To the scene of the first he returned an hour after its commission, and struck a match that he might gloat over the body of the victim; and with reference to the second, he said, in prison: "I am glad that my father is dead; and were I out to-morrow, and he alive, I should do the same again". An attempt was made to show that he had a grudge against his father, because he was always finding fault with him, and had prevented him from placing a stove which he had purchased in his bedroom, and also because he had given him a severe beating five or six years ago. But such grievances, even if well founded, were surely inadequate to conjure up, in a sane mind, a deliberate scheme for the murder of a father, who, whatever occasional differences might have occurred between them, was shown to have been habitually kind and considerate to him. It is in Westby's confession that these supposed motives for the parricide are discovered; and if the statements of that confession are received as trustworthy in relation to the one crime, so must be its statements relating to the other. What, according to the confession, was the motive for the murder of the boy? "I killed him", said Westby, "just to give me nerve to kill my father"; and atrocity of this kind is inconceivable, except on the hypothesis of blind and reckless madness. Murders for gain, hate, jealousy, and revenge, are familiar enough; but murder for a purely tonic effect is something new in the annals of crime.

Such is the account which Westby gave of his crimes, two days after their commission, when he became confidential with the policeman who was shut up in his cell with him, and felt doubtless the necessity of giving some kind of logical coherence to his extraordinary narrative. But such is not the view that will be taken of them by anyone possessing an acquaintance with the workings of the insane mind, who examines them narrowly. Dr. Powell, of the Nottingham Asylum, who has, of course, a practical knowledge of insanity, and who had a long interview with Westby shortly before his trial, readily laid bare the true springs of action, which forced him into the perpetration of a double murder. These were delusions—insane delusions of a well-recognised type, characteristic of a variety of mental disease known as the monomania of suspicion. He told Dr. Powell that he was persecuted, and had not a day's peace; that, when he was in the office, the people who passed outside made noises, which annoyed him very much; that, when he was in the street, the passers-by pointed at him and spat on the ground, as if in derision of him; and that his father and the boy had so joined in the system of harassment to which he was subjected, that he thought they deserved to be killed. He repeated, in fact, that tissue of delusions which every asylum medical officer will recognise as typical of that kind of insanity with which homicidal propensities are most frequently associated. There is not an asylum in this country in which lunatics, with delusions precisely similar to those of Westby, are to be found; and everywhere such lunatics are regarded as exceptionally dangerous, and are kept under special supervision.

It cannot be suggested that Westby was feigning insanity during his interview with Dr. Powell, and was merely assuming delusions to escape punishment. The very moderation of his delusions, and their resemblance to what might have been reasonable beliefs, negative that supposition; for counterfeit delusions are always of a pronounced and extravagant nature. But, more than that, it is clear that Westby had no desire to avoid the penalty attaching to his acts. One of the motives which he assigned for committing the murders was, that he was tired of his life, which had been made insupportable to him; and the same feeling induced him to make his confession, to plead guilty, and to receive his sentence with equanimity. These arguments against the theory of malingering appeal to the popular mind; but there are other arguments against it, which can only be appreciated by the expert. These have reference to the language in which the delusions are expressed, which has the indescribable but genuine ring about it, the grouping of the delusions, and the pathological history of the case. Who that has had much intercourse with lunatics has not heard the very form of words which Westby employed in describing his delusions of persecutions, and has not met with the same morbid ideas which he developed to Dr. Powell, arising in the same order? And who that has studied the evolution of insanity, has not watched morbid ideas, identical with those of Westby, growing up in the mind of a patient who, after a fever, has manifested a change of character and eccentricities of conduct, with long-continued despondency of spirits, frequent headaches, and a disposition to lead a retired and solitary life? Few, if any, medical psychologists—or, indeed, medical men—will hesitate, after reading a full report of his trial, to pronounce Westby a lunatic; and we can scarcely believe that those laymen, who were present at his trial, and who heard the history of his career, and of his unnatural crimes, had not some misgivings as to his mental soundness.

But it may be said this youth, although not perhaps of strong, sound, or well-regulated mind, and perhaps even a little insane, was sane enough to know what he was doing, and so was properly condemned, and will be justly executed. Specialists may call him a lunatic if they please, but he was not legally insane, for he knows the difference between right and wrong, and so is amenable to punishment. Dr. Powell, it may be argued, admitted that Westby knew right from wrong, and so he was responsible for his actions. But, if he made any such admission, Dr. Powell must have been misunderstood; and even supposing that he made it and made it justly, it does not follow that Westby is responsible, even according to the narrow and antiquated legal test of criminal responsibility. That test is not a knowledge of right and wrong in the abstract, or when the prisoner is put on his trial, but a knowledge of right and wrong *at the time of committing the act;*

and the words which we italicise, and which are often overlooked by writers on criminal responsibility, are of the utmost importance in the application of the test. In this case which we are considering, it is quite possible that Westby in his prison or in the dock might, when questioned, have exhibited a fine appreciation of ethical distinctions and of the doctrines of rewards and punishment, and yet, when he perpetrated his crimes, have been totally blind to good and evil. It is possible that on the very day of the murder he might have been able, on any hypothetical case that was put to him, to point out clearly the line of duty dictated by moral and social considerations; and yet, at the moment when he imbrued his hands in blood, have been dead to the nature and consequences of his acts, and as powerless to desist from them as an epileptic to withstand the throes of convulsion. If he was under the sway of malignant delusions, he did not know right from wrong, but had brought himself to believe a lie. And that this was really his frame of mind, is evidenced by his statement that the boy and his father *deserved* to be killed because they annoyed him, and by his failure to recognise the impropriety of his destroying any one who crossed his path. It was by a mere accident that he did not shoot the policeman who arrested him, as he had resolved to do; and it was only owing to a misapprehension that he did not shoot the people who looked out of their windows as he ran away from his father's house. His whole confession betrays the most revolting indifference to the character and consequences of his crimes, and a conviction dwelling in his mind that he was worthy of sympathy for his sufferings rather than of reprobation for his offences; and his delusions, which suggested his criminal acts, at the same time abolished his knowledge of right and wrong in relation to those acts, while they perhaps left him clear enough on questions of right and wrong in which he was not personally interested; and his delusions not only shut out the light of conscience and of reasonable anticipation from certain regions of thought, but they crippled, as delusions always do, the controlling power of the will. No doubt, in his days of depression, he was struggling with the evil impulses engendered by his imaginary grievances, and was able by an effort to check them; but the delusions waxed stronger as time went on, and at length, one limb of his volition paralysed, he was forced to abandon himself to their direction.

It seems to have been made a strong point against Westby, that he had made elaborate preparations for the murders; and Dr. Powell is reported to have said that he should not have expected an insane person to buy a pistol hours before using it for a murder. But, if Dr. Powell said this, he must have done so in forgetfulness of the history of a number of homicides committed in asylums by incontestable lunatics, and in which the most ingenious and stealthy preparations have been carried out long before the act was committed. A deluded lunatic may devote days and weeks, and even years, to the furtherance of any scheme or piece of work that his delusions recommend to him.

We have not exhausted the proofs which might be adduced in favour of the view that the convict Westby is, and was at the time he committed the murder, for which he has been sentenced to death, of unsound mind, but we have, perhaps said enough to render necessary a further inquiry into his mental state by thorough competent and experienced persons.

THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE present position of the Royal Medical and Chirurgical Society in respect to the office of president, is one which affords some ground for reflection. The present president has expressed a desire not to complete the usual term of two years, and does not wish to serve his second year; and two other gentlemen who were applied to in succession have also declined to serve. The Council has secured a president of the highest character and ability, and every way worthy of the best traditions of the Society, in Mr. John Marshall, who is accordingly nominated as the next president, and so far the matter has been very satisfactorily arranged.

It is, however, rather a serious fact to note that the Medical and Chirurgical Society has now reached a point in its history at which its presidency, and also, we believe, some of its other offices, are far from being so much sought after by eligible candidates as they were in an earlier period of its history, and when, indeed, they are technically said to be "going a-begging" in the highest ranks of the profession. Nor is there, on closer inspection, any very apparent reason for expecting that under existing circumstances any distinctly brighter phase of existence is likely to be evolved. It is however of much importance, we think, that the Royal Medical and Chirurgical Society should not be allowed to drift into a state of antiquated feebleness or respectable decay without an effort to rescue it.

Its traditions are old, far reaching, and respectable; the library which it has accumulated, and which it supports with much liberality and administrative skill, is unique as a medical library of reference available by loan at the residence of the members. The consideration of the best means fitted to relieve the Society from something of the weight of dulness which has grown upon it with years, will be approached by different minds from various directions. No doubt the Society has suffered to some extent from those very peculiarities which are also sources of its strength and respectability. Its reputed exclusiveness—a certain caprice in balloting which has exposed members of the profession of well recognised ability to the unmerited insult of rejection from its membership, from causes which could neither be stated or explained, and which had no valid existence, has tended to limit considerably the number of candidates for admission to the Society, and to increase the relative popularity of other and younger societies which are apt to consider scientific and professional titles for admission as being in themselves adequate, and to frown upon any attempts to substitute personal susceptibilities as a basis of judgment on the occasions of balloting. The preference which has been frequently shown for length rather than for quality in the papers submitted, and for ponderosity rather than freshness, has rendered the meetings of this Society generally less attractive than those of its younger rivals, the Clinical and Pathological Societies. This want of popularity of the Royal Medical and Chirurgical Society may be due partly also to a still surviving spirit with which it is reproached, which seems to measure men rather by their age than their capacity, and to deal with modern medicine in an archæological rather than in a progressive sense. How far each of these peculiarities has taken its share in the decline of popularity of the Medical and Chirurgical Society, it would not be easy to determine. It is probable that each one of them would number supporters who would maintain it to be the chief factor in the change, while on the other hand, others would be found altogether to deny the validity of each particular allegation.

The most profitable manner of discussing the question would probably be to avoid, for the moment, any minute dissection of such etiological circumstances, and to take a general survey of the position as it may be viewed without too minute an inquiry. It will at once be evident that a great source of weakness of the Royal Medical and Chirurgical Society is its isolation, and the fact that a large part of the work which it was created to do alone is now being done for it, and alongside of it, by the younger societies. The Pathological Society takes from it all those great papers on pathological subjects, which were once its chief honour and pride. The Clinical Society deals rapidly with all the novel surgical operations and questions, as they arise in hospital practice; and, before such subjects, for example, as nephrectomy or extirpation of the uterus, reach the Medical and Chirurgical Society, they have already become historical; and the discussions to which they then give rise rather register recognised opinions than fulfil the result which is to be looked for from the conflict of divers opinions, seeking enlightenment in open debate. In a word, whatever may be the causes which have left the Medical and Chirurgical Society high and dry upon its well secured eminence, but relatively remote from the tidal flow of modern medical science, there can be little doubt that one remedy at least might be applied, which would speedily bring back to it a full flow of contributory streams. This would be practical action upon a proposal, which not only found much favour at the conference of a

recent date, but came very near to being carried into effect, and was, so far as our memory serves, only checked by the introduction of some not very important questions of procedure and relative administrative interests. The proposal to which we refer is the amalgamation of the Royal Medical and Chirurgical, the Pathological, the Clinical, and the Obstetrical Societies, upon a sound, extended, and representative basis. There can be no doubt whatever of the great advantages which such an amalgamation would have, and these advantages are all of the larger, more stable, and generous sort; on the other hand, the few reasons which have been urged against it, or those which have seemed to prevail, have been of the smaller and less momentous kind, which, although they prevail often enough for a time, can never have any permanent value, and afford no justifiable obstacle to the carrying out of a palpably beneficial reform. There are very many persons, actively connected with all these societies, who are much interested in the question of amalgamation; and it would be satisfactory just now, if some of them would meet again in voluntary committee, and endeavour, by some sort of simultaneous action in the various societies, to bring about a conference, aiming at such amalgamation which would, it may be hoped, have a happier result this time, and attain the success which it only before missed by so narrow a margin.

CANCER, SARCOMA, AND LOCAL INJURY.

THE relation of local violence to malignant disease is an unsolved question of great importance. No modern authority doubts that the origin of epithelioma is very frequently due to local irritation of the most tangible kind. Every student learns, in his text-books, about cancer of the lip and tongue which may follow the irritation of a pipe; about cancer of an old neglected ulcer of the leg, irritated by dirt and friction; and about cancer once common on the scrotum in chimney-sweeps. The irritation which certain obscure stimuli set up in the mammary gland causes, according to Dr. Creighton and his followers, an imperfect process of secretion, with formation of imperfectly developed cells, very prejudicial to the surrounding tissues; indeed, these cells appear to be the starting point of malignant disease. All these processes by which local epitheliomata and mammary tumours develop are chronic, and are not the result of what an Englishman understands by the word violence. In association, however, with this part of the question, let it be remembered that irritation means chronic injury, violence, acute injury. Irritation may produce well known forms of inflammation; it also causes malignant disease. Violence sets up equally well-known types of the inflammatory process; and Mr. Barwell, at page 187 of this number of the BRITISH MEDICAL JOURNAL, brings forward three instances, all well authenticated, of sarcomata following severe blows or fractures. Two were in his own practice, one was under the care of Sir James Paget. We know of a fourth case, where a large subcutaneous extravasation of blood followed a blow on the shoulder. The fluid part of the blood was removed by an aspirator. Within a few weeks, a sarcoma developed in the shoulder, and rapidly recurred after removal. In fact, the case precisely resembled one described by Mr. Barwell. That gentleman shows, in the paper to which we have referred, that the relation of the violence to the growth of the tumour cannot be mere coincidence. It is absurd to suppose that, in his case of a youth who died after recurrence of a sarcoma which appeared on the shoulder a few weeks after receiving a blow there, malignant disease happened to be on the point of development when the injury occurred; and, if such an extraordinary coincidence could explain this case, it is otherwise with the second related by Mr. Barwell. A stevedore bruised his left side in a fall down a ship's hold; within a few weeks, he died of that comparatively rare disease, sarcoma of the lung and pleura, the left lung being the most involved. Mr. Barwell terms this condition acute traumatic malignancy.

Inflammation is, in these days, usually defined as a series of changes occurring in a part subjected to injury not sufficient to immediately and completely destroy its vitality. On the other hand, this "acute traumatic malignancy" is observed under the same circumstances as those included as part of the definition of inflammation. The ancients placed cancer among inflammations; many of the physicians and surgeons of antiquity were profound clinical observers, and must have noted some relation between malignant growths and injuries. On the other hand, as we have just indicated, there is a distinct relation between violence and irritation. The latter sets up inflammation, and also may produce malignant disease. The former decidedly causes inflammation, and more rarely, but equally surely, according to the above evidence, it may set up malignant disease as well; others, long before Mr. Barwell, whose valuable clinical records are most welcome, have recognised this fact. According to these data, inflammation and malignant disease would appear to be, very possibly, conditions actually different in every pathological sense, but liable to be produced by the same causes. It seems more probable, however, that this coincidence points to some very intimate relation of the two morbid conditions as yet unknown. In any case, acute traumatic malignancy includes an integral part of the definition of inflammation. Butler observes, in *Hudibras*, that to know what's what is as high as metaphysic art can fly. More, much more, remains to be done in pathological research before the precise nature of inflammation and of malignant disease can be recognised with sufficient accuracy to enable us to determine their precise mutual relation.

COUNTY BOARDS.

THE prominence which is given in the Queen's Speech to the proposed establishment in the counties of England and Wales of local self-government, will be hailed with satisfaction by those who have seen how greatly the country at large suffers from the lack of intelligent county councils for the direction of matters purely local. The block of business in the Imperial Parliament is yearly becoming more acute, and it is manifest that measures must be immediately adopted for its relief from the increasing number of local projects that come before it for decision. The difficulty of local self-government has hitherto been to get men of sufficient culture and breadth of views to take an interest in municipal or district affairs to the extent of assisting in the local councils. The result has been that persons of little knowledge or social position have ruled the destinies of many of the great towns of England, and that an ever-widening breach has occurred between local authorities and those best qualified to compose them. The establishment of county boards, as contemplated by the Government, may be expected to remove many of the grounds for reluctance to assume public responsibilities which undoubtedly weigh with the majority of the more intelligent of the community.

Local Parliaments, as these county boards would in effect be, might safely be entrusted with much of the business of administration which the Imperial Parliament now has, with terrible waste of time, to assume for the whole country. It is as yet too early to speculate on the scope of the reforms which the Cabinet contemplate in this direction. Plenty of time must obviously be given for the consideration of a measure so sweeping in its results as the Government Bill will, from the nature of things, be; and the earlier the Bill is introduced, the greater chance there is of legislation being accomplished this session. The subject is one of sufficient moment to merit the personal direction of the Prime Minister, the more especially as fiscal interests must needs be largely involved. Mr. Dodson, to whom the conduct of the Bill has been primarily assigned, has not yet evinced sufficient grasp of the functions of the department of which he is the nominal head to warrant confidence in his ability to carry through a measure so intricate and so revolutionising, and it is much to be wished that the Bill could be confided to some stronger member of the Cabinet than the President of the Local Government Board. In any case it will behove this Association, to whom, in conjunction with the Social Science Association, belongs the credit of first bringing to public notice the desirableness of county boards, to carefully watch the Government proposals, and to take such action as may seem necessary to give effect to its views.

It may not be inopportune at the present juncture to repeat in this

place what the Joint Committee of the two Associations said in its report to the annual meeting of the British Medical Association, held at Plymouth in 1871. "It is well known that petty elective authorities in small separate districts are apt to obstruct rather than forward sanitary improvement; and for the most part they render any uniform and efficient system of administration almost impossible. .....'Intermediate authorities', consisting of members not liable to be swayed by petty interests and sordid views, would be essential on social, sanitary, and economical grounds, for the higher purposes of sanitary administration.....There is no question of graver import, or requiring greater attention than that of the compulsory acquirements of land by local authorities for certain purposes essential to the improvement of the public health. In what manner and on what conditions local authorities—whether those of large towns or those which might act over larger areas—should be empowered to provide sites for dwellings of labourers and artisans, where densely populated parts of towns have been or may be demolished for purposes of public health (*e.g.*, under Mr. Torrens's Act)—whether such authorities should be empowered to acquire land for burial-grounds and mortuaries, for hospitals for fevers and other pestilences, for disinfecting establishments, for public slaughter-houses, for recreation-grounds, as well as for water-supply and for sewage-utilisation—these and other like questions require the most careful consideration.....For all these purposes and many others, involving both appeal and compulsion, an intermediate authority, to consider and report on applications of local authorities, would be invaluable. And, moreover, we cannot too strongly urge on the Legislature the necessity of limiting the powers and functions of the central authority within the narrowest bounds consistent with effective action. Not only should local impatience of interference be considered and obviated by constitutional means, but a suitable authority, intermediate between the local and central, should be constituted in every county or sufficiently large area, as likely to be more cognisant of the wants and circumstances of every smaller district, and better able to judge of minute details inseparable from the daily working of local boards, than a Government inspector." Ten years' experience of the working of the existing sanitary administration has amply proved the wisdom and foresight of these words of the Committee; and we shall await, therefore, with the utmost interest, the proposals of the Government.

HOSPITAL Saturday and Sunday collections in New York have amounted this year, according to the latest statement, to 30,902 dollars 42 cents.

DR. W. BOWMAN has been elected honorary secretary, and Mr. Warren De La Rue manager, of the Royal Institution of Great Britain.

IN his last annual report on Bethnal Green, Dr. Bate mentions the occurrence of four births at one time—two boys and two girls. The girls were still-born; the boys lived 46 and 69 hours respectively.

THE remains of Harvey, which lay interred in the parish church of the quiet village of Hempstead, only narrowly escaped annihilation by the falling of the tower of Hempstead Church on Saturday last.

DR. HANS KUNDRAT, Professor of Pathology in the University of Graz, has been appointed as Dr. Heschl's successor in the chair of pathology in the University of Vienna. He is well known in that city, having been a pupil of Rokitansky and Stricker, and an assistant of Hyrtl.

THE Superior Council of Education has declined to accept the nomination of M. Hayem to the chair of Anatomical Pathology in the Faculty of Medicine, Paris. M. Hayem is at present professor of therapeutics. The above council has convoked the council of professors to name hree candidates for the vacant chair. The refusal on the part of the Superior Council of Education to allow the translation of the professor of therapeutics, has caused a very angry feeling on the part of the Medical Faculty; nevertheless, the Council only makes use of the privilege to which it is legally entitled unless unanimity prevail among the electors, and M. Cornil's election fell short by two votes only.

WE understand that the Lord Mayor is about to issue cards for a banquet at the Mansion House on the evening of Saturday, March 11th, to mark the ceremonial closing of the Smoke Abatement Exhibition, at South Kensington, to which the leading ministers and other personages, including the Mayors of Manchester and the surrounding towns, who have shown their sense of the importance of the movement for the abatement of smoke, are to be invited.

WE call attention to the letter of Surgeon-Major MacCormack in another column, on the subject of grievances of the militia surgeons. This is a subject to which the Parliamentary Bills Committee of our Association has addressed itself more than once during the last few years with some measure of success; promises having been wrung from successive Secretaries of War to modify the wrong done to the whole service by relief to special cases of injury. These promises, however, have been very scantily kept; and the grievances of the whole body are so considerable, that they are undoubtedly right in pressing their case very strongly on the Secretary of State, and fully deserve the support of the profession. Results can only be obtained by firm pressure; and no doubt the militia surgeons must help themselves, if they wish others to help them. Surgeon-Major MacCormack and Surgeon-Major Smyth of Yarmouth have shown the utmost zeal and energy in this cause, and have sacrificed time, money, and labour; and the appeal which is made to the militia surgeons to give some liberal support to their disinterested and most laborious representatives is certainly well founded. No doubt, to some people, subscriptions of the sort appear to be throwing "good money after bad": but it must always be remembered that no such effort can succeed unless vigorously supported, and such vigorous support implies a certain amount of financial as well as moral aid.

THE Smoke Abatement Exhibition, which has met with remarkable success, closes in London on Tuesday next. Its career will not, however, end with the closing of the London exhibition, as the great importance and value of the series of exhibits collected, their practical bearing on the question of smoke abatement, has arrested the attention of deputations from various corporations, trades, and scientific bodies who have visited the exhibition and are preparing reports on it, as well as representatives of foreign Governments who have likewise reported to their respective Governments. A committee has been formed in Manchester, with the Mayor of Manchester as its chairman, the Earl of Derby as president, and including a great number of the most influential persons in the neighbourhood, who have subscribed a guarantee fund of £1000 towards transferring the exhibits now shown in London to a suitable building which the Corporation has lent for the purpose in a central position in Manchester.—Mr. Ernest Hart, chairman of the Smoke Abatement Committee, met the South Kensington exhibitors on Wednesday last, and they unanimously agreed to accept the offer made from Manchester, and to transfer their exhibits thither. The mayors of the neighbouring towns will, it it understood, take part in the movement; and thus one of the objects of the promoters of the smoke abatement movement is in the way of realisation, since it is now an accomplished fact that the movement should not be confined to the metropolis, but should be national, and should in all its phases keep to the practical character which it was endeavoured from the first to impress upon it. Upwards of 200 testings have been carried out in the testing-houses, with, in many cases, highly satisfactory and instructive results, but these results will not be published until the series of testings is complete.

THE ST. JOHN'S AMBULANCE ASSOCIATION.

THE origin, progress, usefulness, and aims of the above Association, formed the subject of an address given by Major Duncan, R.A., M.A., at a meeting of this Association held at Brixton, on Wednesday last. The formation of classes in this district, for the instruction of ladies and gentlemen in rendering first aid to the wounded was also discussed. The scheme of operations embraces the formation of centres in important towns and districts, with an organisation consisting of a local committee and staff of officials who perform gratuitous service; and also of detached classes, held in towns or villages pending the opportunity arising for the formation of regular centres. It appears that, towards the close of last year, centres had been formed in the metropolis in ten districts and upwards of 120 other representative towns in Great Britain and Ireland.

POISONING BY LABURNUM.

Two fatal cases of poisoning by some undetermined portions of this very poisonous tree are recorded as occurring in the practice of Mr. Lascelles, of Slingsby, in Yorkshire. Two children, aged three years and eight years respectively, are supposed to have eaten of the tree at the same time; but there was no evidence as to this, nor as to what portion of the plant was eaten. Presumably, it was the pods or seeds which were partaken of. The elder girl was seized with vomiting and diarrhœa between 1 and 2 A.M. on January 3rd. She complained of her head, and was prostrate. Six hours later, the vomiting and diarrhœa ceased. She then made a noise in her breathing, and continued much in the same state till her death, about fourteen hours after she was attacked. Next day, about 1.30 P.M., the younger girl, aged three years and a half, became tired and sleepy, and she vomited. She then complained of pain in the head. She vomited frequently, and had two motions. Five hours and a half after the commencement of the attack, she was convulsed, and the convulsions continued till her death, eight hours from the commencement of the illness. A *post mortem* examination was made. There were some marks of irritation of the gastro-intestinal mucous membrane. No fragments of any portion of the plant were found in the stomach; but the analyst, Mr. Fairley, detected cytisine in the stomach-contents of each child. The alkaloid was detected by its characteristic properties, and an extract of the stomach of the elder child was given to a mouse with fatal effect.

THE HOSPITAL SATURDAY FUND.

AT a special meeting of delegates of the Hospital Saturday Fund, held at the Royal Hospital for Diseases of the Chest, City Road, on Wednesday, February 1st, Mr. Hamilton Hoare moved the following resolution, which, after free discussion, was passed unanimously:

"That the board of delegates of the Hospital Saturday Fund hereby resolve that the grants to St. George's, West London, and the University College Hospitals be paid. The board are desirous of stating that their proposals having reference to the appointment of life governors were prompted by the belief, that the constitution of the various hospitals sanctioned such a step, especially as the majority of the hospitals have invited such an arrangement. The treasurers of all participating institutions are *ex officio* members of the Hospital Saturday Fund, and we are still of opinion that, in the interests of those classes with whom the hospitals have to deal, it would be fair and expedient that some representation from the board of Hospital Saturday Fund should be accepted. The board of the Hospital Saturday Fund wish distinctly to state that they have never claimed any privilege beyond that accorded to the ordinary subscribers, nor has it been their intention to act in any way contrary to the constitution of the various hospitals and dispensaries."

REMOVAL OF THE UTERUS.

WE are glad to be able to report that the patient is now quite convalescent from whom we recently reported the removal of the uterus by abdominal section for cancer, five weeks ago, by Sir William Mac Cormac at St. Thomas's Hospital. Recovery was delayed by an attack of acute bronchitis, incurred through exposure during a prolonged operation, and also by the suppuration which took place in the abdominal cavity. Sir William Mac Cormac believes it was the free and efficient drainage which, in great measure, saved the patient's life. What, however, the ultimate result may be remains to be seen; though Sir William Mac Cormac is to be congratulated on the successful conclusion of his operation. The case is one of great interest; and we are glad to be able to publish this satisfactory preliminary note. A full report of the case, however, will no doubt be given to the profession in due course.

CORPORATE ENTHUSIASM FOR SOCIAL SCIENCE.

A PUBLIC meeting, for the purpose of making preliminary arrangements for the Annual Congress of the Social Science Association at Nottingham next autumn, was held in the Exchange Hall of that town on Monday, under the presidency of the mayor. Mr. Hastings, President of the Council of the Association, said that the corporation of Nottingham, in voting a sum of money to defray the expenses of the Congress, had performed an act of munificence unknown in the previous history of the Association. He had that day visited the Nottingham University College, and thought that the building supplied everything that was needed for the meetings of the Congress and the reception of the members. A large general committee, with honorary secretaries, were appointed to make the necessary arrangements for the Congress. The Nottingham Corporation has, we believe, voted £1,500 out of the corporate funds to defray the expenses of the meeting—a piece of munificence quite unexampled, and not always permissible by by-laws, but a most happy precedent, which our local organising committees will do well to bear in mind for future use.

ANNUAL MEETING AND CONVERSAZIONE OF THE HARVEIAN SOCIETY.

ON January 19th was held the annual meeting of the Harveian Society. The reports of the Treasurer and Secretaries showed that the Society was in a flourishing condition. A hearty vote of thanks was given to the officers of the Society, especially to Mr. Henry Power, who had ably filled the chair for the past two years, and to Mr. George Field, the retiring Secretary. The officers who had been nominated, and whose names appeared in the BRITISH MEDICAL JOURNAL for December 24th, were unanimously elected. Mr. Power then delivered his retiring address. He first referred to the unavoidable absence of his successor, William Hickman, M.B., owing to the illness of a near friend; then, in feeling terms, alluded to the loss the Society and science had sustained in the death of Professor Rolleston, a corresponding member of the Society, and spoke of his early rising and industrious habits; next, he passed in review the progress medicine had made since the time the Harveian Society was formed, and pointed out how many more drugs had been brought into use. Mr. Power mentioned the International Medical Congress as the medical event of the year, and noticed with approval the fact that a statue of Harvey had at length been unveiled in his native town, a project initiated and brought to completion by Mr. Eastes, a member of the Harveian Society; and he concluded an eloquent address by referring to the recent success of the Society as in a great measure due to the exertions of the retiring Secretary, Mr. George Field. The meeting then resolved itself into a *conversazione*, and a most enjoyable evening was spent by the members and their friends. The Stafford Rooms had been converted into a drawing-room by the kind help of Messrs. Gillow and Co., who exhibited the beautiful cartoons designed by Mr. T. W. Hay for Windsor tapestry. Messrs. Dowdeswell and Dowdeswell kindly lent many etchings, among which were some charming ones by Messrs. Seymour Haden, A. Evershed, and Propert, members of the profession. Dr. Heneage Gibbes showed some excellent microscopical specimens; among others, a section of cornea showing corpuscles with stereoscopic effect, and one of lung containing *Bacilli anthracis* in blood-vessels. Dr. Hare exhibited a model of the Place Vendôme; Dr. Galton and Dr. Mahomed, photographs; Dr. E. Hart Vinen, numerous fine engravings; also the skull of the cave bear, and choice fossils from the South Yorkshire coal measures and the Suffolk crag. Mr. Ernest Hart showed the original drawing by Mr. Tenniel for the *Punch* cartoon on the vivisection craze,

with portraits of Jenner, Paget, Gull, Hart, and Henry Thompson around the table, and Mr. Cross as a policeman bidding them "Move on", while Sir William Jenner expostulates that "it is imposible to move on while you are obstructing". He also showed an early proof of Sharp's engraving of Hunter after Reynolds, with the autograph signature of John Hunter. The band of the Grenadier Guards played at intervals.

SCARLET FEVER AT MERTHYR TYDFIL.

THE epidemic of scarlet fever at Merthyr Tydfil shows, unhappily, no signs of abatement. In his last published report Mr. Dyke, the health-officer, states that during the first week of the present year 48 fresh cases were reported, 36 of which were children who had been in recent attendance at public schools, and that 37 were reported during the following week. The total number of cases of scarlet fever registered from October 1st, 1881, to January 14th, 1882, was 840, of which 164 terminated fatally. So far, Mr. Dyke has been unsuccessful in obtaining the closing of the schools in the infected districts, a course which he has energetically and repeatedly recommended.

DEATHS FROM CHLOROFORM.

WE have received some particulars respecting the death from chloroform at the Royal Free Hospital, to which we briefly referred last week. On Sunday, January 29th, a man, about fifty years of age, applied at the hospital; he had suffered a dislocation of the shoulder. He appeared to be in fairly good health, the heart-sounds were healthy, and altogether there was nothing to raise any suspicion. Chloroform was administered in the usual way, and nothing at all unusual was noticed until the convulsive stage was reached; then, without any warning, breathing suddenly ceased, and it was found that the heart also had stopped; efforts at restoration were without avail. The *post mortem* examination made at the coroner's order revealed no visible lesion, but microscopical examination of the heart showed that the muscular fibres were extensively degenerated. The verdict returned at the inquest was, "Death from misadventure". The action of chloroform on the heart has never yet been fully worked out, but there can be no doubt that it in some way depresses cardiac activity; and this depression must, no doubt, make itself especially felt where the muscular substance of the heart is itself degenerated; it is interesting to note, in this case, that death occurred during the convulsive period—that is, during the time when violent muscular effort threw an extra strain on a heart already doubly weakened; it is very frequently at this moment that death occurs.—The following is the report of a case which occurred on January 13th at the Hospital for Sick Children, Pendlebury, Manchester. W. B., aged 9, an ill-nourished anæmic boy, was admitted January 11th, suffering from angular curvature involving the lower dorsal and the upper lumbar vertebræ, with a large abscess on the outer side of the right thigh. On January 13th, the abscess was opened by a small incision, in the operating theatre; from six to eight ounces of sweet pus were evacuated, and a tube put in. Chloroform was administered on lint placed in a small inhaler. The patient took the anæsthetic well, and, whilst the dressings were being applied, vomited and passed flatus. Altogether, about three drachms were used. He remained on the table several minutes, until vomiting had ceased; and as his pulse and respiration remained good, and he had so far recovered as to be sensible to a slight tap on the cheek, he was carried back to the ward. On being placed in bed, where he was laid flat, he was noticed by the nurse to be looking so pale that she summoned the house-surgeon, who found him apparently lifeless. He at once commenced artificial respiration, and distinct inspiratory efforts were observed and repeated at intervals, for perhaps ten minutes. No pulse was perceptible after his removal to the ward. Artificial respiration was continued for from fifteen to twenty minutes; the tongue was drawn forward, and the chin raised; the lower limbs were elevated; faradism was applied to the root of the neck and the epigastrium; hot sponges were placed over the præcordium; twenty minims of ether were injected subcutaneously; and, finally, the left ventricle was punctured with a needle, but without result. At the *post mortem* examination, all the organs were found to be healthy. The heart was neither distended nor contracted, and contained a small quantity of black treacly blood. There were two large psoas abscesses; the right communicated with the abscess on the thigh.

MEDICAL EDUCATION.

DR. EDIS, at the meeting of the Middlesex Hospital Medical Society last week, opened a discussion upon the question, "Does the present system of medical education fulfil its requirements?" He gave reasons for answering it in the negative. At the College of Surgeons, more than a third of the candidates were rejected; at the College of Physicians, nearly a third. The Registrar-General's Report showed that the number of deaths during 1879 amounted to 23,853 from convulsions, 17,613 from scarlet fever, 12,752 from whooping-cough, 10,948 from diarrhœa, 9,185 from measles, 8,158 from tubercular meningitis, and 4,256 from teething. These were the diseases of which the ordinary student knew least when he had finished his hospital career. Dr. Edis agreed with the suggestion often made that the preliminary scientific education should be completed before entering hospital. The period of study might be prolonged, and the student required to pass an examination at the end of his first year, and not allowed to enter upon the second year's course of study until he had passed his primary examination. Much more time and attention should be devoted to clinical work in the wards and out-patient room. The examinations should be "more practical, and less theoretical". Every student should be compelled to act as assistant for at least twelve months, in order to learn the routine of private practice. To require the student, however, to complete his preliminary scientific education before entering on the medical curriculum, and to prolong the period of graduation over five years instead of four, would probably be drawing the bow too tight. Otherwise, Dr. Edis seems to follow in the lines of the pamphlet of the British Medical Association on the subject. How, moreover, does he propose, with the present irregular distribution of students to beds, and bristling attitude of the London schools to each other, to compel every student to act as "assistant" for at least twelve months? or by assistant does he mean here apprentice, reverting by this phrase to another form of unauthorised practice by unqualified assistants? It is pleasant to have these subjects discussed *foro domestico* by a teacher taking his students into his confidence; but let us understand each other, in order that the discussion may be the more profitable.

HOSPITAL AMBULANCE SERVICE.

A VERY interesting and satisfactory meeting was held at the United Service Association on Thursday last, the Duke of Cambridge in the chair, at which Dr. Howard's ambulance, which has already been described in the BRITISH MEDICAL JOURNAL, was shown in action, and resolutions were adopted on the motion of Sir William Gull, Sir E. Lechmere, Mr. Holmes and others, in favour of the adoption of such a system of horse-ambulance service for the metropolis, based upon the New York system, as was suggested in detail in these columns early in the year by Dr. Howard. We warmly recommended it at the time, and steps were taken by Dr. Howard, with the assistance of the Editor of this JOURNAL, to bring the scheme into practical action. That result has been much aided by the prompt liberality of Mr. Crossman, of the London Hospital, in defraying the expenses of manufacture of the first ambulance, which is presented to the London Hospital, and by the public spirit and energy with which the leading authorities of the London Hospital have taken up the matter, and have summoned the other hospital medical authorities to join them in the effort to make this system universal throughout London. A necessary element of any such scheme is, of course, the establishment of telephonic communication between the hospitals and the police stations, such as exists in New York, and such as was described in the original scheme as laid down in these columns. A letter on the subject

will be found in another column from Dr. Allfrey, in which he seeks to lay claim to be the originator of the system, in virtue of a resolution laid quite recently before a meeting of the St. John's Ambulance Association. This occurred, however, not only after the publication of Dr. Howard's detailed suggestion, but some months after that gentleman had been in continuous and active communication with the heads of the police and the hospital authorities of the metropolis, and even after his ambulance had been made and completed, and arrangements had been made for the public meeting lately held. Any claim of priority is extremely out of place in such a matter; for, even if any priority were sought, it would be found much further back than the details of the facts we indicate. That the new committee would gladly welcome the co-operation of the St. John's Ambulance Association, was evident from the presence of Sir Edmund Lechmere and Mr. Duncan, of the St. John's Ambulance Association; and we earnestly hope all who are interested in this question will combine to work without any of the petty jealousies, of which the germs have unfortunately been manifested on more than one occasion in the progress of this movement. The committee formed is a very influential and a very representative one; it is quite capable of performing the work it has undertaken. It is much to be hoped that it will not fail to secure the assistance of the St. John's Ambulance Society, of the police, and of all who are likely to be most conducive to the success of the movement, and that it will be willing, if necessary, to merge itself in any organisation which may have superior facilities for carrying out or maintaining the work. It should not be forgotten, however, that for the present the whole expense of the transport of patients found in the street is borne by the police, for all such persons are conveyed to the hospitals in cabs, and the cost of the cabs falls upon the police authorities. There is, therefore, a considerable public expenditure on this matter; and this should not be lost sight of when the question has to be considered where the funds are to come from for these ambulances, and the system with which they will be connected and be maintained. The new committee is intended to include representatives of all the great hospitals and the police authorities, the St. John's Ambulance Association, together with a number of influential individuals whose experience or connections promise to enable them to assist the work.

THE NEW MONTEFIORE PRIZES AT THE ARMY MEDICAL SCHOOL.

THE following account of the Montefiore medal and prizes, which have been given for the first time at the late session of the Army Medical School, at Netley, was read by Professor Longmore, at the closing meeting on the 6th instant. In the spring of the year 1881, Mr. Nathaniel Montefiore, F.R.C.S., having observed that no prize was given at the Army Medical School in the department of military surgery, although prizes were awarded in the sections of hygiene and military medicine, and being desirous of stimulating practical study and improvement in this branch of professional duties of military surgeons, offered to fund a sum of two thousand pounds for the purpose of establishing a prize to be competed for in the military surgery class at the school. This generous offer was submitted through the Director-General of the Army Medical Department for the consideration of the Right Honourable the Secretary of State for War; and the Secretary of State was pleased to accept the offer, and expressed to Mr. Montefiore, by letter, his appreciation of the patriotic motives which had prompted the gift, and his gratification in the acceptance of it. Mr. Montefiore left the arrangements for the disposal of the fund to the governing body of the army medical school. After due consideration, it was determined to appropriate the proceeds of the fund to two prizes: the first to consist of a bronze medal and sum of money; the second, of a selection of books relating to matters connected with military surgery. The subjects to be engraved on the proposed medal were arranged and designed at Netley. One face of the medal is intended to illustrate a military surgeon's duty in attending to wounded men in the field, and to represent some of the principal articles of modern field-hospital equipment; the other face bears the arms and name of the founder of the prize, and the date of its foundation. As soon as the drawings for the medal were completed, the work was submitted to a leading English medallist for execution; but the designs, as proposed, being declared unsuited for medallic effect, it was then offered to an eminent French medallist, M. Dubois, of Paris, who both expressed his approval of the plan, and at once offered to undertake the execution of it. The plaster cast of the model of the principal face of the medal, triple the size of the intended medal itself, has been recently received from M. Dubois, and has been regarded, by all who have seen it, as most artistic and satisfactory. In order that no delay might occur in giving the prize, Mr. Montefiore has, with still further liberality, undertaken to defray the cost of the medal. It would have taken more than a year and a half to pay for it, if its cost had to be met by the interest accruing from the sum originally funded by Mr. Montefiore. This has enabled the prizes for military surgery to be given during the present session. The first prize this session consists of the medal and twenty guineas; the second, of four books. As the medal is not yet completed, it will be forwarded to Mr. James Barry Gibbons, of Her Majesty's Indian service, who has gained it, as soon as it is received from Paris, and the successful competitor's name has been engraved on it.

THE DUCHESS OF CONNAUGHT.

WE understand that the Duchess of Connaught's sudden removal on Sunday from Bagshot to Windsor was in consequence of the unsatisfactory state of the sanitary arrangements at Bagshot Park. For some weeks, very offensive smells have been observed about the house, and several of the inmates have suffered from obscure forms of indisposition. Her Royal Highness had made an excellent convalescence for nearly three weeks after her confinement, when she developed symptoms which were thought to depend on poisoning by sewer-gas. On investigation, it was found that a large soil-pipe from a disused closet had been simply cut through by a careless workman, and its open end, leading directly into the main drain, was left immediately under the flooring close to the central hall, and thus a continuous stream of sewer-gas was poured into the house. Dr. Playfair advised that Her Royal Highness should be removed to Windsor without delay, to get her out of the infected atmosphere. On Sunday, Sir William Jenner met him in consultation, by Her Majesty's command, and completely concurred in this view. The removal was therefore at once effected. Happily, a very decided improvement in Her Royal Highness's condition is already apparent, and her symptoms no longer cause serious anxiety.

METROPOLITAN FOG-MORTALITY.

THE metropolitan death-rate in the fortnight ending the 4th instant showed a marked increase upon that which prevailed in the two preceding weeks. This increase is the more noteworthy, since no corresponding increase is recorded in the death-rate of the twenty-seven provincial towns. During the first three weeks of this year, the annual death-rate was equal to 23.7 per 1,000, both in London and in the twenty-seven provincial towns. In the following fortnight, ending the 4th instant, the death-rate in London rose to 26.8; while, in the provincial towns, it slightly declined to 23.3. It would be interesting to know what caused an increase of more than one-seventh, or 13 per cent., in the London death-rate, while the death-rate in the provincial towns had declined. Had the increase not been confined to London, it might have been mainly attributed to the lower temperature that prevailed; but as a similar fall of temperature prevailed in the provincial towns without any increase of mortality, it is necessary to seek for some other cause for the marked rise in the London death-rate. The dense fog that hung over the metropolis, with little intermission, during the past fortnight supplies a reasonable and probable explanation of this excessive mortality. Next to intense cold, fog invariably exercises a more certain and fatal effect upon the metropolitan death-rate than any other meteorological condition. As regards age, the largest increase of mortality has occurred among children aged between one and

five years, and among adults aged upwards of sixty years. The greater mortality among children aged one and under five years, was entirely due to a marked increase in the fatality of whooping-cough—a result which may be attributed to the combined effect of low temperature and fog. The increase of mortality among persons aged upwards of sixty years was almost entirely attributed to diseases of the respiratory organs. The deaths at all ages from these diseases, which had been but 872 in the fortnight ending January 21st, rose to 1,190 in the following fortnight, ending Saturday last, the 4th instant; this increase being equal to 35 per cent.

FURTHER POISONS FOR THE SCHEDULE.

By the second clause of the Pharmacy Act, the Council of the Pharmaceutical Society has the power to schedule any given article as a poison within the meaning of the Act, and such schedules require approval by the Privy Council. When such approval has been given, such articles may not be sold by any other person than a pharmaceutical or a registered chemist and druggist, and then only under the regulations and precautions laid down by the Act. At the last meeting of the Council of the Pharmaceutical Society, it was resolved to add the following articles to the list of poisons in the second part of Schedule A of the Pharmacy Act: Sulphuric acid, commonly called oil of vitriol; hydrochloric acid, commonly called spirits of salt; nitric acid, commonly called aqua fortis; solution of chloride of antimony, commonly called butter of antimony; carbolic acid; hellebore; nux vomica and its preparations; vermin-killers containing phosphorus. This resolution will require approval by the Privy Council, and will then come generally into force. It will probably give rise to some protestations on the part of various traders who have been in the habit of supplying many of these things as ordinary articles of trade in villages for the various industrial and household purposes for which they are employed; but, on the whole, we believe it will be generally considered that, unless the Poisons Act does include in its schedule such articles as strychnia, phosphorus, hellebore, etc., it can hardly be said to have any real meaning, or to afford such an amount of protection to the public as a Poisons Act can in any case afford.

LIVERPOOL ROYAL INFIRMARY.

At the annual meeting of the Royal Infirmary, the oldest medical charity in Liverpool, on Monday, January 30th, its reconstruction was strongly urged by the managing committee and medical and surgical staff. As the present buildings were erected more than sixty years ago (with the exception of the Thornton wards, built in 1863), it is obvious that they must be defective in all those sanitary and other improvements which are to be found in all modern hospitals. Circumstances have hitherto retarded the proposed rebuilding, but now a favourable opportunity has presented itself, the committee having acquired a sum of £25,000, which, it is believed, can be devoted to the purpose, and further aid is expected from the Liverpool corporation. The total sum required will probably be £100,000, and it is confidently expected that this will be soon raised. The Liverpool Royal Infirmary is not a local, but a county, institution, receiving patients from all parts of Lancashire and the north, from Wales, the Isle of Man, and other distant places. Hence the importance that it should be, in all respects, fully provided with every modern improvement, and that its claims should be fully acknowledged in all the localities from whence patients are derived.

SELLING DISEASED MEAT.

On Friday, February 3rd, at the Clerkenwell Police Court, Mr. Barstow passed a well-deserved sentence on a general dealer and meat-salesman, who was summoned by George Peacock, sanitary inspector, on behalf of the Holborn Board of Works, for having unlawfully deposited at 29, Charterhouse Lane, St. Sepulchre's, four quarters of beef and a bullock's head which were diseased and totally unfit for human food. A second summons charged him with exposing, at the same place, the carcase of a diseased pig for sale. The meat was in an advanced stage of putrefaction when seized, and the salesman at Charterhouse Lane had received the following interesting epistle from the defendant. "Sir,—I send you one nice body of beef and one pig from Bury. Plain cows are scarce. I shall send you another package to-morrow, as the markets are shut up, and you know all about it. P.S. We cannot get much; you will have what we can get." The bullock had evidently died a natural death, and its meat had not been dressed for two days afterwards; the pig had died from measles or small-pox. The worst feature in the case was, that the defendant was a most experienced judge of meat. Mr. Barstow said that his offence could not be adequately punished by a money penalty. The defendant had not cared how many people he might have poisoned, so long as he could make a small profit out of his bad meat. The magistrate therefore sentenced him to six weeks' imprisonment with hard labour. We trust that other boards of works and other magistrates will be as active in shielding the public from having what dishonest salesmen can get when "plain cows are scarce", especially as those gentlemen appear to "know all about it".

MANCHESTER MEDICAL SOCIETY.

At the annual meeting of the Microscopical Section of the above Society, which was held at the Owens College on the 31st ultimo, the following were elected officers for the ensuing year. *President:* Dr. Dreschfeld. *Vice-President:* Dr. Leech. *Treasurer:* Dr. Ashby. *Secretary:* Mr. A. H. Young. *Committee:* Mr. J. Broadbent, Dr. Bury, Dr. Edge, Mr. E. H. Howlett, Dr. Dixon Mann, Mr. Southam.

ST. MARYLEBONE GENERAL DISPENSARY.

At a meeting of the directors of this dispensary held on February 1st, 1882, the principle of payment of the medical and surgical officers to the institution was unanimously admitted and approved. The consulting staff (medical and surgical) here had laboured in complete accord with the lay governors. At the expiration of the present financial year, a meeting of the directors will be held; and such sums as in their judgment are fairly available will be apportioned amongst the working staff of the dispensary. We are pleased to see that the directors of this institution (the oldest but one in London) are so practically willing to recognise the just claims of our profession.

PROTECTION OF INFANT LIFE.

A Paris society quite recently organised, called Société des Enfants nouveau-nés (Society for Newly Born Infants), has published its regulations in a Paris paper. They are as follows. 1. The Society, to prevent infanticide, receives into the "House of Newly Born Infants" children of all religions and of any origin, and brings them up gratis, until they attain the age of three. 2. The mothers are allowed and encouraged to see their children as often as they please. 3. The Society aids unhappy mothers without means of gaining a living. 4. It is intended to utilise the house as a "Mothers' School", and profit by the visits of mothers and young girls to instruct them how to tend and bring up babies, thus awakening in them an affectionate interest for their charges.

THE VIVISECTION QUESTION IN THE GERMAN PARLIAMENT.

At its sitting on January 23rd, the German Parliament took into consideration the report of a committee on a number of petitions, from societies and from private individuals, in favour of the restriction or prohibition of vivisection. The report was presented, on the part of the committee, by Professor Hüter, deputy for Greifswald; and on it was founded a motion that, considering (1) that, in the interest of science, vivisection appears to be indispensable in teaching institutions; (2) that changes in the penal statutes in the direction desired by the petitioners have not been shown to be necessary; (3) that the petitioners have the opportunity of laying their complaints of any abuses in regard to vivisection before the local authorities who have the regulation of the teaching institutions—the house passes to the order of the day. Two of the members of the commission had expressed them-

selves as unfavourable to vivisection, and had proposed that all experiments on animals attended with suffering, unless they served highly important scientific purposes, should be punished with a fine of 600 marks (£30), or a corresponding term of imprisonment. In the discussion in the House, Herr von Minnigerode proposed as an amendment that the petitions should be referred for consideration to the Imperial Chancellor. Professor Virchow denied the correctness of the statement made by the petitioners, that experiments were performed in the universities to a great extent by students. He proceeded to show that vivisection was indispensable to the progress of medical science. The Minister of Instruction, Herr von Gossler, made a few sensible remarks as follows:

"I have endeavoured to form an opinion from the perusal of scientific books. As the result of these studies, I can only recommend you to accept the motion of the committee. It must be acknowledged that a great part of the horrors of vivisection have no foundation; most of the public do not clearly understand what are the results of experiments on animals. Medicine cannot dispense with these experiments. It is, however, the most sacred duty of those who superintend the institutions, to limit them as much as possible; and an honourable attempt is made to perform this duty. Do not introduce among us the conditions which exist in England. In North Germany, the experiments are established by the State authority, and are carried out under the superintendence of distinguished persons, of whom the Fatherland may be proud. In Prussia, no complaint has been made. There can be among us no such public exhibitions of suffering animals as have been described in England; and if there were, a reaction against them would arise on the part of science itself. I will only say this: if you determine to refer the petitions to the Chancellor for consideration, good—you will believe that you have performed a duty; if you decide the contrary, you may be assured that, so far as I can form an opinion, we may have full confidence that all excesses will be suppressed by means within the territory of science."

The amendment of Herr von Minnigerode was rejected, and the motion of the committee was carried, by a large majority.

BRITISH AND AMERICAN PHYSICIANS IN PARIS.

WITH a view to promote social intercourse and maintain good fellowship between British and American physicians, a society has been formed under the name of the "British and American Medical Society of Paris". Membership is limited to British subjects and citizens of the United States of America legally entitled to practise as physicians in Paris, and actually doing so. A certain number of dinners are appointed to be held annually; the first took place on February 1st. Among the members who form this society are Dr. McCarthy, Sir John Rose Cormack, Dr. Thomas Bishop, Dr. the Hon. Alan Herbert, Dr. Pratt, Dr. Marion Sims, Dr. Johnston, Dr. Faure-Miller, Dr. Jennings, Dr. Murray, Dr. Pepper, Dr. Rowlatt, and Dr. Loughnam, etc. The President for 1882 is Sir John Rose Cormack, and the Vice-President Dr. Bishop.

ANIMAL VACCINATION IN ITALY.

WE are informed that the Italian military authorities have determined to revaccinate the soldiers of the garrison of Rome with lymph direct from the heifer. The Committee for Animal Vaccination, presided over by Dr. Sinliani, have already vaccinated more than five hundred men of the Third Regiment of Infantry, stationed at present in the Cimarra barracks.

THE FRENCH MILITARY HOSPITAL SERVICE.

COPIOUS information was recently published in an English newspaper as to the state of the Carthage Hospital in Tunis, and the revelations made were unfortunately of a kind equally distressing to the public mind, and discreditable to the French military intendance. A formal inquiry was held with the object of ascertaining the authorship of the letter in question, which was subsequently avowed by a surgeon-major attached to the hospital. The officer in question will, it is said, be immediately placed *en disponibilité*, or dismissed the service. Meanwhile, the establishment which had acquired such unenviable notoriety was practically broken up. A large number of invalids were sent to France by every boat. Eight of the wooden sheds recently erected were condemned as infected by diphtheria, just as the main building was infected by typhoid fever. Fatal cases of diphtheria are reported to have been numerous. An exhaustive report on this subject, drawn up by Dr. Pozzi, is in the hands of the French Government, but has never been published. The military station at Fernana, established last June, has at length been removed. The garrison numbered eight hundred men, under the care of a single medical man, who had no apothecary to assist him. The camp was pitched on the borders of a marsh. Typhoid fever almost immediately appeared. About ten per cent. of the total strength of the garrison died. A much larger number of soldiers were invalided, and not a single individual escaped an attack of fever. It was not, however, we believe, till October, that beds and bedding were sent to Fernana. Till then, the sick and healthy alike slept on straw.

SCOTLAND.

COMBE LECTURES IN ABERDEEN.

THE fourth lecture was delivered by Dr. Stirling in Aberdeen on Saturday evening. The subject of lecture was the Process of Digestion. The lecturer sketched the process as it occurs in some of the simplest animals, but the chief part of the remarks was devoted to a consideration of the digestive process in man. The preparations which were used to illustrate the structure of the mouth, gullet, and stomach, were all of a simple kind, and such as anyone may obtain at a butcher's shop; and the lecture was specially designed to show how much physiology may be taught, especially by science masters in schools, by comparatively simple means. One of the most instructive parts of the lecture was the description of the reciprocal relations of the nervous and digestive systems. The influence of the former was illustrated by many pointed remarks, as to the influence of the emotions and grief, as in a passage in the *Vicar of Wakefield*—and the practical applications of these facts in the Indian rice ordeal. The effects of the influence of the digestive organs on the nervous system were similarly illustrated by our proverbial philosophy, and by facts from our every-day experience.

THE BURNETT FUND OF ABERDEEN.

THE trustees of this fund have appointed Professor George G. Stokes, Lucasian Professor of Mathematics, Cambridge, to deliver the Burnett lectures. Professor Stokes has chosen for his subject "Recent researches into Physical Science". These lectures are to be delivered in connection with Aberdeen University; and each lecturer may hold the lectureship for three years.

ALLEGED IRREGULARITY AT GREENOCK INFIRMARY.

THERE has just been made public, in connection with this institution, an occurrence very similar to that which has recently taken place at the Sheffield Workhouse. It appears that, last November, there died in the Greenock Infirmary a man named Sinclair, and, after a *post mortem* examination had been made, his body was removed to the mortuary, to be handed over to his friends for burial. By some mistake, however, the body was taken away and buried in the common ground of the cemetery, in place of another man, who had also died in the infirmary. The relatives of Sinclair have now raised an action against the directors of the infirmary, to compel them to have the body exhumed, in order that it may receive decent burial at the hands of the relatives, as was originally intended. How the matter will end, it is not easy to tell. Seeing the time that has elapsed since the burial has taken place, and that it was in a common burying-ground, it will be almost impossible to carry out the wishes of the relatives. These latter seem to be agitating in the matter from some apparently unfounded suspicions that the body has been made away with for dissection or other purposes, but there seems to be not the slightest ground for so thinking. Undoubtedly, a mistake has been made, and one painful to the relatives; but there the matter should rest, serving only as a lesson to the officials of the infirmary to exercise more care and

supervision in connection with the removal of the dead. Dr. Whiteford, one of the medical staff, has written a letter in which he explains the circumstances under which the wrong burial occurred, saying that it arose simply from the want of proper instructions with regard to the charge of the mortuary having been given to the porter. It is to be hoped that this explanation will prove satisfactory to those interested, and that the matter will be allowed to drop, as any painful occurrence such as this has a tendency to prejudice any institution, where it occurs in the minds of that class from which the chief number of patients come.

THE NEW UNIVERSITY COLLEGE AT DUNDEE.

SATISFACTORY progress has, it appears, been made with carrying out the necessary steps for the establishment of this undertaking. The promoters of this new university college, Miss Baxter and Dr. Baxter, have executed a deed of endowment and trust, providing £140,000 for that purpose. Of this sum, £35,000 has already been expended in the purchase of site and buildings, and £100,000 has been set aside to be held on trust—the income to be applied as an endowment to meeting the salaries of professors and other annual charges. In the deed of endowment, the subjects to be taught are enumerated and its constitution detailed.

THE OUTBREAK OF TYPHOID FEVER IN EDINBURGH.

AT the meeting of the Edinburgh town council, held on Tuesday, the convener of the public health committee intimated that 117 cases of typhoid fever had been notified, that few deaths had occurred, and that very few new cases were occurring and, as a rule, only in houses where it had previously existed.

COTTAGE HOSPITALS IN SCOTLAND.

IN a recent number of the JOURNAL, notice was taken and a description given of a temporary hospital for persons injured in a coal-pit in Scotland. Another valuable—even although it may be small—step is proposed to be taken at Dalkeith in the erection and furnishing of a cottage hospital for the treatment of accidents or infectious diseases. The movement has arisen through the liberality of Mrs. Macfarlane, of Eskbank, who has offered £2,000 to inaugurate this desirable design. Supposing the cottage hospital to cost £1,000, there would be £50 a year left as endowment, but this would have to be augmented by at least £200 yearly to cover expenses. It is to be hoped this will be done, and a very moderate annual subscription from the inhabitants of such a populous district is not too much to expect, and would be sufficient to meet all expenses.

PROPOSED OBSERVATORY ON BEN NEVIS.

As already mentioned in the JOURNAL, for several months of last year daily observations were carried on every morning by Mr. Clement Wragge on the summit of Ben Nevis. These observations were duly, and with the utmost promptitude, despatched to the central meteorological office in London, where they were of immense service in making up the daily weather forecasts issued from that office. It has now been decided that, having regard to the growing importance of, and necessity for, high-level observing stations to a commercial and ship-owning country, a meteorological station should be erected on the summit of Ben Nevis. The movement has received the support of the Scottish Meteorological Society, much importance being attached to the observations procurable from such a station; and it is generally understood that the Society will take over the observatory, and work it as an integral part of their meteorological system, when the building is erected and equipped with the necessary scientific instruments and appliances. It has been proposed to erect the observatory in honour of the late Mr. Hutcheson, who did much to open up the Western Highlands of Scotland, and to call it the Hutcheson Observatory. It is to be hoped the necessary support will be forthcoming for accomplishing an undertaking beneficial alike to the scientific world and to the mercantile and agricultural industries.

THE HEALTH OF GLASGOW.

THE report of the medical officer of health for the fortnight ending January 21st states, that there were 519 deaths registered, representing a death-rate of 26 per 1,000 living. The contrast between the past fortnight and the corresponding fortnight of last year, both in respect of climatic conditions and of attendant mortality, could scarcely be greater than we find it. In 1881, the mean temperature was 17.3 Fahr.; there was a heavy snow-fall; the general death-rate was 35, and the pulmonary death-rate alone 16 per 1,000. In 1882, the mean temperature was 44.6; the general death-rate was 26, and the pulmonary death-rate was 9 per 1,000. The number of deaths from zymotic and all other classified causes is less this year, though in nothing like the proportion of the pulmonary diseases. In the present fortnight there were 174 deaths from pulmonary diseases, representing a death-rate of 9 per 1,000 living, and constituting 33 per cent of the total deaths. The number of deaths from fever was 13, namely, 10 from enteric fever, 2 from typhus, and 1 undefined. Infectious diseases of children caused 51 deaths, namely, 25 from measles, 18 from whooping-cough, and 8 from scarlet fever. The number of cases of fever registered was 45, of which 39 were enteric, 5 typhus, and 1 undefined. There were also 158 cases of measles, 71 of scarlet fever, 47 of whooping-cough, and 15 of diphtheria registered, of which 42 were transferred to hospital, and the remainder kept under supervision at home.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending January 28th, it appears that the death-rate in the eight principal towns was 22.6 per 1,000 of estimated population. This rate is 12.1 below that of the corresponding week of last year, but 0.5 above that of the previous week of the present year. The lowest mortality was recorded in Leith, viz., 17.2 per 1,000; and the highest in Greenock, viz., 31.1 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 3.8 per 1,000, or 0.1 below the rate for last week. Deaths from whooping-cough, diarrhœa, enteritis, were frequent in Glasgow, and deaths from diphtheria in Edinburgh. Acute diseases of the chest caused 101 deaths, or 32 less than the number recorded last week. The mean temperature was 43.4°, being 1.7° below that of the week immediately preceding, but 15.1° above that of the corresponding week of last year.

IRELAND.

DUBLIN HOSPITAL SUNDAY FUND.

THE eighth annual meeting of the friends and supporters of this fund was held on the 1st instant. The report of the Council stated that, notwithstanding the many disturbing and disquieting causes which have prevailed during the year 1881, the fund shows a slight increase as compared with the previous year. The total amount contributed by congregations and individuals in 1881 was £4,066 8s. 7d., which shows an increase of £16 0s. 10d., as compared with 1880. The amount collected from congregations in 1881 was £3,777 8s. 2d., against £3,757 16s. 3d. in 1880, showing an increase of £19 11s. 11d. The amount of the fund for each year since its foundation in 1874 is shown in the following statement: 1874, £6,306 3s. 2d.; 1875, £3,619 12s. 4d.; 1876, £3,873 9s. 3d.; 1877, £4,106 14s. 6d.; 1878, £4,300 18s. 11d.; 1879, £4,344 18s.; 1880, £4,050 7s. 9d.; 1881, £4,066 8s. 7d.; total, £31,668 12s. 6d. Thus, a sum of upwards of £31,600 has been contributed through the Hospital Sunday Fund in aid of the work of the Dublin hospitals. The working expenses for the year amounted to £264 17s. 1d., being 6.71 per cent. on the total collected. After payment of the ordinary expenses, etc., the Distribution Committee had a sum of £3,750 to divide among the sixteen participating hospitals. The result of the distribution is as follows: Sir Patrick Dun's, £219 12s. 9d.; City of Dublin, £780 15s. 4d.; Dr. Steevens', £85 6s.; Meath, £408 4s.; Mercer's, £151 7s. 7d.; Whitworth (Drumcondra) £92 16s. 8d.; Coombe (Lying-in), £119 10s. 4d.; Rotunda (Lying-in), £102 3s. 10d.; St.

Mark's (Ophthalmic), £115 13s. 9d.; National Eye and Ear Infirmary, £49 5s. 6d.; Convalescent Home, £145 1s. 3d.; Cork Street (Fever), £283 3s. 9d.; Adelaide, £835 6s. 4d.; Monkstown, £191 1s. 5d.; Orthopædic (Usher's Island), £91 15s. 8.; National Orthopædic and Children's, £78 16s. 1d. Total, £3,750. Before the adoption of the report, Dr. Jacob criticised the mode in which the distribution of the fund was made. The fund is divided by the Distribution Committee into three portions; two portions are allotted to hospitals in proportion to the subscriptions they receive, and the other portion is allotted according to the work done. Dr. Jacob maintained that the former arrangement is faulty, because, he said, the money goes to the institution which begs most successfully; and the latter, because the work is estimated, not upon the benefits conferred on the poor, but by the number of beds maintained (often at an extravagant cost), which he contends, is a fallacious method of judging of hospital work. The extern work went for nothing at all as work done; and an institution in a poor and unfashionable neighbourhood, which did a great deal of external work, did not get a fair share of the money.

KING AND QUEEN'S COLLEGE OF PHYSICIANS.

At the last meeting of the King and Queen's College of Physicians in Ireland, Dr. Arthur Wynne Foot was elected a Censor of the College in the room of the late Dr. Reuben J. Harvey. At the same meeting, the College resolved to take the opinion of eminent counsel as to the legality of the following resolution of the College, passed on February 21st, 1868; namely, "That in future no King's Professor in the School of Physic shall be allowed to hold an appointment as medical officer to any clinical hospital other than that of Sir Patrick Dun".

THE QUEEN'S UNIVERSITY IN IRELAND.

This University, after an existence of thirty-one years and a half, was dissolved by proclamation in the *Gazette* on Friday last, the 3rd instant, to make room for the new Royal University of Ireland. The final meeting of the Senate of the Queen's University was held on the 1st instant. His Grace the Duke of Leinster, Chancellor of the University, who presided, delivered a valedictory address, and afterwards proceeded to confer a large number of honorary degrees on its graduates and on its professors and senators. We are sorry to notice that the medical graduates, who have done more, perhaps, than those of any other profession to raise the character of the Queen's University, have met with but scanty recognition in the rather lavish bestowal of honours on this occasion. Only one of the many distinguished graduates of the University practising in Dublin received an honorary degree; and the grounds on which the gentleman we refer to is stated to have received the degree he so well merits for his professional eminence alone, is that he was a member of the Committee of Convocation of the defunct University. The following appear to be the only medical men selected, all of whom, with one exception, received the honorary degree of D.Sc.: *Senators:* Sir Robert Kane, Professor Redfern, and Dr. Banks. *Professors and Ex-Professors:* Dr. Croker-King, Professor Alex. G. Melville, Professor R. O. Cunningham, Professor Charles, Professor Pye, and Professor H. Leith Adams. *Members of the Committee of Convocation, and of Local Committees of Graduates:* Dr. Corley, Sir William Mac Cormac, and Professor Matthias O'Keefe. *Other Graduates:* Professor James Canning. Dr. M'Mordie received the honorary degree of M.Ch.

THE COMPULSORY VACCINATION ACT.

In the JOURNAL for December 31st last (p. 1067), we alluded to a decision of a magistrate against the Belfast Board of Guardians, who had prosecuted a Mr. Strain for refusing to have his child vaccinated, and gave twelve shillings and sixpence costs against the board. In consequence of this, the guardians passed a resolution which they forwarded to the Local Government Board, in which they pointed out that the decision of the magistrate in this case would entirely frustrate future prosecutions of defaulters under the Compulsory Vaccination Act, unless the legality of the decision was tested by the Local Government Board taking the necessary steps for an appeal. On Tuesday last, the 7th inst., a letter was received by the Guardians on the subject, which stated that the question raised being one of importance affecting the general administration of the Vaccination Acts, the Board placed the report of the Belfast solicitor, who had charge of the prosecution, before their legal adviser for his opinion. He considers that the grounds on which it is alleged the case was dismissed, are not valid or sufficient, and adds that the six months' limit fixed by the Petty Sessions Act does not apply to a prosecution for a continuing offence. Further, he is of opinion that Mr. Strain may be proceeded against successfully under the provisions of the 14th Section of the Public Health (Ireland) Act, 1878. That section is copied from the 31st section of the English Vaccination Act of 1867, which was considered fully by the Court of Queen's Bench in 1870. The Court then held that a parent previously fined for not having his child vaccinated can be proceeded against and fined under the provisions of the 31st Section, and that the process can be repeated indefinitely so long as the neglect continues. The 147th Section of the Public Health Act of 1878 points out the preliminary steps to be taken. If, ultimately, the magistrate decline to impose a fine, he may be required to state a case for one of the divisions of the High Court in Dublin, in pursuance of the 20th and 21st Vic., cap. 43. On receiving this communication, the Guardian resolved to proceed against Mr. Strain without delay.

CORK DISTRICT LUNATIC ASYLUM.

Last Tuesday week, a performance of the opera *Patience* took place at this asylum, and was most successful. It was acted by amateurs for the benefit of the patients, of whom six hundred had an opportunity of enjoying the music, etc. Great credit is due to the efficient superintendent, Dr. Eames, for the time and trouble he has expended in contributing to the welfare of the patients under his care.

HEALTH OF DUBLIN.

We regret that the roseate anticipations the Superintendent Medical Officer of Health of Dublin published some months, as to the improvement in the health of the city, have not been realised. For the week ending January 28th, the death-rate in Dublin was 36 per 1,000, and, as the Dublin Sanitary Association points out, consequently nearly 90 per cent. over that of Edinburgh, and 35 per cent. over the rate in London. In Dublin city, the death-rate for the month of January has averaged 39.7 per 1,000, which has been the highest rate recorded for any month since last February. The zymotic death-rate has averaged during the same period 8.8 per 1,000, which is considerably more than three times the rate from this class of diseases during the entire of the year 1881. Measles is still very prevalent; forty-seven deaths from the disease were registered during the above week, being fourteen over the number for the preceding week. With reference to the extraordinary prevalence of measles at present in Dublin, the Public Health Committee of the Corporation adopted the following resolution unanimously at its last meeting: "That, in consideration of the prevalence of measles, an urgent appeal be made to the medical practitioners of the city to give immediate notice to the Public Health Committee, in order that all the necessary steps within the power of the committee be immediately taken". With a view to obtaining this desirable information, we trust that the Corporation of Dublin, as the sanitary authority for the city, will exert its influence in supporting the Bill to provide for the notification of infectious diseases recently prepared and approved by the Council of the Irish Medical Association, and by that of the Dublin Branch (*vide* JOURNAL, February 4th, p. 174).

An Old Guy's Hospital Nurse.—The proposal to get up a testimonial to Miss Grant—formerly for so many years "Sister Clinical"—has been most cordially received, over £100 having been collected amongst the staff, and the past and present students of the hospital. Miss Grant has been presented with a gold watch and eighty guineas.

PARLIAMENTARY BILLS COMMITTEE.

At a meeting of the Parliamentary Bills Committee, held at the office of the Association, 161A, Strand, London, January 25th, 1882, Present: Mr. Ernest Hart, Chairman of the Committee, in the chair; Dr. J. H. Aveling, Dr. Fancourt Barnes, Dr. C. Godson, Dr. C. Holman, Mr. Wickham Barnes, Dr. W. C. Grigg, Dr. Galabin, Dr. Norman Kerr, Dr. Ord, Mr. S. W. Sibley, Dr. E. Hart Vinen—

The minutes of the last meeting were read and found correct.

The Chairman of the Committee stated that the annual report of the Committee, drawn by himself, had been sent round to each member of the Committee in proof, with a request to make any suggestion in the way of alteration or modification of the report to the Chairman. At the annual meeting at Ryde, in August last, its adoption was proposed by Mr. Sibley, and seconded by Dr. Ransome. An amendment was proposed by Mr. Michael, Q.C., seconded by Mr. J. R. Humphreys, to the effect that it be an instruction to the Parliamentary Bills Committee to support the Bill for the compulsory notification of infectious diseases, introduced into the House of Commons by Mr. G. W. Hastings. The amendment was lost, and the report of the Committee passed by a large majority.

Moved by Dr. Grigg, seconded by Dr. Holman, and

Resolved: That the report be received and adopted, and that the Chairman be authorised to act in respect thereto upon the previous resolutions of this Committee, as appeared at the last annual meeting of the Association.

Moved by Mr. Wickham Barnes, seconded by Dr. Hart Vinen, and

Resolved: That the General Secretary be instructed to forward copies of the report to the chairman and chief medical officers of the Local Government Board, with a letter calling attention to the desirability of official revision of the local Acts, with a general inquiry on the subject.

The Chairman placed on the table communications from Mr. J. C. Smith of Great Yarmouth, late Surgeon-Major, East Norfolk Militia, and Dr. Mac Cormack of North Finchley, Surgeon-Major 7th Battalion King's Royal Rifle Corps, respecting the grievances of militia surgeons.

Moved by Dr. Ord, seconded by Dr. Norman Kerr, and

Resolved: That this Committee will readily afford any assistance in its power to procure further redress of the grievances of militia surgeons, mentioned in the correspondence of Surgeon-Major Smith and Surgeon-Major Mac Cormack.

Dr. Aveling then placed before the Committee the proposed regulations for the examination and registration of midwives in England and Wales; and stated that they had been long and fully considered and approved by the Council of the Obstetrical Society. They were as follows.

1. No woman, unless her name is placed on the *Register*, shall hereafter be allowed to call herself a duly qualified, legally qualified, or registered midwife; or to use any name, addition, or description implying that she is duly registered; and every woman so doing shall, upon a summary conviction for any such offence, pay a sum not exceeding £5, to be recovered in the manner directed by the Act 11 and 12 Vict., c. 43. After the day of 188 , no woman shall be entitled to recover any charge in any court of law for attendance or services as a midwife, unless she shall prove at the trial that she is duly registered.—2. Any woman at present practising as a midwife may be placed on the *Register* on production of a certificate of moral character from some magistrate, clergyman, or other minister of religion in the town, parish, or hamlet in which she lives, and of a certificate of competence from some registered medical practitioner personally acquainted with her, on payment of five shillings for the expenses of registration. If any person shall wilfully procure, or attempt to procure herself to be registered as a midwife, by making, or producing, or causing to be made or produced, any false or fraudulent representation, or declaration, either verbal or in writing, every such person so offending, and every person aiding or assisting her therein, shall be deemed guilty of a misdemeanor, and shall, on conviction thereof, be sentenced to be imprisoned for any term not exceeding twelve months.—3. All women placed on the *Register* shall receive a numbered certificate, corresponding to the number on the *Register;* the possession of which shall alone render them eligible for holding any public appointment as midwives.—4. A *Register*, containing particulars of name, age, civil state, and residence of each midwife, with a number corresponding to that on each certificate, shall be kept by the senior medical officer of health in the city of London, and in each assize town throughout England and Wales, except the following towns, viz., Devizes, Guildford, Kingston, Croydon, Wells, Welshpool, and Swansea; provided always, that the city of London and counties of Middlesex and Surrey shall form one registration district, of which the city of London shall be the registration town. It shall be lawful for Her Majesty, by an order in council, to name any other town or towns in England or Wales, to be a registration town or registration towns, either in addition to, or substitution for, any registration town, and to assign such a district or districts to such town or towns as to Her Majesty may seem fit.—5. Each district registrar shall make an annual return to the Registrar of the General Medical Council of the names and addresses of registered midwives in his district, and also of the names and addresses of those registered each year; and it shall be the duty of the Registrar of the General Medical Council to keep such *Register*, and render it accessible to all applicants. Any registered midwife may, on the payment of five shillings to the registrar of the district in which she lives, receive from him a certificate which shall enable her to have her name transferred to the *Register* of the district to which she removes.—6. The registration towns in each district shall also be the towns at which examinations of midwives shall be held at least twice in the year.—7. All complaints of malpraxis, or of immorality in the exercise of her calling, shall be made to the registrar of the district in which the offence is alleged to have been committed; and he shall thereupon summon the members of the examining board of such district to consider the complaint; and it shall be competent for them to send a report, with their recommendation on the subject, to the General Medical Council, who may, if they think fit, suspend her for a time, or remove her name from the *Register*. Any midwife continuing to call herself a duly qualified, or legally qualified, or registered midwife during the time of her suspension, or after her name has been removed from the *Register*, shall be liable to such punishment as is referred to in Regulation 1. If any registered midwife shall be convicted in England or Wales of any felony or misdemeanor, it shall be the duty of the district registrar to communicate the fact forthwith to the General Medical Council, which shall cause her name to be removed from the *Register*, and send her notice of such removal.—8. The certificate conveys no right to the midwife to practise, or to be registered, as a medical practitioner. Any registrar who shall wilfully make, or cause to be made, any falsification in any matter relating to the *Register*, shall be deemed guilty of a misdemeanor, and shall, on conviction, be imprisoned for any term not exceeding twelve months.—9. Every woman applying for admission to examination in order to be placed on the *Register* as a midwife, must bring proof of being not less than twenty-one years of age, and of good moral character, as certified by a magistrate, or by a clergyman, or by some other minister of religion, in the town, parish, or hamlet in which she lives.—10. She must satisfy the examiners that she can read writing as well as printing easily; that she can write legibly; and that she can do easy sums in the first four simple rules of arithmetic.—11. She must bring written proof from the medical officer or officers of some hospital or workhouse infirmary of having acted as a nurse there to his or their satisfaction for a period of three months, or from some duly qualified medical practitioner of having been engaged for six months under proper medical supervision in attendance on the sick at their own homes. She must bring written proof of having been a midwifery pupil for three months in some lying-in hospital, where instruction is given by the medical officers, or in the lying-in ward of a workhouse for six months, or of having attended, under the supervision of some medical practitioner or registered midwife, at least twenty-five labours.—12. She must pass the required examinations.—13. An examining board for midwives shall be appointed in each registration town throughout England and Wales.—14. The board shall consist of the senior medical officer of health for the town or district, *ex officio*, and of four other medical practitioners, of whom two shall, if circumstances will permit, be the two senior medical officers of the lying-in hospital, hospital, infirmary, or dispensary in the town, and the other two the two senior medical practitioners in the town or registration district, their seniority being determined by the date of their registration as medical practitioners. If any of these four shall be wanting, or shall decline to serve, the remaining members of the board shall fill up the vacancies from practitioners in the town or registration district; and if all four shall be wanting, or shall decline, the vacancies shall be filled up by the senior medical officer of health.—15. Three must be present to form a quorum, the senior medical man present to take the chair.—16. The examination shall be partly written, partly oral. The object of the written examination shall be to ascertain that the candidate is possessed of a moderate elementary education. The oral examination shall be the *test* of professional knowledge, but it shall be in the power of the examiners, when they see fit, to propose questions to be replied to in writing.—17. This examination shall test the candi-

date's knowledge on the subjects mentioned below, and no alteration shall be made in the nature of the examination instituted without the previous approval of the Medical Council, who shall have power, from time to time, to alter or modify such examination as to them may seem fit.

Suggestions to Medical Council for Examination of Midwives.—18. The subjects of examination shall be as follows: *(a)* The symptoms and course of natural labour. *(b)* The ways in which labour may differ from its natural course; the signs of such differences; the duties of the midwife in the management of labour, how she is to act herself, and when she must send for medical assistance. *(c)* A general knowledge of the condition and management of the lying-in woman. Under this head the midwife will be required to be acquainted with the use of the catheter, and the manner of administering clysters, and of washing out the vagina. *(d)* The management and feeding of newborn children. *(e)* The conditions as to air, food, state of lying-in room, etc., necessary to health. *(f)* The duties of the midwife with regard to the patient in all respects; and with regard to seeking medical advice.—19. The fee for the examination shall be £2, to be paid before examination, of which sum ten shillings shall be retained for expenses; ten shillings shall be paid as a registration fee to the district registrar; and the remainder shall be divided among the examiners present. Rejected candidates shall have thirty shillings of their fee returned, the sum of ten shillings only being retained, half for expenses, and half to be paid to the registrar.—20. The duties of midwives shall consist in the attendance on women in natural labour, and in the care of them and of their infants during the first week after child-birth.—21. No midwife is authorised to perform operations, or to prescribe or administer medicines (excepting as allowed in Rule xxii), and she is bound to conform herself in all respects to the regulations laid down by the Medical Council, a copy of which shall be given to each midwife on receipt of her certificate.

Suggestions to Medical Council with reference to Duties of Midwives.—1. The midwife is not to leave the patient until at least an hour after the expulsion of the after-birth, and she must not administer any medicine except a dose of ergot after the expulsion of the after-birth, or a single dose of laudanum not exceeding twenty drops, or a simple aperient, when any of these are necessary.—2. She shall send for the help of some registered medical practitioner in all cases of presentation of any other part of the child except the head or breech, or of the afterbirth, or navel string; and in all cases of flooding and convulsions; and also wherever there appears to be any want of room for the passage of the child.—3. She must send for help in all cases of labour lasting more than six hours after the waters have escaped, and sooner if the woman has been delivered by instruments in any former labour; and likewise every other case where any symptom appears indicating exhaustion or threatening danger either to mother or child; and specially in every instance in which the after-birth is not expelled within half-an-hour after the birth of the child.—4. She must further send in every instance where, after delivery, the progress of the woman or child is not satisfactory, to some registered medical practitioner, and must take his advice as to her further attendance upon other patients.

Moved by Dr. C. HOLMAN, seconded by Dr. FANCOURT BARNES, and

Resolved: That the scheme of regulations of examination and registration of midwives in England and Wales is in accordance with the previous reports and resolutions of the Committee, and is approved as a basis for legislation.

Moved by Dr. GRIGG, seconded by Mr. SIBLEY, and

Resolved: That this Committee will co-operate with the Obstetrical Society in drafting a Bill on the basis of these regulations, and taking such other steps as may promote early legislation; and that Dr. Grigg, Dr. Fancourt Barnes, Mr. Sibley, and the Chairman, be appointed a subcommittee for this purpose.

The report upon the progress of Local Legislation as to Infectious Diseases, drawn up by the Chairman, was then considered. It was as follows.

The progress of local legislation in matters affecting the public health is becoming so remarkable and widespread, as to merit the very earnest attention of the Legislature. The anomaly of a town which can afford the expense of a local Act being allowed, without apparent let or hindrance, to override the general statute law in favour of one that its local legal advisers think better, has already been commented on in the JOURNAL. There is nothing new to be said on the subject, except that the local alterations in the Public Health Act are yearly becoming bolder and more general. It behoves the Government seriously to consider whether legislation as regards the health and comfort of the community can be allowed any longer to remain on its present most unsatisfactory footing. Either the Public Health Act is sufficient for the purpose, or it is not: if the latter, the alterations and additions required are equally necessary for one town as the other, and piecemeal legislation of the kind now practised will only complicate the position, and make general reform more difficult.

The new local bills proposed to be submitted for the approval of Parliament during the coming session, will come in due course under the notice of Committee; and it is not now necessary, therefore, to do more than glance at their chief provisions, without comment on the several proposals. Reference to the new Bills may, however, be usefully prefaced with an allusion to the ultimate disposal of the eight Bills of last session dealing with infectious disease. Of these eight bills, six, viz.: Aberdeen, Barrow-in-Furness, Birkenhead, Bradford, Reading, and Stalybridge, actually received the royal assent, the Lincoln and Salford Bills not being proceeded with.

No alteration has been made in the provision of the *Aberdeen* Bill, requiring medical practitioners to report to the town council cases of infectious disease coming to their knowledge. Nor has any substantial change been made in the *Barrow-in-Furness* Act as it received the royal assent, except that the power to close places of public resort other than schools, has been expunged. In all other respects the bill, as sketched in my report to the Parliamentary Bills Committee (see BRITISH MEDICAL JOURNAL, vol. i, 1881, pages 375 *et seq.*) remains unaltered.

In the *Birkenhead* Act, on the other hand, there have been substantial alterations and additions. The corporation are now empowered to enforce the notification to them of any case of "small-pox, fever, cholera, or any other dangerous infectious disease," the particular diseases not being more definitely specified. In a circular, however, which has just been addressed to his fellow-practitioners by Mr. Vacher, the medical officer of health, the diseases about which information is "for the present" required, are stated to be "small-pox, measles, scarlatina, diphtheria, fevers, and cholera." The penalty for failure to notify has been altered from £10 to £5, with £10 for a second or continuing offence. Nurses, and not "female nurses" only, may now be provided by the Corporation for infectious cases. The Corporation can close schools in neighbourhoods affected by dangerous infectious disease, but cannot, as proposed in the bill, close them when the neighbourhood is only "threatened with" such disease, nor can they close "other places of public resort". By the bill they were authorised to establish a temporary hospital or ward "in the event of the prevalence in the borough of any contagious or infectious epidemic or other disease"; but this limitation is now done away with, and the corporation may provide such hospital at any time. Two most important clauses not included in the original Bill appear, moreover, in the Act. The one alters the procedure with regard to the compulsory removal to hospital of cases without proper lodging or accommodation, and makes clear the point which section 124 of the general Public Health Act leaves doubtful, that persons may be removed who are without proper lodging or accommodation, enabling the case to be properly isolated, *so as to prevent the spread of the disease*, or to be properly treated. (See on this subject JOURNAL, Vol. i, 1881, p. 380.) The next clause, which is practically entirely novel, imposes the penalties of section 126 of the Public Health Act, with regard to the exposure of infected persons or things, upon any person in charge of any infectious dead human body who exposes such body.

In the *Bradford* Act, the power to close "shops" or other places used for the storage of "provisions, clothing, or other articles liable to retain infection", has not been granted, whilst the diseases to be notified are now "small-pox, cholera, typhus, typhoid, scarlet-fever, scarlatina, or diphtheria" (relapsing fever being omitted). The obligation of the householder to report the existence of cases of infectious disease on his premises now extends to all cases, and not only to those where "no medical practitioner is attending on or has been called in to visit" the sick person. The fee to be paid to medical practitioners is now half-a-crown for each case, without limitation as to cases occurring in the same building. The clauses empowering the Corporation to secure the more prompt isolation in hospital of persons without proper lodging and accommodation (the "Warrington" clauses) have been altogether expunged.

In the *Reading* Act the power to close places of public resort, other than schools, has not been granted. No bedding, clothing, or other articles, may be removed from an infected house without proper disinfection, or without proper precautions, and to the satisfaction of the medical officers of health, instead of to that of the Corporation. The unnecessary clause giving power to establish a temporary hospital and fittings has been expunged, section 131 of the general Public Health Act being amply sufficient for the purpose. The occupier of a dwelling must now give notice of the existence of infectious disease in his house in any event, and not only if no medical practitioner has been called in. There is no longer any obligation on the sufferer himself to give

notice of his illness; the obligation to do so being transferred, in the absence or illness of the head of the house, to the person in charge of the sick person. The addition of other diseases to the list coming within the provisions of the Act is made subject to the sanction of the Local Government Board.

The *Stalybridge* Act is identical with the Bill as already commented upon, and it need not, therefore, be further referred to.

It remains now to see what fresh Bills containing clauses dealing with this subject have been submitted for parliamentary approval in the forthcoming session. There are altogether eleven of these Bills, though the actual number of towns to which provisions as to infectious diseases are to be newly applied is only eight, viz., Accrington, Chadderton, Falmouth, Halifax, Hull, Liverpool, Macclesfield, and Newcastle-on-Tyne. The powers desired by each of these places may be summarised as follows:—

Accrington desires power to make provisions for the prevention of the spread of infectious and contagious diseases by compelling notice to be given of persons suffering therefrom, by extending the powers of the Corporation for the providing of nurses and temporary accommodation, the erection, construction and maintenance of hospitals, the removal of persons thereto, and their support and treatment therein, by prohibiting persons suffering from such diseases, or dwelling in the same house as such persons, from attending any school, workroom or manufactory; by requiring the removal, disinfection and destruction of clothing, bedding or other articles; and by enabling the Corporation in their discretion to close any school, dairy, laundry, or place for the sale, deposit or storage of any article of consumption or clothing, with powers of entry by the Corporation, their officers or servants, for any of the foregoing purposes.

The *Blackburn* Corporation (which has already under its act of 1879 power to require the notification of infectious cases and to close schools, shops, etc.) now desires to make further provisions with respect to the seizure and forfeiture of diseased and unwholesome provisions; and to make further provision for the removal of night-soil, and the provision, alteration, removal, and user of privies and other sanitary accommodation and appliances for houses, factories, workshops and other buildings, for providing public conveniences, and for prevention of infectious diseases, and as to the remuneration to be received by medical practitioners for the granting of certificates relative thereto. It also desires to make by-laws, rules, and regulations, with regard to the inspection, situation and arrangements of dairies, cow-sheds and milk-shops, and for ensuring a supply of pure water thereto.

The *Bolton* authorities—who, it may be remembered, were the pioneers in making the notification of infectious cases compulsory—wish to make further provisions for the prevention of the spread of contagious and infectious diseases, by enabling the corporation to provide and maintain hospitals and nurses, to provide temporary accommodation for persons suffering from such diseases; to secure the isolation of such persons, to charge and recover the costs of removal of such persons and their maintenance while isolated or removed; to close schools and places of public resort, and buildings and shops for the sale of consumable articles and clothing; to compel the disinfection of buildings and of persons liable to communicate contagion or infection; and to prohibit the removal of corpses in public conveyances. A noteworthy clause in another part of the Bill may also be noticed, viz., one to enable the Corporation to license plumbers, and to prohibit any gas or water fittings and plumbing not fixed or done by such licensed plumbers.

The *Chadderton* Local Board, copying its larger neighbours, desires to make further and better provision for the prevention of infection from disease; and, for that purpose, to confer the following, among other powers, upon the board. 1. To provide temporary shelter or house accommodation for the members of a family in which infectious disease has appeared; and also to provide temporary hospitals or wards. 2. To provide, or contract for the providing, of nurses for attendance upon diseased persons. 3. To order public or private schools, or other places of public resort, to be temporarily closed or suspended. 4. To order any shop, dairy, or other place, for the sale or storage of provisions, clothing, or other articles, to be temporarily closed; and to prevent the entrance of the public to any such place, or the issue therefrom of food, clothing, or other articles. 5. To declare any house, or any room therein, or part thereof, an infectious place. 6. To make provisions with respect to the occupation of the inmates, the removal of bedding, clothing, or other articles, for the purpose of preventing the spread of infection; the attendance of nurses; and the visit of persons at any infectious place. 7. To prohibit under penalties persons from entering houses containing the dead body of a person who has died of an infectious disease. 8. To provide for the giving of notice to the Local Board of persons suffering from infectious or other diseases, and of certificates or declarations by medical practitioners attending any such person; and to empower the board to remunerate any such medical practitioner for his services. 9. To empower the board either to require any owner or occupier to cleanse and disinfect any house or part of a house, and articles; and for that purpose to remove any such articles, and to recover the expenses attending such cleansing, disinfection, and removal from the owner or occupier; or to make other provision for defraying the expenses thereof. 10. To empower the board, if they think fit, to provide within the district suitable hospitals for the separate reception and treatment, and for the isolation, of persons suffering from dangerous and infectious diseases; and to require the removal forthwith of any persons suffering from any such diseases to any such hospital, or to any place of temporary accommodation to be provided by the board in case of need; to authorise the board to enforce such removal; and to empower any justice to make an order for the removal of any person so suffering to any such hospital or place of accommodation; and to make provision for the recovery of the expenses of such removal, and for the maintenance and treatment of the suffering person in any such hospital or place of accommodation. 11. To prohibit, if so thought expedient, the removal of the body of any person dying from infectious disease from any hospital, or place of temporary accommodation as aforesaid, except for the purpose of immediate burial; and to provide for the immediate burial of the body of any person dying from an infectious disease, and for the recovery of the expenses thereof. 12. To empower the board from time to time to make by-laws or regulations for the following sanitary purposes: For regulating the mode of conveyance for the purpose of interment of the body of any person who has died of an infectious disease, and for the recovery of the expenses thereof: for causing the destruction of articles infected: for compelling the disinfection of articles and places, and prescribing the mode of such disinfection: for preventing the sale of infected articles: for preventing the use of public conveyances by persons suffering from infectious diseases: for preventing rubbish from being thrown into ashpits or ashtubs, and for causing privies and ashpits to be locked and secured. 13. To extend and apply to the board, and to the district, all or some of the provisions of the Contagious Diseases (Animals) Act, 1878. 14. To authorise the board to prohibit within the district the sale of milk, butter, or other dairy-produce, from any farm, premises, or places, whether within or without the district, the supply of water to which is insufficient, or is contaminated or polluted, or is liable to be contaminated or polluted, or at which there shall exist any infectious disease. 15. To require every person who carries on in the district the trade of a purveyor of milk, or a dealer in milk, or who shall send milk for sale in the district, to report to the board or to their officers the existence of any infectious disease at his house, dairy, or premises; and to provide for and require the licensing or registration of all such persons, and to prohibit any persons not so licensed or registered from carrying on any such trade. 16. To extend and apply to the board, and to the district, "The Sale of Food and Drugs Act, 1875", and to provide for the payment of all expenses incurred in the execution of that Act.

Falmouth, which is remarkable as being the only southern town (except Reading) that has yet attempted this kind of legislation, wishes to possess further powers for the improvement and good government of the borough, the prevention and removal of nuisances, obstructions, and offences therein, and especially with respect (*inter alia*) to the following matters: the prevention and removal of the deposit of building or other materials, or any rubbish, litter, or refuse in the streets; the making and enforcing of regulations as to the removal to hospitals of persons suffering from infectious diseases, disinfecting-houses, etc.; and requiring notice of such diseases to be given to the corporation; and to make by-laws and regulations in respect thereto.

The *Halifax* Corporation asks for power to require that notice be given of persons suffering from contagious or infectious diseases, and as to the cost of removing such persons to, and maintaining them in, any hospital; and for further powers for the prevention of the spread of such diseases; for prohibiting any person suffering, or not fully recovered, from attending any school or any workroom or manufactory where healthy persons are employed in the same room; and for closing any school, dairy, laundry, or shop for the sale of provisions or clothing, for the purpose of preventing the spread of contagious or infectious disease.

The *Hull* Corporation desires power to close temporarily all or any schools, dairies, and other places in the neighbourhood threatened with or affected by infectious diseases, or whenever, from the appearance of any infectious disease in the borough, such action may appear to the Corporation to be necessary; to make better provision for preventing infection, and for dealing with, and for the giving notice of, cases of infectious and contagious diseases; for the regulation, registration, isolation, and removal to hospital of such cases; and for empowering the cor-

poration to use vessels entering or placed within any of the docks within the port of Hull, having any of the crew or other person on board suffering from any infectious disease, to be removed and placed in the river Humber or elsewhere, in such situation and place, and for such period, as the Corporation shall direct. The Corporation also wishes to make further and better provision for closing houses unfit for human habitation, and for enabling them to remove, dispose of, or otherwise deal with, any houses so closed; and, for such purpose, to amend any enactments, either public or local, relating thereto.

The *Liverpool* Corporation asks that further powers may be conferred upon them with reference to the following matters (*inter alia*) connected with the improvement and good government and regulation of the city:—(*a*) The occupation of premises not fit for habitation, or not in conformity with the requirements of the Acts in force in the city relating to dwelling houses: (*b*) The providing and erecting of privies, urinals, etc., and the enforcing of by-laws for the better regulation thereof. It also desires to make provision for the better detection and prevention of infectious and contagious disease; the better protection of the public health; the closing of any school in any neighbourhood threatened with or infected by any such disease, and also of places used for sale of milk, fruit, confectionery or food, or for the sale or making up of wearing apparel where such disease exists; and enforcing the removal into hospital of persons suffering under any such disease not having proper accommodation for isolation, and otherwise for the regulation, registration and isolation of cases of infectious or contagious disease.

The *Macclesfield* Corporation wishes to make further provisions with respect to the prevention of infectious and other diseases; for the giving of notice as to infected persons, the providing of hospitals for infectious diseases, the removal of infected persons to hospitals, removal of dead bodies, prohibition of the use of public conveyances for the removal of infected persons or dead bodies, and letting of infected premises;—to extend the provisions of the "Public Health Act, 1875," in relation to privies, water closets, ashpits and drains in houses, to factories, shops and other buildings;—also to make provisions for closing of polluted wells, and other provisions for the abatement of nuisances and for the sanitary improvement of the Borough.

The *Manchester* Corporation, which last year obtained power to require the compulsory notification of infectious cases by means of a provisional order of the Local Government Board (see JOURNAL, vol. i, 1881, p. 857), now seeks to provide that all houses in which members of more than one family reside shall, after notice to the occupiers thereof, be subject to the provisions of Section 90 of the Public Health Act, 1875, which gives the local authority power to make by-laws "as to houses let in lodgings", and to empower the justices to grant an order for inspection of any such house at any hour, where it is suspected that such provisions are not complied with.

The *Newcastle* Corporation desires to make provision for the prevention of the spread of infectious and contagious diseases, and especially by enabling the corporation to compel the removal to hospitals of persons suffering from such diseases; by compelling notice to be given to the corporation of such persons; by closing schools and shops, and buildings used for the manufacture or sale of articles liable to communicate or retain infection; by compelling isolation of such persons, and the disinfecting of them, and of persons attending on them, and of their dwellings, and of infectious matter; by prohibiting the sale of articles liable to communicate or retain infection coming from infected places, and enabling the corporation to obtain information as to persons supplied with such articles; and by regulating the retention, disposal, and burying of corpses.

I do not propose to offer any commentary on these several Bills till the actual text of the proposed clauses is before us; but the general tenour of them is sufficient to indicate unmistakably the necessity that exists for the Local Government Board taking up without delay the whole question of the amendment and amplification of our present Public Health Act.

BRITISH MEDICAL BENEVOLENT FUND.

THE following is a list of subscriptions and donations collected from members of the Metropolitan Counties Branch of the British Medical Association during January 1882, as the result of an appeal made by the President and Secretaries. Nearly all the annual subscribers are new.

Annual Subscriptions.—Allingham, W., Esq., Grosvenor Street, £1 1s.; Armstrong, G. W., Esq., Greenwich, £1 1s.; Aveling, C. T., M.D., Upper Clapton, £1 1s.; Barker, A. J., M.D., Hornsey Road, 5s.; Bartlett, E., Esq., Elgin Road, 10s. 6d.; Batterbury, R. L., M.D., Berkhampsted, 10s. 6d.; Beveridge, J. S., Esq., Palace Gardens Terrace, 6s. 6d.; Blackmore, G. H., Esq., Hammersmith, 5s.; Blackstone, Joseph, Esq., Albert Terrace, £1 1s.; Bowkett, T. E., Esq., East India Road, £1; Brace, W. H., M.D., Queen's Gate Terrace, £1 1s.; Brunton, T. Lauder, M.D., F.R.S., Welbeck Street, 5s.; Cheyne, R. Romley, Esq., 27, Nottingham Place, £1 1s.; Christie, T. B., M.D., Ealing, 10s. 6d.; Cobbold, C. S. W., M.D., Colney Hatch, 10s.; Cockburn, Surgeon-General R., Leamington Road Villas, 10s.; Coombs, R. Gorton, Esq., Burnham, 5s.; Coombs, R. Gorton, jun., Esq., Tillingham, 5s.; Cooper, F. W., Esq., Leytonstone, 10s. 6d.; Day, W. H., M.D., Manchester Square, £1 1s.; Davidson, Charles, Esq., Cassland Road, 10s. 6d.; Davis, Maurice, M.D., Brunswick Square, 5s.; De Brent, M. J., Esq., Aveley, 5s.; Dingley, W., Esq., Argyll Square, 5s.; Dixon, James, Esq., Dorking, £1 1s.; Durham, Arthur E., Esq., Brook Street, £2 2s.; Durham, Frederick, Esq., Brook Street, £1 1s.; Eady, G. J., Esq., Caterham, 5s.; Forbes, John, M.R.C.P., Jersey, £2; Fotherby, H. I., M.D., Finsbury Square, 5s.; Fowler, Trevor, Esq., Epping, 5s.; Garlick, W., Esq., Great James Street, £1 1s.; Grigg, W. C., M.D., Curzon Street (1881 and 1882), 10s.; Gross, C., Esq., St. Saviour's Infirmary, £1 1s.; Gray, J. H., M.B., Bolingbroke Hospital, 5s.; Hall, F., Esq., Jermyn Street, 7s.; Hamilton, J. Lawrence, Esq., Gloucester Terrace, £1 1s.; Harris, C. J., Esq., Kilburn Priory, 5s.; Hawksley, T., M D., Grosvenor Street, £1 1s.; Henry, Alexander, M.D., Highbury Hill, 5s.; Hickman, W., M.B., Dorset Square, £2 2s.; Higginson, A., Esq., Tulse Hill, 10s.; Hope, William, M.D., Curzon Street, 5s.; Houghton, W. B., M.D., Cavendish Square, 10s.; Jackson, J. Hughlings, M.D., F.R.S., Manchester Square, £2 2s.; James, J. B., Esq., Jamaica Road, 5s.; Lamb, W. H., M.B., Kensington Park Gardens, 5s.; Lamb, William, M.D., Lewisham, 5s.; Lawrence, H. Cripps, Esq., Oxford Terrace, £1 1s.; Leonard, H. J., Esq., Camden Road, 5s.; Loane, J., Esq., Dock Street, £1 1s.; Marshall, J., Esq., Grange Road, 10s.; Musgrave, J. T., Esq., Finchley Road, £1 1s.; Owen, Isambard, Esq., Gloucester Gardens, 5s.; Paramore, R., Esq., Hunter Street, 5s.; Patten, C. A., Esq., Ealing, 10s. 6d.; Paul, J. L., M.D., Queenborough Terrace, £1 1s.; Pope, Edward, Esq., Tring, 5s.; Potter, G. W., M.D., Grosvenor Street, Highbury, 5s.; Power, Henry, Esq., Great Cumberland Street, £1 1s.; Pritchard, Urban, M.D., George Street, £1 1s.; Quain, Richard, M.D., F.R.S., Harley Street, £1 1s.; Richards, J. P., Esq., Hanwell, 5s.; Rogers, G. H., Esq, Clifford Street, £1 1s.; Rogers, Joseph, M.D., Soho Square, 10s. 6d.; Seaton, Joseph, M.D., Sunbury, £1 1s.; Semon, F., M.D., Welbeck Street, 6s. 6d.; Shillitoe, Buxton, Esq., Frederick Place, £1 1s.; Shillitoe, Richard, Esq., Hitchin, 10s. 6d.; Slyman, W. D., Esq., Caversham Road, 5s.; Smart, J., Esq., Victoria Park Road, 10s.; Taylor, T., Esq., Bocking, Braintree, 10s.; Thomas, G. Danford P., M.D., Paddington, £1 1s.; Timms, Godwin W., M.D., Wimpole Street, 5s.; Toulmin, F., Esq., Upper Clapton, 10s. 6d.; Tucker, A. C., Esq., Richmond Road, 5s.; Turner, F. C., M.D., Finsbury Square, £1 1s.; Vasey, Charles, Esq., Cavendish Place, £1 1s.; Venning, Edgecombe, Esq., Sloane Street, £3 3s.; Wakefield, T., M.B., Nottingham Place, £1 1s.; Walker, A. D., M.D., Ladbroke Grove Road, £2; Walshe, W. H., M.D., Hyde Park Square, £1 1s.; Watson, John, M.D., Southampton Street, £1 1s.; Weber, F., M.D., Green Street, £2 2s.; Welch, C., Esq., Hackney Road, £1 1s.; Woodhouse, R. H., Esq., Hanover Square, £1 1s.; Wright, F. J., M.D., Northumberland House, £1 1s. Total Subscriptions, £63 17s.

Donations.—Adams, James E., Esq., Finsbury Circus, £5; Adams, J. O., Esq., Clapton, £5 5s.; Bantock, G. G., M.D., Granville Place, £1 1s.; Bisshopp, J., Esq., Tunbridge Wells, £1; Boulton, Percy, M.D., Seymour Street, £1; Clarke, Benjamin, Esq., Upper Clapton, 6s. 6d.; Croft, John, Esq., Brook Street, £1 1s.; Davies, Gomer, Esq., Pembridge Villas, 6s. 6d.; Durham, A. E., Esq., Brook Street, £5 5s.; Easton, J., M.D., Norfolk Crescent, £2; Erichsen, J. E., Esq.; F.R.S., Cavendish Place, £10 10s.; Gimson, T. S., Esq., Fitzroy Square, £1 1s.; Gordon, Surgeon-General C. A., M.D., Westbourne Square, 10s.; Goullet, A. P., Esq., Finchley Road, 10s.; Hess, A., M.D., City Road, £1 1s.; Hinds, James, M.D., Halstead, 5s.; Holding, C., Esq., Victoria Street, £1 1s.; Inglis, C., M.D., Albert Mansions, £3 0s. 6d.; James, W. Culver, M.D., Marloes Road, 5s.; Johnston, W. W., M.D., Tunbridge Wells, £1; Ligertwood, T., M.D., Royal Hospital, Chelsea, 10s. 6d.; Longhurst, A. K., Esq., Hammersmith, 5s.; Maclaren, A. C., Esq., Harley Street, £10 10s.; Maudsley, H., M.D., Hanover Square, £1 1s.; Pollock, R. J., Esq., Wimbledon Park, 7s. 6d.; Richardson, T., Esq., Commercial Road, 5s.: Sanderson, J. Burdon, M.D., F.R.S., Gordon Square, £3 3s.; Saunders, Deputy Inspector-General G., C.B., M.D., Colville Terrace, £1 1s.; Taylor, C., M.D., Camberwell New Road, £1 1s.; Tomes, C. S., Esq., Cavendish Square, £1; Toulmin, F. J., Esq., Thurloe Square, £1 1s.; Weaver, Loraine, Esq., Clapham Road, £1 1s.; Wells, Deputy Inspector-General S. S. D., R.N., Haslar, 10s. 6d.; Woodhouse, John, M.D., Hertford, £1 1s. Total Donations, £64 6s.

THE DUKE OF CAMBRIDGE AT NETLEY.

THE winter session of the Army Medical School, at Netley, was concluded on the 6th instant. The prizes were delivered to the successful competitors by Field Marshal H.R.H. the Duke of Cambridge, who left London by an early train, travelling by the London and South Western railway for the purpose. On reaching Netley the Duke was received by H.S.H. Prince Edward of Saxe Weimar, commanding the southern district, and staff, together with the military and medical officers of the Royal Victoria Hospital, and professors of the Army Medical School. The surgeons on probation, and a number of visitors, were assembled in the principal lecture room. Some ladies, including the Princess of Saxe Weimar, were also present on the occasion.

As soon as His Royal Highness and staff had taken their seats in the lecture-room, a report was read by Professor Longmore on the results of the session; and the names of the gentlemen who had gained the prizes were announced. An account was also read of a new distinction which has been recently added to those previously in the gift of the school, viz., a prize which has been opened for competition in the department of military surgery, and for which the school is indebted to the liberality of Mr. Nathaniel Montefiore, F.R.C.S. A description of this prize appears on another page.

On the preliminary business being concluded, the Duke of Cambridge handed the prizes successively to the gentlemen who had won them, and then addressed the army surgeons on probation in a speech of considerable length and interest. His remarks were highly complimentary to the officers of the military medical services. After some general observations on the progress of the Army Medical School and the instruction given in it, His Royal Highness spoke as follows.

"The work done by the medical officers in Afghanistan and South Africa within the last two years, under the directions of Surgeons-General Ker Innes and Holloway, has been brought prominently to my notice in various reports which have been laid before me. I have not been able to put my finger on any defect in the working of the department, and the manner in which the medical and surgical duties have been discharged by the army surgeons affords good evidence of the value of the instruction which has been given to them at this school. It has not been only in their purely professional duties that the medical officers have distinguished themselves in recent campaigns, but they have also been conspicuous for their gallantry in the field. I may refer especially to the circumstance that, in the unfortunate affair at Majuba Hill, an episode in our annals on which it is not pleasant to dwell, two young medical officers who had not long before passed through Netley remained to share the fortunes of the wounded committed to their care, and both fell honourably at their posts. I am aware, too, that it is not only in time of war that army medical officers are called upon to risk their lives; they often do so in time of peace, on the occasions of epidemics of disease in various climates. It is not long since four medical officers fell victims to yellow fever, while contending with the disease in Barbadoes. Such sacrifices, when nobly made at the call of duty, confer honour on the whole medical department." His Royal Highness then particularly called the attention of the young surgeons to their important duties and responsibilities, urging them to remember that everyone wearing Her Majesty's uniform lives, as it were, in public, and is bound, therefore, to be specially circumspect in conduct. He remarked that, under the new system, medical officers in their early periods of service are more free from control than they have ever been, and that there is, in consequence, all the more need for them to be doubly cautious on every point of duty. He also alluded to the fact that messes are being introduced at the larger stations for medical officers, and that he hoped great advantage would result to them from the arrangement. After a few further remarks, His Royal Highness expressed himself highly gratified at the fact that all the surgeons on probation who had just gone through the course of instruction at the school had gained their commissions, and heartily congratulated those among them who had carried off the prizes; concluding by wishing them all an honourable and pleasant career in the respective branches of the public service which they were on the eve of entering.

Luncheon was afterwards served, in the officers' mess-room, to the Duke of Cambridge and other distinguished visitors. Although a dense fog was prevailing at the time His Royal Highness left London, the day turned out to be bright and clear, and almost as mild as a day in spring, on arriving at Netley. The Duke left by an afternoon train to return to London.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL:

NOTICE OF QUARTERLY MEETINGS FOR 1882: ELECTION OF MEMBERS.

MEETINGS of the Committee of Council will be held on Wednesday, April 12th, July 12th, and October 18th. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary not later than 21 days before each meeting, viz., March 22nd, June 22nd, September 27th, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

November 4th, 1881. FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

STAFFORDSHIRE BRANCH.—The second general meeting of the present session will be held at the Railway Hotel, Stafford, on Thursday, February 23rd, at 3.30 P.M. VINCENT JACKSON, General Secretary.—Wolverhampton, January 29th, 1882.

METROPOLITAN COUNTIES BRANCH: NORTHERN DISTRICT.—The next meeting of the District will be held on Friday, February 17th, at 8.30 P.M., at the house of Dr. Norman Kerr, 42, Grove Road, N.W. Dr. Norman Kerr will introduce a discussion on the "Recent Epidemic of Typhus in Marylebone".—GEORGE W. POTTER, M.D., Honorary Secretary, 12, Grosvenor Road, N.—February 1882.

METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.—The next meeting of this District will be held, by permission of the Lords of the Admiralty, at the Royal Naval School, Greenwich Hospital, on Friday, February 17th, at 8 P.M., when a discussion on the subject of the Notification of Infectious Disease will be opened by the Honorary Secretary.—H. NELSON HARDY, Honorary Secretary, The Grove, Dulwich, S.E.—February 8th, 1882.

METROPOLITAN COUNTIES BRANCH.—A general meeting of this Branch will be held at St. George's Hall, Langham Place (entrance from Mortimer Street), on Wednesday, February 22nd, at 8 P.M. precisely; Edwin Saunders, Esq., President, in the chair. Dr. Benjamin Howard will exhibit in the hall, and fully explain, his improved Ambulance Apparatus. Any member of the Branch may introduce a visitor. Gentlemen intending to be present are requested to inform the Secretaries at the earliest opportunity.—ALEXANDER HENRY, M.D.; W. C. GRIGG, M.D., Honorary Secretaries.—132, Highbury Hill, February 9th, 1882.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting of the above District will be held in No. 3 Committee Room of the Bow and Bromley Institute, on Thursday evening, February 16th, at half-past eight o'clock; Dr. Dickson, Treasurer of the Metropolitan Counties Branch, in the chair. F. E. Cockell, jun., M.R.C.S.Eng., will read a paper entitled —Brief Notes and Remarks on Four Cases of Puerperal Fever. Joseph Hunt, M.D., will read a paper on the Diagnosis and Treatment of Pleuritic Effusions in Children. —FREDERICK WALLACE, Hon. Sec., 96, Cazenove Road.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.—The next meeting of the above District will be held at Ashford, on March 2nd; Mr. Coke in the chair.—T. WHITEHEAD REID, 34, St. George's Place, Canterbury.—February 8th, 1882.

METROPOLITAN COUNTIES BRANCH: NORTHERN DISTRICT.

THE third meeting of the District was held on January 19th, at the house of Dr. CREE, St. John's Park, Upper Holloway.

Papers.—1. Dr. Woakes read a paper on the Etiology of Diphtheria: its Contagium: the Occurrence of Sudden Death in it—reconsidered.

2. Dr. George Ogilvie read a paper on Electricity as a Therapeutic Agent.

CORRESPONDENCE.

MILITIA SURGEONS.

SIR,—You are aware that some months ago I addressed a circular to the militia surgeons of the United Kingdom, asking them for subscriptions towards a movement that was intended, for applying to the Government, by means of a Petition of Rights, to obtain the retiring pensions granted by several Acts of Parliament (and none of which were repealed until 1875) to all surgeons who had served continuously for twenty years and upwards, or who were retired from age and infirmities. From all surgeons who had been retired, or were about to be retired, I suggested a subscription of £5, as they were likely to be more immediately benefited; and from all other surgeons £1. The number of the former were about thirty, and of the latter one hundred and fifty. I regret to state that this appeal met with but scanty support; only ten of the thirty subscribed £5; two subscribed £3 3s., five subscribed £2 2s., and twenty £1 each.

Having submitted our case to eminent Q.C.s, we were advised that, from certain technical reasons, we could not proceed for a Petition of Rights, but that a petition to the House of Commons, properly prepared, presented, and permission obtained to have it read at the table of the House, and a motion made to have our case referred to a Committee or a Royal Commission, offered a certainty of obtaining redress for the cruel hardship inflicted on the militia surgeon by compulsory retirement at sixty-five, depriving them of a large portion of (and in some cases) the entire of their income. I addressed a second circular (a copy of which I enclose). I regret to say that, notwithstanding some strong remarks from you, as editor of the JOURNAL, I have received little or no response—not even the courtesy of a reply.

We have already expended £45 out of £86 received; and, to enable us to carry on the further steps for the petition to the House of Commons, we will require at least £100.

We hope to have the aid of yourself and the Parliamentary Committee of the Association, together with the heads of the different licensing bodies in the United Kingdom; and there can scarcely be a doubt but that our exertions will succeed in obtaining our just and legal claim for compensation. But how can we hope to succeed, if those who are likely to be benefited thereby decline to furnish the committee who have taken the matter up with necessary funds? With the view of obtaining such, I have taken the liberty of addressing this letter to you, and asking for its insertion in the JOURNAL, knowing how persistently you have always advocated our claims for compensation. Subscriptions should be forwarded to Surgeon-Major Smith, Great Yarmouth, Norfolk.—I remain, yours truly, M. J. MACCORMACK, M.D.,

Surgeon-Major 7th Batt. King's R. Rifle Corps.

AMBULANCE SERVICE.

SIR,—At the recent meeting at the United Service Institution, I ventured to make a few remarks advocating the extension of the proposed organisation to the whole of the metropolitan police district, so as to include the cottage hospitals of the outer ring as well as the great London institutions. This would, I think, be generally advantageous, but I am especially interested in it with the view of rendering more widely available and useful a cottage hospital which the Chislehurst, Sidcup, and Cray Valley Medical and Surgical Aid Society is about to establish. The consideration of the actual provision of the means of transport is, for our purposes, of minor importance, our society will probably be ready to undertake that part of the work for its own purposes—and indeed it is probable that the same system will not be applicable to the whole district even in London itself—but I regard it as very essential that the whole of the metropolitan police stations should be placed in electrical, and preferably telephonic communication with each other, and with the hospitals in their neighbourhood. A resolution to this effect was on my motion passed at a recent meeting of the St. John's Ambulance Association, to which I, although not a member, was invited in my capacity as a divisional surgeon of police. I cannot help expressing my regret that, at the more public meeting of the 2nd inst., none of the speakers except Mr. Holmes and Sir Edmund Lechmere, chairman of the St. John's Ambulance Association, laid any stress on the good work done by that useful body. The Association, at the meeting referred to, expressed its willingness to undertake the organisation of a more general ambulance system. It possesses the confidence of the public, and, having an excellent organisation well adapted for the purpose, would probably do the work efficiently and economically. It is not too late even now; and I think it would be a graceful act on the part of the newly formed committee, if, as the result of their deliberations, they were to entrust the work of maturing and carrying out a scheme to the association which has already taken the initiative in the matter, and which has deserved so well of the public.
—I remain, sir, yours faithfully, C. H. ALLFREY, M.D., F.R.C.S.

SUNSHINE IN THE ISLE OF WIGHT.

SIR,—As an important addendum to the Forty Years' Consecutive Meteorological Observations, with reference to the climate of the Undercliff, Isle of Wight, published by Dr. Whitehead during last autumn, I would ask you to insert in an early number of the BRITISH MEDICAL JOURNAL the following summary of bright sunshine recorded there during the past year, as compared with that given in the *Times* as recorded at Kew. It is to be regretted that it only extends over one year; but that is unavoidable, as the observations are recent. I am anxious to express the obligation I am under to Mr. Kilburn for placing his sun-record at my disposal.

Monthly Summary of Bright Sunshine recorded by W. E. Kilburn, Esq., at St. Lawrence, Undercliff, I. W., as compared with that at Kew, derived from the "Times".

ST. LAWRENCE.	Hrs. Mins.	KEW.	Hrs. Mins.
January	39—35	January	23—38
February	58—24	February	26—45
March	161—36	March	105—
April	124— 3	April	128—30
May	186—39	May	202—30
June	185—38	June	236—30
July	202—34	July	242—30
August	196— 6	August	176—
September	152—58	September	86—
October	153— 9	October	106—
November	83—14	November	76—30
December	61—32	December	41—30
	1,605—28		1,451—23

In considering the foregoing tables, it is necessary to bear in mind that they contain the record of bright sunshine, and not what might otherwise come under the category of "sunny days".

The record is obtained by the rays of sun passing through a sphere of glass, and burning their course on a slip of card, on which the several hours of the day are carefully divided; but, in order to effect that, the atmosphere must be clear—haziness or very thin cloud dispersing the focus, and thus interfering with the action of the instrument: a fact which tells somewhat disadvantageously as regards the Undercliff during the summer months, in consequence of haze, which occasionally develops itself during the finest weather, from the seaboard.

Another circumstance which limits the action of the instrument at the Undercliff during summer, is the shade in which it is thrown from the Downs and range of cliffs which bound it to the north and east; the early rays of the sun in May, June, July, and August, are intercepted by the high land at Dunnose in the early morning, while the Undercliff itself falls into shadow as the sun wends to the westward, soon after 6 P.M., a circumstance which tends materially to limit the action of the recording instrument, and accounts, in a great measure, for the apparent deficiency of sunshine during the summer months, as compared with that recorded at Kew. Probably, in future tables, some approximate estimate may be made of the loss of recorded sunshine, in consequence of the position of the Undercliff just alluded to.
—I am, sir, your obedient servant, J. B. MARTIN, M.R.C.S.
Ventnor, January 26th, 1882.

SPECIAL CORRESPONDENCE

GLASGOW.

[FROM OUR OWN CORRESPONDENT.]

Diseased Meat in Glasgow.—Glasgow Science Lectures.—Annual Meetings of the Charities.—Glasgow Training Home for Nurses.

THE report which has just been issued by the medical officer of health on the subject of diseased meat in Glasgow, will be read with a good deal of interest, for it unfortunately confirms the very unpleasant and alarming disclosures that have recently been finding their way into the public papers as to the importation of bad meat into Glasgow, and its distribution over the city; and it brings out the weak points in the arrangements that now exist for the protection of the dead meat market. According to the present system, the corporation appoints an inspector who devotes all his time to attending the market, and seeing that no bad or diseased meat, which may be exposed, is allowed to get into consumption. Of course, this is only as it should be, and on the face of it it would not seem possible for diseased meat to get into use; but recent events have shown that these precautions are not sufficient. They do not meet the case of dead meat sent into the city from the country, against which there is almost no safeguard, and in which very often mischief lies, for many an animal is slaughtered when suffering from some obscure disease, should it seem likely to die, and its carcase sent in, all ready dressed, into the market. It is impossible often for the inspector under these circumstances to recognise anything wrong with the flesh, and it is forthwith taken into the market and disposed of for food. The most glaring instance of this kind, and the one which has called forth the present report on the part of Dr. Russell, took place a few weeks ago, when the carcases of about sixty cows, which had been killed when in a dying state from some obscure disease, were sent in from a Renfrewshire dairy to the dead meat market here and were sold for food, having all passed the inspector. It appears now that the disease from which these animals suffered was that known as "splenic apoplexy", for a drop of blood taken from the centre of the spleen teemed with the "bacillus anthracis", a rod-shaped organism, which is the specific poison of that so-called malady. As yet, it seems that no fatal results have been known to arise from this unfortunate state of things, but these disclosures cannot but cause a wide spread feeling of alarm and also indignation among the general public. Apart from the question as to whether some steps should not be taken to severely punish persons who thus knowingly send diseased meat into the market and endanger the lives of the community, it behoves the authorities to lose no time in drawing up such rules as would prevent in future the possibility of such an occurrence. Dr. Russell has thrown out some suggestions to meet the requirements of the case, and which he thinks, if properly carried out, would render the present official inspection more efficient. Not a day should be lost in sanctioning these proposals, or even more stringent ones, if they should be deemed necessary.

In striking contrast with this unfortunate episode, where we find a few unscrupulous individuals, for the sake of gain, spreading disease of a virulent character among the community, is the lecture recently delivered in our city hall, under the auspices of the Glasgow Science Lectures. Here we have another notable example of the disinterested efforts that are now being made by the medical profession for the prevention of disease and the spread of a better knowledge of the laws of health among the masses of the people. The subject of the lecture was, "The Antiquity of State Medicine: a Lesson for the Future." The mediæval, to say nothing of the Mosaic, practices, with regard to infectious diseases, have a remarkable bearing on modern investigations and preventive measures; and the whole facts bearing on the matter were ably marshalled and dwelt on by Dr. Fergus. He gave in his firm adhesion to the germ theory in connection with zymotic diseases,

and towards the close of his remarks he gave the audience his views as to the "preventive" measures he would have provided by every large town, or even each rural group of villages, which now constitute our parishes. He would have hospitals for epidemic disease; reception houses for the temporary occupation of the unaffected members of families in which infectious diseases had broken out; great attention paid to the disinfection of all clothing that has been in contact with the sick; an efficient staff of inspectors for visiting, discovering, and removing to hospital all necessary cases of infectious disease; and, lastly, he would appoint a medical officer of health for each town or district, who should devote all his time to the duties of his office without the entanglement of private practice. Such suggestions as the above must recommend themselves to all sensible men as moderate and reasonable; and it is encouraging to think that many of our sanitary authorities are acting on the lines there laid down.

The present is a busy season for our different local charities, which are holding their annual meetings, and striving to give the best account of themselves, and to bid, as it were, for the greatest amount of public support, on the grounds of doing the most good and being the most in need of funds. When we peruse the reports thus submitted, we are struck with the vast amount of gratuitous relief that is dispensed on every hand—and every year it increases. Where it is to end, and how the expenses are to be met, is a question that is gradually forcing itself on the public, and will sooner or later have to be settled. Private charity seems at present inadequate to meet the requirements. One gratifying and encouraging feature in the reports, and notably in that of our Glasgow Eye Infirmary, is the large amount contributed from public works. It is only as it should be, and yet it might be larger. At none of the meetings of our Glasgow charities has the question cropped up that has been brought so prominently forward at the recent meeting of the Greenock Infirmary, as to the admission of the physicians and surgeons of the hospital staff on the board of the directors of the institution which they serve. At present the question has been shelved at Greenock, no doubt soon to be brought up again, and it is to be hoped successfully, as there can be no question as to the advantages which must accrue to any hospital to have on its board of management men who are most conversant with its workings and its needs. I believe that in Glasgow the only charity that allows its medical officers a seat at the directorate is the Ophthalmic Institution. The others get over the difficulty by having medical men sent to the board as representatives of different bodies; but this is not the same as admitting the members of the staff on to the directorate.

Of the different Glasgow charities there is none that is making more steady progress, and acquiring more general support, both with the public and the medical profession, than the Glasgow Training Home for Nurses. Quite a young institution—for it has only been in existence about eight years—it has made its way entirely by its own merits, and the successful way in which it carries out the objects for which it was established. These are to train suitable women for the nursing of the sick, and to employ them when fully trained, either in the home itself, or by sending them out to nurse in private families. With a view of carrying out these aims, the supporters of the institution have acquired suitable buildings, where there are wards and private apartments for the treatment of a considerable number of male and female patients. These private apartments are very eagerly sought after by persons coming in from the country who have to undergo any operation; and as any medical man can send in his patient and continue his attendance there as untrammelled as if the person were in a private house, it is not often that the rooms in the home are empty. In fact, it is well known that all our leading surgeons prefer to send their patients there, where they will be well nursed and tended, to exposing them to all the inconveniences and drawbacks of lodgings or hotels. In fact, there has been solved, on a small scale, here, the question, so much mooted in other large towns, of paying-hospitals for the better classes. The report for the past year of the Glasgow Training Home for Nurses, which has just been made public at the annual meeting on January 27th, was of a most satisfactory nature, and showed the steady progress that the institution is making.

SMALL-POX IN LEEDS GAOL.—In Her Majesty's gaol at Leeds there are several prisoners suffering from small-pox. The first case occurred about a week ago, and the victim died. The man who prepared the body for interment has since been attacked. Every precaution against the further spread of the disease has been taken under the directions of the Home Office, and it is not thought likely that there will be any addition to the number of cases. It is believed that the Leeds magistrates have power to commit their prisoners to gaol at Wakefield, and that for the present that course will be adopted.

MILITARY AND NAVAL MEDICAL SERVICES.

DEPUTY INSPECTOR-GENERAL J. N. DICK, who has been employed in the Director-General's Department since January, 1879, has been appointed to the charge of the Naval Hospital at Malta in succession to the late Deputy Inspector-General Hill. Mr. Dick entered the Navy in August 1853, and was first employed afloat as assistant-surgeon of the *President* during her commission on the Pacific Station as Rear-Admiral Bruce's flagship. He then did duty for several years with the Chatham Division of the Royal Marines, and in 1863 was appointed staff-surgeon of the surveying-vessel *Medina*, employed in the Mediterranean under Captain Spratt, C.B. In 1866 he was employed in the flagship at Devonport until appointed to the *Satellite* on her being commissioned by the late Captain Joseph Edye. As her surgeon, he took part in the Abyssinian campaign, doing good service in the disembarkation of our troops and organisation of working parties at landing. For this he was promoted to fleet-surgeon, receiving the war medal. From 1869 to 1871 he was employed at Haslar, and in 1873-5 was on the Mediterranean Station as chief medical officer of the flagship *Lord Warden*. He has been more recently on duty at Haulbowline and at the Admiralty.

ARMY MEDICAL DEPARTMENT.—Consequent on the death of Surgeon-Major Tate, medical charge of the staff and departments in the South Dublin Division devolves on Surgeon-Major J. O'Farrell.—Surgeon C. S. Close has proceeded to India from Brighton for duty at Bombay.—Surgeon-Major A. C. Gaye has left Devonport for India for duty at Bombay.—Surgeon A. Brebner, M.D., has arrived at Bengal from Aldershot.—Deputy Surgeon-General C. P. Madden has been ordered to embark for India to assume the duties of principal medical officer at Madras.—Surgeon-Major C. F. Richards, M.B., has arrived at Longford, and assumed duty from Galway.—Surgeon-Major J. N. Davis, M.D., has left Newbridge for Bengal.— Surgeon-Major J. S. M'Cutchan, M.B., has proceeded from Mullingar to India, for duty at Madras.—Surgeon-Major H. T. Brown, M.D., has been transferred to Limerick for duty from Buttevant.—Surgeon-Major J. F. Supple has been posted to Chatham for duty on arrival home from Bengal.

DEATHS OF MEDICAL OFFICERS.—The *Broad Arrow* announces that Surgeon-Major H. Sherlock, A.M.D., died at Morar, Bengal, in his forty-ninth year. He was present in the Crimean campaign of 1855, at the siege and fall of Sebastopol, including the assault on the Redan of June 18th (medal with clasp and Turkish medal). His services during the Indian Mutiny, when he was assistant-surgeon of the 8th Hussars, included capture of Kotah, reoccupation of Chundoree, battle of Kotah-ke-Serai, capture of Gwalior (wounded), capture of Powree, battle of Sindwaho, and many other minor actions were again recognised by the award of a medal with clasp. For his gallant behaviour during these operations he was several times mentioned in despatches. More than once the weight of his strong arm in the charge was felt by the mutineers. Surgeon-Major Sherlock subsequently served for many years as surgeon of the 65th Foot. Though recently removed from regimental duty under the station hospital system, the sad privilege of paying the last honours to his remains was reserved for his old corps (now the 2nd Battalion York and Lancaster Regiment).—The same journal also records the death of Deputy Inspector-General George B. Hill from chronic dysentery at Malta, on January 6th. He entered the navy in July 1846, and was first employed as an assistant-surgeon at the very hospital of which he was destined in after years to die the chief. His early service at Malta was passed at the time where Rear Admiral Edward Harvey, a veteran of Camperdown had command of the yard; the Mediterranean Squadron being under Sir Willam Parker with the *Caledonia* as flag-ship. During the Crimean war Mr. Hill served in the Black Sea as assistant-surgeon of the *Hannibal*, under the late Sir Houston Stewart, with Sir John Hay as flag-captain; and was present at the capture of Kertch and Yenikale, and at the siege of Sebastopol (Crimean and Turkish medals, Sebastopol clasp). His next service was as surgeon of the troopship *Megæra* in 1856-59. He then did duty in the Pacific as surgeon of the *Tribune*, frigate, commanded by the present Sir Geoffrey Hornby, and was next employed from 1860 to 1868 in medical charge of the royal yacht *Osborne*. His duties in the yacht necessarily brought him into contact with Her Majesty and the royal family, by whom he was well known. In January, 1868, Mr. Hill went out to China as staff-surgeon of the *Rodney*, Sir Harry Keppel's flagship. He was next employed with the *Narcissus*, and in 1871 returned to China for special service in organising

the Lock Hospitals on that station and in Japan. His promotion to Deputy-Inspector took place in January 1878, and his subsequent service was at Haslar, until sent out to Malta as the successor of Dr. Irwin.

THE TRAINING OF NAVAL MEDICAL OFFICERS AT NETLEY.

SIR,—It is not my intention to trouble you with any remarks directed to the personalities contained in the letters of your correspondent "Medicus Navalis". It is of no interest who I may be, or what position I hold in the service; suffice it to say that I had grounds for making the statement I did. My intention rather is, with your kind permission, to refute the unmerited obloquy cast on our predecessors, as well as ourselves, by "Medicus Navalis", in your copy of January 28th. The navy can boast of such names as Sir J. Clark, Sir J. Hooker, Spencer Wells, and Christopher Heath—a few only who belong or belonged to our own times. I do not wish to draw any invidious comparisons, but merely to show the utter groundlessness of your correspondent's statements. There is an old proverb with regard to birds of a certain class, and I fear the incubating process at Netley has supplied us with a goodly brood.—I am, etc., R. N.

*** The discussion should here close.

A NAVAL COURT-MARTIAL.

SIR,—In your recent remarks on "A Naval Court-martial", I think you scarcely indicate fully the amount of punishment awarded the unfortunate officer for an offence which was "not fully proved". In the first place, all courts-martial are ordered by the Commander-in-Chief, on application of the commanding officer of a ship. Officers so tried on a foreign station for a breach of discipline are scarcely ever acquitted; and, in fact, it is generally understood that the members of the court, in this manner supporting each other, will condemn a man whatever the evidence may be. It is also well known how difficult it is on board-ship to obtain evidence against that of the commanding officer. With reference to the constitution of the court, it may be pointed out that, if it is of consequence in matters of discipline that officers of the civil branches should be represented when anyone of their particular department is being tried, such a representation is still more important when the charge advanced is one requiring special knowledge for its due consideration.

Dismissal from a ship in Japan is a much more serious matter than the same sentence passed in England. It entails, amongst others, the following results: No pay till arrival in England, and then only, and such an amount of half-pay as may be decided by the Admiralty; passage found by the dismissed at his own expense (from Japan about £100), or, if allowed in a man-of-war, which might not leave for months, with only subsistence-allowance of food, two-thirds of an able-bodied seaman's portion, and perhaps the privilege of slinging a hammock amongst the subordinate officers; and continuance of half-pay in England for an indefinite time, which it is impossible to utilise properly, as its duration is uncertain. In the present case, the length of time will probably depend on the number of candidates that may come forward at the next examination greater than the half-dozen advertised for.

It is also a somewhat sanguine view of the victim's position to suppose that he will be promoted to a senior rank after completing fourteen years' service. Such has not been the custom heretofore in the case of an officer tried by court-martial, unless he have been lucky enough to get the opportunity subsequently of distinguishing himself. The wording of the recent warrant is not such as to raise any hope of a change in this respect, for it is expressly provided that an officer must be recommended by the Medical Director-General.—I am, etc., NAUTILUS.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE LOCAL GOVERNMENT BOARD AND MR. DONAHOO.

IN the High Court of Justice (Chancery Division) a motion to restrain the defendants, the Local Government Board, from removing Mr. Donahoo from his appointment as district medical officer of St. Saviour's Union, came on for argument. Mr. Donahoo some weeks ago was suspended from his office. Subsequently his conduct became the subject of a Poor-law inquiry, conducted by Mr. Hedley, one of the inspectors of the board.

It was alleged on the part of Mr. Donahoo that the inquiry was incomplete, inasmuch as the defendant, Mr. Donahoo, had not had the opportunity of calling witnesses for his defence; and at the inquiry, was further surprised at finding that allegations were made and evidence offered, of which he had received no previous information, and which, therefore, he was not able effectually to rebut. The Local Government Board had, on the information of their inspector, called on Mr. Donahoo for his immediate resignation; and this, this gentleman had resisted, asking for the Court to intervene.

His lordship, however, in giving judgment, stated that the motion had entirely failed, and must be refused.

We sympathise with Mr. Donahoo, as we consider that he has been hardly used. His case, however, presents another instance of the manner in which Poor-law medical officers are too often treated in any dispute which may arise between them and their respective boards.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

AT a meeting of the Council of the Poor-law Medical Officers' Association, held at their rooms, 3, Bolt Court, Fleet Street, February 7th, the recent Poor-law inquiry at the Birmingham Workhouse was brought under their consideration, together with the comments of the local press thereon, when it was unanimously resolved that the sympathy of the Association be accorded to Dr. Simpson in the unmerited persecution, expense, and anxiety to which he has been subjected at the instance of the Chairman of the Visiting Committee and others of the Birmingham Workhouse. The Council also wish to express its unanimous opinion that the requirements of this huge workhouse hospital cannot be efficiently rendered by the very limited staff provided by this parsimonious board of guardians.

At the same meeting, it was also resolved that, having regard to the reply made by Mr. Forster, Chief Secretary for Ireland, to a deputation of the Irish Medical Officers' Association, that it was his intention to bring in a Bill to provide for the more efficient and satisfactory arrangements for superannuation of Poor-law officers engaged in the administration of relief in Ireland, that the Council have determined at an early date to apply for an interview with Mr. Gladstone, for the purpose of soliciting from that gentleman his assent to the introduction of a similar measure in the interests of the Poor-law officers for England and Wales.

HEALTH OF BIRMINGHAM.

THE report of Dr. Alfred Hill, for the quarter ended December 31st, 1881, states that the number of births was 3,590, consisting of 1,822 males and 1,768 females, against 3,471 in the fourth quarter of 1880. This gives a birth-rate of 35.7 per 1,000 per annum, as compared with rates of 39.4 and 35.2 in the autumn quarters of 1879 and 1880 respectively. The deaths last quarter amounted to 2,111, comprising 1,044 males and 1,067 females, and are equivalent to an annual death-rate of 20,99 per 1,000 persons living. The death-rate for the fourth quarter of 1880 was 18.87, and for the corresponding period of 1879, 22.64. The higher death-rate of the quarter was owing partly to the greater fatality of most of the principal zymotics, but also in a great measure to augmented mortality from the majority of the local diseases. The seven principal zymotic diseases resulted in 317 deaths, a number comparing very unfavourably wtth that for the previous autumn quarter, when the deaths from these diseases were in the aggregate only 199. The zymotic death-rate in the past quarter was 3.1 against rates 3.5 and 2.0 in the corresponding periods of 1879 and 1880. All the chief infantile zymotic diseases, except diarrhœa, showed an increase during the quarter. Whooping-cough continues to be very prevalent, and is the most serious factor in the higher zymotic-rate, having caused 87 deaths, as compared with 47 in the fourth quarter of the previous year. Measles stand next in order of fatality with as many as 75 deaths, and the mortality was on the increase during the latter part of the quarter of 1880, only 6 deaths from the disease were recorded. Diarrhœa, which in the autumn quarter of 1880 was the most destructive of the chief zymotics, and was certified as the cause of death in 85 instances has, during the quarter under notice, owing principally no doubt to the low temperature, occasioned only 58 deaths; while those from scarlatina, which in the previous autumn quarter were only 25, amount this quarter to 54. This zymotic, like measles, appears to have prevailed more extensively in the sub-district of Deritend than elsewhere. The deaths from diphtheria have increased from 15 in the fourth quarter of 1880 to 25 this quarter, while those from fever have declined from 21 to 18. Small-pox has, as in the two preceding autumn quarters, caused no deaths, and not a solitary case has been reported to the medical officer. So many as 129 cases of scarlet fever have been removed to the borough hospital during the quarter. The patients admitted in the corresponding period of 1880 numbered 65, of whom 62 were suffering from scarlet fever, and the three other from small-pox.

SIR,—Can any of your readers inform me of the name and address of the manufactory of Haresceugh's excreta pail, with patent spring lid?—I am, etc., J. H. T.

DR. J. C. REID (Newbiggin-on-Sea).—The prevention of the spread of small-pox in every possible way is, of course, a proper matter for the attention of the medical officer of health. Whether the closing of the school was, in the circumstances referred to, the best course to adopt can hardly be decided without local knowledge. There do not seem to be any grounds for supposing that the pupil-teacher was a carrier of infection; but Dr. Reid has, no doubt, satisfied himself that the children associated with him are, as a matter of precaution, thoroughly well protected by vaccination.

POTABLE WATER AND LEAD PIPES.

SIR,—I have seen several cases of lead-poisoning lately, and want to allude to them in my annual report, as two or three of them have been caused by the drinking-water being conveyed through lead pipes and pumps. This place is so out of the world, that I cannot get access to modern books, and do not like to trust to memory, except with trustworthy confirmation. Will some of our associates deny or affirm the following opinions, and answer the following questions? 1. Very soft water becomes impregnated more easily than hard, with, perhaps, a slight excep-

tion if the water contains chlorides. 2. Our water in the gravelly parts of the district is so soft as to be very easily impregnated; therefore, lead pipes are dangerous for carrying this water. 3. Beyond the infrequency of women's employment in trades that are apt to cause lead-poisoning, when placed in precisely similar circumstances to men, they are less likely to suffer—no doubt they do so occasionally; but, in a fairly large experience, I have never seen a case. 4. What modern book or books can I refer to with a fair chance of obtaining some real information? I have become very shy of belief in published analytical chemistry, especially when relating to water-analysis.—Yours faithfully, M. O. H.

*** 1. The purest waters, and those containing much oxygen, act most readily on leaden cisterns and pipes. Waters containing much organic matter, nitrates, nitrites, or chlorides, also act on lead; and especially ammonium nitrite, from the decomposition of organic matter. 2. Iron pipes, glazed internally with Angus Smith's bituminous varnish, unglazed iron pipes, or tin pipes enclosed in a leaden casing (Haine's patent), may be substituted for lead pipes when the water supplied is very soft. The objection to the former is that the taste of tar remains for some time; and to unglazed iron pipes, that iron rust is frequently met with in the water. This, however, can be easily filtered out. 3. Women suffer from lead-poisoning when employed in white-lead works, as well as men. They may, as our correspondent suggests, suffer in a smaller proportion, but we cannot lay our hands on any statistics. A. Proust, in his *Traité d'Hygiène*, does not refer to this point. 4. Parkes's *Practical Hygiene*, 5th edition, by Dr. De Chaumont, contains a full chapter, of ninety pages, on Water.

THE MANAGEMENT OF CHILDREN.

SIR,—In your last issue you state, in one of the paragraphs under the leading articles, that, "in the city of Brussels, whenever a birth is registered, the registrar hands to the parent, gratuitously, a little pamphlet of five pages, containing short and plain directions for the management of children. In Paris, where the mortality amongst infants is enormous, it is proposed to introduce a similar practice". I inclose a sheet of "Simple Rules for the General Management of Infants", issued by the Sturminster Rural Sanitary Authority at my suggestion about five years since. These sheets the registrars were instructed to deliver to the parents of children at the time of registration, the rate of infant mortality being then, in my opinion, far too high for an agricultural district. This practice has been continued ever since, with the result that the rate of infant mortality has greatly diminished.—I am, sir, yours, J. COMYNS LEACH, M.D., B.Sc., S. Sc. C. Camb.

Sturminster Newton, January 25th, 1882.

FEES FOR CERTIFICATES OF LUNACY.

SIR,—I was lately called upon by the local magistrates and police to examine an alleged dangerous lunatic. My examination satisfied me that the patient was a dangerous lunatic; and being asked by the magistrates, I expressed my willingness to certify to that effect. However, the magistrates, on simply looking at the patient, and asking a few informal questions, decided that he was a lunatic, but not dangerous, and refused to sign the form for his committal, though it was deposed by his brother and sister that he attacked them on two different occasions, and had to be restrained by force, and that his family were in dread of him. The magistrates were evidently under the impression that the patient should make some demonstration of violence in their presence to merit the title "dangerous". I signed a certificate for his removal to the county asylum in the ordinary way in a day or two afterwards. What is the law with regard to these cases? Am I entitled to a fee in this case? I believe the people are entitled to a visiting ticket, though I got none.—Yours, etc., W. T. M.

*** Under the circumstances stated in our correspondent's letter, he would be entitled to a fee for his attendance before the local magistrates at the instance of the police. This fee would vary from 10s. 6d. to £1 1s., according to circumstances. He should have applied for it before leaving the court. As regards the subsequent proceedings, which led to the removal to the county asylum, £1 1s. is the ordinary fee awarded. Here, again, we must express our regret that our correspondent should have neglected to arrange for his payment before filling in and signing the lunacy certificate. He will be probably wiser next time.

CERTIFYING OF PAUPER LUNATICS AND MIDWIFERY FEES.

SIR,—On sending in to the guardians my charge of one guinea for a certificate of examination of a pauper lunatic, who was sent to asylum at request of a magistrate, they reduced it to 10s. 6d. I had to travel twenty miles in connection with the case. On application to the clerk, I am told that no contract exists between me and the board. Will you kindly obtain for me a copy of contract which I should sign? My district is a very large one, viz., 36,000 acres, but population only about 5,700. The roads are very bad. The salary is £40, which was fixed thirty years ago. What fees can I claim—1. For certifying to lunatics on order of a justice of the peace for committal to asylum? 2. For examination after being sent out of asylum on trial? 3. For midwifery? 4. For expensive medicines?—Believe me, yours sincerely, H. C.

*** We have on several occasions pointed out, that the amount of the fee which should be awarded to a district or workhouse medical officer, for certifying the insanity of a pauper lunatic, does not rest with the board of guardians, but with the stipendiary magistrate or justice of the peace who signed the order. All that the guardians have to do is to find the money; we therefore advise our correspondent to apply to the magistrate for his order on the subject. As regards the subsequent examination of a lunatic, at large on probation, that we consider must be a matter of arrangement, as, so far as we are advised, the statute is silent on the subject.

As regards midwifery fees, that is a question which is either settled at the time of appointment; or, in the absence of such agreement, the regulations of the Local Government Board apply, which give a fee rising from 10s. in an ordinary confinement to £2 in one of difficulty or danger. Unfortunately, the provision of expensive medicines by guardians is simply permissive, and penurious boards always evade their supply. Under the special circumstances of our correspondent's case, no harm could arise from remonstrance on his part.

Finally, as regards the copy of a contract, all that we can suggest is that our correspondent should look up the words of the advertisement inviting his candidature, and, having secured that, write to the clerk of the board asking for a form to be drawn up in accordance therewith for mutual signature. But having regard to the acreage and the salary, the less he has to do with his board in writing appears to us to be the better course. He may got nothing by a special contract, and may lose much—*i.e.*, his self-respect.

OBITUARY.

SIR ROBERT CHRISTISON, BART., M.D., D.C.L., LL.D.,

PHYSICIAN IN ORDINARY TO THE QUEEN IN SCOTLAND: VICE-PRESIDENT OF THE BRITISH MEDICAL ASSOCIATION, ETC.

ON Wednesday, February 1st, the New Calton Cemetery received the remains of Sir Robert Christison, Bart., M.D., Emeritus Professor of the University of Edinburgh, a man whose name for more than fifty years took a chief place in the most brilliant epoch of that renowned school of medicine—an epoch also adorned during periods of greater or less duration by other great men now no more, among whom were Alison, Charles Bell, James Syme, James Simpson, Hughes Bennett, and John Goodsir. After an illness of little over a month's duration, and in his eighty-fifth year, Sir Robert died on Friday, January 27th, full of years well spent in the service of humanity, and his merits acknowledged by every token that the Sovereign, the profession, and the public could bestow.

Born in Edinburgh in 1797, and the son of a Professor of Humanity in the University, he received his education at the High School, and in the arts classes in the University. Having completed a scholarly general education, he entered thoroughly into that of medicine, and graduated as Doctor of Medicine in 1819. Subsequently to a long experience as resident physician and surgeon in the Royal Infirmary, he went abroad, and, under Robiquet and Orfila, extended his study of chemistry and toxicology, the latter subject becoming an especial favourite with him, and destined to yield in his hands important public benefit, and to himself much enduring fame. In 1822, when only twenty-five years of age, he was appointed Professor of Medical Jurisprudence in his own University; his tenure of this chair existed for ten years, and, during that time, so thoroughly was his work performed in the teaching aspect of his professoriate, that he left the class a dozen times as large as he found it; while he produced his *Treatise on Poisons*, an ample evidence of his research and aptness in his chosen subject. In 1832, he was appointed to the chair of Materia Medica, and as such also acted as a Professor of Clinical Medicine in the Infirmary. For forty-five years he held the chair of Materia Medica. He added much lustre to it by his teaching, by such writings as his *Dispensatory*, and by the experimental researches he conducted—researches which were frequently made on his own person, and sometimes at imminent risk to himself, while he left it enriched, not only by all the traditions of his own teaching, writing, and research, but also by an exhaustive museum of materia medica and pharmacology. As a Professor of Clinical Medicine, Dr. Christison will be remembered by many of the seniors of the profession; while, in his work on *Granular Degeneration of the Kidneys*, and in his various contributions to medical literature, may be seen how profitably he availed himself of his opportunities of clinical research.

As a consulting physician, he was accurate, upright, and courteous. In his later years, Dr. Christison's public life was so many-sided, that it is impossible to do more than glance at its different phases, as there was scarcely any professional or public movement of importance with which he was not associated, and of which he was not an important moving factor. A Fellow of the College of Physicians of Edinburgh in 1823, he was subsequently President, and had the rare honour of re-election; while, to perpetuate its respect for him, his portrait has for years adorned its large hall. A Fellow of the Royal Society of Edinburgh, he was successively a Member of Council, a Vice-President, and for five years President. For sixteen years, he was a member of the General Medical Council. But it was in University matters that Dr. Christison found his greatest employment; whether the work to be done related to the founding of a new chair, the building of a new medical school for the overgrown University classes, or the furtherance of the efforts of an athletic club or a volunteer rifle corps, his ready assistance could be counted upon; and, in fact, in any cause which he espoused, he was a powerful influence.

Sir Robert Christison took an active part in the proceedings of the two meetings of the British Medical Association held in Edinburgh in 1858 and 1875. On the latter occasion, he was President; and, in his opening address, gave an elaborate and able exposition of his views as to the position of his University in regard to medical education. He was also President-elect of the British Association for the Advancement of Science at its meeting in Edinburgh; but, by medical advice, did not undertake the duties of president.

Living to such an age as he did, he had the satisfaction of receiving many recognitions of the high estimation in which he was held, and, it is pleasant to think, while he was yet able to enjoy them. Her Majesty the Queen conferred on him in 1871 a baronetcy, and to her he was

Physician in Ordinary for many years; his own University made him an LL.D., and Oxford made him a D.C.L. His bust, by Brodie, has for years been in the library hall; and, on his jubilee day as a professor, he received a splendid ovation in token of the regard in which he was held by the public and profession.

As a man, one could write much of the deceased. Physically, he was well endowed; and the man who, when seventy-eight years of age, twice climbed Ben Voirlich, had no reason to upbraid nature. Strong in body, he was also strong in mind; he had an almost inflexible will, and pursued his course, when he had determined upon it, with a resoluteness that defied resistance and scorned criticism. His integrity was above all doubt; and, although many differed from him on essential points, no one considered that he was ever actuated but by a strong desire for what he considered the good of the object in view. In the University Court, in the Senatus Academicus, and in the Infirmary Management, his counsels were sagacious, and were received with much respect.

Sir Robert Christison had at times a manner which could be considered cold and even imperious; and doubtless a man who has held such positions of power is apt to develop this characteristic, especially when he is not satisfied with the objects of the individual to whom he is so. But the writer of this imperfect notice can testify how thoroughly consistent a friend the late baronet proved to anyone in whom he was interested, and how he did not allow differences in political opinion to weaken his kindly offices when they were needed. Many wondered why he did not enter Parliament; and, in reply to a question on this point, he very tersely closed the subject by saying "he would not sit in the Commons to be at the beck of any party or whip". And certainly, had he sat there, it would have been on his own terms.

Sir Robert Christison has left three sons. The eldest, now Sir Alexander Christison, a deputy-surgeon-general in the Bengal Army, was about two years ago appointed Surgeon-General (local rank) of the North-West Provinces and Oudh. The second, Dr. David Christison, practises medicine in Edinburgh; and the third, Mr. John Christison, a writer to the signet, is Secretary to the Edinburgh University Court.

His funeral in Edinburgh was one of the most remarkable that has ever been seen there. The vast numbers who witnessed it, and the public bodies that took part in it, were a reflex of the character of the deceased. The University, represented by nearly all its professors, their assistants, and the General Council; the Town Council; the Royal Colleges of Physicians and Surgeons; the Royal Society; the Infirmary Managers; the Society of Arts; the Pharmaceutical Society; the University Volunteers (of which the deceased had long been the Captain), and a great body of students; together with Lord Rosebery, Rector of the University of Edinburgh; Principal Caird, representing the University of Glasgow; Drs. Cobbold and Dyce Duckworth of London; Mr. Bickersteth of Liverpool; and the private friends of the family,—formed a *cortège* which was no unfit tribute to a life which lasted eighty-five years, and which had been conspicuous by its integrity, its ability, and its success. And, while we may consider those who took part in the funeral privileged in doing so, we finish this notice by saying that the sun never sets on those who will mourn in all parts of the world the loss of their old teacher, Professor Christison.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF OXFORD.

THE LINACRE PROFESSORSHIP OF PHYSIOLOGY.—A decree was this week passed in convocation, granting a sum not exceeding £250 for the purpose of providing the Linacre Professor of Physiology with additional microscopes, diagrams, and drawings for the use of students in the physiological laboratory, as well as with additional cupboards for containing diagrams and drawings.

DR. CHARLES MOTT, late medical officer and public vaccinator of the Walton district, Chertsey Union, has obtained a superannuation allowance of £50 per annum.

PRESENTATION TO DR. AICKIN, OF BELFAST.—An address, accompanied by a handsome silver salver and purse of sovereigns, were recently presented to this gentleman on the occasion of his recovery from a severe illness, and as a token of the esteem in which he is held, and to record his high professional skill. The salver bore the following inscription:—"Presented, together with a purse of sovereigns, to William Aickin, Esq., M.D., by his friends and patients. Belfast, 1882."

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, February 2nd, 1882.

Black, Robert, 15, Lewisham High Road, New Cross.
Haig-Brown, Clarence William, Charter House, Godalming.
Lea, Francis James, Downside, Bath.
Quadros, Michael Anthony de, Elliot's Row, Southwark, S.E.
Sutton, John Bland, 37, Canonbury Square, N.

The following gentlemen also on the same day passed their Primary Professional Examination.

Watson, William, Guy's Hospital.
Lovegrove, Thomas Ernest, St. Bartholomew's Hospital.

At the Preliminary Examination in Arts, held at the Hall on the 26th and 27th January, 1882, sixty-eight candidates presented themselves, of whom thirty-six were rejected, and thirty-two passed and received certificates of proficiency in general education. In the first class:

Charles Mortlock.

In the second class, in alphabetical order:

F. C. Augear, G. P. Brownlow, J. F. Chauveau, A. W. Cooke, A. C. Dove, F. Dymoke, M. M. Edwards, A. R. F. Evershed, W. D. Gimson, T. A. Grieves, B. A. Hamp, A. G. Hendley, H. R. Henley, J. G. Johnson, Richard Jones, Henry Lotz, A. O. J. Macann, A. J. Macnab, C. Manby, F. E. Marshall, H. Cecil Morris, F. B. Morse, W. H. Moyle, R. M. Peill, J. K. Prescott, C. T. Quiller, E. Somerset, F. Stamper, W. H. Timms, J. P. Watkins, W. B. Wedgwood.

The following candidates likewise passed in Elementary Mechanics.

G. P. Brownlow, J. F. Chauveau, S. A. Grieves, C. Mortlock, and F. Stumper.

MEDICAL VACANCIES.

THE following vacancies are announced:—

BRISTOL GENERAL HOSPITAL — Physician's Assistant. Salary, £50 per annum. Applications by February 18th.

BRITISH LYING-IN HOSPITAL, Endell Street, W.C.—Honorary Physician. Applications by February 13th.

CARNARVONSHIRE AND ANGLESEY INFIRMARY, Bangor—House-Surgeon. Salary, £100 per annum. Applications by 11th February.

CHILDREN'S HOSPITAL, 49, Great Ormond Street, W.C.—Clinical Assistant. Applications to Dr. Lee.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Dental Surgeon. Applications by February 13th.

DROGHEDA UNION.—Medical Officer for Monasterboice Dispensary District. Salary, £110 per annum, with £30 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 21st instant.

GLENMADDY UNION.—Medical Officer for Williamstown Dispensary District. Salary, £120 per annum, with £25 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 17th instant.

GREENOCK INFIRMARY—Assistant House-Surgeon. Salary, £30 per annum. Applications to the Secretary, 2, Bank Street, Greenock, by the 14th instant.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident Clinical Assistant. Applications by 11th instant.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST AND THROAT, 26, Margaret Street, Cavendish Square, W.C.—Two extra Visiting Physicians. Applications by the 21st instant.

MONTROSE ROYAL LUNATIC ASYLUM—Assistant Medical Officer. Salary, £120 per annum. Applications to Dr. Howden.

NEWCASTLE-UPON-TYNE INFIRMARY—Senior House-Surgeon. Salary, £100 per annum. Applications by February 22nd.

POPLAR HOSPITAL FOR ACCIDENTS, Blackwall, E.—Honorary Surgeon. Applications by January 21st.

RADCLIFFE INFIRMARY, Oxford.—Junior Resident Medical Officer. Salary, £60 per annum. Applications by February 22nd.

ROTHERHAM HOSPITAL—Resident House-Surgeon. Salary, £100 per annum. Applications by February 28th.

ST. BARTHOLOMEW'S HOSPITAL — Assistant Surgeon. Applications by 14th February.

ST. BARTHOLOMEW'S HOSPITAL—Surgeon. Applications by 14th February.

ST. BARTHOLOMEW'S HOSPITAL, Chatham. — Assistant House-Surgeon. Salary, £80 per annum. Applications by February 13th.

ST. MARK'S OPHTHALMIC HOSPITAL, Dublin—House-Surgeon. Salary, £52 10s. per annum. Applications to the Registrar by February 18th.

THURLES UNION—Medical Officer for Templemore Dispensary District. Salary, £120 per annum, with £10 per annum as Medical Officer of Health, registration and vaccination fees. Election on the 15th instant.

MEDICAL APPOINTMENTS.

BUTLER-SMYTHE, A. C., M.R.C.S.Eng., appointed Honorary Assistant Medical Officer and Chloroformist to the Hospital for Women and Children, Vincent Square, S.W.

DAVIES, Sydney, M.R.C.S., appointed House-Surgeon to the Evangelical Protestant Deaconesses Institution and Training Hospital, *vice* Arthur Newsholme, M.D., resigned.

DWYER, J. J., L.K.Q.C.P., appointed Medical Superintendent of the Mullingar Lunatic Asylum.

GODSON, C., M.D., appointed Consulting Physician to the City of London Lying-in Hospital.

GUNN, A. G., M.B., appointed Medical Officer to the Parishes of Kildonan and Loth, *vice* David Tulloch, M.B., resigned.

HARRISON, George, L.R.C.P.Ed., appointed Medical Officer to the Workhouse and City District of the Chester Union, *vice* Thomas Brittain, F.R.C.S., deceased.

MACLEOD, M. D., M.B., appointed Assistant Medical Superintendent to the Beverley Asylum.

MACPHAIL, S. R., M.B., appointed Assistant Medical Superintendent to the Cumberland and Westmorland Asylum.

LOW, A. BRUCE, M.D., appointed Honorary Assistant-Surgeon, Sunderland and North Durham Eye Infirmary.

O'CONNOR, G. A., L.R.C.P., appointed Medical Officer for Bighamstown Dispensary District to the Belmullet Union, *vice* J. L. Mullanny, M.R.C.S., resigned.

O'KEEFFE, W. J., L.K.Q.C.P.I., appointed Medical Officer for Duleek Dispensary District, Drogheda Union, *vice* F. S. Darby, L.K.Q.C.P.I., resigned.

RICE, Bernard, M.B.Lond., M.R.C.S., appointed House-Surgeon to the Warneford Hospital, Leamington, *vice* A. S. Brown, M.R.C.S.Eng., resigned.

STEER, William, M.R.C.S., appointed Resident Assistant Medical Officer and Dispenser to the St. Olaves Union.

SUCKLING, C. W., M.B., appointed Physician for Out-patients to the Queen's Hospital, Birmingham.

WALKER, E. B. C., M.B., appointed Junior Assistant Medical Officer to the Sussex County Lunatic Asylum, *vice* M. L. Brown, M.B., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

SANCTUARY.—February 5th, at Penpol Terrace, Hayle, Cornwall, the wife of T. Sanctuary, M.D., of a daughter.

MARRIAGE.

SANDBERG—CLIFFORD.—On the 2nd instant, at the church of St. John, Angell Town, Brixton, by the Rev. F. B. Sandberg, B.A., assistant-priest of St. Mary's, Bedford, brother of the bridegroom, assisted by the Rev. C. E. Brooke, M.A., vicar of St. John the Divine, Kennington, and the Rev. C. J. R. Cooke, M.A., vicar: Dr. Arthur Sandberg of Liverpool Lodge, Brixton Hill, S.W., third son of the late Rev. P. L. Sandberg, M.A., rector of Northrepps, Norfolk, to Ethel, daughter of Frederick Clifford, barrister-at-law of the Middle Temple, and 9, St., John's Road, Brixton, S.W.

DEATHS.

BODINGTON.—On February 5th, at Sutton Coldfield, Warwickshire, Dr. George Bodington, aged 82.

SCOTT.—At Moir Lodge, Linkfield, Musselburgh, N.B., on January 22nd, John, younger son of the late Thomas R. Scott, M.D.

HEALTH OF FOREIGN CITIES.—The following facts, derived from a table in the Registrar-General's weekly return, afford trustworthy indications of the recent health and sanitary condition of various foreign and colonial cities. According to the most recent weekly returns, the death-rate was equal to 31.4 in Bombay and 35.5 in Calcutta, while no return was received from Madras. Cholera caused 35 deaths in Bombay, and 26 in Calcutta, both numbers showing a decline from those in the previous week. The death-rate in Alexandria was equal to 38.4 in the third week of January; the 156 deaths included 9 fatal cases of typhoid fever and 7 of whooping-cough. In twenty-one European cities, the death-rate averaged 31.0, and exceeded by 6.1 the average rate prevailing last week in twenty-eight of the largest English towns. The death-rate in St. Petersburg further rose to 50.6; 44 deaths from "fever" and 20 from diphtheria were recorded. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate did not average more than 27.2; measles, however, caused no fewer than 24 of the 76 deaths in Christiania. In Paris, the death-rate further rose to 30.1; 64 deaths resulting from diphtheria and croup, 31 from typhoid fever, and 11 from small-pox. The rates of mortality in Geneva and Brussels were 28.6 and 23.2 respectively. In the three principal Dutch cities, the death-rate averaged 26.3, and was equal to 21.8 in Amsterdam, 29.6 in the Hague, and 31.4 in Rotterdam; whooping-cough showed fatal prevalence both in Amsterdam and Rotterdam, and another fatal case of small-pox was recorded in the latter city. The Registrar-General's table includes returns from eight German and Austrian cities, in which the death-rate averaged 28.1; it ranged from 22.0 and 23.6 in Berlin and Dresden, to 32.8 and 40.9 in Munich and Buda-Pesth. Small-pox caused 15 deaths in Vienna, 9 in Buda-Pesth, and 8 in Prague; diphtheria again showed fatal prevalence in Berlin, Dresden, and Breslau. In three of the principal Italian cities, the death-rate averaged 30.8, and was equal to 26.4 in Turin, 31.3 in Venice, and 33.0 in Naples; diphtheria caused 7 and scarlet fever 5 deaths in Naples. No returns have been received from Rome since the middle of September last. The average death-rate in four of the principal American cities was equal to 28.5; the rates in these cities ranged from 23.4 in Philadelphia to 32.8 in New York. Small-pox caused 12 deaths in New York and 9 in Philadelphia; scarlet fever showed fatal prevalence in New York, Brooklyn, and Baltimore, and typhoid fever caused 16 deaths in Philadelphia.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S. 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Dr. Dowse: Some Points in the Differential Diagnosis of Intracranial Disease; General Paralysis of the Insane, and Tabes Dorsalis. Dr. Braxton Hicks: Cases of Abdominal Tumours, clinically interesting.—Royal College of Surgeons of England, 4 P.M. Professor W. K. Parker: On the Morphology of the Mammalian Skull.

TUESDAY.—Royal Medical and Chirurgical Society, 8 P.M., Ballot. 8.30 P.M., Mr. T. M. Girdlestone: On the Surgical Uses of Kangaroo-Tendons. Mr. Henry Morris: Notes on two cases of Unreduced, and on two cases of Reduced, Dislocation of the Hip.

WEDNESDAY.—Royal College of Surgeons of England, 4 P.M. Professor W. K. Parker: On the Morphology of the Mammalian Skull.

THURSDAY.—Harveian Society of London, 8 P.M. Dr. Stephen Mackenzie: Cases of Peliosis Rheumatica. Dr. Thin: On the Principles and Practice of Treatment of the more common Diseases of the Skin.—Abernethian Society, St. Bartholomew's Hospital, 8 P.M. Mr. Ernest Clarke: Anæsthetics.

FRIDAY.—Royal College of Surgeons of England, 4 P.M. Professor W. K. Parker: On the Morphology of the Mammalian Skull.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE ANTIQUITY OF EARTH-TO-EARTH BURIAL.

SIR,—Possibly many persons might not be aware that the system of earth-to-earth burial introduced by Mr. Seymour Haden, and eloquently advocated by him in a series of letters to the *Times*, is by no means new-fangled, but can be traced to a remote antiquity. It appears, from the highest authorities, that the bodies of the early Christians which were laid in the catacombs of Rome had been committed to their final resting-place without coffins. "With the same feeling of reverence that pervaded the whole rite", observes one of the authors of *Christian Antiquities*, "the bodies of the faithful were not buried naked, but wrapped in linen cloths, 'as the manner of the Jews is to bury'. Sometimes, the body was enveloped in a sheet; sometimes swathed in many lengths of bands, in the same fashion as Lazarus is represented in the early Christian pictures and bas-reliefs. Bosio assures us that, in excavating the foundations for St. Peter's, he found instances of both modes. He mentions that bodies were exhumed bound with linen bands, and that he himself had seen very many wrapt in linen sheets of exceeding fineness, which fell to dust at the touch." Although the coffin was occasionally used by the Hebrews, it was mostly, if not always, made open at the top. Even in England, it was customary to wrap the dead in a woollen covering, and carry them to the grave on biers. In Palestine, according to Dr. Van Dyck, coffins are only used in the cities—a custom but of comparatively recent date, the ordinary mode of burial being to array the corpse in its best dress, and lay it on a bier with a cloak thrown over the body, leaving the face exposed. The inhabitants of Berût carry their dead to the grave on a bier, and only occasionally put the body into a lightly constructed coffin at the grave. Dr. Erasmus Darwin, in his *Phytologia*, and Francis Osborn, in his *Advice to a Son*, commend the natural committal of the dead to the earth, with no artificial obstacle between either, so that Nature's process may be duly accomplished without danger to the living, or defrauding the soil of its essential right. Osborn, the brother of the first Duke of Leeds, and who wrote about the middle of the seventeenth century, counsels his son thus: "Be not sollicitous after *Pompe* at my *Burial*, nor use any expensive *funerall Ceremony;* by which *Mourners*, like *Crowes*, *devoure the Living*, *under pretence of honouring a dead Carcase:* Neither can I apprehend a *Tomb-stone* to adde so great a *weight of glory* to the dead, as it doth of Charge and trouble to the Living. *None* being so *impertinent* wasters, in my opinion, *as those that build Houses for the Dead:* He that lies under the Herse of Heaven is convertible into sweet herbs and flowers, that may rest in such bosoms as would shreek at the ugly buggs, may possibly be found crawling in the Magnificent Tombe of *Henry* the Seventh."—I am, etc.,

SANITAS.

FELLOW BY EXAM. (Manchester).—We believe the retiring members of the Council of the Royal College of Surgeons of England are Mr. Marshall of University College Hospital, a Vice-President of the College; Mr. Henry Power of St. Bartholomew's Hospital, Chairman of the Board of Examiners; and Mr. Alfred Baker of Birmingham, who, it is rumoured, will not offer himself for re-election. The other gentlemen will do so. The only candidates at present mentioned are Mr. John Croft of St. Thomas's Hospital, a member of the Court of Examiners; and Mr. Reginald Harrison, surgeon to the Liverpool Infirmary. The following are the provincial surgeons on the Council: Dr. Humphry of Cambridge, Mr. Baker of Birmingham Mr. Lund of Manchester, and Mr. Cadge of Norwich.

MEDICAL ATTENDANTS ON WARDS IN CHANCERY.

SIR,—Can you kindly answer the following questions in your Notices to Correspondents in the next or an early number of the JOURNAL? A negative or affirmative reply to the numbers will suffice. 1. Does the Court? or, 2. The guardians having charge of wards in Chancery choose their medical attendant? 3. Is it inadvisable that the guardian's own medical attendant should be employed because the wards are related to his wife? I enclose my card, and remain, sir, yours faithfully,

M. E.

*** The guardians of wards of Court undoubtedly are the right persons to select medical attendants for their infants; and it is immaterial that a guardian's own doctor, though related to his wards, should be engaged to attend upon them; and the Chancery Division of the High Court of Justice would not interfere with this employment, unless strong evidence were shown that such would be likely to be detrimental to these young persons.

D. M.—Dr. Edis on *Diseases of Women;* Dr. Tanner and Dr. Meadows' *Practical Treatise on Diseases of Infancy and Childhood;* Mr. R. Brudenell Carter on *Diseases of the Eye*, or the late Mr. Soelberg Wells' book on the same subject; Dr. Michael Foster's *Text-Book of Physiology;* or Dr. Hermann's *Elements of Physiology*, translated by Gamgee.

PHTHISIS.

SIR,—Will you, or some of your numerous readers, kindly inform me where I can find statistics with regard to phthisis? its distribution throughout Great Britain, and the special features, geographical, climatic, and geological, affecting it in the parts where it most extensively prevails? also statistics as to the death-rate from phthisis in different parts, similar to the returns of the Registrar-General with respect to zymotic diseases.—I remain, sir, your obedient servant,

Hanley, near Huddersfield, February 4th, 1882. T. SMAILES, M.R.C.S.

EXPERIMENTS ON ANIMALS.

SIR,—I am glad to see that Mr. Jesse, in his letter in the JOURNAL of January 14th, has substituted the above heading for the misleading term "Vivisection". I have always felt that this term was a misnomer—a *suggestio falsi*, a *suppressio veri*—and one well calculated to inflame the mind of a humane, yet technically ignorant, public, who would naturally interpret it into a dissecting alive or cutting up a living animal.

Now, we know very well that the majority of the so-called vivisections are more of the nature of, and many of them not so severe as, ordinary surgical operations which are being daily performed on ourselves; true, we give anæsthetics: and so we do to the animals experimented on, whenever it can be done without vitiating the experiment. Having regard, then, to the heading of his letter, Mr. Jesse is to be congratulated, though I cannot award the same praise to his candour; he has, in fact, not met my question, but evaded it, and dealt in generalities, which may apply to the sportsman, but certainly not to the physiologist. Not to dwell, however, on the religious aspect of the question, which was forced on me by Mr. Jesse's appeal to a higher than "an earthly tribunal", I must refer him to his sporting friends for an answer to his question, whether "any justification can be found for human beings who perpetuate such tyranny as the infliction of agonising torture and death on the unoffending and the dumb". The question, as thus put is offensive to the physiologist, whose end and object is not, as Mr. Jesse suggests, the infliction of pain for mere amusement, but for its alleviation and diminution—the prolongation of life, and the general increase of human happiness; pain is but an incidental accompaniment of the means necessary for accomplishing the above laudable objects. Could the knowledge thus acquired be obtained otherwise than by experiment, vivisection would not, from a humanitarian point of view, be justifiable; but Nature will not readily give up her secrets. "It is not sufficient", said Bacon, "to observe Nature; we must interrogate, torture her." If it be admitted that a knowledge of physiology is beneficial to mankind, then we must adopt the same methods for its cultivation as are pursued in the physical sciences. The science of physiology has to do with the laws which govern organised and living bodies, as that of physics and chemistry has to do with the inorganic; we can no more investigate the one than the other without experiment; so that the necessity is thus laid upon us, in cultivating physiology, to do that which otherwise would be repulsive to our feelings, and no doubt cruel, in the sense in which we understand that term. But surely this cruelty has redeeming features, which cannot be alleged in defence of the multiform and innumerable horrors which are daily, and almost hourly, committed in our midst, and familiarity only with which has deadened our faculties to the perception of their enormity.

Now, these are facts which cannot be denied; and the indictment I bring against the antivivisectors is that, while they make no effort to mitigate any of these atrocities—to use their own strong language—or to put down sports:

"Detested sport,
That owes its pleasures to another's pain"—

they pour out all the vials of their wrath on a few truth seeking and self-sacrificing men, who, in the pursuit of scientific truth, and with the ultimate object of mitigating suffering and prolonging life, inflict some pain on a few of the lower animals. I now call on them, in the name of justice and consistency, either to prosecute the sportsman, or cease to persecute us. If they shrink from doing so, they must henceforth stand convicted of

"Compounding for sins they are inclined to,
By damning those they have no mind to"—

of straining at the smallest of gnats, and swallowing the greatest of camels.—Yours truly,

C. HOLTHOUSE.

F.R.C.S. (Eastbourne).—The late Mr. P. F. H. Baddeley, of the army, was not, as stated in the *Times* of the 7th instant, a Fellow of the College; he was admitted a member of it in 1828.

PROFESSOR FLEMING ON THE ORIGIN OF VACCINIA.

SIR,—The important and abstruse question of the origin of vaccinia, after having been considered as solved to the satisfaction of all British medical men, prior to the experiments of M. Chauveau and his colleagues in Lyons, seems likely for a period to remain again in a most unsettled state. Professor Fleming, for instance, in the JOURNAL, seems to think that the Lyons experiments had completely disproved those of Ceely, Badcock, and Green; whilst his predecessor, Professor Simmons, was just of the opposite opinion.

For my own part, I have paid a good deal of attention to the evidence on this most curious and important matter; and, from formerly having been of Mr. Fleming's opinion, I have become convinced by personal conversations with Mr. Ceely, Mr. Badcock, and Mr. Green, of Birmingham, that vaccinia is merely "mitigated small-pox". Mr. Badcock told me, a few months ago (November, 1881), that he had succeeded in raising a vesicle on cows thirty times out of four hundred experiments; whilst, it must be remembered, Chauveau never raised a vesicle in any of his. I am, therefore, still of the old faith in this matter; but think the time has come for making careful fresh experiments, in which, I trust, Professor Fleming will assist us in arriving at some definite conclusions. Theory (Pasteur's) is on the side of Badcock, since it is only on this theory that we can account for vaccinia preventing small-pox.—I am, sir, your obedient servant,

C. R. DRYSDALE, M.D., Senior Physician Metropolitan Free Hospital
17, Woburn Place, London, W.C.

A GRAVE SOCIAL PROBLEM.

SIR,—If the full extent of a certain evil were known, it would, I am afraid, be greater than we expect it is. Patients ask me about sexual intercourse, some expecting, as Sir James Paget writes, fornication to be prescribed. I find it a difficult matter to give each patient a lecture and full information on the injuries it causes to mind and body, etc., especially when other patients are waiting for an interview; nevertheless, I always feel loth to let a man go unless he understand me; and the value of a misled mind to thoroughly understand the subject will be apparent to all. If, in addition to the lecture, I were able to present my patient with a pamphlet giving a good explanation, it would greatly enhance the chances of recovery.

I suggest that a pamphlet be written, composed of two or three lectures; one on Irritability, similar to that written in *Cassell's Magazine*, January 1882, by a Family Doctor; a second bearing on this problem; and a third, if advisable, on some suitable subject; the three lectures to point in one direction, viz., to the value of a chaste and steady life.

Government should assist us by offering a prize or prizes for the best pamphlet or pamphlets of the above description, or of such a description as determined by a competent body of men. Let it be remembered that the nation is composed of individuals, and that its existence depends on these individuals. Government protects them from bodily injury, etc.; and why should it not assist them in this undertaking? It will reap the benefit.—I am, etc.,

PERSTO.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

A CASE OF EXHUMATION.

WE have received a letter from Mr. Keene, with reference to our remarks on a case of exhumation in our issue of last week; and he has kindly furnished us with further documentary evidence. We feel sure that Mr. Keene was justified in pressing upon the notice of the coroner and others the necessity of an inquest; and it is greatly to be regretted that this was only held under orders from the Home Secretary, and when all prospect of ascertaining the cause of death was hopeless. At the same time, we cannot but think that Mr. Keene was too hasty in declaring that the child was poisoned by the medicine administered by Mr. Williams, and that this contained liq. amm. fort. (*B.P.*). It was certainly an improper medicine, as the jury found, since it contained the equivalent in ammonia of nearly 40 minims of liq. amm. fort. per fluid ounce. The lesson of this lamentable case will doubtless not be lost upon any of the parties concerned.

DR. SYMES THOMPSON should communicate with Professor Gerald Yeo, King's College, Honorary Secretary of the Physiological Society.

PREVENTABLE ASPHYXIA.

SIR,—In the past eighteen months, I have been called to three cases of infants, from a fortnight to two months' old, who were apparently dying. There were no marked symptoms of disease, but they were unable to suck properly, were crying feebly, and very weak. They were being slowly asphyxiated by the binder. On removing this, and giving a few drops of brandy in water, no other medicine, they recovered in a few hours, and were able to suck properly. Of course, the binder was not reapplied as before. I am confident that the cause of death in infants, reported by coroners' verdicts as due to overlying, is really due to misuse of the binder. The hand of the nurse is heavy, and the infantile ribs weak. The binder, instead of lapping once round, sufficient to keep the navel cord in place, is made to encircle the body three or four times, each lap being drawn a little tighter, "to keep the infant's body in shape, and strengthen the back", as the nurses say. The lungs do not expand properly, the mal-aerated blood causes the child to be excessively drowsy, and the pressure on the liver, "tight-lacing", interferes with the digestion. If the binder be a little tighter, and the child's head be under the clothes, asphyxia promptly occurs. If the binder be not quite so tight, then asphyxia is gradual.—I am, sir, yours, H. FLY SMITH.

A CORRESPONDENT (J. A. H.) writes that he has benefited cases of "writers' cramp" by rubbing the brachial plexus, for about thirty seconds, and the nerves of the hand, wrist, and arm to the shoulder, using pressure upon a particular nerve near the wrist, during rapid friction from the shoulder to the tips of the fingers. The time occupied by this manipulation is about fifteen minutes twice daily.

PROFESSIONAL ETIQUETTE.

SIR,—X., Y., and Z. are practitioners in the same town, and have always acted as *confréres*, and assisted each other in cases of emergency in club, union, and private practice. About a year ago, X. and Y. entered into partnership. A railway has been opened in the neighbourhood, and Y. and Z. both applied for the appointment of surgeon to the company. No actual appointment was made, but Y. received a pass over the line, with the understanding that he was to attend to cases of accident when sent for. Several accidents have occurred; but the company, instead of sending for Y. or his partner, called in Z., who, at the same time, also received an assurance from one of its responsible officials that he (Z.) would be paid for his services. Is Z., under the circumstances, justified in taking such cases on his own account? or ought he to have attended them temporarily, on behalf of Y., notwithstanding the fact that he had informed the company that he would only attend on its servants upon occasions when specially requested and authorised by one of its officials so to do?—I am, sir, yours truly, etc., X.

AMBULANCE.—Apply to Major Duncan, R.A., office of the St. John's Ambulance Committee, Clerkenwell.

A CASE OF CATALEPSY.

SIR,—Your correspondent Mr. C. E. Thompson wishes to know the effect of galvanism in a similar case of catalepsy to the one he reports from Adelaide, South Australia. My patient, a young and rather pallid girl, attributed her illness to a fright. She gazed vacantly, and if spoken to might be induced to reply sometimes, in monosyllables. The battery, not a powerful one, was the property of a clergyman, now a rector, who kindly assisted me. It was applied to various parts of the body, with apparently only slight effect, except over the left sterno-mastoid muscle, which contracted into a lump, with seemingly much pain. The battery was not again used; but the girl kept her eye on it for days afterwards. I have no doubt it helped, with the internal administration of strychnia, to arouse her from the torpid state in which she was. The strychnine was left off, and she relapsed into a very depressed state, taking to her bed, and there foaming so that the saliva from her mouth wetted the sheets through. The treatment was varied according to circumstances; but upon resuming the strychnia, in combination with iron, the girl thoroughly recovered. She was ordered to walk out daily.—I am, sir, your obedient servant, SAML. W. SMITH.

Pershore, Worcestershire, February 6th, 1882.

CUVIER.—Professor Parker commenced his course of lectures at the College of Surgeons on Monday last.

A CURIOUS TALE.

THE subjoined extract from the *Hull Express* of Thursday, January 5th, has been sent to us by a correspondent. It will be noticed that it is only a second-hand tale; and probably mythical or exaggerated. "Hull has, indeed, reason to be proud of the medical talent in its midst. *Apropos* of this, a good story has just reached me. A gentleman in Hull, suffering from an eye complaint, sought the advice of a local medical man, who recommended the performance of an operation. This the patient flatly refused to undergo, at least in Hull. Rather than that, he would proceed to London and become a paying patient in one of the hospitals, where, if he had to be operated upon, he supposed that he would entrust himself to the care of something more than a provincial physician. He went. After he had spent several pounds in expenses, an operation was ordered. He consented, reluctantly, it is true, but still with a feeling of confidence. But great was his surprise, when the time for the operation arrived, to find that the physician who stepped forward to perform it was no other than his Hull friend. Need I say that those present witnessed an amusing *tableau*. But the Hullite no longer demurred. In a few days he found himself, not only with eyesight fully restored, but with a much better opinion of the Hull faculty."

REMOVAL OF A NEEDLE FROM THE BACK OF A CHILD.

SIR,—The communication of Dr. Darwin to the recent meeting of the Pathological Society, on the Penetration of Internal Organs by Ears of Grass, Wheat, etc., reminds me of an interesting case which occurred in my practice three years ago. A child, three years of age, was brought to me suffering from pain and tenderness over the right scapula; and the mother was of opinion that the child must have had an accident, but in what way she could not explain.

Upon examination, close to the posterior border of the scapula, there was felt what I at first imagined to be a sharp spiculum of bone, about an inch and a half in length; possibly the epiphysis for the posterior border of the scapula, which I thought might have become detached. The skin was perfectly natural, and there was no appearance of there having been a wound.

I saw the case several days after, and there was more pain and tenderness, and every symptom of suppuration over the foreign body. I made a small puncture over one of the extremities, and drew out an "ordinary darning-needle", which the mother at once recognised as one she had lost some days before her attention was drawn to the child's back. The question arises, How did the needle find its way to the back? and could it have been inserted under the skin without leaving any mark?—I am, etc., G. H. CRESSEY, L.R.C.P.Lond.

Lowestoft, January 25th, 1882.

SIR,—Will any of your country members kindly state what is a fair and equitable charge to make to patients under the following circumstances? County families per visit, with and without medicine, at distances of one mile to five miles. Clergy, ditto. Farmers (on a large scale) ditto. Small farmers, ditto. Shopkeepers in the village, and those at distances as above.—Faithfully yours, A MEMBER.

REPORT OF INQUEST CASES.

MR. C. H. ROBERTS forwards us, as a sample of the very careless manner in which inquest cases are often reported in newspapers, a report from a local paper of a child dying, according to the evidence, of tubercular disease and from natural causes, but with the heading "An Illegitimate Child Starved at Notting Hill".

COMMUNICATIONS, LETTERS, etc., have been received from:—

Mr. R. A. Newton, Birmingham; Mr. Lennox Browne, London; Dr. J. C. Reid, Newbiggin-by-Sea; Mr. F. Wallace, London; Mr. Bernard Rice, Leamington; Mr. H. Nelson Hardy, London; Dr. A. W. Wallace, Parsonstown; Messrs. Selling, Stanley, and Co., Liverpool; Mr. T. Lambert Hall, Bridgnorth; Mr. T. Whitehead Reid, Canterbury; Dr. J. Murdoch Brown, Edinburgh; Dr. L. H. Ormsby, Dublin; Dr. W. A. Elliston, Ipswich; Dr. G. W. Potter, London; Mr. C. R. Graham, Manchester; Mr. H. G. Cartwright, Narborough; Mr. Charles Sanders, Chigwell; Mr. William Speirs, Cleator; Mr. Edward B. Stephens, Doddington; Mr. H. Lewis Jones, London; Dr. W. Tyson, Folkestone; Dr. Allfrey, St. Mary Cray; Mr. Percy Haynes, Malvern Wells; Mr. C. Foster, Leeds; Mr. S. Mitchell, New Hampton; Mr. J. A. Hogg, Cardiff; Mr. J. Candler, Harleston; Dr. Crichton Browne, London; Mr. T. J. Dyke, Merthyr Tydfil: Mr. J. P. B. Wills, Bexhill; Mr. J. Symington, Edinburgh; Dr. J. MacCombie, Deptford; Mr. C. Emilius Thompson, London; Mr. E. L. Winterbotham, Bridgwater; Mr. J. Woodman, Exeter; Our Dublin Correspondent; Dr. H. F. Smith, London; Mr. Delta, Liverpool; Dr. Jacob, Leeds; Dr. G. A. Abrath, Sunderland; Mr. Jalland, York; Mr. Shirley F. Murphy, London; Mr. J. Christison, Edinburgh: Our Glasgow Correspondent; J. S. M.; Mr. J. Allen Ramsay, Great Shelford: Dr. S. Coupland, London; Dr. R. Lee, London; Mr. G. Eastes, London: Mr. T. M. Stone, London; Mr. R. Barwell, London; Dr. Kidd, Dublin; Mr. P. H. Owen, Pwllheli; Dr. C. S. Cobbold, Colney Hatch; Dr. A. H. Griffith, Manchester; Mr. A. H. Young, Manchester; Mr. Kuhler, London; Mr. G. J. Wilson, London: Mr. Malcolm Morris, London; Dr. J. S. Bury, Pendleton, Manchester; Messrs. G. Street and Co., London; Mr. Reginald Harrison, Liverpool; Mr. D. Biddle, Kingston-on-Thames: Mr. W. H. Lamb, London; Mr. T. Smailes, Hanley; Mr. H. Greenway, Plymouth; Mr. W. E. Green, Sandown; Mr. D. S. Skinner, Lyme Regis; Dr. John Bishop, Edinburgh; Dr. Robert Battey, Georgia, U.S.A.; Mr. Gilder, Walsham-le-Willows; Dr. Colby, Malton; Mr. J. Durnford, Ashford; Mr. Etherington, London; Dr. Churchill, London; Mr. J. Howell Thomas, Wellingborough; Mr. R. Waters, Windermere; Mr. H. Stear, Saffron Walden; Mr. T. H. Rutherglen, London; Dr. Rabagliati, Bradford; Mr. Robert Torrance, Newcastle-upon-Tyne: Dr Sawyer, Birmingham; Dr. S. W. Smith, Pershore; Mr. L. M. Caralan, Phisborough; Mr. Martin Buck, London; Mr. August Hirschwald, Berlin; Mr. T. R. Scott, Musselburgh; Dr. Braidwood, Liverpool; M. A. Benoit, London; etc.

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REPORTS
TO THE
SCIENTIFIC GRANTS COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION.

THIRD CONTRIBUTION TO THE LIFE-HISTORY OF CONTAGIUM.

By PETER MURRAY BRAIDWOOD, M.D., F.R.M.S.,
AND
FRANCIS VACHER, F.R.C.S.Ed.

(*Continued from page 184 of last number.*)

We come now to review the most recent opinions advocated in this country, as expressed in the debate on Pyæmia at the Clinical Society, in the debate on Puerperal Fever in the Obstetrical Society, in Dr. Burdon Sanderson's last published reports to the Privy Council on Infective Inflammations, and elsewhere.

Mr. Prescott Hewett, in his presidential address to the Clinical Society, on January 23rd, 1874, opened the debate on pyæmia by narrating twenty-three instances in private practice. These cases were striking examples of suppurative fever following such trivial surgical conditions as the insertion of a seton, the piercing of the toe with a splinter of wood, the removal of a small wart from the back of the ankle, and gonorrhœa; but, in his narration, Mr. Hewett included also several instances of pyæmia succeeding typhoid fever, and the case of pyæmia in a young lady who showed "severe symptoms of low peritonitis" after her confinement. All these patients either exhibited erysipelas, or had rigors to usher in the pyæmic condition; then followed profuse sweatings; in many instances, secondary abscesses were scattered over the body; some showed pneumonic symptoms; and in all there was wasting and a general typhoid state. Sixteen of the twenty-three patients lived in the best parts of London, "scattered about in good houses of good sizes, with well ventilated bedrooms, well cared for, and, in fact, to all appearance, under the most favourable conditions." The remaining cases were scattered through widely separated parts of the country. In age, the patients varied from six years to eighty years, the majority ranging from fifteen to twenty-five.

In the course of the debate, Dr. Bastian said that he had observed, on microscopically examining the discharge from surgical patients, that "when the patient was healthy, and the temperature low, no bacteria or other organisms were to be found; but, where the temperature of the patient was as high as 101°, they existed in abundance". "There was a febrile condition, and there were modifications of the febrile process; the wound, as a consequence, got into an unhealthy state, and, at last, symptoms of pyæmia developed themselves."

Mr. Henry Lee furnished a good example of the importance of the use of carbolic acid and other antiseptics by the attendants on surgical cases, and stated that "anything that would prevent the communication of diseased secretions from one patient to another had a material effect in preventing these septic influences". He expressed also his well known views on phlebitis as the exciting cause of pyæmia or septicæmia.

Mr. Erichsen drew attention to the distinction which should be drawn between secondary (pyæmic) abscesses arising from venous thrombosis exciting embolism, and "simple abscesses of a lymphatic character, or arising from a direct continuation of irritation along the absorbents or the tissues of a limb". He regarded erysipelas as a totally distinct disease from pyæmia. "Just as from a stinking drain one person would get scarlatina and another typhoid fever, so from the same conditions one might have erysipelas and another pyæmia." "He did not believe that air was anything more than the mere vehicle of contamination, whether it were brought into the wound, or into the lungs or skin of the patient." He expressed the opinion that pyæmia was more common after injuries or operations by which the medullary canal of bones (especially of the lower extremity) was opened.

Mr. Hulke considered that pus was the essential cause of pyæmia, and that embolism alone, without the admixture of purulent fluid, would not induce secondary pyæmic visceral abscesses. He thought depression of the system from moral or physical causes (as bad air, through overcrowding) a very important predisposing condition.

Mr. Savory remarked that the presence of pyæmia after unhealthy wounds, and not after healthy wounds, was explained by "the dialysing property of animal membranes"; and that in the former this property was impaired or altered, whereas it was active in healthy wounds. He regarded pyæmia, septicæmia, and erysipelas as different forms of blood-poisoning.

Mr. Callender expressed the opinion that we should ignore the term pyæmia. He further objected to include under this term "all those conditions in which, in the course of various diseases" (as typhoid or scarlet fever), "the blood may become so affected, that suddenly we have the formation of abscesses in various tissues, or outpourings of pus into synovial or serous cavities". He also regarded the term pyæmia to be misleading, "if it is for a moment to be supposed that it is to be associated with the presence of pus in the blood". He divided all cases of pyæmia into three groups: (*a*) those (primary septicæmia) in which the systemic poisoning is "due to the action of those acrid and irritating fluids which are poured out into a wound during the first twenty-four or thirty-six hours which follow its infliction", and which, if free vent be not given them, "rapidly produce most serious constitutional symptoms"; (*b*) "cases (secondary septicæmia) in which the poisoning of the system depends upon the decomposition of residua, whether these residua happen to be sloughs, or matter which is passing into a putrid state"; (*c*) "instances of thrombosis", in which secondary deposits are formed without the inflammatory process, and are due to decomposing clots in veins. He distinguished thrombosis from embolism by associating with the former disintegrating processes.

Mr. Brudenell Carter preferred the more general term septicæmia, and included all such cases in two classes; "those in which the patient was poisoned by something formed within his own system" (illustrated by gonorrhœa), "and those in which he was poisoned by something formed elsewhere, and conveyed to him by some form of inoculation or contagion", as is so frequently seen in hospital practice.

Mr. Cadge stated that he had come to the conclusion, from his experience, that pyæmia, if it does not find its birthplace, does find its natural home and resting-place in hospitals; and, although a hospital may not be the mother of pyæmia, it is its nurse.

Dr. A. P. Stewart regarded "bad air", as from overcrowding, to be an essential factor in the production of pyæmia, and illustrated his remarks by referring to an epidemic of pyæmia following typhus fever which occurred many years ago in the Glasgow Fever Hospital.

Mr. Spencer Wells stated that, in his extensive surgical experience, he had not met with a single instance of pyæmia, either in his hospital or in his private practice. He had frequently seen instances of septicæmia from the admission of air into cysts causing putrefaction; and some of these recovered, while others died.

Dr. Gordon mentioned that M. Verneuil had described (in the discussion on this subject before the Academy of Medicine) the active principle of septicæmia or pyæmia as an alkaloid capable of being converted into a sulphate, "and the solution of that sulphate, when inoculated, as being capable of producing the disease". Dr. Gordon had met with pyæmia during time of war. It occurred most frequently after severe injuries, "such as shell-wounds affecting the large bones and joints when implicating the heads of the bones". It commenced from the fourteenth to the sixteenth day after the receipt of the injury. He considered the peculiar heavy odour of the breath and perspiration, extreme despondency, and acute arthritis ending in pus-formation, to characterise the disease.

Dr. Burdon Sanderson enunciated as certainties known of pyæmia (hospitalism), that it is not always dependent upon external causes; that it is a process which has a beginning and a termination of a definite kind. The focus of origin he considered to be a process of inflammation; and the peculiar nature of the inflammatory process loses its potency in time, when it became septic. The mischief is propagated from the original focus to the subsequent foci by the lymphatic system or through the veins, and is unconnected necessarily with embolism.

Sir J. Fayrer referred to osteomyelitis as a frequent initiative of pyæmia, and to a "peculiar hyperinotic condition of the blood, which makes it coagulate and form fibrinous clots when it ought not to do so".

Dr. Moxon laid stress on the general constitutional condition characterising pyæmia.

In his presidential address, delivered on April 7th, 1875, before the Obstetrical Society of London, "On the Relation of Puerperal Fever to the Infective Diseases and Pyæmia", with which Mr. Spencer Wells opened the debate on this subject, he stated that his object was rather to elicit than to impart information. Defining puerperal fever, in the words of the Registrar-General (*i.e.*, as defined by Dr. W. Farr), as "a continued fever, communicable

by contagion, occurring in connection with childbirth, and often associated with extensive local lesions, especially of the uterine system," etc., Mr. Spencer Wells submitted to the Society six questions, which were intended to guide the discussion. He next argued that infectious fevers (as scarlet fever and measles) and erysipelas do occur in connection with childbirth, and are intensified by the puerperal condition; and then proceeded to discuss the relations which the local lesions associated with puerperal fever bear to the fever. "Bruises or tears of the genital canal or perinæum; inflammation, and the production of pyrogenic liquids or solids, which may contain both bacteria and some poisonous material or particles which have the power of impregnation; diphtheritic exudation on the mucous membranes of the uterus and vagina, especially on the place of the separated placenta, and plugging of the lymphatic vessels with granular masses or colonies of bacteria or spheroids; the rapid development and growth of plant-life, and the disturbance of function and alteration of structure which must follow: does all this arise under perfect sanitary conditions, spontaneously, or from mere chemical decomposition, or only when some poisonous agent is introduced from without—the seed of some plant sown in a fruitful soil? Is puerperal fever ever a simple traumatic fever, modified by the puerperal condition; or does it always and necessarily depend on the action of a morbid poison?" With such inquiries, and without discussing fully the bearings of the subject, Mr. Spencer Wells opened the debate.

Professor Leishman spoke first, stating his belief in the origin of puerperal fever from pyæmic or septicæmic infection, and said that he "had a difficulty in discovering any difference between the cases which we may suppose to have a specific origin and those which have proceeded from a specific poison". He remarked, further, that if decomposing animal matters were "so certain and so frequent a method of communicating puerperal fever, as some would suppose, we should have far more puerperal fever (than exists) in the practice of students who dissect". "But it appears to me", said Dr. Leishman, "that there is an intensity in the infection, that there is a peculiarity in the conditions, or there may be (as has often been said) in the woman, in the puerperal state, a peculiar condition which renders her specially liable to impressions, about which we know very little, that may account for all this."

Dr. Newman (of Stamford), speaking as a general practitioner, stated it as his strong belief "that there is no such thing as a definite puerperal fever"; and that, in a large number of cases of puerperal fever, there has been a distant, it may be yet a definite, link in the occurrence of possible transmission to the patient of some definite infecting poison." In other instances, he considered that it was unquestionably a local inflammatory mischief that killed, "by its production of a definite pyæmic condition, as certainly as it would kill in the instance of a surgical operation followed by pyæmia". He further considered, that often the general health of a puerperal woman was below par; and he thought that her constitutional condition, as well as her mental state when puerperal, rendered her especially liable to the exciting causes of blood-poisoning.

Dr. Braxton Hicks observed that the elucidation of this subject had been retarded by the older observations on puerperal fever having been made in hospitals, and by our information on this subject being obtained in the *post mortem* room—so that, "according as one appearance was more prominent, so it was considered the essence of the complaint". He next analysed thoroughly eighty-nine instances of puerperal fever, and found that in only eight of these was an unexplained origin to be reckoned. He then asked: "Where is the proof of the existence of a separate entity, such as is ordinarily understood by puerperal fever?" He believed that, in certain cases, some other medium besides a zymotic poison must be added, "such as decomposing sepsis, or living bacteria, or some material which, mixing with the discharges in the uterine cavity, are absorbed into the system"; that, in other cases, there is perturbation and depression of the nervous system; that the malignancy of the original zymotic poison is intensified in the puerperal woman; but, that the aggregation of puerperal cases cannot set up puerperal fever *ab initio*. Lastly, he considered that the majority of the conditions grouped together as puerperal fever are contagious to puerperal women.

Dr. Richardson described the condition of woman after confinement, considered physiologically. "First, her blood is in a peculiar condition. That colloidal fluid which, separated in a solid form, we call fibrin, is sometimes in excess, from three to six or seven (and as I once found on a direct analysis) eight parts in a thousand—so that the blood is at this moment in a trembling equilibrium, ready on the slightest possible disturbance to precipitate it. Then there is a diminution of salts in the blood, again a condition favourable to the precipitation of the colloidal fibrin. Then this woman has been for a time supplying to the child a mass of blood from her own body, which has now stopped—so that, practically, she is in the condition of a person who has lost a limb, a considerable portion of the body. Then she is in a nervous condition; she has been supplying from her own potential energy that element which has been shown in the movements of the fœtus; and now that has stopped, and she is suffering from that nervous reaction which comes on when that motion is suddenly arrested; she is, therefore, in the exact condition for a series of chances, which must necessarily be febrile in character." (BRITISH MEDICAL JOURNAL, April 17th, 1875.) The hereditary qualities of women, he thought, required also to be borne in mind in discussing their proneness to puerperal fever. He did not think there was a special poison creating puerperal fever, nor that any or all the forms of puerperal fever were due to any of the so-termed infectious fevers, as scarlet fever. He next specified four groups or forms of puerperal fever—viz.: simple surgical fever; fever of a remittent character, "with slight symptoms or extreme symptoms of jaundice"; septicæmic poisoning, where death takes place from deficient oxidation; and, lastly, where "a poison appears to be carried into the body from without". This poison, moreover, may be "poisonous in the individual sense, but not poisonous as coming from any person who has been poisoned". He said, further, there is "no special form of puerperal fever, no one particular type of the disease". He also expressed his firm adhesion to the physical side of the question, that the septicæmic poisons "have the power of eliminating oxygen from the blood, and preventing combination of oxygen with the blood".

Dr. Barnes divided cases of puerperal fever into heterogenetic, "the result of something which has arisen outside of the patient's body and been put into her", and antagonistic, in which all the conditions of the fever exist or arise in the patient's system. He laid stress on the puerperal state affording special ground for susceptibility to the influence of infectious poisons. The puerperal woman "is ready to receive poisons, and ready for those poisons to ferment and go on to a disastrous issue". In heterogenetic cases, the fever commences earlier (even in twenty-four hours after confinement) than in antagonistic cases. In antagonistic cases, the fever can often be cut short by washing out the uterus, and thus preventing the repetition of the poisoning process.

The opinion expressed by the general practitioners who took part in this debate was, that puerperal fever did not have its origin in the poisons of infectious diseases, and that scarlet fever frequently attacked puerperal women without adding to the severity of the case.

Dr. Graily Hewitt remarked that puerperal fever "is essentially a form of blood-poison", a form of pyæmia; and he entirely disbelieved in "the existence of a form of fever which is sufficiently definite and precise to receive a distinctive name". Like Dr. Barnes, he divided cases of puerperal fever into two groups—those which occur from the introduction of a morbid animal poison into the system from without, and those in which there is no evidence of the introduction of such a poison. Dr. Hewitt considered that the hands, especially beneath the nails, were the most common means of inoculation, and that any animal poison may excite puerperal fever. He said, "the uterus is so constructed that it is exceedingly easy for pyæmia to occur in it, and in its tissues"; moreover, "concurrently with the commencement of the attack of puerperal pyæmia, the uterus is found to be enlarged—in other words, in a state in which its involution is absolutely retarded". Thus Dr. Hewitt explained the manner whereby animal poisons obtained ingress into the system of the puerperal woman.

Mr. Callender expressed his belief that, by attention to extreme cleanliness, by removing carefully acid, foul discharges whenever formed, and by absolute rest, septicæmic affections may be banished from obstetrical as well as from surgical practice.

Dr. A. Farre discussed and explained his definition of puerperal fever, as it stands in the *Nomenclature;* and stated that, in studying this affection, two processes going on in the lying-in woman required to be borne in mind—viz., the secretion of milk, and the involution process in the uterus. He divided puerperal fevers into three classes: those simple fevers arising from some local irritation (irritative fevers, including milk-fever); those simple febrile consequences of a traumatic origin which result from slight injuries to the soft parts, laceration and the like; and those pyrexial states which are of a fugitive and transient nature (puerperal ephemera). The first two alone he considered to be connected with the puerperal state. He preferred the term *post partum* fevers.

Dr. Wynn Williams defined puerperal fever as a septic contamination of the blood; and stated that putrid animal matter enters the system both in a state of solution and as vapour. In the former there is a breach of surface, in the latter none.

Dr. Playfair expressed his belief that there is not any specific condition justifying the name of puerperal fever, nor any special miasm

arising from the puerperal patient, nor has there been any epidemic of puerperal fever in the strict sense of the word; and that puerperal fever is practically the same disease as surgical septicæmia or pyæmia; that "it arises from the contact of septic matter with lesions of continuity in the generative track"; that "there are channels of diffusion through the lymphatics, or possibly the veins"; and that there are "general and local results of great consequence, rendered in the puerperal state particularly intense and virulent".

Dr. Tilt maintained strongly the autogenetic origin of puerperal fever. A woman "most frequently poisons herself". He urged that medical men should be on the outlook for fœtid lochia, and ascertain the fact always *for themselves*.

We must next refer shortly to the addresses by Dr. Fordyce Baker and Dr. Charles West, delivered before the Obstetrical Society at this portion of the debate (July 7th, 1875).

Dr. F. Baker stated puerperal fever to be a "disease which presents a group of general symptoms, independent of local inflammations, resulting from the absorption of some portion into the system". He believed it to be a distinct disease, and thought the definition given in the *Nomenclature of Diseases* to be "absolutely perfect". He also maintained the epidemic character of puerperal fever as it sometimes occurs, and quoted statistics in proof thereof.

Dr. Charles West distinguished puerperal fever from the "specific fevers" by remarking that it has "not the same regularity of course, the same regularity of incubation, the same regularity of outbirth". It has not the same diagnostic marks. These fevers, moreover, produce disease like to themselves, and have a tendency not to recur where once they have happened. There is also a "marked connection between the liability to an outbreak of puerperal fever and the difficulties attendant on the process of labour". He said: "We are to look for the cause of puerperal fever rather to the condition present after delivery than to any special poison."

Dr. Snow Beck was "unable to perceive that there is any special or specific disease connected with childbirth", or that it was "communicable by contagion". He thought the fault is with "the individual" (every puerperal woman is not in a state of health at this time), and "not with the natural and physiological process of procreation". The lying-in woman, he remarked, is liable to two classes of diseases; "one class arising from the general system, and being the result of changes and accidents to which all women are liable at any period of their existence; the other class arising from the uterine system, and being the consequence of accidents incident to pregnancy and childbirth, yet not comprising any disease specially connected with either of these states". He did not think that specific diseases are ever transformed into one and the same disease, puerperal fever.

In his first paper (appendix) in the Reports of the Medical Officer of the Privy Council, No. vi, 1875, Dr. Burdon Sanderson says: "The recognised characteristics of fever are those which relate either to the disintegration of the living substance of the body, or to the increase and diminished constancy of the bodily temperature." According to the researches of Drs. Senator and Naunyn, while "the discharge of heat, of carbonic acid, and of aqueous vapour, may even be diminished during the initial stage of fever, that of urea is augmented". In the later stages, this relation is in the main reversed. Moreover, Senator states that the discharge of water "is very considerably increased in fevered animals". As regards clinical observations, "the general conclusion to be derived from the whole series is that, in the early stage of fever, a patient excretes about three times as much urea as he would do on the same diet if he were in health; the difference between the fevered and the healthy body consisting chiefly in this, that, whereas the latter discharges a quantity of nitrogen equal to that taken in, the former wastes the store of nitrogen contained in its own tissues". "In fever, more carbonic acid is actually formed in the body than in health; a fevered man or animal discharges more nitrogen than a healthy person or animal on the same nitrogen income; and, as regards the man, the febrile excess amounts to something like three-quarters of the normal expenditure. In man, there is during fever an excess of discharge of carbonic acid, and this cannot be accounted for as the mere result of excessive respiration." According to Professor Leyden's observations, the febrile augmentation of the carbonic acid discharge amounts to nearly 50 per cent. "We are", says Sanderson, "compelled to accept it as a fact that, in fever, more carbonic acid is actually formed in the body than in health." Accordingly, in the fevered state, taking into account the augmentation of urea excretion and its consequence, the discharge of nitrogen, we find this to be due to the using up of stored albumen; and "there is an additional and altogether abnormal disintegration, which we believe to take place at the expense of blood-corpuscles, or muscle, or other tissue".

The next question discussed by Dr. Sanderson is the "Production and Discharge of Heat in Fever". "The constancy of the temperature of the body", he says, "depends upon the existence of heat-equilibrium—*i. e.*, of that condition of the organism in which the processes by which heat is produced, and those by which it is liberated, balance each other." We would fain give a complete *résumé* of that portion of Dr. Sanderson's paper which discusses this important problem; but we feel that this would be irrelevant to the subject treated of by this essay. We shall, therefore, quote only his inferences as to the seat of origin of febrile pyrexia. "A satisfactory explanation of the nature of fever, and of its relation to the febrile process, is not", he remarks, "at present possible, because we are not as yet possessed of the necessary physiological knowledge." To explain these points, "two possibilities are open to us. One is, that fever originates in disorder of the nervous centres; that, by means of the influence of the nervous system on the systemic functions, the liberation of heat at the surface of the body is controlled or restrained, so that, by 'retention', the temperature rises; and, finally, that the increased temperature so produced acts on the living substance of the body, so as to disorder its nutrition. The other alternative is, that fever originates in the living tissues; that it is, from first to last, a disorder of protoplasm; and that all the systemic disturbances are secondary. In both hypotheses, it is tacitly assumed that fever is the product of a material fever-producing cause contained in the blood or tissue-juice, the morbification of which in the organism is antecedent to all functional disturbances whatever." After regarding the facts and considerations we possess regarding each of these hypotheses, Dr. Sanderson says: "We are at liberty to adopt the tissue-origin of fever as the basis on which we hope *eventually* to construct an explanation of the process."

In concluding his Report of 1872 on Infective Inflammations, Dr. Sanderson states the following results as propositions. "It has been shown", he says: "1. That that combination of malignant fever with intense and destructive inflammations, to which pathologists have rightly applied the term septicæmia, because it is known by experiment as well as by clinical observation to result from the existence in the blood of putrescent albuminous matter, may also be produced by the introduction into the circulation, or into the serous cavities, of small quantities of liquids derived directly from living tissues in certain states of inflammation; and that such states have the same distinctive characters as those which distinguish inflammation of septicæmic origin. 2. That pyæmia (the term being understood to denote a general febrile disorder of less virulence than that of septicæmia accompanied by numerous disseminated inflammations, characterised chiefly by their proneness to suppuration) is so closely related to septicæmia, as regards its origin and essential nature, that in these respects no line of distinction can be drawn between them; and that pyæmia, like septicæmia, may originate from a purely traumatic inflammation, independently of any infection with contagium derived from a previously existing pyæmic inflammation. 3. That both of these conditions are characterised by the existence of microzymes in the infected liquids; and that the relation of intensity between different cases of septicæmia and pyæmic infection is indicated by the number and character of these organisms; so that in the most intense processes—*i. e.*, those which exhibit the characters of septicæmia—the exudation-liquids and the blood are crowded with actively moving bacteria; while, in the more chronic processes, the spherical and dumb-bell forms prevail, and the number of organisms found in the liquids are relatively inconsiderable."

At the close of his Report of 1875, Dr. Sanderson furnishes the following conclusions. "We have seen it to be the result of observation, that the intensity of any transmitted inflammation is dependent on the intensity of the inflammatory process by which it was produced; or, in other words, that the transmitted inflammations are most intense which are begotten of the most intense antecedents. We have also seen that, if a process of inflammation is transmitted through a series of animals from one to another, in such a way that each is infected by the introduction into its body of exudation-liquid derived from its predecessor, the transmitted process becomes, on the whole, more intense towards the end of the series"; and that this "augmentation does not take place by successive steps, but *per saltum*". This last curious fact Dr. Sanderson explains by saying that it is due to "the conditions belonging to the infected individual being no less efficacious than those which belong to the material transmitted". "The most active products are yielded by animals which have *longest* resisted the *most intense* process." Moreover, "it would be a mistake to regard the phlogogenic and the pyrogenic actions as identical in their nature".

Dr. Sanderson states, further, that there is no difficulty in recognising a highly infective product by its physical and microscopical characters. "The highly infective serous exudation-products of guinea-pigs have always a high specific gravity; fail to coagulate"; possess a very peculiar viscidity; show spheroids and dumb-bells,

"either isolated in the liquid, collected in colonies or cloud-like masses, or embedded in the cell-substance of pus-corpuscles. "The presence", he says, "of characteristic organic forms in infective liquids affords *in itself* no conclusive evidence that these bodies are themselves the cause of the infectiveness."

(To be continued.)

REMARKS
ON
THE TREATMENT OF GUNSHOT-WOUNDS OF THE ABDOMEN IN RELATION TO MODERN PERITONEAL SURGERY.

By J. MARION SIMS, M.D., LL.D., etc.

[*Continued from page 186 of last number.*]

THE presence of bloody serum in the peritoneal cavity, when there has been wound of bowel, with escape of flatus and intestinal contents, is not surprising; and it is always found when we know how to look for it. Heretofore, the necropsists have expected to find peritonitis in every case of death following wounds of the peritoneum, because they were not prepared for anything else. Educate the medical mind in the truth, and it will always grasp and appreciate it. I have more than once seen necropsies made by men of reputation as pathologists, who, as soon as they saw the intestines agglutinated by plastic lymph, would say: "Here is peritonitis; here is the cause of death." They would then proceed to run a sponge down into the pelvic cavity, and bring it up full of bloody serum, and squeeze it out into a basin, without attaching any importance whatever to it. A peritonitis that stops at agglutinating contiguous serous surfaces is not dangerous; never fatal. It cannot end in death unless it proceed to purulent infiltration; and then it is almost always fatal—fatal, because it produces blood-poisoning, for which there is no remedy, and never can be, till we open the abdomen, and remove the purulent deposits, the source of the blood-poisoning, just as we have opened it after ovariotomy, and removed bloody serum, which was the source of blood-poisoning.

The records of the American civil war contain but few fatal cases of shot-wounds of the abdomen that did not die of peritonitis, so-called. Twenty years ago, when our war began, none of us knew any better. We hardly knew the term septicæmia, and knew less of its causes and nature. I shall never forget the surprise manifested by M. Nélaton, in 1864, when he saw a quart of red serum in the peritoneal pelvic cavity of his patient dying from ovariotomy. If he, the great surgeon of his day, did not understand it, how could men of less knowledge and less opportunity properly interpret it? If the army of surgeons with the two great opposing forces in our civil war had had the knowledge of the present day, their *post mortem* reports would have told a different story; for the laws of nature are uniform, and the wounded peritoneum would have poured out the same bloody serum then that it did at Sedan, and does now.

Bloody serum is an ordinary result of any gunshot-wound in the fleshy parts of the body, and it is not unnatural that it should be found in wounds and bruises of the contents of the peritoneal cavity. It is possible that the escape of flatus and contents of the intestines into the peritoneal cavity may give an intensity to the poisonous qualities of the bloody serum that it would not have without it; for, as said before, death results more rapidly from this than from peritonitis pure and simple.

In 1872, I published my paper on Ovariotomy, proving that septicæmia, and not peritonitis, was the usual cause of death after ovariotomy. In this paper, I said (p. 85): "I have alluded to my Sedan experience, because I believe it establishes very clearly that the principle of drainage at the most dependent part of the peritoneal cavity is the correct method of treating wounds of the peritoneum. Pleuritis was formerly occasionally fatal, but no one now dies of it. It terminates in an abundant effusion, that may kill by suffocation; and, again, in the exudation of purulent fluid that kills by blood-poisoning. But in this enlightened day, death never occurs in this way, because the effusions, whether benign or pyæmic, are promptly evacuated, and life is saved; and so it will be in diseases and wounds of the peritoneum. The time will assuredly arrive when peritonitis, so-called, will not kill, because we will learn that effusions in the peritoneal cavity may be as safely evacuated as those of the pleural cavity; that the danger will consist, not in opening the peritoneal cavity, but in keeping it closed, with its retained fluids to poison the blood and take the life of the poor sufferer. The time will also come when gunshot and other wounds of the abdomen, and perforations of the intestine, will be treated by opening the peritoneal cavity, and washing out or draining off the septic fluids that would otherwise poison the blood; for death, in all these cases, is produced by the same cause, and in precisely the same way, and they will require the same plan of treatment."

Thus it will be seen that I advocated the same line of treatment ten years ago in shot-wounds of the abdomen that I plead for to-day. But the profession was not then prepared for such radical views, and they fell stillborn. Ovariotomy was not then as successful as it is now; Battey's operation had not seen the light of day; the great domain of peritoneal surgery had not been opened up; and I know of but one man who was ready to accept my doctrines. Hunter McGuire, Professor of Surgery in the Richmond Medical College, Virginia, and surgeon to Stonewall Jackson's command, looking back upon his immense experience during our great civil war, recalled cases and *post mortem* examinations that could be explained only as it is done now. As President of the Surgical Section at the last meeting of the American Medical Association (June 1881), Dr. McGuire read a paper on Gunshot Wounds of the Abdomen, advocating the same views as I do. In this paper, he gave the histories of four cases that are unique in military surgery, not because such cases never happened before, but because no one, as far as I know, had observed the facts and published them before. Two of them occurred during the war, and two in private practice since then. In all these cases, the ball passed transversely and superficially through the walls of the abdomen, wounding or bruising only the peritoneal lining of the abdomen, not perforating it, or wounding the intestine, or even the omentum. All of these cases died of septicæmia.

CASE I. "Fully a quart of reddish serum escaped from the pelvis and abdominal cavities during the necropsy."

CASE II. Died three days after wound. "Three pints of red serum in peritoneal cavity."

CASES III and IV were seen in Confederate soldiers. Both had large quantities of red serum in the peritoneal cavity.

In these, death resulted precisely as it would have done if the peritoneal cavity had been penetrated, and the omentum or intestine wounded. These help to prove that all wounds of the peritoneum have a common termination in death by septicæmia, and not by peritonitis. Where the outer surface of the peritoneum was merely bruised by the transit of the missile, we might have expected recovery without special symptoms; or if inflammatory action supervened, we would have reasonably expected its propagation to the inner surface of the peritoneum, producing legitimate peritonitis; but, in Dr. Hunter McGuire's cases, no such thing was found. When the injured peritoneum took on action necessary to throw off bloody serum along the track of the ball, this same action on the inner surface of the peritoneum resulted in the exudation of bloody serum into the peritoneal cavity. Here, then, is a problem for pathologists. The idea prevails that bloody serum in the peritoneal cavity is aseptic and harmless, when there is no vent by which air can reach it. In the above cases, the intestine was not opened, and its contents could not mingle with the bloody serum; nor was the peritoneum penetrated, and hence no air could enter by the track of the ball. Why, then, should the bloody serum in these four cases have produced death in two and three days, quite as rapidly as if the peritoneal cavity had been penetrated, with injury to intestine? Is it by the physiological law of osmosis, by which gases and germ-bearing contents of the intestinal canal are brought into contact with the reddish serum in the peritoneal cavity? It is not my province to solve this question. I accept the facts, and report them as they were observed by one of the ablest and most accomplished surgeons in our country.

Judging from my experience in ovariotomy, from my observations at Sedan, from the cases of Richardson and Frisk, and from the reports of Dr. Hunter McGuire's cases, the inference is clear that septicæmia from bloody serum in the peritoneal cavity is the usual cause of death after gunshot or other wounds of the peritoneum, and its contained organs. Of course, I speak of cases that survive shock and hæmorrhage. Shock and hæmorrhage are co-workers. Strong men seldom die of uncomplicated shock, especially from shot-wounds in any part of the body; but, of course, they die very speedily of internal hæmorrhage if large blood-vessels be wounded, and more slowly if smaller vessels be injured.

We all remember the melancholy death of the distinguished jurist and statesman, Vallandigham of Ohio, in 1873. He was addressing a

jury on a criminal case, and, with pistol in hand, he was demonstrating how a man might accidentally shoot himself in the abdomen; and, when he pointed the weapon (which was unfortunately loaded) toward his own abdomen, it went off, and the ball perforated the peritoneal cavity. He fell to the floor, and died in twelve hours, without reaction, for he died of internal hæmorrhage. If the abdomen had been promptly opened, the bleeding vessels could have been secured, and a valuable life saved.

Do men ever recover spontaneously from gunshot-wounds of the abdomen perforating the peritoneal cavity? Rarely indeed, if the bowel be wounded above the brim of the pelvis.

At Sedan, we had seven cases of shot-wounds of the abdomen, and they all died, most of them within twenty-four hours. I made *post mortem* examinations in several of these, and in all found large quantities of reddish serum in the pelvic peritoneal cavity; and, in all, death was evidently the result of septicæmia caused by this reddish serum. There were several cases of recovery, where balls passed through the pelvis, wounding the bladder or bowel, or both; but no recovery where the wound was above the brim of the pelvis.

We had three cases of pelvic shot-wounds that recovered in the Anglo-American Ambulance at Sedan. In one case, "the ball entered on the left side of the coccyx, traversed the rectum and bladder, and emerged just above the symphysis pubis. For a considerable time, all the fæces passed by the posterior opening, while the urine flowed entirely by the anterior wound. He recovered without one single unfavourable symptom. Both wounds had closed by the 18th September (seventeen days after the battle), and remained so till his discharge from hospital on September 28th, when he appeared as well as if nothing had happened to him" (*Notes and Recollections of an Ambulancè Surgeon, etc.*, by William Mac Cormac, pp. 73, 74. 1871). Sir W. Mac Cormac saw three other cases of pelvic gunshot-wound involving the bladder recover without accident, two in a Belgian ambulance, and the third under Dr. Junker's care at the Chateau de Bazielles. Sir W. Mac Cormac further says, "There were some other cases of similar injury which I did not see, but which, I was informed, were doing well".

Four days after the battle of Sedan, I went to Mézières for supplies for the wounded soldiers. Travelling under the banner of the red cross, we were hailed at almost every hamlet, and asked to visit sick and wounded. Amongst the great number demanding our care, my son, Dr. Harry Marion Sims, called my attention to a young German who was shot through the pelvis. The ball entered about two inches above Poupart's ligament, and midway between the linea alba and the crest of the ilium on the left side, and passed directly back through the pelvis, wounding the sigmoid flexure. Fæces passed freely by both openings, but, of course, more freely by the posterior, as he lay mostly on his back. His pulse was but 78, and there was no pain or tension in any part of the abdomen; and he had every appearance of a rapid recovery. He was among French wounded, could speak only his own language, and his greatest suffering was from nostalgia. When my son spoke to him in German, and gave him every assurance of a speedy cure, and of early removal to a German ambulance, it raised his drooping spirits, and I have no doubt that he eventually recovered. He was shot through and through the pelvic peritoneal cavity, perforating the bowel, and yet there was not the least constitutional disturbance, nor the first symptom of peritonitis. This was four days after the wounding.

Thus, at our Sedan ambulance, we had three cases shot directly through the pelvis; one at the ambulance at Bazielles, one on the road to Mézières, and two at the Belgian ambulance; seven in all. Thus, seven shot through the pelvis all recovered, and seven shot through the abdomen all died in about twenty-four hours.

Professor Montrose A. Pallen, who had a large experience in the Confederate Army, saw a case recover, where the ball passed through the bladder and out through the left ilium; and Professor von Nussbaum says, "I have seen cases get well in which the bladder and rectum were shot through and through, the ball making not only an inlet, but an outlet as well".*

Major Gardner, surgeon, United States Army, has given me the histories of four cases of recovery from shot-wounds of the pelvis, two during the war, and two since.

1. General X. Ball shattered radius of right arm, entered abdomen, right side, three inches above Poupart's ligament, perforated colon, and passed out at right sacro-iliac junction; radius right arm resected; fæces passed by both entrance and exit openings. Returned to duty in three months, wearing pad on posterior fistulous track, through which fæcal matter passed in small quantities. This healed soon after, and the General lived many years in perfect health.

2. Ball passed transversely through both ilia, wounding bladder; wore a catheter. Three weeks after, there was urinous odour at the exit in left hip. Patient soon got well.

Two others, with similar pelvic wounds of bowel, recovered speedily. In all these cases, shock was less than when balls perforate the abdominal cavity. In one case, there was perfect reaction in four hours.

Dr. Thomas J. Murdoch of Baltimore gives me the history of a man wounded at Gettysburg. The ball passed antero-posteriorly through the bladder and bowel. He frequently passed fæces through the urethra as well as by posterior opening. In seven weeks, he left hospital well, and returned to duty.

Now let us sum up these pelvic gunshot-wounds, which have occurred under the observation of my personal friends: at Sedan, seven; Dr. Pallen, one; Dr. Gardner, four; Dr. Murdoch, one; total, thirteen.

From my Sedan experience, it would seem to be an exception for a man to recover if shot through the abdomen; and it appears to be exceptional for a man to die when shot through the pelvis. Why do men recover from gunshot-wounds perforating the bladder, bowel, and peritoneum in the pelvic cavity, and not from gunshot-wounds perforating the intestine and peritoneum in the abdominal cavity? The explanation is very simple. In the first case, there is natural drainage of septic matter directly from the pelvic cavity along the track of the ball, and the patient lives. In the other case, drainage is impossible, because the septic matter falls into the pelvic cavity, is there retained, and then absorbed, and the patient dies of blood-poisoning.

[*To be continued.*]

* *On Drainage of the Peritoneal Cavity and Intraperitoneal Injections.* A contribution to the Treatment of Wounds of the Peritoneum, and Ovariotomy, by Professor von Nussbaum, staff-surgeon, etc., 1873.

THE DIAGNOSIS OF EPITHELIOMA OF THE TONGUE.

By HENRY T. BUTLIN, F.R.C.S.Eng.,
Assistant-Surgeon, and Demonstrator of Surgery and of Diseases of the Throat, St. Bartholomew's Hospital.

Most surgeons will admit that, if operations for the removal of epithelioma of the tongue are to be undertaken with any prospect of permanent success, they should be performed at the earliest possible period of the disease, while yet but a small segment of the tongue is affected and the lymphatic glands are sound. Most surgeons will agree, therefore, that a certain and early diagnosis of epithelioma of the tongue is exceedingly to be desired. No means, however, are described by which a certain and early diagnosis can be effected. The characters which chiefly are relied on are, the sinuous outline of the epithelial ulcer; its raised, everted, nodular borders; its glazed, or foul and ragged surface; and the surrounding induration. But every surgeon knows how often one or the other of these characters is absent, and how often many of them are simulated in a tuberculous or syphilitic ulcer, and how difficult the diagnosis of certain cases is, not merely in their early stages, but when they have existed many months. Mr. T. Smith's case, reported from the St. Bartholomew's Hospital consultations in the last volume of the Journal (1881, vol. ii, page 1015), affords an admirable illustration of the difficulty of distinguishing between epithelioma and tertiary syphilis of the tongue. It shows, too, the disastrous result which follows the practice of deferring an operation until the effect of anti-syphilitic remedies has been observed.

This watching of malignant ulcers, and studying the effect of remedies upon them, is so common, that a surgeon, so far from being blamed for following it until the disease is too far developed for operation, would more probably be blamed for adopting the opposite principle, and freely cutting out a disease of doubtful nature. It is at present impossible to make a certain diagnosis of all forms of malignant ulcers in all parts of the body; but in the tongue I believe it is possible, and not extremely difficult.

The structures of which epithelioma is composed are very characteristic, and lie so close to the surface that they can easily be procured for examination by scraping the surface of the ulcer with a blunt knife or Volkmann's spoon, or any similar instrument. In addition to pus- and blood-corpuscles, *débris*, and microzymes, numerous epithelial cells are always present, but differing widely from the normal epithelium of the tongue. Many of them are smaller than the normal cells; others are much larger; the nuclei of both kinds are several times larger than the normal nuclei. All the cells are granular; some of them are clouded and opaque with granular matter. Some contain large round or oval spaces, clear and well defined. Many of them have more than a single

nucleus, and some contain smaller cells with nuclei and nucleoli. The shape of these abnormal cells varies as much as does their size; some are round, some oval, some quadrangular or polygonal, some tapering at one end, and some at both ends. With these distorted and fantastic cells, normal epithelium may be mingled; but the normal cells are few in number, while the diseased cells are many. The following sketch represents the scraping from the surface of an epithelial ulcer of the tongue in a man aged 53, in whom the glands beneath the jaw were extensively diseased. Here, pus-cells, blood-cells, healthy, and diseased epithelial cells, are present.

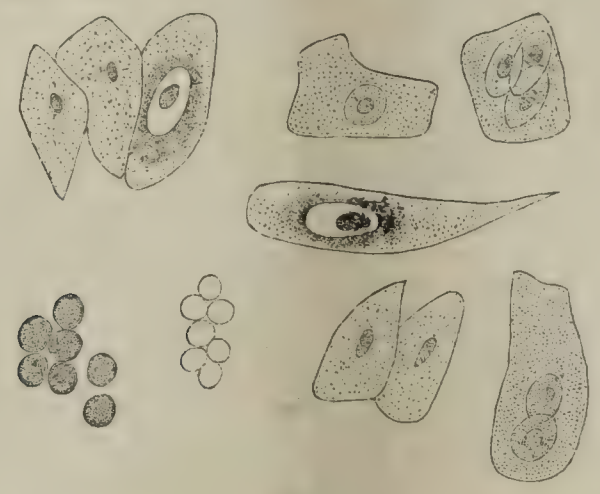

Fig. 1.

Sometimes, and not unfrequently, even more characteristic structures than any of those described are found; *i.e.*, cell-nests, or portions of cell-nests. Two of these are represented in the accompanying sketch, taken from the scraping of an epithelial ulcer of the tongue in a man forty-three years old.

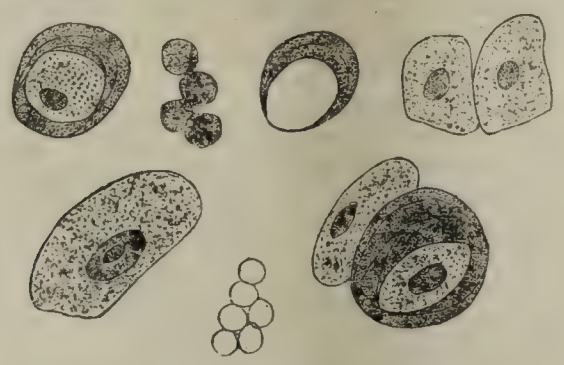

Fig. 2.

I first applied this method of examination in the case of an epithelioma of the tongue in a young man, where the diagnosis was difficult, partly on account of the patient's age (29). The microscopic characters of a scraping dispelled all doubt of the nature of the disease. I have since used it in several difficult cases, with the greatest satisfaction. In order to prove that the test is reliable, I have made sections after removal of the epitheliomata which have been scraped and examined before removal, and have thus been sure that the diagnosis was correct. I have also examined scrapings taken from other kinds of ulcers of the tongue, and have never found structures resembling those of epithelioma. Pus-, and blood-, and granulation-corpuscles are present in large quantities. Micrococcus-masses, *débris*, and normal epithelium are almost always present; but diseased and altered epithelial cells are not found. The scraping from which this sketch was made was taken from a very destructive syphilitic ulcer of the anterior portion of the tongue of a man. The ulcer healed with exceeding quickness under ten-grain doses of iodide of potassium. (The large granular body is a micrococcus-mass.)

I can, therefore, confidently state that the structures I have described are found in epithelial carcinoma of the tongue, and that they are not found in any other kind of ulcer with which I am acquainted. I cannot yet say when these structures begin to be formed, and therefore how soon an epithelioma may be recognised by examining a scraping from it. But I know that they are early formed: for I have found them in ulcers of only a few weeks' duration, which few persons would have ventured certainly to diagnose and treat as cancerous, had it not been for their presence.

I do not, of course, allege that this proposition, thus to examine malignant ulcers, is original; but I desire to place it on a firmer footing than hitherto; to show how far it is reliable, and in what cases it should be used.

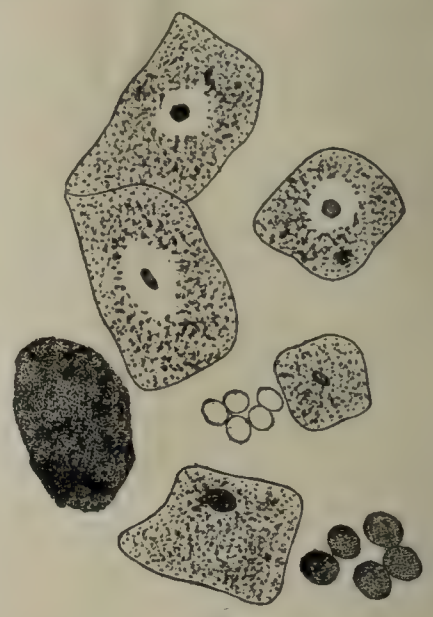

Fig. 3.

The method is very simple, and very easily applied. The surface of the ulcer to be examined is cleaned by lightly brushing it, or gently scraping it with a blunt instrument; a slightly deeper scraping is then taken, mixed with a drop of water on a glass slide, and examined with a quarter-inch power, or No. 7 Hartnack. The pain produced by this operation is so trivial that it seldom calls forth a complaint; and the scraping may be repeated several times, if necessary, without seriously inconveniencing the patient. It may be employed, not only for epithelioma of the tongue, but for squamous epithelioma (squamous-celled carcinoma), whenever it occurs in accessible situations. I have used it for epithelioma of the upper jaw, the face, the penis, and the uterus. I am afraid it cannot be employed, however, for malignant ulcers other than squamous epitheliomas with any degree of certainty; for the structures of which most of them are composed are not sufficiently characteristic to be easily recognised.

One caution may be given. It must not be too hastily assumed that an ulcer is not epitheliomatous because these structures are not at once discovered. If its general characters be suspicious, it should be repeatedly examined before a definite conclusion is arrived at.

I hope it will not be believed, because I recommend so strongly this method of diagnosis, that I am insensible to the general characters of epithelial ulcers, or that I desire others to take no notice of them. On the contrary, I think they should be as carefully studied in the future as in the past; and, when any of them can be shown to be reliable in diagnosis, the microscope should be dispensed with.

AN ANOMALOUS CASE OF INFANTILE HEMIPLEGIA.

By W. B. HADDEN, M.D., M.R.C.P.,
Demonstrator of Morbid Anatomy to St. Thomas's Hospital; Physician to the St. George's and St. James's Dispensary.

THE patient whose history is narrated below was exhibited in the museum at the recent International Medical Congress. The case is one of great interest, both from a pathological and a clinical point of view. The patient is a boy aged 13, whose family are free from all neurotic tendencies. He has been subject to fits, occurring at intervals of from one to five months or more, since he was one year old. When a child three years of age, he had a fall, since which (according to the friends' statement) he has been paralysed in both legs and right arm.

The fits are preceded by irritability of temper, and by a distinct aura, consisting of a "nasty taste" in the mouth. Movements with trembling then begin in the right hand, and rapidly extend over the rest of the body. During the attacks, he bites his tongue, and foams at the mouth. After the fit, the patient is drowsy, dull, and sometimes so weak that he is confined to his bed for four or five days. With the exception of an attack of chicken-pox, and the presence of worms when he is constipated, the patient has suffered from no other complaint.

The boy was admitted into St. Thomas's Hospital, under Dr. Bristowe, on account of a severe epileptic attack, which left him uncon-

cious for several hours. When first seen, he was strongly convulsed, nd there were clonic spasms of the hands, especially the right, which vas rapidly opened and shut. The upper extremities were far more ffected than the lower, which, with the exception of a few slight witches, were motionless. The muscles of the face and eyeballs were trongly convulsed; the pupils constantly varied in size. The patient vas quite unconscious. The patellar reflex was said to be entirely bsent, although there was marked ankle-clonus. On subsequent examination, the patient was found to be a fairly intelligent boy. Although his friends consider him somewhat deficient mentally, he reads, counts, and remembers well. His expression is rather vacant, but here is certainly no notable intellectual deficiency. The pupils are qual, and act well to light; the tongue, which is a little tremulous, s protruded straight; there is no sign of facial paralysis. The right pper extremity is much smaller than its fellow, the ulna being an nch shorter than the bone on the other side. The muscles are evidently atrophied to a considerable extent. The fingers of the right and are kept apart and extended, especially the index and middle ingers. The tendon-reflexes are much more marked than on the left ide. There is very pronounced loss of power both of the arm and and. The left upper extremity is in every respect natural. The legs re rigid, especially the right; and there is well marked talipes equinus n both sides. The patellar reflex is exaggerated, but there is no ppreciable difference between the two limbs in this respect. Ankle-lonus was usually obtainable on both sides to an equal extent; but ccasionally it was impossible to provoke it, in consequence of the reat rigidity of the calf-muscles. The lower extremities are not atrohied, and evidently possess considerable muscular force. The plantar, pigastric, abdominal, and cremasteric reflexes are all present; but it s difficult to say whether they are exaggerated or not. Sensation is verywhere intact. There is no atrophy of the thoracic wall or pelvis n either side. The thoracic and abdominal organs are perfectly healthy. But the most striking feature in this patient is his gait. When asked o walk, he stands upright, and supports himself for a moment by leaning against some object. It is evident, indeed, that, although not acking the muscular force, he is unable to maintain his equilibrium, when upright, without extraneous aid. This is no doubt due to the reat contraction of the gastrocnemii and their tendons. Erect, he ests on the ends of the metatarsal bones, the heels being drawn up rom the ground; the thighs are adducted, the knees almost in contact; he legs incline outwards, and the feet are much inverted. When valking, he brings each lower limb forwards by describing an arc with he convexity outwards. At the same time, the head and shoulders re thrown back, the dorsal curve is greatly exaggerated, and the right rm, which is flexed on the forearm, with the corresponding hand lropped on the wrist, is brought up nearly to a level with the chin. As he walks, he keeps the right upper extremity in this position; but he opposite limb is moved backwards and forwards, and, together vith the trunk, which sways powerfully from side to side, serves to naintain the equilibrium during progression. The patient's attitude, when standing, is depicted fairly well in the accompanying figure.

In considering this case, the fact that the epileptic attacks begin in he right upper extremity, and affect it more powerfully than the other imbs, strongly suggests that the lesion in this patient is primarily erebral. But, although this is probably so, the secondary spinal effects re now much more pronounced, and, unfortunately, much more disstrous, than is usually the case in hemiplegia.

What, then, is the probable nature of the cerebral lesion? and where s it situated? With a fair amount of confidence it may be said that he lesion is for the most part destructive, and that it involves the notor zone of the brain. The circumstance that epileptic attacks still ersist suggests that, although the lesion may be to a large extent lestructive, certain of the ganglionic cells of the cortex are in a condiion of unstable equilibrium, and, by their discharge, give rise to the ccasional epileptic attacks.

Furthermore, not only the cortex, but also the subjacent white matter as been involved—if indeed we are to believe the dictates of modern exeriment and pathological anatomy. Assuming then that the lesion has nvolved the motor convolutions (ascending frontal and parietal and aracentral lobule) on the left side, the consequence would be descending legeneration of the pyramidal tract in the hemisphere, crus cerebri, ons and medulla oblongata on that side. In the cord, the direct pyramidal tract (fasciculi of Türck) on the same side, and the crossed yramidal tract in the lateral column of the opposite side, would be legenerated. Clinically, such a change would reveal itself by rigidity, contracture, and exaggeration of the reflexes of the corresponding limbs. It happens—rarely, it is true—that the sound limb in a hemiplegic patient occasionally becomes affected with contracture, like its fellow. The explanation of this curious fact is somewhat difficult. Charcot has put forward the hypothesis that some of the fibres of the pyramidal tract of one side pass through the anterior commissure of the spinal cord to gain the opposite side. In other words, the motor tract decussates, not only at the lower part of the medulla oblongata, but also in the spinal cord itself, to an extent varying probably according to the individual.

By means of preparations in chloride of gold, Schiefferdecker has shown that this is really so. But further proofs are not wanting. If one half of the spinal cord in a guinea-pig be divided, there is well marked paralysis of the corresponding side and *slight paresis of the other side*. Again, it is extremely probable that the motor strands are in intimate relation in the cord, when we consider that the lower limbs are constantly associated together in movement. Not unfrequently, when a hemiplegic patient exerts his sound arm by lifting a weight, for example, the paralysed hand, if contractured, at the same time closes spasmodically.

Now, in spite of the belief of our patient's friends that his trouble is dependent on a fall when three years old, we are inclined strongly to the opinion that the primary lesion, as we have before said, is cerebral. It must be remembered that the fits began when he was in his first year, and that he did not walk until his third year—about the time when the accident happened. It may be that the pyramidal tracts, which are in full progress of development from birth up to the first year or later, are more apt to take on degenerative or inflammatory changes at this period of life than subsequently. The wasting of the right upper extremity is doubtless dependent on atrophy of the large multipolar cells of the right anterior cornua at some point of the cervico-brachial enlargement.

Pitres has described an analogous case of muscular atrophy affecting the left arm in a hemiplegic patient. (*Arch de Physiologie Normale et Pathologique*," 1876, p. 664.) After death, it was found that most of the large cells of the left anterior cornua had disappeared, at the level of the cervico-brachial enlargement, between the seventh and ninth nerve-roots. At present it is impossible to say under what conditions the motor cells become affected with atrophy in cases of lateral sclerosis. Usually, the anterior cornua display great resisting power to the extension of the morbid process from the degenerated pyramidal tracts.

Hemiplegia, when occurring in infancy, frequently entails arrest of development of the paralysed limbs; whereas the same affection when developed in adult life has not the same effect, because the parts are already fully developed. Not unfrequently it is found that the trunk on the paralysed side, in cases of infantile hemiplegia, is imperfectly formed. No such abnormality was observable in our patient.

The case just considered is especially important from a diagnostic point of view. Erb, Seeligmüller, and Stromeyer have called attention

to a spinal affection, which Charcot has termed *spasmodic tabes dorsalis*. The disease occurs both in adult and infant life, but in the latter case it presents some peculiarities not seen in the former. The following are the main features of the affection as it occurs in early life: The rigidity begins soon after birth, and is unaccompanied by cerebral symptoms. The nurse frequently discovers that the extremities and trunk are rigid, and that the child is dressed with difficulty. Walking is delayed until the third or fourth year. The attitude of the lower limbs corresponds almost exactly to the description given above. In fact, our patient may be said to present all the symptoms of spasmodic tabes dorsalis, or as it is otherwise called, infantile spasmodic paralysis, with the addition of the epileptic attacks and the atrophy of the right arm.

For further details on this subject, see Charcot's *Leçons sur les Localisations dans les Maladies du Cerveau et de la Moelle Epinière*. Part II, pp. 365-367. Perhaps many of the recorded cases of spasmodic tabes dorsalis might be found, on careful examination, to depend, as in our patient, on a cerebral lesion. But that a distinct morbid entity, such as Charcot describes, does really exist, is extremely probable. The change, perhaps, is situated in the lateral columns of the cord. Charcot gives an account, in the work above named, of an affection which he calls *amyotrophic lateral sclerosis*. The primary change consists of sclerosis of the lateral columns, but subsequent degeneration of the anterior cornua in the cord is an essential factor of the disease. The course of this malady is comparatively acute, death usually supervening within two or three years from bulbar paralysis. Leyden, of Berlin, has denied the separate existence of this affection. It is possible indeed that some of the cases described are secondary, and dependent on a cerebral lesion. It is evident that our case closely resembles the two affections we have briefly mentioned. The diagnosis from ordinary infantile spinal paralysis is sufficiently clear, and requires no comment. In conclusion, we venture to hope that the case we have just discussed may throw light on some debated points in nerve-pathology.

THERAPEUTIC MEMORANDA.

ANTISEPTIC TREATMENT OF LUNG-DISEASE.

FOR several years, I have largely employed dry antiseptic inhalation in phthisis, as an adjunct to general constitutional measures. The treatment I believe to be useful; but every case of improvement must not be attributed to the inhalation. The most suitable cases are those attended with profuse expectoration, especially when softening has commenced or cavities formed.

The effect is sedative; in a large proportion of cases the expectoration diminishes in quantity and improves in quality, cough becomes less frequent and severe, and sounder sleep is enjoyed, enabling the patient to dispense with objectionable cough medicines. The same effects may be noted when the general progress of the lung-affection is not arrested. I have never seen hæmoptysis produced by its use. As a respirator, I prefer a simple tin-box, perforated and shaped to the mouth, introduced by Dr. Roberts of Manchester. The patient is directed to place a few drops of the carbolic solution on the tow in the box, and to use the respirator for ten minutes after the morning cough, and at intervals during the day. Many habitually use it for hours while reading. If dryness and irritation of the mouth and throat be caused by the carbolic inhalation, other remedies may be substituted—such as terebene and eucalyptus oil.

To produce an aseptic atmosphere, the constant use of the vapour of carbolic acid in the sick-room has been recommended; few can be induced to submit to this treatment, which I cannot recommend.

W. V. SNOW, M.D.Lond., Bournemouth.

ON THE TREATMENT OF SOME FORMS OF PNEUMONIA.

I WISH to draw attention to the remarkable effects produced by the perchloride of iron, combined with hydrocyanic acid, in cases of pneumonia of a low type, especially those due to blood-poisoning. Most practitioners will agree in having seen cases of pneumonia run a course so like, in its general aspect, that of erysipelas as to lead them to imagine that they might be due to a similar cause, taking effect in the interstitial substance of the lung, instead of in the subcutaneous tissue. I have seen many such, and I have begun to apply a similar treatment, with, as I say, truly marvellous effects. The first case of the kind in which I ventured on this treatment was that of Mrs. G., aged 35, who had double pneumonia, with pleurisy on the right side, in February of last year. When I first saw her, the pulse was 140, the temperature in the axilla 103°, and the sputa of a deep rust colour. I ordered mustard and linseed poultices, and the following mixture: ℞ Liquoris ferri perchloridi fort. ℥ij; acidi hydrocyanici (Scheele) ♏viij; aquam ad ℥viij. M. Two teaspoonfuls to be taken every hour, with an intervening teaspoonful of brandy in water. After thirty hours, the pulse had fallen to 100, the temperature to 99°, the sputa were entirely devoid of blood, and the breathing was almost normal. This patient made a rapid recovery.

In the last case of the kind coming under my notice, which occurred last week, the patient seemed to bei n a state of collapse, or syncope; the pulse was 144; the breathing in short gasps; the finger-ends, as seen through the nails, of the colour of a thunder-cloud; and both lungs in a general state of clog. Delirium also lasted a whole night. She had complained of shortness of breath, and had a phthisical aspect and family history, but had never had any cough until the present time. I ventured upon the same treatment with her; and her pulse is now 96, temperature all but normal, sputa devoid of blood or discoloration of any kind, and she herself anxious to get up.

D. BIDDLE, Kingston-on-Thames.

OBSTETRIC MEMORANDA.

TRIPLETS.

THE following case, which has recently occurred in my practice, may be of interest to some of the readers of the JOURNAL. A few days ago, I was called to attend Mrs. M., aged 34, in her third confinement. The two children by her former confinements are aged four and eight years respectively. At 10.30 A.M., the nurse who came for me stated the "child's feet and body were in the world for some time"; and, on going to the patient, I found it so, and delivered in the usual manner. From the long-continued pressure on the umbilical cord, the child was almost asphyxiated, and I adopted Sylvester's method for resuscitation, together wiih stimulation to the spine, and it gradually revived. On returning to the mother to examine the uterus, I found the head of a second child presenting above the brim of the pelvis, which was also distinctly felt through the parietal wall; but there were no indications of a second labour. I watched her closely all day, waiting the course of events; and towards night, finding the "pains" were not returning, I administered a drachm of the liquid extract of ergot; this did not produce the slightest effect, and, there being no immediate symptoms of danger, I decided upon leaving nature to take its course, sustaining her strength with nourishing food and stimulants. At 12 P.M., she complained of aching pain in the back, for which I prescribed a draught containing thirty minims of tincture of opium, after which she had a good night's rest, and was altogether relieved from pain until 1 P.M. next day, when she again complained of the same pain, which now more resembled the commencement of true labour-pains, and continued so till about 4 P.M., when I thought it advisable to administer another drachm of ergot. Soon afterwards, the pains increased in severity, until the head of the second child presented close to the outlet of the pelvis. She then had violent bearing-down pains for some time; but the head remaining still in the same position, and the patient getting weak, I applied Simpson's forceps, which are the ones I always use, and delivered the child at 6 P.M.

On again examining the abdomen, I found that, although it was very much diminished in size, there was still sufficient enlargement to lead me to believe there was another child; and on making a vaginal examination I found the head of the third presenting. This one was delivered naturally by three or four expulsive pains, and for some time after birth I thought life was extinct; but after adopting the usual methods for artificial respiration, and placing the child in a hot bath, which I think was of the greatest service in this instance, it soon revived.

I kept up the uterine contractions for some time; but, finding they were not sufficiently strong to expel the detached placenta, I extracted it in the usual way. There were two distinct placentæ, united by a thin membranous band; one of these, somewhat the larger of the two furnished the supply to two of the cords. The first and third child weighed each six pounds, and the second six pounds and a quarter.

J. HOWE, L.R.C.S.ED., Castle House, Llanidloes.

BEQUESTS AND DONATIONS.—Mr. Charles Hodgson, of Durham, has bequeathed £3,000 to the Royal Albert Asylum for Idiots and Imbeciles of the Northern Counties. Mr. Edward Cushee, of the Holloway Road, has bequeathed £1,000 consols to the Great Northern Hospital, £500 consols to the London Hospital, and £500 consols to the Royal Hospital for Diseases of the Chest. Mr. James Lake of Newlands, Teynham, has bequeathed £1,000 to the Kent and Canterbury Hospital.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

MANCHESTER ROYAL INFIRMARY.

INTERSTITIAL ABSORPTION OF THE NECK OF THE FEMUR FOLLOWING A FALL ON THE TROCHANTER MAJOR.

(Under the care of Mr. JONES.)

WILLIAM D., aged 15, was readmitted from Cheadle Convalescent Hospital, October 22nd, 1881. His family history was good: there was no tendency to rheumatism in any member of the family. The patient had always enjoyed good health.

History and Condition on admission.—A little before the previous Christmas, while skating, he fell on the outer side of the right thigh. The fall was not a severe one, for he was able to continue skating for some considerable time, and afterwards to walk home, a distance of more than a mile. A week or two afterwards the injured hip became the seat of pain, which was most marked when sitting, not noticed much during walking or lying down. Without any augmentation of the pain, and with a complete absence of other symptoms, the hip gradually and almost imperceptibly grew more and more stiff, so that at the time of admission there was scarcely if any movement in the joint; the patient was unable to reach the right foot without bending the knee, and placing the right limb behind the left. When he lay in the horizontal position, the right thigh and leg were rotated outwards. The hip-joint did not permit any movement; any attempt at flexing the thigh moved the pelvis. The knee-joint on the contrary was quite movable. Accurate measurements were taken, and a comparison of the two sides gave the following results:—From anterior superior spinous process of ilium to internal malleolus, right side, 32½ inches, left side, 33¾ inches; circumference of right thigh 17½, of left thigh 18½ inches. The right buttock was smaller than the left, and its fold was almost obliterated.

October 25th. The patient was placed under the influence of chloroform, and the right thigh forcibly flexed on the abdomen, and rotated outwards and inwards. Fibrous adhesions audibly gave way, and the movements of the limb were subsequently extremely free—much more so than in a healthy joint. Liston's long splint was then applied, and the limb kept in the extended position.

November 2nd. Comparatfve measurements of the lengths of the two limbs were again taken. The right was one inch and three-quarters shorter than the left. There was considerable thickening about the trochanter which was two inches above Nélaton's line. The base of Bryant's triangle was half an inch less on the right than on the left side. The limb was capable of flexion through a few degrees; rotation was impossible, and any attempt was painful. Eversion of the limb had now given place to slight inversion and adduction.

November 10th. For the last few days passive motion had been employed, but with negative results. The patient was allowed to get up and move about.

November 16th. Movement of rotation caused a pain which was felt on the inner side of the knee; the hip was painless. The pain in the knee was relieved by pressure.

November 17th. The right limb was found to be two inches shorter than the left. The circumference of the thigh was less by three-fourths of an inch, than at the time of admission.

November 18th. The patient's mother was seen, and the lad's personal and family history inquired into; nothing was elicited which could in any degree assist in the elucidation of the symptoms. The different members of the family were quite free from any rheumatic tendency.

November 21st. Aching pain had been constantly present in the right knee for two or three days, and was compared to the sensation experienced when he had stood too long on the leg.

November 24th. The pain continued, but was worse at night.

November 28th. Chloroform was again administered, and the limb forcibly and freely moved; a more careful and detailed examination of the part was also made. When the leg was flexed and rotated inwards, a hard irregular mass could be felt behind and somewhat above the trochanter. From the position which it occupied and its behaviour under the various movements of the limb, it was concluded that this mass was the head of the femur. It had lost the rounded outline, and appeared to be of an ovoid shape, with the long diameter at right angles to the remains of the neck. The thigh-bone could be rotated inwards to such an extent that, when flexed, it crossed the sound thigh about the centre. When extended, it allowed the inner margin of the foot to lie on the bed.

November 30th. Pain in the knee was still present; slight flexion of the thigh could be practised. Rigidity of the hip-joint had returned, as shown by the pelvis moving with the leg when the thigh was flexed beyond a certain degree. The patient could voluntarily invert and evert the foot slightly; he was quite unable to bring the right thigh over the left without lifting it with his hands.

December 22nd. He was discharged. He had no pain when walking; the shortening caused much inconvenience, and he was advised to wear a high-heeled boot. When the patient was in a position of rest, *i.e.*, lying on his back with the spine level on the bed, the femur was fixed at an angle of 30° with the horizontal plane. It could be moved through a space of about 10°; beyond that, the spine became curved. There was shortening to two inches, no pain or tenderness about the joint, considerable deformity, with slight wasting of the muscles of the limb. There was a depression in the groin in front, where the head of the bone should be. He could stand straight; the heel was raised. Slight rotation inwards was possible; abduction and adduction were impossible.

REMARKS.—This case presents a fairly typical example of a condition which fortunately does not often follow contusion of the hip. The original injury was of a very trivial nature, and did not call for any treatment. We cannot, however, resist its causal relationship with the changes which subsequently occurred. The aching pain, commencing soon after the fall, sufficiently indicated the presence of a change which gradually and slowly proceeded: for even while the patient was under observation, shortening of the femur to the extent of an inch took place. That the shortening is due to a change in the neck of the femur is shown by the altered position and direction of the head.

The different measurements demonstrate the close proximity of the head to the trochanter, as well as an alteration in the axis of the neck. The almost exclusive appearance of interstitial absorption in the upper end of the femur still requires explanation. It appears that blows or falls on the hip can disturb the circulation in the neck of the thigh-bone to such a degree as to determine organic changes, which result in shortening of the neck and much deformity of the limb. The alteration has been mostly observed after fracture of the cervix femoris; its occurrence after contusion of the hip is mentioned, and cases of this nature are occasionally recorded. No age seems to be exempt, for among Hell's cases it was observed as early as thirteen years. In old people, a liability to reabsorption after slight causes is an undisputed fact, a knowledge of which is of considerable importance. It would be well to warn a patient (especially an aged one) who has sustained an injury to the hip, that structural alteration of the neck of the bone is within the range of possibility; otherwise the surgeon at some future time may be blamed for having overlooked a supposed fracture or dislocation. In the present case, an ability to continue at work at once excluded these accidents. If, however, the contusion had been of such a severe nature as to require rest for some time, and deformity and shortening had subsequently been detected, it is more than probable that a mistaken diagnosis would have been suspected. Interstitial absorption is not associated with any constant peculiarity of constitution. This lad presented a healthy appearance, and the attempt to detect any hereditary predisposition to disease proved fruitless. The relation between chronic rheumatic arthritis and interstitial absorption appears to be still unsettled clinically. There is an undoubted similarity between the two conditions, and the similarity may also be traced in the appearances presented by the parts which are the seat of the morbid action. In the case which is recorded above, the diseased condition had proceeded at a much faster rate that it ever does in chronic rheumatic arthritis; besides this, the deposition of bone in the soft structures in the vicinity of the affected joint, characteristic of the latter disease, was entirely absent. The diagnosis of morbus coxarius from interstitial absorption of the neck of the femur is not usually attended with much difficulty. The presence of extra-articular fibrous adhesions, which rendered motion of the hip-joint impossible without the aid of anæsthetics, introduced a difficulty in the diagnosis. The history of the case, combined with the result of the examination while under the influence of chloroform, with the absence of constitutional derangement usually attendant upon the ordinary disease of the joint, makes the diagnosis of interstitial absorption tolerably certain.

MISSION HOSPITAL, KASHMIR.

ELEPHANTIASIS OF THE PENIS AND SCROTUM.

(Under the care of Mr. E. DOWNES.)

K., a Kashmiri, aged about 35, came to the Mission Hospital, with an enormous elephantiasis of the penis and scrotum. The mass reached down below his knees, and he could walk with

difficulty. The penis and scrotum could not be distinguished—the two had grown into one large mass. At the lower end was a portion about the size of a man's head, separated from the rest by a sulcus, and resembling in shape and proportion the glans penis. When he passed urine, it issued from a hole, at about the centre of this portion, and large enough to admit a finger easily. A catheter passed into this orifice went easily nearly its whole length, but then met with an obstruction and gave rise to pain.

It was proposed to remove this mass, which made the patient's life insupportable; and he readily consented. A few days afterwards, the operation was performed under chloroform. Mr. Downes was assisted by the Civil Surgeon of Kashmir, Dr. Lewtas, and by Dr. Price of the Army Medical Department. All the blood was squeezed out of the mass by elastic bandages, and Esmarch's band was then applied to the base of the penis and scrotum. The mass being too heavy for a man to hold up steadily, a rope was fastened to it, and passed over a beam in the roof of the operating-theatre; the tumour was thus fixed in nearly a perpendicular direction, the patient lying in the lithotomy position. An endeavour was made to reach the urethra, to dissect the abnormal growth from the penis and testicles; but, chiefly owing to the unwieldy size of the mass of cellular tissue, it had to be abandoned. On making an incision on to the catheter, a *cul-de-sac* was reached, in which it was impossible to find the urethra, or to distinguish the parts at all. There was no loss of blood, on account of the precautions taken; but a great quantity of serum drained away from the incision. It had been agreed that it would be best to remove the entire mass at the base, thus unavoidably amputating the penis and removing the testicles. This was done by dissecting away as much of the abnormal cellular tissue as was possible. A great number of enormously enlarged vessels were encountered, all of which were secured with ligatures. The mucous membrane of the urethra was stitched to the fibrous sheath of the corpora cavernosa and spongiosa. On removing the Esmarch's band, a few more vessels had to be secured; the edges of the integument were stitched; and the urethra was fixed to the skin in a convenient position. The patient recovered from the operation, and never complained of pain or difficulty in passing urine. With the exception of a little fever a week after the operation, he recovered without a bad symptom. There was a little suppuration, but not very much: the ligatures came away in from six to ten days, and the sutures were removed on the fifth day. Mr. Downes saw him last on July 11th, when the skin had united above and below the urethra; but, for a circular space of about two inches radius round the urethra, there were granulations which had nearly filled up the space, and it appeared likely that after a week or two it would completely heal. The weight of the penis and scrotum after removal, and when nearly all the serum had drained from it, was found to be fifty-two pounds; when it contained the serum and blood which it did during life, it must have weighed over sixty pounds. On dissecting the mass, it was found that the testicles were slightly atrophied; the penis was normal, with the exception of the enormous amount of cellular tissue surrounding it; the glans penis was normal, and so was the meatus urinarius, but it was hidden completely by the enormous mass of cellular tissue described as resembling the glans penis: this could not have been the enlarged prepuce, for, being a Mahometan, he had been circumcised in childhood. The specimen was sent to the museum of the Medical College, Lahore.

INCREASE OF PEABODY BUILDINGS.—On December 31st, 1881, no fewer than 11,459 persons were in residence in the various groups of Peabody Buildings, showing an increase of 1,565 upon the number at the end of 1880. This increase was mainly due to the completion and occupation, during the year, of two new groups of buildings: one in Whitechapel, and the other at Bedfordbury. The Whitechapel buildings were partly tenanted during June, and at the end of the year contained 1,200 inhabitants. The smaller block of buildings, at Bedfordbury, contained 116 inhabitants at the end of September; but at the close of the year the residents had increased to 623. These new buildings at Whitechapel and Bedfordbury had 1,823 inhabitants at the close of last year; it follows therefore that the residents of the older buildings were rather less numerous than at the end of 1880. It is scarcely possible to overrate the eventual beneficial influence of the Peabody fund upon the dwellings of the working classes in London, since the fund is increasing at compound interest. We await with interest the annual report of the trustees on the health of the residents in the Peabody Buildings during last year. Further efforts are, however, required to teach the working classes how to live healthily in healthy dwellings.

VACCINATION.—Mr. J. Allen Ramsay, of Great Shelford, has received, for the fifth time, a grant for successful vaccination in his district of the Chesterton Union.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, FEBRUARY 14TH, 1882.

A. W. BARCLAY, M.D., President, in the Chair.

The Surgical Uses of Kangaroo Tendons. By T. M. GIRDLESTONE, F.R.C.S. (Communicated by THOMAS SMITH, F.R.C.S.)—The author stated his belief that, for tying large vessels in their continuity, the long even tendons from the tail of the kangaroo were as strong as the silk ligature, caused no ulceration in the coats of the vessels and had all the valuable qualities of catgut without its defects. The tendon made an excellent suture, resisting the effects of purulent discharges for a long period. The ligatures had been used in Melbourne in place of silk or gut, since 1877, when they were first brought before the notice of the Medical Society of Victoria. In their use in the Melbourne Hospital in the deligation of main arteries, the inner coats of a vein could be divided or not, and the ends of the ligature cut short off. A reef-knot did not slip, nor become loose. Where there was no suppuration, the tendons coalesced with the tissues; and in suppurating wounds, though softened, they were found still to hold together at the end of eight days. The tendons were previously immersed for some weeks in carbolic oil, and entire tendons only were used. They had been employed in ovariotomy and in vesico-vaginal fistula, and held till union took place. In plastic operations, hernia, and varicocele, the tissues had readily healed over them. A medium-sized tendon was so strong that it was difficult to break it with the hands, and it was uniformly strong in its entire length of twelve to eighteen inches. The tendons could be hardened for use as sutures by immersion in a 0.5 per cent. solution of chromic acid, after which they could be also used as drains for wounds. In their preparation, they should not be removed from the tail *en masse*, but one at a time, without force, as, if split longitudinally, they could not be relied on. Even diameter that was required was attainable, so that there was no occasion for splitting; neither should two or more tendons be twisted together, as it destroyed their flattened form. On removal from the recently killed animal, they should be cleaned in water, and afterwards in a carbolic acid solution, and then dried, and could be so preserved or in .5 per cent. carbolic oil, as most convenient, to be again steeped in a watery solution of carbolic acid before use. The tendons could easily be obtained.—Mr. THOMAS SMITH had used kangaroo tendons as sutures in cases of ruptured perinæum and other cases where superficial sutures were required, and had found that they were removed by absorption without causing any trouble. He had also tied large arteries with them in many cases; in one case only the tendon broke during application. If they possessed any advantage, it probably lay in their being natural structures, demanding no special preparation, and in their being fitted to bear severe strain. The tendon was not suitable for gastrostomy; he had used it in one case for fastening the stoma to the abdominal wall; but the patient died in a few days, the stoma having fallen away from the wall of the abdomen in consequence of the too rapid absorption of the tendon.—Mr. R. GODLEE thought that the tendons were rather rapidly absorbed unless specially prepared. In a case under Mr. Lister, in which kangaroo tendons had been used as sutures to a wound, they were much altered at the end of a week. It would not be safe to apply them to an artery in its continuity; but, if properly prepared, they might be made superior even to catgut itself. Mr. DENT said that the kangaroo tendon was very strong, and resisted the action of the tissues for a long time; but, if either the tendon or catgut were too highly prepared, a sharp edge might, in tying it, be presented to the ligature, so as to cut it through. He believed that the tendon ligature was as good a form of animal ligature as any other. He had seen an artery held firmly by a tendon ligature tied in a sine knot.—Dr. HEYWOOD SMITH asked if the tendon ligature had been used in ovariotomy, where great strain was liable to be exercised in consequence of the patient's efforts to vomit.—Mr. BARWELL thought the kangaroo tendon likely to be a very good ligature. He held that fresh animal tissue, presenting no sign of putrefaction, was best used without special preparation; all that was necessary was to keep it in a proper fluid. Soaking in carbolised oil rather deteriorated it, and was liable to reder it unequal in strength. He had also found the whip-tendon ligature, recommended by Ishiguro of Japan, very useful. Dr. Wyeth of Philadelphia had informed him that he had been using, with much success, the sciatic nerve of the calf for the purpose of ligature.—Mr. F. S. EDWARDS had tied the femoral artery with kangaroo tendon in a case of popliteal aneurysm, in which Esmarch's bandage had been twice applied without success. The patient recovered; but the wound

was five weeks in healing.—Mr. HOLMES had hoped to hear a more detailed account of the effects of the ligatures. The use of kangaroo tendon was not new; it had been employed at St. George's Hospital in several cases by Mr. Stirling. It would add to the value of the communication, if Mr. Smith would state the conclusions at which he had arrived as to its value as a suture and as a ligature respectively. As a suture, it appeared not to differ much from carbolised catgut. He was much disposed to agree with Mr. Barwell in preferring fresh tissue.—Mr. T. SMITH said that there had been no opportunity of observing the pathological changes attending the use of the kangaroo-tendon ligature; and he hoped that it would be long before it was possible to make such observations. He had never used it in ovariotomy.

On Two Cases of Unreduced and Two Cases of Reduced Dislocation of the Hip. By HENRY MORRIS, M.A., M.B.—In Case I, an impacted fracture of the neck of the thigh-bone occurred to an old man, who had for years had an unreduced dorsal dislocation of the same hip. Under examination, the impaction was broken down and the limb brought straight, and therefore into a much better position than it was prior to the second accident. Union of the fracture followed, with the two limbs parallel. It was suggested that, in certain cases of unreduced dislocation, subcutaneous division of the neck of the bone should be performed, with a view to correct the more extreme inconveniences of the dislocation; and that, in all irreducible dislocations with fracture of the neck or shaft of the thigh-bone, the fracture should be so set as to get parallelism of the limbs by causing the fragments to unite at an angle. Case II was an unreduced dorsal dislocation, with fracture of the rim of the acetabulum, in a young and active man. The dislocation was of fourteen months' standing, and was caused by a fall from a height during a walk in a state of somnambulism. At first, the symptoms of dorsal dislocation were absent, and it was thought that the trochanter major was fractured and slightly displaced upwards and outwards; but whilst lying in bed the limb gradually shortened, and at the end of ten weeks had assumed the characteristic signs of dorsal dislocation. The feature of interest was the marvellous mobility of the unreduced limb, which was capable of every form of movement common to a ball-and-socket joint, and to an almost perfect degree. It was suggested that this freedom of movement, whilst in large part due to the activity and perseverance of the patient, was also largely the result of the dislocation being direct—the result of previous fracture of the acetabulum. The head of the femur thus rested upon the bone of the pelvis, and was strapped down and steadied by the rotatory muscles; whilst the neck was not wound round the capsular ligament as in the case of indirect dorsal dislocations, in which the head of the bone mounted over the rotator muscles so as to have them between it and the dorsum ilii. The case showed how a dislocation might insidiously follow fracture of the rim of the acetabulum by the mere continued traction of muscular action. Case III was a thyroid dislocation, reduced by manipulation after having been converted into a dorsal dislocation. The peculiarity—as it must be called, if the text-books were correct—of the case was the shortening of the limb an inch and a quarter; but probably in all obturator luxations the lengthening was only apparent, and due to the extreme tilting of the pelvis. Case IV was a dorsal luxation of the ordinary type, and was reduced by manipulation in the ordinary way. The head of the bone, during reduction, could be plainly felt traversing its way to the lower edge of the acetabulum, that is, retracing the course along which it was displaced. This case, and Case III, in which the thyroid was converted very easily into a dorsal dislocation—and indeed all cases of pubic and thyroid luxations which were changed into posterior luxations—afforded additional arguments in support of the views, previously published, of the author; namely, that in all the ordinary dislocations backwards without fracture, whether spoken of as "dorsal" and "sciatic", or, as Bigelow styled them, "dorsal above" and "dorsal below the obturator tendon", the femur left the acetabulum through a rupture of the thin part of the capsule and below the internal obturator tendon. Herein was the *rationale* of the success of the method of reduction by manipulation; and posterior as well as anterior dislocations occurred whilst the limb was abducted. The chief museums of England, Ireland, and France had been searched for specimens of dislocation of the hip, with this result, that there was not a single example of simple, uncomplicated, direct posterior dislocation above the obturator internus, but many of secondary dorsal and sciatic luxation; that is, luxation in which the head of the bone, having left the socket below the obturator internus muscle, had ridden upwards over it into its new position. Special reference was made to Sir W. Mac Cormac's case in St. Thomas's Hospital Museum, and a diagram of it was shown.—Mr. F. S. EVE made some remarks in reference to his views on dislocation of the hip-joint, as expressed in a paper previously read before the society, which differed from those entertained by Mr. Morris.—Mr. MORRIS briefly replied.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, JANUARY 11TH, 1882.

J. MATTHEWS DUNCAN, M.D., President, in the Chair.

Fibroid Tumour of Uterus.—Dr. CARTER showed a fibroid tumour removed from a patient, aged 54, who had suffered from hæmorrhage for six years. The vagina was filled by a large smooth growth, an expansion of the posterior lip of the cervix. It was removed by écraseur under ether, and weighed twenty-one and a half ounces. The next day a large mass again filled the vagina, being the interstitial part of the tumour extruded. Ether was again given, and a piece, weighing ten and a quarter ounces, removed from the posterior lip of the cervix. On the third day there was again found in the vagina a polypoid mass springing from posterior wall of fundus. This was again removed by écraseur, and weighed three ounces. The patient did well.

Mummified Fœtus.—Dr. OUTHWAITE showed a mummified fœtus, evidently developed up to about the second or third month. It came away after the delivery of child in the seventh month of pregnancy. The placenta was single, and the membranes showed a manifest septum.—Dr. EDIS thought that the case illustrated a common incident. It often happened that, in twin pregnancy, a burst of hæmorrhage took place, and abortion was supposed to have occurred, when only one ovum was blighted, and might either be retained or expelled.

Uterine Fibroid complicating Pregnancy.—Dr. GALABIN showed for Mr. GILLINGHAM an uterus at full term of pregnancy, having a very large soft fibroid tumour growing from its internal surface. The os was found closed, and the head above the brim; and it was thought at first that the smooth elastic mass, felt through the os, was the sac of a second fœtus. This was disproved on attempting to scratch through the supposed membranes. A second practitioner called in took the case to be placenta prævia. The child was delivered with difficulty by version, and the patient died from shock and hemorrhage shortly afterwards.

Salicylic Cream.—The PRESIDENT called attention to salicylic cream (one part of the powdered acid to four or five of glycerine or vaseline) as a valuable means of keeping sponges, tents, instruments, etc., aseptic in the vagina. It had been suggested to him by Dr. Alexander Ogston, of Aberdeen, and he had used it with success in inducing premature labour and other operations.

Treatment of Dysmenorrhœa and Sterility.—The discussion on Dr. GODSON's paper on the treatment of dysmenorrhœa and sterility by dilatations with metallic bougies, was continued.—Dr. ROGERS had, 15 years ago, commenced the use of dilators, at the recommendation of the late Sir James Simpson. In married women, pregnancy often followed; but the results were not so satisfactory in the unmarried, who often relapsed into their former condition. Eventually, he ceased to have confidence in their use, and he believed that they had been universally discontinued in London until the last few years. He had also given up the use of incisions, one of his patients having died after that operation. Eventually he turned his attention to the cure of dysmenorrhœa by the use of Dr. Wynn Williams's intra-uterine stem and shield, and in only one case had serious mischief arisen. In private practice, however, he preferred one of Meadows's or Routh's stems of vulcanite, as India-rubber soon decomposed. Since hearing the paper, he had tried a No. 7 and No. 8 dilator upon one patient, but found that the latter gave extreme torture. Dilatation by sea-tangle was afterwards well borne.—Dr. BRAXTON HICKS confessed to a difficulty he had always felt in distinguishing the purely spasmodic dysmenorrhœa, to which the author wished to confine his paper. It might be possible, during the menstrual intervals, to pass a sound readily up to the fundus, and yet the menses might be obstructed, for instance, from a hæmorrhagic coagulum or tumidity of the mucous membrane. How often were these conditions mixed with spasm in persons sensitive to reflex-irritations, so that there was a compound condition. When one looked to the remedy employed by the author, it was found that it was essentially dilatation by bougies graduated in size. Hence it might fairly be concluded that the cases where these were of use were, more or less, at the menstrual period, cases of obstruction, unless it were argued that the mere passage of the metal tended to harden the mucous surface, and to render the uterus less susceptible and spasmodic. If then the cases were, in a measure, instances of obstruction, they were out of the discussion, which was limited to those of pure spasm.—Dr. SAVAGE said that the instrumentalists contended that their inventions cured in some cases, relieved in most, and never did harm; whereas there was abundant evidence that they never cured, relieved only so long as they were used, and too often did much harm, even to compromising life. An eminent provincial surgeon had lately brought to the notice of the profession fourteen morbid specimens of the uterine appendages, some of the tubes containing half a pint of matter. It was said that these unfor-

tunate subjects had been the round of the profession, and had been submitted to all sorts of instrumental treatment. Was it not clear that the original disease, if not produced by instrumentation, had been greatly aggravated by it? He agreed with Dr. Hicks and Dr. Herman that every sort of uterine deviation and contraction was met with without suffering, and the converse. He thought the diagnosis of deviation by instruments untrustworthy; for the deviation supposed to be diagnosed was actually produced by the instrument. He deprecated the fast growing tendency to interfere surgically with complaints referable to the uterine system.—Dr. PRIESTLEY thought that one of the disadvantages of discussions like the present was, that those of limited experience were apt to conclude that all cases of dysmenorrhœa required local treatment. The theory that dysmenorrhœa was always obstructive was not borne out by facts, for severe pain in menstruation often occurred after the genital canal had been fully expanded by parturition, though it was true that, in the majority of cases, parturition cured previously existing dysmenorrhœa. There might be great suffering at what corresponded to menstrual periods, where there was absolute amenorrhœa, or where the uterus was rudimentary. There was a large class of cases, more especially among unmarried girls, in which local treatment was absolutely unnecessary. He could not agree with the author, however, in dropping the term, obstructive dysmenorrhœa; for there were not unfrequent instances of genuine organic narrowing, congenital or acquired, as the sequel of inflammation, and correct diagnosis was most important. Where local treatment was considered necessary, he thought, in some cases, dilatation was the proper course; in others, division of the cervix was more useful. Where there was a choice, he preferred dilatation, considering incision to be much more hazardous.—Dr. GALABIN said that the most remarkable point about the cases was the very large proportion of them in which not only dysmenorrhœa, but sterility, seemed to have been cured. What was the mechanism of this cure? He had himself had cases in which, after years of sterile marriage, pregnancy had followed within a month after a single use of metallic bougies or Priestley's dilator. Dr. Barnes had related cures of sterility by moderate incisions of the external os, and similar experience was not uncommon. The only common element in the three modes of treatment seemed to be, that all made the access through the cervical cord more free. The natural inference was that a canal, though large enough to let the sound pass easily, might yet practically not give free enough ingress to the semen. *A fortiori*, a similar canal might not give perfectly free egress to the product of menstruation, which was not only fluid blood, but contained *débris*, if not shreds of mucous membrane, and often clots. Egress of menstrual fluid was not prevented, as ingress of semen appeared to be, because it had the contractile power of the uterus behind it; but this very circumstance was enough to account for spasmodic pain in a sensitive subject. He did not accept the author's theory that the sterility was due to spasm of the uterus ejecting the semen, for the painful spasm only occurred at the menstrual period.—Dr. MURRAY spoke in favour of the intra-uterine stem. The case of dysmenorrhœa and sterility so treated by him had been successful, and he thought the stem-pessary much more likely to effect a cure in the so-called spasmodic dysmenorrhœa. He quite agreed with Dr. Hicks's views on this subject; and also with Dr. Priestley, that a great deal too much interference often took place.—Dr. AVELING said that dilatation for the cure of dysmenorrhœa might be effected in four ways: 1. By passive, or what had also been called physiological dilatation, by means of stems; 2. By wedging the canal open by sounds, bougies, or plugs; 3. By direct dilatation, instruments or tents being passed into the canal, and expanded or allowed to expand; 4. By incisions. Each of these methods, he thought, might be used satisfactorily, but no one should be used to the exclusion of the other.—The PRESIDENT regarded the mechanical difficulties of, or obstruction to, semen by the cervical passage, as made far more important than they really were; and especially he noted the error of regarding the dimensions of the cervical passage as being stable, constant, or permanent. He had no doubt they varied, and almost certainly were enlarged during the orgasm of coitus. Were these conditions as important as represented, and were they stable or constant, impregnation could never occur, for the passage of the inner end of the tube was closed altogether not a bristle could be passed. This was enough to show that it was wrong to consider size of passage without further investigation as to changes of the size. Many eminent men doubted the reality of so-called cures of sterility, and he had no doubt that most cases were mere lucky coincidences. He was not convinced of the reality of any cures, except in those cases of combined dysmenorrhœa and sterility discussed in Dr. Godson's paper. One evidence in favour of the reality of the cures was that all were done by substantially the same method, namely, dilatation of the cervix. Among the various means of dilatation, he held a well known opinion in favour of that recommended in the paper just read.—Dr. GODSON, in reply, said that his dilators were not curved any more than an ordinary uterine sound, and not so much as those used by the President. It seemed almost doubtless that the patient upon whom Dr. Rogers had passed the dilators was suffering from *congestive* dysmenorrhœa, and was not a fit subject for the treatment. It was most important that a proper diagnosis should be first arrived at, and that dilatation should be only practised where there was absence of congestion. Otherwise, there was great fear of inflammatory mischief ensuing. His paper treated only of spasmodic dysmenorrhœa *associated with sterility*, and therefore Dr. Priestley's remarks with respect to the treatment of young girls were outside the scope of the paper; but he entirely accorded with them.

MEDICAL SOCIETY OF THE COLLEGE OF PHYSICIANS IN IRELAND.

WEDNESDAY, JANUARY 4TH, 1882.

J. W. MOORE, M.D., Vice-President, in the Chair.

The late Dr. Reuben J. Harvey.—The Honorary Secretary, Dr. A. NIXON MONTGOMERY, having notified to the Society the death of Dr. Reuben J. J. Harvey, it was proposed by Dr. C. J. NIXON, seconded by Dr. C. E. FITZGERALD, and resolved: "That the Medical Society of the King and Queen's College of Physicians in Ireland desire to place on record their profound regret at the death of Dr. Reuben Harvey, a member of council; and their sense of the loss which the Dublin School of Medicine has sustained by his demise."—Dr. NIXON further moved: "That, out of respect to the memory of the late Dr. Reuben Harvey, this meeting be adjourned until this night week, the 11th inst." Dr. HENRY KENNEDY seconded the resolution, which was unanimously agreed to.—The Society then adjourned.

WEDNESDAY, JANUARY 11TH, 1882.

J. W. MOORE, M.D., Vice-President, in the Chair.

An Outbreak of Disease Traceable to the Drinking of Impure Water.—Brigade-Surgeon JACKSON, C.B., having taken the chair, Dr. J. W. MOORE detailed a series of four cases of illness traceable to the use of impure water for drinking purposes. Two of the patients (all of whom were treated in the Meath Hospital in the last three months of 1881) suffered from undoubted typhoid fever, with rose-spots and other characteristic phenomena; one case terminated fatally on the sixty-fourth day. A third patient had a sharp attack of acute gastro-enteric catarrh. The fourth passed through a somewhat anomalous croupous pneumonia of the left base. All the patients were admitted from a large training institution in Dublin, where typhoid fever had already prevailed in the autumn of 1880. Dr. Cameron, chief medical officer of health for Dublin, on being requested to investigate the sanitary state of the institution in question, reported that the water used for drinking purposes was chiefly taken from a tank situated in the front area, but in a confined place, having a stone roof. The overflow-pipe from this cistern did not pass directly into the drain, but delivered its contents over a grating which communicated with the drain. The latter, however, was in a very bad state, broken and choked with foul matters. It was evident that sewer-gases, etc., came up abundantly through the fissures in the area floor, and were dissolved by the water stored in the uncovered cistern. The area was dirty, too, and contained various kinds of refuse which had been blown into it from the street. On examining the water microscopically, it was found to contain, in decidedly large numbers, algæ and various kinds of infusoria, especially monads and rotifers, and several varieties of paramœcium. An imperial gallon of the water yielded 0.014 grain of albuminoid ammonia and 0.008 grain of saline ammonia—proportions largely in excess of those found in pure Vartry water, which this water originally was. Dr. Moore considered that all four cases resulted from sewer-poisoning, and that the pneumonia was of pythogenic origin; and he thought that if, in a given instance like the present, not only true typhoid fever, but other diseases, were so clearly traced to sewage-poisoning as to establish the relation of cause and effect, it was justifiable to argue that the specific virus of typhoid fever had been generated *de novo* either outside or within the bodies of those who had developed the symptoms of this disease, rather than that the said specific virus was capable of producing true typhoid fever in one individual, and, perhaps, a form of pneumonia in another.—A prolonged discussion followed, in which the Chairman, Drs. Finny, Wright, Pollock, Henry Kennedy, and Cranny took part; and Dr. Moore replied.

Salisbury's Views on Phthisis.—Dr. HENRY KENNEDY read a paper, in which he criticised certain views on the treatment of consumption, put forward by Dr. Salisbury in the last volume of the *Transactions* of the American Medical Association. Dr. Salisbury claimed to have discovered that the blood showed unmistakable evidence of a diseased

state for at least a year previous to the development of tubercles in the lungs, and that the microscope could very readily detect this state;* and he showed further that, by direct treatment, the blood could be brought back to the healthy standard, and so phthisis could be literally prevented. He went on to state that this depraved state of the blood is mainly caused by the immoderate use of two articles of food—starch and sugar; and that, by excluding these from the diet, the blood rapidly regains its normal state of health. In support of these views, Dr. Salisbury experimented on no fewer than two thousand swine; about one-half of these were fed on food which did not contain either starch or sugar. These animals remained perfectly healthy, whilst the other half were allowed starch and sugar, and very many of these showed signs of disease in three weeks, which, later on, ended in the development of tubercles in the lungs, as proved by dissection after death. Similar experiments, but not carried to the same degree, were made on some men, with similar results. Dr. Kennedy contended that Salisbury's views as to the etiology of phthisis were not sound, because, whilst the use of starch and sugar may be described as universal, the phthisis which is said to follow their use is by no means so; and, further, Salisbury himself admits that a similar state of the blood to that which, he says, precedes phthisis, exists also in other diseasse—such as syphilis, rheumatism, paresis, typhoid fever, small-pox, erysipelas, and ague. In other respects, his views seemed to Dr. Kennedy to be of great moment, especially in reference to a pretubercular stage of consumption; but there were important omissions in the list of remedies which, besides animal food, had the power of restoring the blood to a healthy state—such were iron and cod-liver oil.—In the discussion which followed the reading of Dr. Kennedy's paper, the Vice-President, Brigade-Surgeon Jackson, Dr. Finny, and Dr. Kennedy took part; after which the Society adjourned.

REVIEWS AND NOTICES.

DESCRIPTIVE CATALOGUE OF THE SPECIMENS ILLUSTRATING SURGICAL PATHOLOGY IN THE MUSEUM OF UNIVERSITY COLLEGE, LONDON. By MARCUS BECK, M.S., M.B., F.R.C.S., Assistant-Surgeon to University College Hospital, and S. G. SHATTOCK, M.R.C.S., Curator of the Museum. Part I. London. 1881.

WITHOUT a good catalogue, a pathological collection is useless. When the spirit in the bottles is kept clean by frequent changing, and the specimens are mounted after proper dissection, and not allowed to break from their suspending threads and lie for months at the bottom of their jars, half the duties of a curator are performed; but efficient means of reference make up quite the remaining half of the labours of those who attend to museums. The description of the specimen as it appeared when fresh, and all microscopical details, are practically included amongst matters of reference, since the curator is appointed to arrange specimens and describe them for the benefit of visitors to his museum. Such is his duty. That he has the right to advance his own interests in any legitimate manner, no one will deny; but that is another question. Should the curator neglect to keep up an efficient catalogue, students and qualified visitors will be disheartened by having to search amongst dusty pages of faded or illegible manuscript, old printed matter crammed with effete terms, or, at the best, supplements half-printed and half-written, and twice as long as the original catalogue. Of late, the most laudable efforts have been made to remedy the evils of imperfect and superannuated catalogues. At the Royal College of Surgeons, and at several museums of metropolitan hospitals, new pathological catalogues are in more or less active progress of compilation. Mr. BECK and Mr. SHATTOCK may be congratulated in having won the race—not so much by the merits of their catalogue, which are high, but rather by being the first to bring out an important part of it. Those who wish to study diseases and injuries of bone, joints, muscles, tendons, and tissue, the alimentary canal, the blood-vessels, lymphatics, and nerves, at the museum of University College, have now a valuable well-printed catalogue to aid their studies. On the title-page, we are informed that "copies may be obtained at the office of the College". The specimens catalogued in Part I are purely surgical, in accordance with the scope of the catalogue as expressed in its title; so that, under "injuries and diseases of the intestines", we find ulcers of the duodenum following burns, but not typhoid ulcers. The specimens are numbered in sequence through all the series. This we consider to be by far the best system; for, as additions are catalogued, such numbering as "666 A, Series ix", or "1238 A, Series xxi", is far less confusing and unsightly than what would be seen, were the numbers to be commenced afresh from the unit in every series, as in several hospital museums, where we find such references as "Series 22, 16 A, *a*". The visitor may be much confused by opening the catalogue at No. 16, in Series 21, and then looking on too far in the book, and dropping on to 16, Series 23. By numbering in plain sequence, all this annoyance is avoided; and we are glad to see that this simpler method is adopted by Messrs. Beck and Shattock. The description of each specimen is short, concise, and correct; all that is to be seen is described, lest any point should escape the observation of the student. We should have liked to see more histories; but doubtless, in the older specimens, the compilers could find no records, or, at least, no satisfactory description of the symptoms of the illnesses of the patients whence the specimens were obtained. Such a history as that appended to No. 1072, a villous tumour of the rectum, greatly increases the value of a specimen as a factor in medical education. There is no summary, at the beginning of each series, of the latest views of pathologists on each subject; and this is advisable, for the catalogue will be useful for many years, whilst "latest views" are apt, in these days, to become old in a twelvemonth. We regret to find that there are no cross-references. Thus, under the subseries, (true) "aneurysms of the thoracic aorta", some reference should be made to specimens of dissecting aneurysm of the same vessel further on, and to examples of true aneurysm of the aorta in the general subseries, "fusiform and sacculated aneurysms", a few pages earlier. Such an arrangement, however, would have involved much labour, and would have retarded the publication of a catalogue which, for some time, has been urgently needed by visitors to the museum of University College. Messrs. Beck and Shattock, both from the first well suited for such a task, have earned the thanks of all who, for the next twenty years or so, study pathology in that fine museum.

TEXT-BOOK OF MODERN MIDWIFERY. By RODNEY GLISAN, M.D., Emeritus Professor of Obstetrics in the Willamette University. Philadelphia: Blakiston. 1881.

IN the preface to this work, the author states: "Believing that there is a demand for a work which shall more thoroughly represent American obstetric practice, the author has ventured to present the following condensed treatise to the medical students and practitioners of his own country. Many years' experience as a practitioner, and several as teacher of midwifery, lead him to hope that he may at least assist in supplying the demand for a book properly representing the peculiarities of American practice, and adapted to the wants of obstetric teachers and busy practitioners." After reading this, we were disappointed to find that the work was merely a condensed epitome of the works of Barnes, Duncan, Playfair, and Leishman. The "peculiarities", if any exist, of American practice, are conspicuous by their absence. The views of the chief representatives of American obstetrics, such as Goodell, Fordyce Barker, Thomas, Lusk, and Hodge, are by no means prominently set forth. In the chapter on the forceps, we find, in the figure illustrating the application of that instrument at the superior strait, that the forceps drawn is a French model, with the ordinary French lock. We suppose this illustration was used as a makeshift; but it is calculated to puzzle the student, who finds the ordinary English lock figured at page 475 as Elliott's forceps, and recommended as the best pattern. Of the one hundred and twenty-nine illustrations which scantily illustrate the book, the large majority are from Tyler Smith, Leishman, Playfair, and Barnes; the few American drawings being chiefly after Hodge. In a work on midwifery, good illustrations are important and essential; and in this respect the book prepared by Dr. GLISAN is singularly deficient. The work bears evidence of haste in compilation, and calls for no further remarks.

AN UNHEALTHY VILLAGE.—In the village of Tanmanaing the Burmese state that no one can live, except those who have been born and brought up there, because of the prevalence of fever, from an attack of which there is never permanent or thorough recovery. The place is much dreaded by the people generally. A former deputy commissioner states that he thinks the disease is caused through the air around the village being poisoned from the continual making of salt that goes on throughout the year; moreover, no pure water is procurable in the village, the fresh water tanks being injured by the ashes which are wafted into them by the wind from the burning salt kilns.

* The changes chiefly consist in the presence of spores, mycelial filaments of yeast, enlarged white corpuscles, and the loss of the neurine of the red discs, owing to which they aggregate themselves into confused masses.

NOTES ON BOOKS.

The Egypt of the Past. By ERASMUS WILSON, F.R.S. With 46 illustrations; pp. 475. London: Kegan Paul, Trench, and Co. 1881.—Ancient Egypt has long been famed as the cradle of science; and there are few to whom the "learning of the Egyptians" is not a well known expression. Medicine, among other things, had its place in the labours of the old Egyptian priests and wise men; and we may remark in passing, that an apparently very complete and concise summary of the medical knowledge of that ancient people has been recently compiled by a Danish practising physician, Dr. Friis. It is not, however, this line that is taken by Sir Erasmus Wilson in the book before us; it contains throughout scarcely any allusion to medicine; nor does it deal with the history of the "learning of the Egyptians" in general. What the author has done has been to construct, out of the material furnished by the numerous learned investigators of ancient Egyptian monuments, a concise and at the same time adequate summary of the events recorded as having occurred in the reigns of kings of successive dynasties. The value of the work is increased by an explanation, in the second chapter, of the system of hieroglyphic writing; and by an appendix in the form of a table of the numerous hieroglyphic characters employed in the course of the book. Sir Erasmus Wilson desires to increase the public interest in ancient Egyptian history, as revealed by her monuments and inscriptions; and his book is well adapted to fulfil this end. We would only suggest that, if it could be done with a tolerable amount of accuracy, the insertion of the dates of the dynasties and of the principal kings would be an improvement.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

CHEKAN AND ITS PREPARATIONS.

MUCH attention has lately been drawn to the medical properties of "Eugenia" or Myrtus chekan, an evergreen shrub somewhat resembling the ordinary myrtle, and indigenous to Chili. It has a balsamic odour and taste not unlike that of eucalyptus, and appears to be especially valuable in bronchitis and bronchorrhœa, in which it has been employed to some extent by Dr. William Murrell, of the Hospital for Diseases of the Chest and the Westminster Hospital. Dr. Murrell reports in an especially favourable manner of it in the treatment of chronic bronchitis. Foreign physicians have employed it successfully in inflammatory affections of the pharynx and larynx, and, like other balsamic remedies of the sort, in catarrhal cystitis, gonorrhœa, and leucorrhœa.

Messrs. Wyleys and Co. of Coventry, whose London agents are Wyley, Walker, and Co., 223, Upper Thames Street, have prepared from the leaves, of which they have sent us samples, three preparations of liquid extract of chekan, of which the dose is from one to three fluid drachms three or four times a day; and a syrup of chekan, which is of half the strength of the liquid extract, and is especially recommended for children in the place of the liquid extract, the dose, according to age, being from 30 to 35 minims. The manufacturers have also sent specimens of an essential oil of chekan, to be used for inhalation in the ordinary way in cases of diphtheria, laryngitis, etc. The palpably balsamic odour and character of these preparations indicate their sphere of usefulness; and the already ascertained results of medical experience promise a satisfactory result to those who may be induced to try this relatively new therapeutic agent in practice.

UNFERMENTED WINES.

AT the quarterly meeting of the Medical Temperance Association, held in the rooms of the Medical Society of London, on the 14th instant, Dr. Norman Kerr exhibited and described eight varieties of unintoxicating wine prescribed by him medicinally, and recommended as social beverages. These were all genuine wines, the pure juice of their respective grapes. Among the best were—Riesling (German), Madeira (Madeira), Lachrymæ Christi (Italian), Bordeaux (French), Muscat (French), and Alto Douro (Oporto). The importer, Mr. F. Wright, Kensington, also had produced an unfermented port with bark, which was an elegant, agreeable, and useful tonic wine.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1882.

SUBSCRIPTIONS to the Association for 1882 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, FEBRUARY 18TH, 1882.

THE NOTIFICATION OF INFECTIOUS DISEASE.

THE Dublin Branch has earned a debt of gratitude from the Association for the energy and persistency with which it has of late taken up the question of the compulsory notification of infectious disease. This is a subject which, as our readers will be aware, has for some time past been steadily advocated in the columns of the JOURNAL, and brought under the notice of the sanitary authorities of the kingdom by the successive reports of Mr. Ernest Hart to the Parliamentary Bills Committee of our Association; and it is gratifying to find that the labours of the Registration of Disease and Parliamentary Bills Committees in this direction have met with such abundant results. The number of towns that now have the notification of infectious cases actually in operation in their midst is not less than twenty-four, and, as will have been seen in our columns last week, eight more have asked for similar powers this session. In these circumstances, and in view of the palpable evils of partial legislation, the Dublin Branch has done well in attempting to frame a measure that shall be of general application and shall be free from the objections which have been felt by the profession to direct notification by themselves to the sanitary authority.

The main features of the Bill which the Dublin Branch has drawn in conjunction with the Committee of Council of the Irish Medical Association, were given in our issue of the 4th instant (page 174). The Bill is intended to apply to Ireland only; but, supposing its principle to be good, it is of course equally applicable to England also. It proposed to enact that, if an inmate of any building used for human habitation is suffering from typhus fever, typhoid or enteric fever, relapsing fever, varicella or chicken-pox, small-pox, scarlet fever or scarlatina, measles, erysipelas, diphtheria, cholera, whooping-cough, or puerperal fever, the person in charge of such inmate, or the person having the management of the building, shall forthwith give notice thereof to the sanitary authority of the district. Any medical practitioner attending or called in to visit a person suffering from any of the diseases above mentioned may, "if he shall think fit", notify the occurrence of the case to the sanitary authority; and, in so notifying, shall transmit to the authority on a prescribed form the name and place of residence of the patient, and the nature of his disease; and shall also fill up and deliver to the person in charge of the patient a further certificate, "the production of which shall be a good defence for such person against any penalties for breach of the terms of the Act". The sanitary authority is to supply forms for the medical certificates, for each of which the attendant is entitled to a fee of two shillings and sixpence. The Local Government Board may, on the representation of the King and Queen's College of Physicians in Ireland, alter or add to the list of diseases to be notified, and may alter the forms of certificates as they think fit. Any person who neglects to give or deliver any notice required under the Act, or knowingly gives false information, is liable to imprisonment for a period not exceeding two months, or to a penalty not exceeding £5. Sanitary authorities are to take all necessary means to make the provisions of the enactment generally known; and their officers are protected from personal liability in the execution of the Act.

In its main features, the Bill is one deserving of cordial approva

and support; and, assuming that the compromise proposed in it is the only way in which the scruples of our Irish colleagues with regard to notification can be met, there is nothing objectionable in the course proposed. But it is notorious that, in a measure of this kind, the permissive element is fatal to its success. No one needs to be told how the permissive character of much of our public health law has crippled its working. At the annual meeting of the Dublin Branch, the majority of the speakers seem to have been amply satisfied with the compromise suggested; but it may be doubted whether it carries out the spirit of the plan which has consistently been urged by the Registration of Disease Committee of the Association, and accepted by the Association at its general meeting. That committee has indicated as the proper method, and the Association has accepted the view, that the medical man should be responsible for giving a certificate as to the nature of the case to the occupier, whose duty it should be, under penalty, to forward such certificate to the sanitary authority. The policy indicated here is clear and unmistakable, and, as we think, wise and equitable; whereas that approved by the Dublin Branch is temporising and unsatisfactory. To leave it to the choice of the medical man to notify or not to notify, "as he thinks fit", is to tempt poor and ignorant people, about the presence of disease amongst whom it is of chiefest importance for the sanitary authority to learn, to call in the aid of the lowest class of practitioners, who may allow it to be regarded as an inducement to employ them that they will not make uncomfortable reports to the sanitary authority. Everyone who has any practical experience of the penal clauses of sanitary law knows how difficult it is to get together evidence sufficient to justify a conviction in cases where wilful neglect has to be proved, and the large discretionary power proposed to be given to medical men will, we think, be found to make the clause unworkable.

For our own part, we have been disposed to regard the method suggested by Dr. G. Purcell Atkins of Cork as promising to meet the disappointing difficulties which apparently beset this question. Dr. Atkins proposes (see vol. ii, 1881, p. 737) that the medical attendant should, on recognising that a case is infectious, fill up a certificate giving the usual particulars, and hand it to the responsible person, who is then to forward it to the sanitary authority. At the foot of the certificate, the words "no immediate attention is required" might be printed, so that, when the certificate reaches the authority, the inspector need not be sent to inquire, unless the word "No" were erased. Immediately on receiving the certificate, the clerk to the sanitary authority or medical officer of health would acknowledge its receipt to the medical attendant, who, if he did not get such acknowledgment within a certain number of hours, would send a duplicate certificate to the authority. As Dr. J. W. Moore has well said of this proposal, "No doubt delay will occur when the householder neglects to forward the information; but no system can be regarded as perfect, and the instances of neglect of duty on the part of the householder will probably be comparatively few, because he knows that, should he omit to send the notice, the medical attendant will have to notify—a contingency which is to be avoided if possible, as there will be a substantial penalty to which the housekeeper will render himself liable by his neglect. Also, he can have no grievance against the medical attendant, who in the first instance does not move in the matter at all". We are bound to say that this plan promises better than that proposed in the Bill before us; and it may be hoped that the Select Committee which, it is expected, will be appointed to consider the question in all its bearings, will devote some attention to this point.

Since the above was written, a Bill to provide "for the better notification of infectious diseases", and indorsed with the names of Mr. Hastings, Sir Trevor Lawrence, Dr. Farquharson, and Mr. Brinton, has been issued from the printing office of the House of Commons. It proposes to do for England and Scotland what the Bill of the Dublin Branch proposes to do for Ireland, except that the duty of notification is cast primarily on the medical practitioner, the occupier being only bound to give notice in the event of no medical attendant having been called in. The bill is, in fact, identical with that suggested by Mr. Hastings, Q.C., and appended to his paper on the subject published in these columns on the 5th November last. The principle proposed is not one that the Association, as advised by its two Committees that have given special attention to the subject, can accept without material modification, however anxious it may be for compulsory notification of infectious cases to become law.

ISOLATION OF PERSONS SUFFERING FROM DIPHTHERIA.

THE question of the propriety of treating cases of diphtheria amongst non-infectious patients in general hospitals has not, so far as we know, been recently discussed. Skilled opinion wouid doubtless be, on the whole, now opposed to such a course, as likely to result in the spread of the subtle poison of the disease to other inmates of the hospital. Diphtheria is an affection so insidious, that no precaution ought to be spared to prevent its spread; and isolation in a special hospital for infectious cases is the most effectual mode of prevention. Undoubtedly, the number of cases of diphtheria recorded in local reports as having been received into infectious hospitals is inconsiderable as compared with other diseases, notably scarlatina; but, in view of its known character, few health officers would hesitate to say that isolation was necessary for it. Mr. Shirley Murphy, who shows praiseworthy zeal, in his capacity of health-officer of St. Pancras, to collect information on points of general interest, has, in pursuance of instructions received from his sanitary committee, put this question to the test. He has addressed a circular letter to the medical officers of health. Mr. Murphy, as an old official of the Metropolitan Asylums Board and of the London Fever Hospital, should have something to tell us from his own experience on the danger of the spread of diphtheria in hospital. Many months ago, Dr. Thorne Thorne was commissioned by the Local Government Board to make an inquiry into the hospitals provided throughout England for infectious disease; and his report would no doubt have given valuable information on this point, had it been available. But no signs of the report are yet apparent; and, though the question is one that most persons will decide without difficulty for themselves, it would be more satisfactory to have the matured judgment of an experienced public official who has given special study to the subject, than the diverse and often crude opinions of local officers of the various sanitary districts of the metropolis, asking their opinion as to the necessity for the isolation of persons suffering from diphtheria, and the propriety of treating such cases among non-infectious patients in general hospitals. To his circular, Mr. Murphy received twenty-seven replies, on which he has made a detailed report. To the first question, as to whether diphtheria was considered a dangerous infectious disease, twenty-six health officers replied in the affirmative; by one, no answer was sent; two considered the disease less infectious than scarlet fever; others replied "eminently infectious", "decidedly", "undoubtedly", and "certainly"; while the remainder confined their answer to the simple affirmative, that the malady must rank as a dangerous infectious disease. In reply to the question whether persons suffering from diphtheria required isolation, twenty-six answers were sent. Of [these, all were in the affirmative; one respondent, however, apparently forgetting the existence of the London Fever Hospital, did not know to which hospital such cases could be sent. With regard to the treatment of cases of diphtheria among other non-infectious cases in a general hospital, twenty-two answers were received, all condemning the practice. One of the respondents would not object to the disease being treated in a general hospital when not epidemic, while the only reply which approved the treatment of such cases under these circumstances required conditions of cubic space, etc. The fact, then, remains that twenty-one replies out of twenty-three received altogether condemn it; while one gentleman, the physician to a large metropolitan general hospital, tells a story of the disease spreading from one patient to others in that institution, and killing them.

Concerning the question as to whether general hospitals in other parts

of the metropolis receive cases of diphtheria, the reply in the majority of cases was "Yes". Many of these institutions make arrangements for the treatment of a very limited number of cases of infectious disease. In University College Hospital, for instance, special wards have been provided for the purpose of affording temporary isolation to any patient already in the hospital suddenly requiring it; and, where this has been done, the objection to a very few infectious cases being retained in these institutions has much less weight. This, however, is quite a different matter from that of general hospitals providing accommodation for all the cases of diphtheria which may apply for admission, a course which would necessitate these cases being placed among persons suffering from other diseases than diphtheria. With regard to the question whether any general hospital in any other district had made application to the vestry to relieve them of cases of diphtheria, the answer was universally in the negative.

The position, however, of the authorities of University College Hospital in this matter is as follows. Following their published rules, that cases of contagious fever and small-pox are not admissible, the hospital authorities refuse to receive into their institution any but a very few cases of diphtheria, which may need some special assistance, such as a surgical operation; and they have simply informed the vestry that it is their duty, as the sanitary authority, to provide isolation for this disease, and not that of the hospital. Their only course would be either to persuade the patient to go to the London Fever Hospital, leaving the cost of his maintenance to fall upon the vestry, or to return him to his own home. Whichever course the vestry adopt is a matter of indifference to the hospital authorities, who simply decline to expose their other patients to the risk of infection by admitting these cases among them. Recent experience in this hospital has shown that the placing of diphtheria among patients suffering from other diseases is fraught with danger, in one instance being attended with loss of life.

Finally, with reference to the course adopted by other vestries in dealing with this disease, the replies indicate that only ten take any steps to isolate cases of diphtheria. Mr. Murphy "feels sure that the inertia of some other local authorities will not mislead the vestry of St. Pancras, who" (it is gratifying to learn on such good authority) "have always been foremost in recognising their duty towards their healthy parishioners, by giving opportunity for the isolation of the infectious". Some of the replies received show, according to Mr. Murphy, that much of the apparent negligence of some local authorities is simply due to the fact that cases of diphtheria rarely become known to the sanitary department until death has taken place, when they, of course, appear among the death-returns: another of the constantly recurring testimonies to the importance of compulsory notification of contagious disease.

As there is some doubt as to the extent to which diphtheria ordinarily spreads, some instances showing that a large proportion of the children attending a school have been infected from one child, whilst in others the disease has been confined to a few children occupying the same room with the one first infected, we have made inquiry as to the experience of the medical officer of health to one large district. From him we learn that seventy-one cases have been reported to him during the last thirteen months; that forty-nine, or nearly 70 per cent., died; that thirty-eight cases occurred in the same number of houses, *i.e.*, one in each house; that twenty cases happened in ten houses, *i.e.*, two in each house; whilst there were only three instances in which three persons were attacked in one house, and only one in which four were affected, although in most instances there were several residents in each house who escaped. The figures show that the residents in fifty-two houses were attacked; that the disease did not spread to anyone else in thirty-eight, or 73 per cent. of the houses; whilst it attacked other persons in fourteen, or 27 per cent. of the houses. In two cases, the mothers of the children attacked contracted the disease and died; in another case, the grandmother died; in another, the aunt took the disease, but recovered; and in another, the nurse; so that five persons out of the seventy-one caught the disease by nursing those who were affected with it. The source of infection could not be traced in many instances, but the chief foci of disease were three School-Board schools and one school attached to a chapel. In these schools, with the exception of two children, the disease was confined to children in the same room, and the mischief was done in all cases before isolation and disinfection could be carried out, as the outbreaks were sudden, and speedily suppressed when active measures for its eradication were enforced. In most instances where the infection could not be traced, the drains were defective; but, singular to say, in most of these houses only one case occurred.

This history affords some ground for believing that the disease does not infect at so great a distance as small-pox or scarlet fever, as it was confined to one person in a larger percentage of houses than either of these diseases, when the inhabitants were not protected by efficient vaccination or a previous attack of small-pox or scarlet fever.

A NEW cottage hospital has been opened near Whitby. It will accommodate sixteen persons, including four beds for accidents.

DR. T. K. CHAMBERS has been elected representative of the University of Oxford in the General Medical Council, in the place of the late Professor Rolleston.

THE Leather Sellers' Company has voted a contribution of ten guineas to Mrs. Hilton's Crêche and Orphan Home, in Stepney Causeway.

IN consequence of an outbreak of diphtheria in the institution for cadets at Potsdam, all the inmates have been dismissed to their homes.

A WINTER sanatorium for children has recently been established at Pegli, near Genoa. The daily charge is to be limited to about three shillings.

WE are requested by the Council of the Odontological Society to give publicity to the fact that, after November 1st, 1882, no application for membership will be received from any candidate not possessed of a diploma.

THE celebrated naturalist and traveller Hermann von Schlagintweit, who died on January 19th, has bequeathed his skull and brain to the Anatomical Institute at Munich, to be added to its collection of the brains of celebrated men.

THE next course of vacation lectures by the professors and teachers in the University of Berlin will commence on March 15th, and terminate about the end of April. Information may be obtained from Herr Anders, 2, Hagelsbergstrasse, Berlin, S.W.; or Professor Hirschberg, 36, Karlstrasse, Berlin, N.W.

THE death is announced of another victim to a diphtheritic attack contracted in M. Parrot's wards at the French Foundling Hospital (Hôpital des Enfants Assistés). Dr. Cossy, M. Parrot's house-surgeon, succumbed to this disease, so fatal to the Parisian house-surgeons and medical students, on February 3rd, at the early age of 33.

THE convict Westby, at Nottingham, to whose case we last week referred, whose execution for a recent double murder is fixed for Monday, February 20th, has been visited by Dr. R. M. Gover, Medical Inspector of Prisons, and Dr. Orange, Medical Officer of Broadmoor Lunatic Asylum, by the desire of the Home Secretary.

ON Friday last, at the South Devon Hospital, Plymouth, Mr. Paul Swain performed the operation of gastrostomy on a woman, for malignant stricture of the œsophagus. No bad symptoms supervened; and, on the following Tuesday, Mr. Swain opened the stomach, and fed the patient with warm milk and lime-water. At a later period, we hope to publish details of the case.

An inquest was held at University College Hospital on Wednesday last, on the body of a woman who died from the effects of an overdose of nitric acid, taken to relieve toothache. It appears that the deceased woman, who had sent to a druggist for twopennyworth of the acid, put the mouth of the phial to the affected tooth, and tilted it up so high that she swallowed nearly the whole of the contents.

A telegram from Tabreez, under date of February 14th, informs us that an epidemic disease strongly resembling plague broke out at a small village in the neighbourhood of Saujbulagh, on the 8th instant, since which date upwards of forty fatal cases have occurred. The present winter in Persia is said to be exceptionally rigorous, the thermometer registering at present 35 degrees of frost Fahrenheit.

Last week, there were registered in London 2,951 births and 2,632 deaths; and the annual death-rate rose to 35.3. This is the highest figure recorded since February 1880, when the rate was 46.7: an increase attributed to a succession of dense fogs, accompanied with low temperature, which prevailed at this time. The deaths from diseases of the respiratory organs exceeded the average by 430 in the week ending Saturday last. Old people suffered the most, and children under five the least.

Mr. Cubitt proposes to move on an early day for the appointment of a Select Committee of the house of Commons, to consider to what extent the fogs of London are injurious to life, health, and property; whether they have increased and are increasing from causes which are controllable; whether the existing Acts of Parliament relative to the consumption of smoke are applicable to the present state of the metropolis, and can still be enforced; and whether alteration and extention of this legislation would be beneficial.

We learn, with great pleasure, that the rumour that Mr. Alfred Baker of Birmingham does not intend to offer himself for re-election on the Council of the College of Surgeons in July next, to which we recently referred, is without foundation. On the contrary, as Mr. Baker's recent resignation of active hospital duties must place more time at his disposal, he will, we believe, probably feel disposed to apply for re-election, since his attendance in London will thus become less difficult of arrangement, and much less likely to clash with his professional engagements.

Scarlet fever shows signs of assuming serious dimensions in the Wednesbury Local Board District. In his last report, the medical officer of health stated that one-half of the deaths from zymotic causes had been caused by this disease. The Nottingham guardians have recently decided that all cases of scarlet fever coming under the notice of the relieving officers are to be at once reported to the Health Committee. It may seem strange to have to describe this resolution as a step in the right direction; but the lack of accord between local authorities, as to the giving of information to each other, has long been a scandal in our social system.

We hear that at the meeting of the General Committee of the Coventry Provident Dispensary (February 14th), it was resolved to appoint a fourth surgeon on the medical staff of the institution. A resignation was also read from one of the three present medical officers, who is about to retire from the practice of his profession; and, consequently, the Committee will, at their meeting on the 14th of March, proceed to the appointment of two surgeons to the institution. The emoluments last year amounted to about £300 for each surgeon, and the institution is still rapidly growing. Particulars may be obtained of Luke Dresser, Esq., Coventry, the Honorary Secretary, and the applications are to be sent in by the 1st of March; the duties to commence on the 11th of April.

THE ABATEMENT OF SMOKE.

The Manchester Association for Controlling Noxious Vapours have just issued their annual report, in which, referring to the work of the Smoke Abatement Committee, they say: "Another important matter to record in connection with our work is the opening of an exhibition in London of smoke-consuming appliances. Patronised by Royalty and managed by a committee composed, for the most part, of well-known men, and backed by ample means, this exhibition has done more than anything else to popularise the cause we have at heart. The collection of smoke-preventing grates, furnaces, etc., now on view at South Kensington, brings within reach of a large part of the public the knowledge, hitherto confined to a comparatively small number of experts, that common coal can be used for all useful purposes in mills, works, and houses, without producing any dense smoke. As smoke greatly lessens the pleasantness of life for all classes of people in England, and injures the health, physical, mental and moral, of a large proportion of the inhabitants of our towns, it is to be hoped that the public will be led, by the knowledge gained at South Kensington, to demand not only the strict enforcement of the law which prohibits the emission of dense smoke from the chimneys of factories, but also to insist on an extension of it to those of dwelling-houses. This exhibition, as might have been expected, has attracted considerable attention in Lancashire; and we are glad to learn that the Nuisance Committee of our own Corporation, which, with its zealous superintendent, Mr. Rooke, is by no means the apathetic body certain newspaper correspondents represent it to be, has made a journey to London to visit it, as also the Mayor of Oldham and other gentlemen from that town. The Committee has thought it desirable that this Association and the Sanitary Association (of which there are already several allied branches, should be combined, with a view to mutually extending their spheres of usefulness. Each will do its separate work; but the annual meeting will be common to both. It is hoped that thus a grand local association will be formed, having for its object the physical and moral improvement of this great community."

THE GREAT WESTERN RAILWAY.

The actively contested appointment of Surgeon to the Great Western Railway has been awarded to Mr. Bond, Assistant-Surgeon to the Westminster Hospital. The appointment was one of rather more than usual interest; the very moderate salary of a few hundred pounds a year attached to it produced, we understand, upwards of six hundred candidates, including several surgeons of considerable eminence. Mr. Bond having already held the same post in the services of another line, it is probable that the company were in no small degree guided in their choice by the obvious advantages of selecting a tried man, who in this particular case is experienced in other duties where public, private, and medical interests are blended.

MORTALITY FROM LONDON FOGS.

The Registrar-General, in his last weekly return, calls attention to the fact that the combined effect of dense fog and low temperature have once more raised the metropolitan death-rate to a point which is seldom reached except during the prevalence of severe epidemics. Since the cholera epidemics of 1849, 1854, and 1866, the London death-rate has been raised to an abnormal point on three occasions, on each of which the excessive mortality has been due to fog and low temperature. In the week ending December 20th, 1873, following the memorable fog which was so fatal to the beasts at the Islington Cattle Show, the metropolitan death-rate rose to 37.5; in the week ending February 7th, 1880, following a week of intense frost and dense fog, the rate rose to 46.7; and again last week, influenced by the dense fog of the previous week, and a few days of low temperature, the exceptional death-rate of 35.3 was recorded. An analysis of the age-distribution of the deaths last week shows that the excess of mortality due to fog and cold affects the London population at each group of ages; this noxious effect is, however, smallest among infants under one year of age, while it is most strongly marked among elderly persons. As regards diseases, the most fatal effect of the fog is shown in the deaths referred to diseases of the respiratory organs, which from 415, 543, and 647, in the three preceding weeks, further rose last week to 994; this latter number—of which 696 were attributed to bronchitis, and 185 to pneumonia—

exceeded the corrected monthly average by no less than 427. The peculiarly fatal character of the London fog may be inferred from the fact that, during last week, while the metropolitan death-rate rose from 26.4 and 27.1 in the two previous weeks, to 35.3, the rate in the twenty-seven provincial towns, having an aggregate population exceeding that of London, only rose from 23.4 and 23.1, to 25.2. Thus the London death-rate last week exceeded the average rate in the twenty-seven provincial towns by no less than 10.1 per 1,000; and as the mean temperature in the provincial towns scarcely differed from that in the metropolis, this excess death-rate of 10.1 per 1,000 may be attributed to the pernicious effect of the London fog.

THE MEDICAL SOCIETY.

WE have before us the newly issued fifth volume of the *Proceedings* of the Medical Society. It is the largest that the Society has issued, and is rendered complete by the addition of the Christian names in full in the special lists of the Presidents, the Lettsomian Lecturers, the Orators, and the Prize Essayists. To make the volume a perfect register of the transactions of the Society during the past two sessions, the communications are published irrespective of their having appeared in print elsewhere, so that they appear in a collected form, no longer scattered over the wilderness of contemporary medical literature. The volume closes with an account of the reception of the honorary fellows by the President during the International Medical Congress. Professors Virchow, Charcot, Halla, Tarnier, Verneuil, and Volkmann, with Drs. Bigelow and Billings, were present at the ceremony. The new volume reflects great credit on the secretaries, Dr. Gilbart Smith and Mr. Owen, who have prepared it; and the Medical Society has greatly increased in prosperity of late years, especially, so we are told, under the auspices of Dr. Broadbent, who is now president.

THE VENTILATION OF UNDERGROUND RAILWAYS.

THE Metropolitan Board of Works have determined that, in all Bills seeking powers for fresh underground railway construction, if power be sought to make openings in the public thoroughfares for the ventilation of the tunnels, they will, in their official capacity, oppose the passing of such Bills. It is satisfactory, says the *Globe*, to note that the Metropolitan Board of Works have realised it to be their duty to intefere, so that boards of railway directors may be compelled to give attention to the health and comfort of the community, as well as to the achievement of large dividends. Probably Dr. Neale could help them.

THE OUTBREAK OF SCARLET FEVER IN ST. GILES'S.

WE are indebted to the kindness of Mr. Lovett, medical officer of health for St. Giles's, for the following details of this outbreak, which chiefly attacked the families residing in Russell Square and the northern parts of the parish of St. George, Bloomsbury. From January 15th, 1882, to the present date, Mr. Lovett, the medical officer of health for the district, found, from personal inspection of the houses, that sixty-four cases of the fever had occurred in Russell Square and its vicinity, twenty-three of the sufferers being adults, and forty-one children. The ages varied remarkably, the youngest patient being under two years of age, and the eldest, a lady, aged 82. Of these cases, eleven were sent to the London Fever Hospital, Liverpool Road, two to Stockwell Fever Hospital, and the rest remained under medical treatment at their own homes. It may also be noted that, besides the sixty-four cases of fever, a large number of the persons residing in the infected district, though not actually suffering from the specific fever, complained of sore-throat, headache, shivering, and the concomitant symptoms attending scarlet fever. The existence of this epidemic was brought to light in the following way. On January 23rd, a lady requested the sanitary inspector of the district to disinfect the basement-floor of her house, as one of her servants had been sent to the London Fever Hospital; and on the same day he received information that a milkman's porter, living at a milk-shop in the neighbourhood, had a child lying ill with scarlet fever. The sanitary inspector immediately informed the man's master of the fact, and the man was dismissed. Mr. Lovett, on receiving the information, at once made inquiries in connection with the outbreak of scarlet fever which had before come to his knowledge, and found that all the infected families visited by him had been supplied with milk, and some with bread, from the dairy at which the man with the child lying ill with scarlet fever had been employed. Mr. Lovett then visited the farm whence the dairyman obtained his supplies, but found no traces of fever in the farmer, his family, or servants. The milk was also to all appearance perfectly healthy. Inquiries into the condition of the health of the milk-carrier's family showed that the man himself had, on January 14th, vomited his tea, and had also complained of slight sore-throat, headache, shivering, and feeling generally unwell. He went to bed, but resumed his work as usual the next morning, without making further complaints of illness. On the next day, one of the children came out in a rash, but no doctor was called in until the 19th, when a second child was attacked with illness. The medical man informed the parents that, not only was the second child suffering from scarlet fever, but that the child which had been ill was actually peeling from the effects of the same disease. A third child was attacked with the fever on the 29th instant. During this time, the father used his own bed until the 19th, but slept away at a friend's house until the 24th. He, however, took all his meals as usual in the infected room, for we learn from Mr. Lovett that he with his family only occupied one room. He would commence his daily duties at the milkshop by carrying milk from the back kitchen, when any was stored there, to the shop. He would then go his rounds with milk and bread, then go to his home to dinner, and again go his rounds in the afternoon. This outbreak was not confined to St. Giles's district, for the medical officer of health for St. Pancras reports nearly thirty cases in his district, and some cases have occurred in St. Marylebone, the families in both districts being, Mr. Lovett believes, supplied with the same milk. A full inquiry into the origin and spread of this epidemic is, Mr. Lovett informs us, in progress, but he is not yet in possession of all the facts requisite to arrive at a definitive conclusion. This case, like many others of the same kind, only emphasises the necessity for a continuous supervision of the health of the *employés* at dairies and their families, and sanitary overlooking of their habitations, such as is carried out by at least one large organisation for the distribution of milk in the metropolis. Nothing short of care of this description is sufficient in the case of a vehicle so susceptible of carrying infection as milk.

SCARLET FEVER IN SUNDERLAND.

FOR a long period there has been a considerable amount of scarlet fever existing in Sunderland, where the disease may now almost be said to have become endemic. Numerous deaths continue to be recorded weekly; and the new health-officer of the town, Mr. Alfred E. Harris, has determined to signalise his appointment by making a strong effort to prevent any further increase of the fever. He has, therefore, addressed a circular letter to his fellow medical practitioners, begging that they will give him the earliest possible information of cases of scarlet fever or any other zymotic disease occurring in their practice, more especially when the patients belong to the lower classes, live in tenemented houses, or reside in crowded neighbourhoods. This information is intended to be always considered as a confidential communication, and will not be used in any manner that can cause offence to the profession. If the medical attendant is quite satisfied that the householders will follow his advice in isolating the patients, and in procuring disinfectants, he is desired to write on the cards formerly issued by Dr. Yeld the words "Requires no supervision", or other words to a similar effect; and then neither the inspectors nor the health-officer will call until the close of the illness, at which time the sanitary condition of the house will be examined, and the rooms thoroughly disinfected, if required. Hitherto, the number of persons who have been treated in the House of Recovery has, as we have before pointed out, been hideously inadequate, when compared with the size of Sunderland. Mr. Harris asks, therefore, that his medical brethren will

endeavour, as far as lies in their power, to remove the existing prejudice to it, and to persuade their patients to avail themselves of it. We trust that the new health-officer's praiseworthy efforts to follow in the steps of his energetic predecessor will meet with their due reward in a reduction of the present lamentable mortality in the town from scarlet fever and other zymotic diseases.

THE VACANCIES AT ST. BARTHOLOMEW'S HOSPITAL.

WE understand that Mr. W. H. Cripps will not be opposed by any other competitor in his candidature for the appointment of assistant-surgeon to St. Bartholomew's Hospital now vacant. A very strong contest is expected for the next vacancy, for, owing to the appointment of five surgeons, a similar number of assistant-surgeons must be maintained; and, after the coming election, a fifth place on the junior surgical staff will remain unfilled. The principal candidates will be Mr. Shuter and Mr. Macready. The former gentleman recently held the appointment of assistant-demonstrator of anatomy to the hospital medical school for several years; the latter is at present surgical registrar to the hospital. Both these candidates are already surgeons of smaller hospitals, where they have had ample opportunities of acquiring great clinical and operative experience, of which both have taken advantage.

NATIONAL HEALTH SOCIETY.

THE report of the year's work of the National Health Society, presented at its recent annual meeting, includes a record of voluntary work carried out in many directions, and with much success, for the extension and the increase of sanitary knowledge and the strengthening of the means for the prevention of disease. Sixty-four lectures have been given in various poor districts, addressed to mothers' meetings, working men's clubs, etc., by well-known authorities: Dr. Siemens, F.R.S., Mr. H. Power, Dr. Robert Farquharson, M.P., Professor Fleeming Jenkin, F.R.S., and others having taken part in the work of lecturing. Mrs. Johnstone's system for the prevention of the spread of fever, carried out with much success is Hastings, and described in the *Sanitary Record* of June 15th, 1880, and June 15th, 1881, has been personally explained by her to large audiences at one meeting of mission women, and at another meeting of clergymen and medical men. Part of the Society's work has consisted in the presentation of street-seats and trees for planting in wide thoroughfares, so as to supply shade and rest to wayfarers; the most recent gifts for this purpose are twelve seats, which are placed in Hornsey, and twelve in the New Kent Road. Arrangements are being made, when permission of the vestries can be obtained, for similar work in other districts of London. A special report was made on the removal of dust, which suggested methods of preventing the existing nuisance from the collection of dirt and refuse in house-bins, and the imperfect methods of removal employed in London, which contrast very unfavourably with some of the much better systems in operation in northern towns. This subject is in the hands of a special committee, who are in active communication with the London parishes. Upwards of seven hundred plumbers have attended each of the lectures on the Science and Art of Practical Plumbing, given by Mr. Hellyer for the Society, and reported in the *Sanitary Record*, June 15th, July 15th, September 15th, and October 15th, 1881; and a considerable number of names have been entered for the examinations and practical demonstrations of skill in connection with these lectures, for which the Society has offered prizes. These examinations will be held in the course of February 1882. The Society's pamphlet on vaccination has been approved and revised by the Local Government Board, and some hundreds of thousands of copies have been sold at cost price to Unions throughout the country, for house-to-house distribution. The part which the Society has taken in abating the smoke nuisance by initiating the appointment of a Smoke Abatement Committee is well known to the public, and will be the subject of a special report. The whole of the work enumerated has been carried out at an expenditure of something less than £300 during the year. The accounts were presented and various speeches were made, a vote of thanks being proposed to the chairman, Mr. Ernest Hart, by General John Cotton, seconded by Mr. Domville. Votes of thanks were also given to the Treasurer (Mr. Lawrence), to the Secretary (Miss Lankester), and others who had assisted in the work of the Society. Reports were presented showing the satisfactory results of the prizes offered by the Society to the School Board and other schools, in London and Liverpool, for success in the teaching of Domestic Economy and the Laws of Health.

PICTORIAL AVERAGES OF THE PHYSIOGNOMY OF DISEASE.

AT the Photographic Exhibition at the Society of Arts, there is exhibited an apparatus which is described as the working model shown, when new, in June 1881, at the Photographic Society, by which a large number of composites have been made. It now serves to illustrate the woodcuts that were made from it. A new and more solid apparatus, it is stated, with better means of adjustment, is in use at the studio at Guy's Hospital. The composites exhibited chiefly refer to the physiognomy of phthisis; and some autotype reproductions, on a small scale, are illustrations of a memoir, now being published in the *Guy's Hospital Reports*, by Mr. Galton and Dr. Mahomed on that subject. This process consists in throwing a succession of images of portraits of different persons on the same sensitised plate, and in thus obtaining a pictorial average, having the same scientific value as any other kind of average. Its merits, it is stated, lie in its power of obtaining averages of graphical or pictorial results which cannot be averaged in any other way. The original portraits have to be taken in precisely the same aspects, and under the same conditions of light and shade. All the rest is effected by the camera; it reduces them accurately to scale, and, by means of fiducial tints, it throws them successively in exactly the right place. Lastly, by means of fiducial tints, the images thrown by negatives of different densities are toned to an uniform standard.

SMOKE AND FOG.

ON Friday, February 10th, Dr. Frankland, F.R.S., lectured before the Royal Institution in Albemarle Street on the Climate of Town and Country, with special reference to the causes and remedies for London fogs. Speaking on the subject of fogs, he said that London fog depended principally for its offensiveness upon the products given off by bituminous coal, 30,333 tons of which were burnt in London every day. This coal sent forth watery particles, which became condensed and covered with a tarry substance, also the product of coal. Referring to the recent Smoke Abatement Exhibition, he said that there were at least 1,800,000 fireplaces in London, and to suppose that these could be changed was hoping too much. The only remedy, in his opinion, lay in the total prohibition of the import of bituminous coal into London—a statement which he justified by reference to his own experience with anthracite or smokeless coal. Anthracite coal, he said, could be procured in Wales and elsewhere in quantities sufficient for metropolitan consumption, and the bituminous coal could be relegated to ocean-steamers. As to the cost of altering fire-places to burn this smokeless coal, he said that in his own house all the fire-places had been adapted at a total cost of three shillings. The fact is, however, that the Smoke Abatement Exhibition contained more than one grate which burns ordinary bituminous coal smokelessly. Considering that, in the week ending February 7th, 1880—a foggy week—1,557 persons died in London from diseases of the respiratory organs, the matter was one of vast importance. The lecture, which was illustrated by brilliant experiments with artificial fog, illuminated by the electric light, was received with great applause.

THE SHEFFIELD POISONING CASE.

THE trial of Kate Dover for the murder of Mr. Skinner has terminated in a couple of surprises. The prisoner has been found guilty of manslaughter only; and the presiding judge, after stating that the crime differed by only a shade from murder, sentenced Dover to penal servitude for life. Coupling the sentence with the verdict, the conclusion is irresistible, that the judge thought the jury had taken a very lenient view of the matter. The circumstances of the case are doubtless familiar to most of our readers. Kate Dover, twenty-seven years of

age, was housekeeper to an engraver, one Skinner, thirty-eight years her senior; and succeeded a Mrs. Jones in Skinner's service. The domestic arrangements do not seem to have been happy, notwithstanding that Skinner had promised to marry Dover, and is stated to have made a will in her favour, though this was not found after his death. He had previously made a will in favour of Mrs. Jones. On December 2nd, this Mrs. Jones sent Mr. Skinner a present of vegetables, including onions. On December 5th, he was still in perfect health, though Kate Dover stated that he was very ill, and might die. On that day, the prisoner purchased twopennyworth of arsenic, complying with all the formalities of the statute, and stating that it was for the purpose of colouring artificial flowers. Next day, she purchased and cooked a fowl and herbs. Some sage and onions — sent by Mrs. Jones—were cooked in the same tin, but separate from the fowl. Skinner was soon seized with symptoms of irritant poisoning; and it is stated that the prisoner also suffered in a modified degree. A doctor was sent for by the prisoner; but Skinner died about seven hours after partaking of the fowl. Arsenic was detected by Mr. Allen in the fowl, but none was found in the stuffing in the tin. Some beer which had been sent for also contained arsenic; as did the stomach and other viscera of the deceased—about eight grains. No arsenic was found in Skinner's vomit. The arsenic was confined to the legs of the fowl, which had been cut off, but whether by the deceased or by Dover was not known. The defence was ingenious, and was apparently adopted by the jury. There was no doubt as to the cause of death. The suggestion that Mrs. Jones had anything to do with the matter was repudiated. The arsenic was purchased openly, but no doubt under a false pretence as to its intended use, and in the presence of a witness, only the day before Skinner's death. The jury were asked to believe that the prisoner also partook of the arsenic; but that she actually did so is, perhaps, a matter of doubt. It was suggested that the prisoner was jealous of the influence of Mrs. Jones over the deceased man, whom the prisoner wished to marry; and that she therefore intended to scatter a small quantity only of arsenic over the stuffing, in order to produce sickness. Unfortunately, a safe dose was exceeded. As we have stated, this view was probably adopted by the jury; and the absence of adequate motive; the possibility, if not probability, that the prisoner did herself nearly suffer from arsenical poisoning, perhaps being ignorant as to the dangerous character of very small doses; and the undoubted fact that she showed due anxiety for the application of remedies to Skinner, and promptly summoned medical assistance—all these circumstances no doubt helped the jury to adopt the theory of the defence. It was, however, a dangerous line of defence to pursue, and, as the result proves, one not offering much encouragement for its adoption in future criminal cases.

WHAT IS A MISCARRIAGE?

In a recent trial at the Leeds Assize for unlawful concealment of birth, it transpired that Mr. Clarence Foster, surgeon, had been called in by the prisoner's brother before the birth of the child, and stated to him that the prisoner was about to have a miscarriage. It is not stated whether the woman was delivered before or after the full period; but, in a letter to the local press, Mr. Foster admits that he used the word miscarriage "not in its restricted sense, but simply to convey to the prisoner's brother that the case was not one of ordinary illness, as the girl stated, and as he supposed". In admitting, at the trial, that he had used the word miscarriage carelessly and improperly, Mr. Foster displayed so much hesitation, that Mr. Justice Cave threatened to commit him if he did not answer the question; and his costs were disallowed. The jury went further, and attached to Mr. Foster the undeserved stigma of not being a man of ordinary or common capacity. We hardly think it comes within the province of a petty jury to give their opinion upon such a matter as the capacity of a witness. Mr. Foster's position at the trial was a difficult and a painful one. He had used the term miscarriage improperly, and he had taken up the position—for what reason we cannot conceive—that to have remained with the patient under the circumstances would have been most unjustifiable. The rebuke of the judge was, however, a severe enough punishment; we think that the rider which the jury appended to their verdict, reflecting upon the capacity of Mr. Foster, was a gratuitous insult; and we are glad to see that the local press regards the matter in this light. It should be clearly understood by all medical men that the term miscarriage is a legal one, meaning the premature expulsion of the ovum or fœtus at any period of gestation short of the full period of nine months; and cannot be applied to delivery at the full period of utero-gestation.

ALLEGED DANGER IN STORING ETHER.

A somewhat singular summons has been heard at the Marlborough Police Court, by which the Manager of the General Ice Company was charged with carrying on the business so as to endanger the lives and property of the public. The chief evidence went to show that explosions had frequently occurred on the premises, and that some of those who were working in the upper part of the same house had suffered from dizziness of the head and a burning sensation in the throat. Evidence was also given by a neighbour that his family had suffered injury to health. Two chemists, Dr. Bartlett (Ph.D.), and Mr. Hirsch, who were engaged in the case, gave evidence to the effect that ether, mixed in the air, would cause a burning in the throat, nausea, loss of appetite, headache, and vomiting. It is to be regretted that chemists should not content themselves with simply giving evidence as to the chemical and physical properties of the bodies concerning which they are required to give an opinion. It is also somewhat singular that they did not state that the ether used for freezing water is not pure; as, in that case, the magistrate, who dismissed the summons on a technical point, would have been better able to judge as to its alleged noxious qualities. There can be no doubt that the business is dangerous, owing to the risk of explosion; but, as Mr. Montague Smith stated for the defence, it was a case for indictment rather than for summary proceedings. It seems, however, clear that the business was not carried on in the best practicable manner for preventing risk to property and injury to health, as it was stated that frequent explosions had occurred, and the ether had been allowed to impregnate the air of the adjoining rooms, instead of being carried off by efficient means of ventilation.

SMALL-POX IN MAIDSTONE GAOL.

In consequence of the outbreak of small-pox in Maidstone Gaol, all the prisoners in the ward where the disease first appeared have been vaccinated, together with the officials attached to the establishment. Instructions have also been issued that, for the present, no more prisoners are to be sent to the gaol. So far, all efforts to trace the cause of the outbreak have been unsuccessful; and, in consequence of the representations of the medical officer, an inspector of prisons has been instructed to assist him in his inquiries. The disease, it appears, first broke out on the 12th ultimo; and, at an inquest recently held at the gaol by the borough coroner on the bodies of two persons who had died from the disease, it was stated that, although every precaution had been taken to prevent the spread of the disease, there are still one or two serious cases in the hospital.

TYPHOID FEVER IN 1612.

Dr. Norman Moore has recently endeavoured to prove that Sir Theodore Mayerne, physician to King James I, must be henceforth remembered as the accurate describer of the earliest case of typhoid fever on record in England. His patient was a no less exalted personage than Henry Stuart, Prince of Wales—a most popular, promising, and amiable youth, who passed away in 1612, at the age of eighteen, leaving the succession to his brother Charles, destined to perish in a very different manner. Dr. Moore enters into the subject of Prince Henry's death with great minuteness, introducing copious quotations and criticisms of the opinions of the Prince's medical attendants. Enlargement and ulceration of Peyer's patches are not described; but, in those days, the morbid anatomy of typhoid fever was unknown.

"What distinctive lesion", observes Dr. Moore, "is described, at this day, in a case of tetanus or of diabetes?" The paper wherein this subject is discussed will be found in the new volume of the *St. Bartholomew's Hospital Reports*. A faithful study of the clinical reports of distinguished doctors, who have flourished in past centuries, may soften our opinions on our own excellence as clinical workers—aided, as we are, by appliances of which they knew nothing; and, moreover, may prove most instructive from a scientific as well as from a purely literary point of view.

THE MEDICAL REGISTER.

THE *Medical Register* for the current year, issued this week, is in a very convenient and handy form, and great pains, we believe, have been taken to make it as correct as possible. In addition to the information required by Act of Parliament, it contains various statistics, including a *notice to registered persons as to the importance of their sending notice of any change of address to the Branch Registrar by whom they were originally registered*, in order that the address may be duly inserted in the *Medical Register;* as, by Section 14 of the Medical Act, any practitioner omitting to do so is liable to have his name erased from the *Medical Register*, and thus, by Sections 31 and 37 of the said Act, to "lose the right to hold certain appointments, to sign valid certificates; or to recover in any court of law charges for professional aid, advice, and visits, and the cost of any medicines or other medical or surgical appliances rendered or supplied by him to his patients". Every registered medical practitioner "should also send to the registrar by whom he was originally registered notice of any change in, or addition to, his qualification, which he may wish to be inserted in the *Medical Register*". It contains, also, tables showing *(a)* the names of the president, members, treasurers, and registrars, of the General Medical Council, on January 1st, 1882; *(b)* the names and periods of their appointment from its formation in 1858, to January 1st, 1882; *(c)* the number of meetings of the General Medical Council, of the Executive Committee, and of the three Branch Medical Councils for the same period. It further contains copies of the Medical Acts from 1858 to 1882: *(a)* The Medical Act of 1858; *(b)* The Medical Act, 1859; *(c)* The Medical Acts Amendment Bill, 1860; *(d)* The Medical Act, Royal College of Physicians, 1860; *(e)* The Medical Act, 1862; *(f)* The Medical Act Amendment Act, 1868, "relating to medical practitioners in the colonies"; *(g)* The Medical Act, University of London, 1873; *(h)* the Apothecaries' Act Amendment Act, 1878; *(j)* The Medical Act, Royal College of Surgeons of England, 1875; *(k)* The Medical Practitioners Act, 1876; *(l)* The Medical Act (Qualifications), 1876; *(m)* The Dentists' Act, 1878. It also contains returns to both Houses of Parliament of receipts and expenditure of the General Medical Council, and Branch Councils, for England, Scotland, and Ireland; and apportionment of the amounts payable to the General Medical Council by the Branch Councils for the year ending January 1st, 1882 (pursuant to Sections XIII, XLIV, of the Medical Act, 1858); also returns showing the receipts and expenditure of the Dental Registration Fund of the General Medical Council for the year ending 1882 (pursuant to Section XXXIII of the Dentists' Act, 1878); with a table showing the total numbers, with percentages, of the whole of the persons registered in and on January 1st, 1882, remaining in the local registers for England, Scotland, and Ireland respectively; also the several registrable qualifications, etc.

THE DENTISTS' REGISTER.

THE *Dentists' Register for 1882*, though necessarily less bulky than the companion volume above noticed, contains a variety of useful information and statistics in a concise form. Among the information may be mentioned the notice to registered dentists, enjoining them to be careful to send to the registrar immediate notice of any change of address, as any one failing to do this becomes liable to have his name erased from the *Dental Register*, and thus, by Sections III and V of the said Act, to lose the right "to take or use the name or title of dentist (either alone or in combination with any other word) or of dental practitioner, or any name, title, addition, or description implying that he is a person specially qualified to practise dentistry"; and also the right to recover in any court of law "any fee or charge for the performance of any dental operation, or for any dental attendance or advice". It further contains a list of registration fees; table of registrable qualifications; names of the President, members, etc., of the General Medical Council, January 1st, 1882; ditto from its formation, in 1858, to January 1st, 1882; also in full the Dentists' Act, 1878, returns of receipts and expenditure of the Dental Registration Fund of the General Medical Council made January 1st, 1882; synopsis of papers in respect to registration under the Dentists' Act (1878): (1) Persons entitled to be registered in the *Dentists' Register;* (2) Form duly filled up by all applicants for registration under Clause C of Section VI of the Dentists' Act; table showing the numbers and qualifications, with percentage of the total of persons registered in the *Dentists' Register* for 1882. The *Dentists' Register* is very complete, and includes (1) United Kingdom dentists, (2) foreign dentists, and (3) a list of registered dental students.

A STRANGE STORY.

A STRANGE story of the deaths of two children from the effects of irritant poisoning reaches us from Dairycoates, near Hull. The children died after a brief illness, during which they were attended by a druggist named Cartwright, acting as an assistant for a Dr. William Jackson; and they were not attended by a qualified medical practitioner. Cartwright appears, from the evidence, to have been in the habit of attending patients, professedly for Dr. Jackson, this gentleman never seeing them. In his evidence, Dr. Jackson is reported as saying: "You see, it does not pay me to practise here, and therefore I do it indirectly, through a chemist. It occurred to me the people would have an advantage in having a chemist to go to, and in having cheap medicine." The evidence showed that the stomachs of the children were inflamed and ulcerated, there being several ulcers in each case. Dr. Jackson said the deaths were the result of a small particle of rotten fish, or a small fish-bone. Dr. Thomas Jackson, brother of Dr. Wm. Jackson, attributed the deaths to inhalation of sewer-air. No irritant poison was discovered on analysis; but the evidence points to the fact that a small fraction only of the contents of the stomach reached the analyst. The jury returned a verdict that the deaths were caused by irritant poisoning, and that great difficulty had been thrown in the way by want of care in not preserving the vomits and excreta. They also characterised the system carried out by Dr. Jackson and Mr. Cartwright as unsatisfactory in every respect, to themselves personally, and to the neighbourhood. This censure does not, on the face of the facts, seem to be unfounded; and we trust that the legality of those gentlemen's proceedings will be investigated by a competent tribunal. There is some novelty in the notion that an inflamed and ulcerated condition of the stomach, with rapidly fatal illness, may be the result indifferently of eating a small piece of rotten fish or swallowing a fish-bone, two sisters dying almost simultaneously from such a cause; and, perhaps, no less novelty is the idea that inhalation of sewer-air causes the above results. To ourselves, the finding of the jury that irritant poison was the cause of death seems more likely to be the truth; and by irritant poison is clearly meant some definite irritant other than unsound food or inhalation of impure air.

LOCOMOTOR ATAXY AND THE LATE MR. STANLEY.

THE new volume of the *St. Bartholomew's Hospital Reports* includes an article by Mr. F. S. Eve, entitled "Our Museum and its Associations". The title of this contribution sufficiently indicates its nature. The author, after a careful perusal of the works of the late Mr. Stanley, who contributed largely to the museum of the great City hospital, shows how that distinguished surgeon has described at least two cases of locomotor ataxy from their leading surgical features, and has shrewdly traced their pathology to disease of the great nerve-centres.

It is remarkable, as Mr. Eve observes, that no old specimens showing Charcot's disease of the joints associated with locomotor ataxy have been found in any museum attached to a metropolitan hospital. The absence of these specimens is probably due to accident, and must not be considered as a proof that the joint-affection is a disease that has actually arisen as a new morbid creation or evolution within the last fifteen years. The destruction of the articular ends of the long bones was not known a few years since; therefore pathological demonstrators did not dissect the larger articulations of subjects who had died from locomotor ataxy; and, before that complaint itself was recognised, the chances of an "arthropathy", as the French would say, being detected, was very small. Charcot's typical cases are, moreover, more frequently seen in workhouses than in hospitals; and it is only of late years that good pathological work has come out of parochial asylums, through the energy of competent workers like Dr. Lediard. Mr. Eve shows that Stanley has given accurate details of one very distinct case of locomotor ataxy with disease of the hip-joints, under the heading "Dislocation of both Hip-joints consequent on Disease of the Spinal Cord, and probably of the Brain", in a paper on certain dislocations (*Transactions of the Royal Medical and Chirurgical Society*, vol. xxiv, 1840). A short extract from the history of the case suffices to show its nature. "A gentleman, aged 39, in the year 1824 was attacked with spasms in the pectoral and intercostal muscles, and numbness of the whole of the left side of the body, with the exception of the arm. In the left leg and thigh, sensation was wholly lost, the power of motion remaining. He had no sensation of passing his urine after it had quitted the bladder, and was but just aware of the evacuation of fæces. Vision in the left eye was impaired to the extent that he could but distinguish daylight." The symptoms continued, with increasing weakness in the thighs and legs, to the complete loss of the power of support and of sensation in them. "Unless he saw his legs, he could not tell in what direction they were; but, on looking at them, so as to know their position, he could readily move them. He occasionally suffered most severe pains in the limbs." No signs of inflammation were ever observed around the hip-joint; but, during two attacks of "violent spasms", which compelled the patient to remain for several days in bed, the dislocation of the hips occurred. Stanley's description of the hip-joints after their "spontaneous dislocation" is very suggestive of Charcot's joint-affection. In a second case, the left hip-joint was dislocated as a consequence of what Stanley terms "hemiplegia", chiefly perceptible in the left lower extremity. After death, the lumbar portion of the spinal cord was found to be pulpy, and the femur displaced backwards, the capsule being much elongated. Mr. Eve remarks that, although Stanley understood these cases very imperfectly, yet he attributed the joint-affection to spinal disease even in the title of his paper; and therefore to him belongs the honour of having first drawn attention to this disease. Had he been able to examine the first case after death, the true nature of the affection would probably have been ascertained.

SANATORIA FOR CHILDREN IN GERMANY.

A SOCIETY, of which the Crown Prince and Princess of Germany are patrons, and Professor Ewald of Berlin is the secretary, has been formed for the purpose of establishing sanatoria on the German sea-coast for sick and weakly children. The institutions are intended for the reception especially of poor children, as well as of those in better circumstances, for whom a prolonged sea-side residence is advisable, but whose friends are unable to remain with them. The following arrangements have already been made. At Wyk, in Föhr, there is to be a children's hospital of fifty or sixty beds, with accommodation for holiday visitors; in Norderney, a provisional hospital is to be fitted up with from twenty to twenty-five beds; at Zoppot near Dantzig, a bequest of 6,000 marks has been received, and the foundation of a children's asylum laid. Membership of the society is obtained by an annual subscription of 10 marks, or a donation of 100 marks. Donors of 3,000 marks (£150) in one sum are entitled for life to send a child for six weeks in each year to one of the institutions on the coasts of the German Ocean and Baltic Sea; and a donation of 150 marks will entitle a child to be sent once for six weeks.

MEMORIAL STATUE OF ALBRECHT VON GRÄFE.

ARRANGEMENTS have been made between the committee for erecting a memorial of the illustrious ophthalmologist von Gräfe, and the magistrates of Berlin, by which the statue will be presented to the town, while the municipal authorities undertake to preserve it and the ornamental ground on which it stands. It is intended that the ceremony of unveiling the statue shall take place on May 22nd, the anniversary of the birth of von Gräfe.

PRIZES OF THE GENEVA RED CROSS SOCIETY.

THE International Committee of the Red Cross in Geneva offers three prizes, each of the value of 2,000 francs (£80), for the best essays in (1) improvisation of means of treating the wounded; (2) improvisation of means of transport; (3) improvisation of an ambulance or a field-hospital. The essays, which must not have been previously published, may be written in French, German, or English. The successful essays will become the property of the Society, which reserves the right of publishing them either in the original or in translation. Essays in competition may be sent up to April 1st, 1883, to the President of the International Red Cross Committee, 8, Rue d'Athenée, Geneva.

THE REVENUES OF HOSPITALS.

THE *Philanthropist*, a new and excellent weekly record of charities, has calculated the following figures, to ascertain the comparative amount of support accorded to the various philanthropic and charitable works in the metropolis. The following is the average annual income of the metropolitan hospitals: General, £17,600; Consumption, £5,800; Ophthalmic, £2,600; Orthopædic, £1,600; Skin, £1,200; Women and Children, £3,500; Lying-in, £1,400; special, other than above, £4,200. We have not space for detailed figures in respect to the proportionate sums allotted to other institutions; but we may mention that the percentages are: dispensaries, 0.9; institutions for blind, deaf and dumb, incurables, and idiots, 3.5; convalescent, nursing, surgical appliance, and vaccination institutions, 1.4; institutions for the aged, 10.0; general relief, and food and loan institutions, 9.4; voluntary homes, 3.4; orphanages, 4.2; reformation and prevention, 2.1; education, 10.3; protection, 1.3; social improvement, 1.0.

SMALL-POX UNDER SURVEILLANCE.

SMALL-POX is prevalent in Sydney; and, in a letter which appeared in the *Sydney Echo* of December 5th, attention is called to the fact that the special constables stationed to watch the houses in which the occupants are affected with small-pox may themselves be the means of spreading the disease, the dissemination of which they are specially employed to prevent. It appears that three of these men took small-pox. One, who had never been vaccinated, died; and it is not stated that the others had been revaccinated. That they had not been satisfactorily revaccinated may be taken for granted, since those in attendance on small-pox patients in small-pox hospitals do not contract the disease if due precautions have been taken as regards their revaccination. Since the appearance of small-pox in Sydney, the Board of Health have taken steps to have a permanent hospital built, but it is not yet completed; and the writer remarks that it would have been better to have had a temporary wooden building erected, which would have met the requirements of the epidemic. Hospitals built in a hurry are seldom well built. He gives an instance of the necessity for compulsory registration of infectious diseases. Five of the family of a milkseller had been attacked with small-pox, and one of these had been ill several weeks; yet the milkman continued to sell milk during this time, and it is not unlikely that the dairy may have been the means of spreading infection to the customers. Small-pox is of rare occurrence in Australia, and this may account for the incomplete precautions which appear to have been taken by the authorities in Sydney to pre

vent those engaged in watching infected houses from being a means of spreading small-pox. Doubtless they will learn before long the necessity of having all those so employed revaccinated; and we hope that the municipal authorities will see their way to make the registration of infectious disease compulsory.

OVARIOTOMY.

DR. JOHN HOMANS publishes, in the *Boston Medical and Surgical Journal*, No. 4 for 1882, a table of thirty-two cases of ovariotomy which he performed in 1881. There were three deaths. One was from acute mania, in a patient whose parents and family had been insane; the necropsy showed that all was going on well as regarded the operation wound. One patient, aged 73, although the tumour had adhesions to the peritoneum, omentum, and intestine, made a rapid recovery. The pedicle in each case was tied, and burnt off by Paquelin's thermocautery. Nothing is said as to the use of antiseptics. Dr. Homans had also three cases in which an exploratory incision only was made; all recovered from the operations.

UNCERTIFIED DEATHS.

THE number of deaths registered as uncertified, viz: where no certificate has been given of the cause of death by a legally qualified practitioner, or no inquest has been held, appears to be on the increase, both in the metropolis and the provinces. In the Board of Works District of St. Giles, these deaths averaged six during the years 1875-8: in 1879-80, they increased to fourteen, and last year (1880-1), they were eleven. The Board have memorialised the Home Secretary, asking for legislation on the subject.

CASE OF GASTROSTOMY PRESENTING UNUSUAL CHARACTERS.

AT the meeting of the Imperial and Royal Medical Society of Vienna on January 27th, Professor Albert showed a boy, aged 11½, on whom he had, on November 25th, performed gastrostomy on account of stricture of the œsophagus, produced by swallowing caustic ley. The contraction had become so narrow, that not even water could pass. In spite of constant enemata, the weakness of the boy increased so much, that an operation was determined on. On the above-named day, the serous membrane of the stomach was fastened to the abdominal wall by catgut suture; and, as the boy was much collapsed in consequence of the anæsthetic used, the operation was completed on the same evening. Nutrient matter was injected into the stomach, which gradually became accustomed to its contents. On the patient's now attempting to swallow water, it was found that a few drops passed. A renewed attempt was made to introduce bougies, which was so far successful, that the boy was enabled to swallow fluid food. Dr. Albert said that it was difficult to explain how the permeability of the œsophagus had been so far restored; perhaps traction had been made on an excentrically situated stricture.

DETECTION OF LEAD-BULLETS BY THE INDUCTION-BALANCE.

THE *Philadelphia Medical News* reports that at the hospital of the University of Pennsylvania, on December 21st, Professor Agnew gave Mr. Gleason, of Boston, an opportunity to demonstrate the operation of Bell's induction-balance upon patients, in whom bullets had been imbedded for years. The apparatus was the same as was used in the case of President Garfield, with some added improvements. The experiment was conducted before the medical class, and in the presence of a number of interested medical men. In one case, the bullet had been received nineteen years ago, and was supposed to be lodged somewhere in the arm. After explaining the *modus operandi* of the apparatus, a careful search was made over the patient's whole arm and shoulder, but entirely without success. Several times Mr. Gleason exclaimed, "There, there it is!" but after all, had to give it up. The second patient was a negro, who had been shot in the left buttock. In his case also, the apparatus failed to give any information. It seemed to show something after Drs. Agnew and John Ashhurst, junr., had found a spot, when they felt with their fingers what they thought might be an encysted ball; but even then the coincidence was too doubtful and inconsistent to be of any value. Besides the disks, the insulated needle was used, thrust deep down to where Dr. Agnew thought he felt the ball, but even this brought no response. The experiment proved of no use as an aid to determining the location of the missiles in these two cases; though it was easy to hear the modification of tone in the telephone when the disks were passed over Mr. Gleason's cheek, while he held a bullet in his mouth; or when the needle was thrust against a bullet buried in a piece of raw beef. In a case under the care of Dr. Hamilton, the apparatus detected a ball in the anterior wall of the chest, but that was very close to the surface. After the conclusion of the experiments, Dr. Agnew made an exploratory incision behind the trochanter major in the negro, which disclosed that the bullet was not there.

IDIOTS IN THE WESTERN COUNTIES.

AT the annual meeting of the Western Counties Idiot Asylum, recently held at Truro, it was stated that there are in England as many as 30,000 idiots, or about one to every 350 of the population. Of this number 4000 belong to the four western counties, of whom not more than 100 are properly provided for. There are at present 80 inmates in the Asylum—48 boys and 32 girls. The accounts showed a deficiency of £44 on the year, and a debt on the building of £2,500. As an instance of the inadequate support given to the institution, it was stated that, whereas Cornwall had four inmates, who cost £104 a year, only £18 came from the county in subscriptions. The Bishop of Truro, who presided, made a powerful appeal on behalf of the institution. A local committee was appointed to aid in procuring financial support.

PECULIAR PEOPLE.

A MATTER came recently before Mr. Balguy, the Woolwich police-magistrate, which shows in a striking way the lengths to which foolish fanaticism will sometimes lead people. Certain parents belonging to the sect not inaptly called the "Peculiar People", lost one child from small-pox, and had three others suffering from the same disease; but in respect of none of the cases would they employ any medical man. The parents, though able to defy public opinion so far as the illness was concerned, could not do so when a death occurred; in other words, they could not get the body buried for want of a medical certificate. With evident unwillingness, they reported the matter to the police, who informed the sanitary inspector and coroner's officer. These two officials went to the house, armed with a coroner's warrant to remove the body to the parish mortuary, with a view to a *post mortem* examination, but were refused admission, and refused the body. They applied to the magistrate to know whether they might force an entrance, but Mr. Balguy pointed out that nothing could be done till a medical man had seen the body. Eventually, the officials left the court, with the intention of finding the police-surgeon, and, in his company, of breaking open the doors of the house. We are not by any means prepared to say whether, legally speaking, the end could be held to justify the means; seemingly, the magistrate thought not. We allude to the matter here for the more particular purpose of pointing out two things: first, that there is an urgent necessity for further legislation by Parliament with respect to infectious diseases in private houses; and, second, an end ought to be put to the great evil of the metropolis not having the advantage of a consolidated public health code similar to, but better than, the Public Health Act, 1875. We cannot here discuss these two points at length; but, with respect to the first point, we shall never cease strenuously to urge the compulsory registration everywhere of infectious diseases; and, as a branch of this subject, an immediate alteration of the burial laws, to obviate any repetition of so intolerable a scandal as that which has occurred at Woolwich in connection with this "Peculiar People" case. The second point seems unworthy of serious argument. By the Public Health Act, 1875, about thirty fragmentary and contradictory statutes were melted down into one; but, as the metropolis was expressly excepted from this Act, it follows that the health-officers of the four millions of people who

inhabit the capital city of the empire continue compelled to endure these thirty fragmentary and contradictory statutes, and be hampered at every turn by them in the performance of their duties. This is a real parliamentary scandal.

SCOTLAND.

THE honorary degree of Doctor of Laws was conferred, at a recent meeting of the Senatus Academicus, St. Andrew's, Edinburgh, on John Hutton Balfour, M.A., M.D., Emeritus Professor of Botany in the University of Edinburgh, author of many botanical memoirs, and an old *alumnus* of the University of St. Andrew's.

AMONG the candidates for the new Chair of Pathology in the University of Aberdeen, is Dr. Creighton, M.A., M.D.Aberdeen, Examiner and formerly Demonstrator of Anatomy in the University of Cambridge, whose numerous contributions to pathological science in the Reports of the Medical Officer to the Privy Council, in the *Journal of Anatomy and Physiology*, in the *Proceedings of the Royal Society*, and in various public monographs, place him in the first rank among the younger school of European pathologists.

THE LATE PROFESSOR SANDERS.

A BUST of the late Professor Sanders has been presented to the University of Edinburgh; it will be placed in the upper library hall, which already is so rich in those mementos of the eminent men who were of its professoriate.

THE ERASMUS WILSON CHAIR OF PATHOLOGY IN ABERDEEN.

"THE Sir Erasmus Wilson Chair of Pathological Anatomy" has now been founded and endowed at the University of Aberdeen. The Senatus of the University, who have authorised the publicity of this statement, have received the endowment of £10,000, and the deed has been communicated to the Home Office. Sir Erasmus Wilson has nominated the Crown as patron of the chair. The free yearly revenue of the endowment will be bestowed, as a salary, on the professor of pathological anatomy, as well as the fees to be paid by students attending the lectures; and, in addition to oral instruction, the subject must be taught practically. The whole of the professor's time is to be devoted to the duties of his chair, and he will not be permitted to engage in private practice.

THE SICK CHILDREN'S HOSPITAL.

AT the annual meeting of the subscribers to the Royal Hospital for Sick Children, Edinburgh, held recently, it was stated that, during last year, 528 children had been treated in the wards of the hospital, and 6,052 had been treated in the out-door dispensary department, giving a total of 6,580, this number being a slight diminution of the number treated during the previous year. Since the opening of this invaluable institution, 106,333 children have been treated by its medical and surgical staff. During the past year, it had been able to receive 129 cases of scarlet fever while that disease was so prevalent in Edinburgh. The directors had considered it necessary during the year to place the whole sanitary arrangements of the hospital in a more satisfactory condition; and this had led to considerable expense. The income for the year was £1,839, and the expenditure £2,568, thus leaving a considerable deficit to be provided for. A gratifying announcement was made, and the knowledge of it may possibly lead to its being initiated by others in a position to do so; it was that the Earl and Countess of Breadalbane had intimated to the directors their intention of sending annually from the congregation worshipping in his lordship's chapel, at Taymouth Castle, the sum of £25 annually, to aid in the maintenance of two cots in the hospital, to be named "Taymouth Cots". The Earl and Countess desire to become patrons, as also do the Earl and Countess of Rosebery. Lord Shands spoke strongly on the necessity that existed for the local authority relieving the Sick Children's Hospital, as well as the Royal Infirmary, of the expense incurred in the treatment of so many cases of infectious disease, which he considered were more properly a burden to meet from the rates than by the two institutions which had otherwise so many calls on their usefulness.

THE EDINBURGH ROYAL DISPENSARY.

DURING the year 1881, the staff of the Edinburgh Royal Dispensary treated, in the premises in Richmond Street, Edinburgh, 6,428 patients, while 1,190 were visited at their homes, thus making a total of 7,618; in addition to which, 814 children had been vaccinated, and 211 women attended during their confinement. The financial statement submitted at the annual meeting showed the gratifying increase that had taken place in subscriptions, these having been nearly doubled during the year. The income amounted to £374, and the expenditure to £352, leaving a comfortable balance in favour of the institution.

GLASGOW ASSOCIATION FOR RELIEF OF INCURABLES.

THE Glasgow Association for the Relief of Incurables continues to do much good work, not only by receiving many incurables into the home, but also by monthly pensions to many non-resident incurables, no fewer than 410 of the latter having received monthly assistance, averaging ten shillings to each. Since the home was opened, 140 patients have been received into it; at the close of the year, it contained 58 inmates, while there were 132 out-pensioners. The funds of the institution are in a satisfactory condition.

THE COMBE LECTURES IN ABERDEEN.

THE fifth lecture of this series was delivered by Dr. Stirling, in Aberdeen, on Saturday evening. The digestive processes as they occur in the stomach and intestines were described, and also the means by which the products of digestion reach the blood. The action of the gastric juice was shown experimentally on fleshy food and on milk. The actions of the bile and pancreatic juice were also shown by simple experiments. The lecture was brought to a close with a description of the microscopic and chemical characters of the blood.

MEDICAL BURSARIES IN ABERDEEN UNIVERSITY.

THE Town Council of Aberdeen have resolved that the competition for their medical bursaries shall be upon physics (heat, light, electricity), natural history, botany, and inorganic chemistry.

THE SALE OF DISEASED MEAT IN GLASGOW.

IT is satisfactory to see that the health authorities in Glasgow are moving in this matter. It has been agreed that a copy of the medical officer's report on the subject should be forwarded to the Home Secretary and the Lord Advocate, accompanied by a statement directing attention to the defective state of the existing law as regards the power to prevent diseased meat being brought into the city, and there sold for human food; and urging on the Government the necessity of adopting such steps in the matter as may be deemed expedient for removal of the grievance complained of, and so as to render a recurrence of such a sale of diseased carcases for human food impossible.

THE ST. ANDREW'S AMBULANCE ASSOCIATION.

FROM time to time, there has been noted in the JOURNAL the progress which ambulance work has been making in Scotland, and markedly so in Glasgow, especially in the Volunteer ranks. With a view, however, of spreading the movement among the general community, so as to enable them to reap the benefits belonging to it, there has just been formed in Glasgow an organisation under the title of the "St. Andrew's Ambulance Association". The prospectus, which has just been issued, states that its objects are to disseminate information as to the first aid to the accidentally injured, by establishing classes for efficient instruction in ambulance duties; and, further, to place stretchers, ambulance waggons, and other appliances necessary for the relief of the injured, in such situations as may be considered advisable, or as will enable assistance to be given with the least possible delay. The gentlemen

promoting this association are chiefly connected with large engineering and manufacturing works, where accidents are liable to occur; but many others have joined the movement. It is thought that, to carry out the objects contemplated, a sum of about £2000 will be required to provide the necessary material. Of this sum, a considerable part has been already promised, and it is hoped that future maintenance will be covered by members' subscriptions. There can be no question as to the need of such an association, both to furnish the appliances necessary for assisting the injured in case of accident, and to diffuse among the general community a knowledge of how to use these appliances; but its sphere of usefulness will be very much extended, if the different ambulance stations are placed in direct communication, telephonic or telegraphic, with the infirmaries, and also with the neighbouring suburbs, after the plan already mooted in London at a meeting recently held there.

APPOINTMENTS IN EDINBURGH.

THE death of the late Sir Robert Christison has, of course, led to a number of vacancies; one of these has been filled up this last week by the appointment of Dr. Peel Ritchie to be one of the consulting physicians to the Sick Children's Hospital. Dr. Ritchie was for many years one of the physicians to the same institution. It is expected that Emeritus Professor Hutton Balfour, M.D., will be proposed as successor to Sir Robert Christison as one of the assessors in the University Court, by the General Council of the University.

HISTORY OF SMALL-POX IN KILMARNOCK.

AT a meeting of the Glasgow Philosophical Society held on the 1st instant, a very interesting paper was read by Dr. John C. McVail, in which there was given a history of small-pox in Kilmarnock during last century. The facts brought out as to small-pox were derived from a register which had been commenced in 1728 by the then schoolmaster and session-clerk, and had been continued for thirty-six years, giving ample statistics of all who died. In these thirty-six years, there were no less than nine epidemics of small-pox, occurring at intervals of three to five years, the deaths during each varying from 45 to 95 in a population of 4,200. At that time, the general mortality from small-pox was nearly twenty times greater than since the introduction of vaccination. Out of every 1,000 deaths, it caused 161. In 1754, it caused 95 deaths out of 203, being four times greater than during the epidemic of 1873. In seven of the epidemic years, the mortality was such as to exceed very considerably the births. In 1873, 143 persons died of small-pox out of a population of 24,000. Three thousand of the population had been revaccinated; and, while not one of these had died, it was doubtful whether any one of these had been attacked. No doubt, improved sanitation and medical treatment had influenced all zymotic diseases, as shown by the death-rate of measles having decreased at the rate of 100 to 70, and of fevers from 100 to 53; but the great fall in small-pox from 100 to 5 could be in no way attributed entirely to that cause. In the discussion which followed the reading of the paper, Dr. Fergus referred to small-pox in Glasgow as confirmatory of the value which Dr. McVail put on vaccination and revaccination; and he pointed out that, during the last six years, there had only been four deaths *per annum* in Glasgow from small-pox. Dr. McVail received a cordial vote of thanks for his paper, and there was a very general feeling expressed in favour of its publication in the *Proceedings* of the Society. Antivaccinators would do well to ponder such striking facts as the above, which show clearly the great benefits that have been derived from compulsory vaccination, and the necessity there is for maintaining it.

A CURIOUS case of malformation was exhibited by Dr. Hofmokl at a recent meeting of the Imperial and Royal Medical Society of Vienna. It consisted in an arrest of development of the three middle toes and the third and fourth metatarsal bones; the subject, a young man, having on each foot only the great and little toes, situated wide apart.

IRELAND.

DR. JOSEPH E. KENNY, who was arrested on the 24th October last, on a warrant under the "Protection of Peace and Property (Ireland) Act", and who on the following day was dismissed, by a sealed order of the Local Government Board, from his post of medical officer to the North Dublin Union Hospital, was liberated from Kilmainham prison last week. The Court of Queen's Bench has at present before it an application for a *mandamus* to the Local Government Board, to rescind the sealed order dismissing him.

BELFAST BRANCH OF THE ROYAL MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.

THE fortieth annual meeting was held on the 8th instant, when it was resolved that the President, Dr. T. H. Purdon, with Drs. Arnold, Drennand, Browne, and Ferguson, should represent the Branch in Dublin at the annual meeting of the parent Society, to be held in June. Regret was expressed at the loss the Society had sustained of one of its earliest, steadiest, and most liberal members, Dr. Charles D. Purdon. The following office-bearers were duly elected for the ensuing year. *President:* Dr. T. H. Purdon. *Committee:* Drs. Wilberforce Arnold, Browne, Drennan, Ferguson, Cuming, Murney, James Moore, J. T. Smith, Harkin, McCleery, T. H. Purdon, Whitaker, Brice Smyth, Ross, McGee, John Moore, Spedding, McKeown, Willie, Hawthorne, Gray, Musgrave, R. B. McClelland, Filson, Stuart, Higginson. *Honorary Secretary:* Wilberforce Arnold, M.D., J.P. *Honorary Treasurer:* Samuel Browne, M.D., J.P.

SMALL-POX IN BELFAST.

DR. COATES, medical officer of Belfast No. 4 Dispensary District, has recently reported to the sanitary committee of the town council that the great majority of the cases of small-pox, which have occurred in his district, have arisen within a radius of a few hundred yards; the centre of the affected area being the Blackstaff Road, which is about one hundred yards from the Fever Hospital, where all the cases of small-pox have been treated. He is led to believe, after a careful examination into the various cases, that the presence of the hospital for small-pox cases, in such close proximity to a dense population, is the immediate cause of the present outbreak, as far as his district is concerned. Dr. Coates suggests that, as far as possible, arrangements should be made whereby cases of infectious diseases, and particularly of small-pox, would be treated in a hospital removed as far as possible, compatible with convenience, from human habitations.

ATHY UNION: MISTAKES IN DIAGNOSIS.

DR. O'NEILL, medical officer of the workhouse, has called the attention of the guardians to a practice which he states has been constantly taking place—viz., sending patients to the fever hospital who had not fever, and people who suffered from that disease to the infirmary. The danger of such proceedings was obvious; and he threatened that, if medical men persisted in the future in doing so, he should be obliged to mention their names. Further, he was of opinion that, if the dispensary medical officers had not sufficient skill and intelligence, they should be suspended. These are serious charges against the medical officers of the union, and it will be interesting to hear their view of the matter. The board, however, passed a resolution, desiring the several dispensary doctors to act with greater caution in the sending of patients to either infirmary or fever hospital.

THE BELFAST WORKHOUSE.

THE half-yearly report of Mr. Hamilton, Inspector of the Local Government Board, states that the workhouse accommodation is adequate to the present wants of the union, and that the children's infirmary and the men's day-room were the only part of the establishment that appeared to be crowded. The sanitary condition was reported satisfactory; and, although an epidemic of small-pox prevailed in the town, and a large number of cases were in the union hospital,

very few cases of the disease had occurred among the inmates. The rate of mortality among the children under two years of age had been high for some time past; but the inspector believes that a large number or the deaths were of infants who were delicate when admitted. The children's infirmary is estimated to accommodate 79, but there were 103 in it. However, an arrangement will soon be made giving them a larger ward.

THE NOTIFICATION OF INFECTIOUS DISEASES.

AT the last meeting of the Corporation of Dublin, the following resolution was agreed to.

"That this Council learns with regret it is the intention of the Irish Medical Association to have introduced into Parliament a Bill for the notification of infectious diseases which would be only permissive in character, and inadequate to meet the necessities of the case, compulsory notification being the only available remedy. That the Council requests the High Sheriff (Mr. E. D. Gray, M.P.), with the co-operation of other members of the Council who are members of Parliament, to bring forward a Bill with provisions of the same scope and tendency as that introduced by him last year."

The Bill above referred to is the one adopted by the Council of the Irish Medical Association, and by the Dublin Branch of the British Medical Association (*vide* JOURNAL, February 4th, 1882, p. 174). The mover of the resolution maintained that the only effectual and satisfactory notification would be one to be made by the medical attendant. This may be so; but Mr. Gray is quite aware of the strong opposition felt by the profession to this proposal, and the difficulty, if not the impossibility, there would be of passing through the House any Bill opposed by it. Under these circumstances, Mr. Gray may not, perhaps, acquiesce in the request of the Corporation, and we submit that it would be more politic for that body to support the measure introduced by Mr. Meldon, and which has been prepared by, and received the approval of, the two most important medical associations in Ireland. Their Bill is not, perhaps, so perfect a one as the supporters of direct notification would wish; but it is an advanced step in that direction. It would also undoubtedly further the object the Corporation desire to accomplish, in obtaining early information of the existence of infectious disease. This information many medical men object being compelled to give, although in many instances they would voluntarily supply, if a proper system for doing so, as proposed in the Association's Bill, existed. And it is well known in Dublin that the dispensary medical officers would gladly avail themselves of the provisions of the proposed measure in their practice among the fever dens and wretched tenement houses which unfortunately abound in most of their districts.

DWELLINGS FOR THE LABOURING CLASSES.

WE are glad to see that the Corporation of Dublin have adopted a report of the Public Health Committee, in favour of applying for a loan of £50,000 to carry out the provisions of the Labouring Classes Dwellings Act; £20,000 is to be applied for in the first instance. Annexed to the report was one from Dr. Cameron, the executive sanitary officer, in which he advocated the erection by the Corporation of houses for the use of the poorest and most dependent classes of the community. He believed it would be a paying operation. There is an absolute necessity for this measure, because it is stated that a greater number of untenantable houses have been closed in Dublin by the sanitary authorities than in all the towns of England combined.

A MORGUE FOR QUEENSTOWN.

IT is strange that in an important seaport town like Queenstown there should not exist a proper place for the reception of dead bodies pending an inquest. An accident recently took place, resulting in the loss or several lives; and the bodies, in an advanced state of decomposition, had to be towed into a chamber, and left for some hours open to the public gaze, until coffins were procured into which to place them. The coroner and jury have pointed out the urgent necessity that exists for a morgue; and Dr. Downing has shown that the danger to health may be considerable, and has expressed his surprise that that such a state of affairs can be allowed to exist in any civilised town. The Town Commissioners, however, seem disinclined to incur the expense of erecting a structure of the kind required.

CORK DISTRICT LUNATIC ASYLUM.

DURING 1881, the total cases under treatment amounted to 1148, while 93 deaths took place, all from natural causes. The average daily number of patients for the year was 874, being 34 more than in 1880. The percentage of recoveries on the total number in the asylum was 9.2. Several new works were completed during the year, the chief being the new sewerage scheme, which Dr. Eames, resident medical superintendent, considers unsurpassed. The patients are engaged in various occupations, and all the clothing and repairs of the institution are executed in the house, while a large proportion are engaged in the kitchen and laundry. The total cost for the year came to £18,169 6s. 3d., being at the rate of £20 15s. 9d. per head, as compared with £20 16s. 8d. the preceding twelve months.

SAMARITAN HOSPITAL FOR WOMEN, BELFAST.

THE income during the past year has exceeded the expenditure by £151; and, by the decease of Mr. George Benn, a bequest of £1000 has been left to the hospital. The institution derives its income from four sources: 1. Payments made by donors for free beds; 2. Payments by hospital patients; 3. Payments by lady patients, who may desire to avail themselves of the more convenient accommodation of the place when under treatment; and 4. Payments by ordinary subscribers and others. The committee, in their annual report, state that they would not be doing their duty, if they omitted to record their sense of obligation to Dr. McMordie, their medical officer. To his zeal, skill, and power of organisation, the fact was mainly due that the hospital is one of the best equipped, most economically managed, and most efficient hospitals in the country.

CASTLEBAR DISTRICT LUNATIC ASYLUM.

AT a recent meeting of the governors, the following resolution was unanimously adopted.

"Dr. Dwyer having informed the Board that he is resigning the post of resident medical superintendent of this asylum, having been appointed to the charge of the Mullingar Asylum, the board desire to testify their appreciation of the very valuable services that Dr. Dwyer has rendered the institution in the efficient discharge of the onerous duties attached to his office since his appointment, and they regret that his connection with them is now about being severed."

HEALTH OF BELFAST.

DURING the past month, 102 persons suffering from small-pox were removed to hospital; and, as a considerable number of the cases occurred among factory-workers, the Sanitary Committee of the Corporation have considered it desirable that, in all mills, factories, or warerooms in which cases of small-pox have taken place, the entire operatives should be revaccinated as soon as practicable. They have also caused notices to be circulated cautioning parties from exposing themselves while suffering from any dangerous infectious disorder; or from giving, lending, selling, or exposing, without previous disinfection, any bedding, clothing, rags, or other things, which have been exposed to infection from any such disorder; or holding wakes, or otherwise violating the provisions of the Public Health (Ireland) Act of 1878. The births during January amounted to 527, and the deaths to 434, being equal to an average death-rate of 27 per 1,000. There were 21 deaths recorded from small-pox; and, in consequence of the prevalence of the disease, the Belfast Board of Guardians have appointed Dr. Samuel Malcolmson as temporary resident surgeon to the workhouse.

IT is reported that the teaching staff of the University of Berlin is to be increased by the addition of two extraordinary professors of medicine, with salaries amounting to 7,800 marks (£390); also an additional assistant in the physiological institute, and one in the obstetric institute, each with a salary of 1,350 marks (£62 10s.).

DR. CARPENTER ON VACCINATION.

AT the monthly conference of the London Society for the Abolition of Compulsory Vaccination, at the Steinway Hall, Dr. Andrew Clark occupied the chair, and an address was given by Dr. W. B. Carpenter, C.B., on the increase of small-pox mortality in London during the year 1880.

The CHAIRMAN, in a few preliminary remarks, expressed his regret that the emotional element had too often been allowed to enter into discussions on the necessity of vaccination. He had great pleasure in introducing to the meeting Dr. Carpenter, and he hoped that all would regard the subject and consider his arguments from a purely intellectual point of view.

Mr. W. TEBB, the chairman of the executive committee of the Society, briefly opened the proceedings, and threw down the gauntlet to the advocates of compulsory vaccination, by stating that the Society looked upon vaccination as an unreasonable and indefensible anomaly, the discovery of which was originally hailed with acclamation chiefly because it afforded a substitute for the worse evil of inoculation. He quoted with satisfaction Mr. Canning's remark, that he could imagine no circumstances that would induce him to make vaccination compulsory, and Sir R. Peel's words to the effect that he would never be a party to such a policy. He denied that vaccination gave complete protection against small-pox, but held that, in any case, the alleged benefit to society was of less importance than the rights of individuals that were outraged by coercion.

Dr. CARPENTER then addressed the meeting. He pointed out the inadequacy of the objection that a system of compulsory vaccination outraged the rights of individuals; contending that in health, as in education, it was the paramount duty of the State to secure, as far as possible, the public advantage. The State, in his opinion, was morally bound to intervene in such a matter between the parent and the child, for the good both of the child and of society at large, every member of which was liable to be exposed to infection. He proposed to speak with special reference to the outbreak of small-pox in 1880, which, he understood, was specifically mentioned in the resolution that was to be moved in the House of Commons by Mr. P. A. Taylor. That outbreak, according to his view of the case, afforded grounds, not for the repeal of the Act, but rather for making its operation more complete and stringent. It was necessary first to consider the history of small-pox, with regard to which very important statistics existed in the bills of mortality for the last 200 years. In the case of other exanthemata —scarlatina, for instance—doubts might have been cast on the value of the earlier figures; but small-pox had always been clearly recognised and distinguished from other diseases, and no such doubts could, therefore, be entertained. Now, from 1660 to 1678, the general mortality of the kingdom was 80,000 in every million of living persons, and the small-pox mortality was 4,110; in 1728-57, the general mortality was 52,000 per million, and the small-pox mortality 4,260; in 1771-80, the general mortality was 50,000, and the small-pox mortality 5,020—a slight increase, which was probably due, as Dr. Heberden said long ago, to inoculation. However, the average small-pox mortality in the period from 1660 to 1800, irrespective of inoculation, might be taken as about 4,000 per million. It was noticeable that, at that time, the disease periodically appeared in its worst form, and was the terror of all classes. Thus Louis XV died deserted by all except Madame Du Barry, and the priests who chanted mass by the side of his coffin in the Chapelle Ardente were said to have been "condemned" to do so. Again, in 1750, Horace Walpole wrote, "Lord Dalkeith is dead of the small-pox in three days", his brother having previously died in two days. These, of course, were instances in which the disease appeared in its greatest intensity and attacked the rich, who in these days would ordinarily have little to fear from it. For the decade 1801-10, the general mortality was 29,000 per million, and the small-pox mortality 2,040. In 1831-35, the general mortality, owing to the epidemics of cholera and influenza, was 32,000, and the small-pox mortality had fallen to 830. At that time, he had himself seen as many as 100 cases of blindness from small-pox in unvaccinated persons, and there was evidence that, in the last century, two-thirds of the patients at the blind asylums were blind from the same cause, while the proportion now was only 5 per cent. In 1840, the Legislature provided the means of vaccination, and the result was that the mortality fell to 400 per million. Then came compulsory vaccination in 1853, and the small-pox mortality in the decade 1851-60 was only 278 per million. In 1861-70, the number was 276. He now came to the years 1871-80, which period was unquestionably exceptional. The mortality in these years among unvaccinated persons was so extraordinarily great, and the disease itself was so often violent, as to suggest the notion that it might be indeed the black death of the middle ages. Yet, as far as he had been able to ascertain, no person who bore good evidences of vaccination had died of that peculiarly malignant form of small-pox (known in medicine as the hæmorrhagic or petechial), the frequency of which among the unvaccinated in the present epidemic raised the average death-rate of that whole class to 44.6 per cent., whilst the average death-rate of the vaccinated had been only 7.8 per cent., ranging from 1.3 to 15.3, according to the character of the arm-marks. In 1871, the disease was severe everywhere in Great Britain, but especially in Scotland, where compulsory vaccination had not been long adopted. Since that time, however, vaccination had been enforced more effectually in Scotland than in England, the result being that, for the last four years, there had not been twelve deaths a year in that country from small-pox. In London, on the other hand, thanks to the efforts of the Society, there was an unvaccinated residuum which kept the disease alive. The epidemic had come to us from France, and had probably arisen there from the unsanitary condition of the French soldiers during the late war. Having regard to all the circumstances of the epidemic, and from a study of epidemics in general, he had no hesitation in saying that the period 1871-80 was altogether exceptional, and that the rate of small-pox mortality during that decade afforded no basis for an argument against vaccination. He need only make one more observation. His opponents would doubtless urge that such places as Dewsbury, Leicester, and Keighley, where the anti-vaccinationists were strong, had had a comparative immunity from small-pox. But the truth was, that the disease had already died out in those towns, and that the mere disuse or neglect of vaccination did not reproduce it. As an illustration of the fact that no sanitation would suffice to exclude small-pox, the case of San Francisco might be cited. In the Chinese quarter of that city, a smouldering fire of small-pox continued to survive, after the subsidence of the general epidemic of 1872 and following years. Five years ago, the Board of Education required that all the children then in the schools should be vaccinated, and that none should be thereafter admitted without a vaccination certificate. Under this order, 80,000 children were vaccinated within the five years 1876-81. In the autumn of 1880, an outbreak of small-pox took place among the most respectable families in the town, causing quite a panic among the citizens; 147 cases occurring in November, and 140 in December, before it could be controlled by the vaccination of the unvaccinated adults, and by the quarantining of those smitten with the disease; and this in spite of the fact that, as the very low annual death-rate showed, the sanitation of the place was singularly good. Of the children, however, all of whom had been vaccinated—mostly with heifer-lymph—only ten or twelve took the disease.

A discussion followed, in which members of the Society and others took part.

A PARK FOR NORTH-WEST LONDON.

THERE is yet, we understand, some hope that the Metropolitan Board of Works will entertain as an equitable basis the proposition to secure the open space for which the Paddington Park Committee are pleading, on the basis of a large public and voluntary subscription to be supplemented by a metropolitan rate. The north and west have contributed to the Finsbury, Kennington, and other parks. If what is now asked for North-west London were asked for St. Giles's, everybody would see the urgent need for it; yet the population in the streets surrounding this space is yet more dense—as has been proved by a street census—than in St. Giles, and is of the artisan and poor working class. The case is a strong one, the opportunity golden, and in the nature of things may never again recur. The Metropolitan Board is right to be prudent and careful of the ratepayers' money. It cannot be right to throw away an invaluable and never to be renewed chance of securing one little lung for purifying the thick and poisoned air of a densely crowded acreage of habitations; and of obtaining for thousands of poor people—men, women, and children, the aged and infirm—the cribbed, cabined, and confined slaves of modern toil and civilised serfdom—the little oasis of verdant beauty, natural freshness, and repose, which such a park would offer. A fit of niggardliness, on such a rare occasion, would bring a lasting reproach, and leave a permanent stain on the record of this board.

M. DARESTE, in a note communicated to the Académie des Sciences, says that recent experiments have proved to him that the partial compression of the amnios in the embryo of birds induces the production of monster or malformed birds. The compression must be performed when the embryo is nothing beyond a mass of homogeneous cells.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL:

NOTICE OF QUARTERLY MEETINGS FOR 1882: ELECTION OF MEMBERS.

MEETINGS of the Committee of Council will be held on Wednesday, April 12th, July 12th, and October 18th. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary not later than 21 days before each meeting, viz., March 22nd, June 22nd, September 27th, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

November 4th, 1881. FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

STAFFORDSHIRE BRANCH.—The second general meeting of the present session will be held at the Railway Hotel, Stafford, on Thursday, February 23rd, at 3.30 P.M. VINCENT JACKSON, General Secretary.—Wolverhampton, January 29th, 1882.

METROPOLITAN COUNTIES BRANCH.—A general meeting of this Branch will be held at St. George's Hall, Langham Place (entrance from Mortimer Street), on Wednesday, February 22nd, at 8 P.M. precisely; Edwin Saunders, Esq., President, in the chair. Dr. Benjamin Howard will give an exposition of the science, art, and ethics of ambulance conveyance, illustrated by his improved Ambulance Apparatus. Any member of the Branch may introduce a visitor. Gentlemen intending to be present are requested to inform the Secretaries at the earliest opportunity.—ALEXANDER HENRY, M.D.; W. C. GRIGG, M.D., Honorary Secretaries.—132, Highbury Hill, February 9th, 1882.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.—The next meeting of the above District will be held at Ashford, on March 2nd; Mr. Coke in the chair.—T. WHITEHEAD REID, 34, St. George's Place, Canterbury.—February 8th, 1882.

SOUTH-EASTERN BRANCH: EAST AND WEST SUSSEX DISTRICTS.—A conjoint meeting of the above districts will be held at Brighton on March 29th, 1882. Dr. Ewart of Brighton will preside. Members desirous of making communications to the meeting are requested to give notice thereof to the Honorary Secretary, West Sussex District, 5, The Steyne, Worthing.

BATH AND BRISTOL BRANCH.—The fourth meeting of the session will be held at the Bristol Museum and Library, on Wednesday, February 22nd, at 4.15 P.M.; David Davies, Esq., President, in the chair. Papers.—Mr. W. H. Harsant: A Case of Litholapaxy. Dr. C. Steele: A Case of Polypus Uteri. Dr. A. E. Aust Lawrence: On the Coexistence of Pregnancy with Fibroid Tumours. Mr. N. C. Dobson: On Amputation in Senile Gangrene. Mr. A. J. Harrison, M.B.: On Primary Endocarditis. Dr. H. Waldo: Cure of a large Aneurysm without Surgical Interference. Mr. C. F. Pickering: A New Method of Administering Chloroform in Operations about the Mouth.—E. MARKHAM SKERRITT; R. S. FOWLER, Honorary Secretaries.

SOUTH OF IRELAND BRANCH.—The usual quarterly meeting of this Branch will be held in the Royal Cork Institution, on Saturday, February 25th, at 4 P.M. Members wishing to read papers, make communications, or exhibit pathological specimens, are requested to communicate immediately with the Honorary Secretary. The quarterly dinner will be held the same evening, at Lloyd's Hotel, at seven o'clock.—T. GELSTON ATKINS, B.A., M.D., Honorary Secretary, Cork.—February 13th, 1882.

GLOUCESTERSHIRE BRANCH.

A MEETING of this Branch was held lately; J. P. WILTON, Esq., the President, in the chair.

Medical Defence Associations.—Dr. BOND introduced the subject of Medical Defence Associations. The desirability of such an Association in connection with this Branch was felt by all the members present. Dr. Bond, the President, and the Honorary Secretary were appointed a committee to draw up a report to be presented at the next meeting.

Homœopaths.—Dr. J. STEWART brought forward the following resolution: "That this Branch hereby records its entire disapproval of the views expressed by the readers of addresses at the annual general meeting of the Association at Ryde, in reference to consultations with homœopathic practitioners." A long discussion followed: the general feeling was, that in those addresses, the speakers were in no way speaking for the Association, but merely were stating, as they were clearly entitled to do, their own views; and that consequently there was no necessity on the part of the Branch to take any notice of the speeches. And, with regard to consultations with homœopathic practitioners, there was a strong feeling that nothing should be done which might sharpen the distinctions or intensify the differences already existing. The PRESIDENT therefore moved the "previous question", which was carried.

Dr. Fothergill's Letter was read, and ordered to be laid upon the table.

CORRESPONDENCE.

DEATHS FROM ANÆSTHETICS.

SIR,—When I last addressed you on the subject of deaths from anæsthetics, about fourteen months ago, it was to call attention to the appalling frequency with which deaths from chloroform were occurring during the latter months of 1880. After an interval remarkably free from accidents due to anæsthetics, they are again recurring with even greater rapidity than in 1880. Since January of last year, there have been recorded in the British Isles nine deaths from chloroform (five of which have occurred in the past five weeks), four from ether, one from a mixture of ether and chloroform, and one from ethidene. I append below a tabulated statement of the cases. It will be seen that one of the accidents from ether was due to the blocking of a bronchus by vomited matter, and was only indirectly due to the anæsthetic. It is also noteworthy that, in two other of the deaths from ether, the kidneys were diseased. This state is recorded in necropsies of a large number of cases of deaths from ether, and appears to take the place of the "fatty heart" so often found after death by chloroform. Of the chloroform deaths, two only appeared to have occurred after operation of any severity; and, in one of these, death took place so long after the operation, that some doubt may justly be held as to how far the anæsthetic was an active agent in the result.—I am, etc.,

Leeds, February 7th, 1882. ERNEST H. JACOB, M.D.

Deaths from Chloroform. January 1881 to February 1882.

No.	Sex.	Age.	Place.	Operation.	Mode of Death, *Post Mortem* Examination, and Remarks.
1	M.	60	Bradford Eye Infirmary.	Cataract.	Asphyxia.
2	M.	55	St. Mary's Hospital.	Dislocation of shoulder.	Considerable fatty change in heart; lungs congested.
3	F.	19	Swansea.	Removal of uterine tumour.	Exhaustion after an hour and three-quarters' anæsthesia.
4	—	—	London.	—	No particulars.
5	M.	27	Sussex County Hospital.	Fracture of leg.	Syncope; advanced fatty change in heart.
6	M.	9	Pendlebury Children's Hospital.	Abscess of thigh.	Died fifteen minutes after recovery from anæsthesia.
7	M.	54	Royal Free Hospital.	Dislocation of shoulder.	Syncope. *Post mortem* examination: "Might have died at any moment."
8	M.	51	Malvern Wells.	Dislocation of shoulder.	
9	M.	—	Broughton Ferry.	Operation for ophthalmia.	
			Deaths from Ether.		
1	M.	45	Seamen's Hospital.	Hernia.	"Pulse and respiration ceased." Granular kidney and dilated heart.
2	F.	50	Addenbrooke's.	Tumour of jaw.	Asphyxia. Much hæmorrhage; cancer in lungs and liver.
3	M.	43	Guy's Hospital.	Abscess of hand.	Respiration ceased. Heart and kidneys enlarged.
4	—	—	London Hospital.	Wound of wrist.	Blockage of bronchus by vomited matter.
			Death from Chloroform and Ether.		
1	M.	19	Gt. Northern Hospital.	Evulsion of toe-nail.	"Died after the operation."
			Death from Ethidene.		
1	M.	45	Gen. Hospital, Birmingham	Empyema.	Pulse and respiration failed.

SIR,—On January 24th a man about fifty years of age came to me suffering from a subcoracoid dislocation at the shoulder joint, of about twenty-four hours standing. As I failed to reduce it by the ordinary methods, I suggested that he should take chloroform, and to this he assented. He had inhaled about two drachms, and I had taken the handkerchief away from his face to place a rug under his feet. While doing this he suddenly raised his body, got black in the face, fell back, and died. I kept up artificial respiration for about an hour, but it was of no avail. On *post-mortem* examination the heart was found to be in a state of fatty degeneration, and the other organs extensively diseased. The jury attached no blame to the medical man, but several deprecated the custom followed by medical men of administering chloroform alone.

Whether the profession will adopt the advice of these intelligent jurymen, is questionable. I doubt if many of them would pay for a second opinion. If medical men were to take their advice, chloroform would seldom be used in midwifery, and children in convulsions would

have to continue convulsed until a second medical man could come and be a looker-on.—I am, etc.,
PERCY HAYNES.
Gloucester House, Malvern Wells, February 7th.

THE DANGERS OF CHLOROFORM, AND THE SAFETY OF ETHER, AS AN ANÆSTHETIC.

SIR,—I regret to find that, notwithstanding all that has been said and written concerning the safe and dangerous anæsthetics, we still week after week meet with the following distressing heading: "Another death from chloroform." Recently, I see three cases of death reported in the JOURNAL from this cause: one as occurring at Malvern, another at Dundee, and a third at a London hospital. To these cases I wish in no way further to refer. I feel sure that all due precaution was attended to, and that the finding of the jury was correct—viz., Died from natural causes accelerated by chloroform judiciously and properly administered. But what I particularly wish to draw attention to is, Why should the use of chloroform be continued as an anæsthetic, when so many deaths have been either occasioned or accelerated by its use? The cool and apparently indifferent manner in which these sad cases are recorded from time to time impresses me with an idea that familiarity with "chloroform deaths" seem to have dulled the feelings of operating surgeons; and that fatal cases of anæsthesia from chloroform have come to be regarded as an unavoidable tribute to convenience, rather than as an evidence of carelessness and misguided judgment. Hospital surgeons, as a body, run their chance of having deaths from misadventure, no matter from what cause; but they certainly should be liable to blame in the eyes of the public if they merely used chloroform because it was rapid in action and pleasant to take, to the exclusion of other anæsthetics, eight times safer, but not perhaps so quick in action or so easy of administration.

The question is now becoming a very important one, and it is high time something should be done so as to arrive at some guiding rule regarding the choice or selection of the means that ought to be employed in rendering patients insensible to pain during the performance of surgical operations.

It is very probable that a day will come when operators will not be allowed to merely explain a death from chloroform as an "unfortunate thing" and a piece of bad luck; or that it was a sort of penalty the surgeon pays for using a rapid but dangerous anæsthetic.

I do think, from all the warnings we have received, that chloroform should be seldom, if ever, used. I am happy to say that in the various hospitals in Dublin very few surgeons use it. Throughout America it is hardly ever used. And why it should be given in England, and in some instances single-handed, is difficult to understand.

A recent writer, when talking of its use, has said: "It is criminal and it is unscientific, and so much so as to justify the stern interference of the law and the summary punishment of those guilty of culpable negligence."

Deaths have no doubt occurred, when other anæsthetics than chloroform have been used. However, it is better for the surgeon and all concerned to think of safety to the patient rather than rapidity of action and convenience. When we learn that only one death from ether occurred in 23,204 administrations, it is quite reasonable for those interested in the subject to urge and recommend its employment.

To place a patient under insensible sleep never to wake again, is a very serious matter; few can realise it except those who have experienced the dreadful moments of doubt and mental depression that take place. Restoratives are quickly employed in the hope of reviving the patient, but all to no purpose, as the person lies dead, who, but a few minutes before, was in full possession of life and strength. The sad news has then to be told to the anxious friends, who are ready waiting to hear of the successful completion of the operation. I have never found the administration of ether difficult with the pocket-inhaler made for me by Coxeter, of London. I have administered it from all ages, ranging from infancy to persons over eighty years of age, with the happiest results. Complete anæsthesia was rapidly produced with a small quantity of ether, and when consciousness returned no bad effects were complained of.—I am, sir, etc.,

LAMBERT H. ORMSBY, M.D., F.R.C.S.I.,
Surgeon to the Meath Hospital, Dublin.

ON THE RELATIONS OF COW-POX AND SMALL-POX.

SIR,—The JOURNAL of the 28th of last month contains some criticisms by Mr. Veterinary Surgeon Fleming on my account of Mr. Badcock's experiments as printed in the JOURNAL, November 26th, 1881, which demand a reply from me.

It seems to me quite superfluous for Mr. Fleming to point out to me "that small-pox can no more be converted into cow-pox than that the sowing of carrot-seed can produce turnips; and that the experiments of Pasteur, etc., quite negative the notion that they can be made to lose their identity".

If Mr. Fleming will refer to my paper, he will see that I actually quoted some of Thiele's experiments on vaccination as anticipating and resembling Pasteur's experiments on chicken-cholera, etc. Moreover, he will nowhere see in it the slightest suggestion on my part that any one disease can be converted into another disease. I would maintain that cow-pox is still small-pox, bereft (by its passage through a bovine) of its infectious properties, yet retaining the preservative power, one impression of it largely preventing another of the same disease.

To my mind, Pasteur's researches harmonise with this theory; and so does the behaviour of other infectious diseases in reference to their recurrence in the same individual. Thus, one attack of scarlet fever, of measles, of typhoid, of whooping-cough, etc., protects from a repetition of itself; but no one of the whole category can protect from an attack of any one of the others. What analogy, therefore, can Mr. Fleming advance for the notion that small-pox and cow-pox are entirely distinct diseases, and yet mutually protect from each other? I know of none; whereas there is abundance of proof that diseases and plants may be modified by cultivation.

Mr. Fleming asks me to explain why it is so much more easy to produce vaccinia from humanised vaccine lymph than from small-pox. Without pretending to understand Nature's ways better than other men, I would submit that it is owing to the virus having already been once "bovinised" that the bovine organisation accepts it a second time more readily.

Will Mr. Fleming mention the names of "the scores of more experienced experimentalists than Ceely and Badcock, who hold that it is impossible to produce vaccine from small-pox"? I venture to believe that no other man, living or dead, ever did anything in the way of variolating bovines at all approaching to the amount of it which Mr. Badcock did. His more than two hundred animals, many of them practised upon again and again, and thirty-three of them producing typical vaccine vesicles (the experiments spread over twenty years, and watched by experienced medical men, Ceely one of them), so overwhelm the only *seventeen* bovines experimented on by Chauveau, with the result of not one vaccine vesicle, that one is surprised at Mr. Fleming attempting to advance M. Chauveau's experiments as nullifying Badcock's and Ceely's—not to mention another Englishman, Greene of Birmingham. The mistake on the part of M. Chauveau and his coadjutors seems to have been, that they went to work totally unacquainted with the difficulties of their task. They had never seen Ceely's writings and plates, nor even heard of Badcock's more numerous and protracted doings; and so they misinterpreted their own limited proceedings, and mistook for successes what the more numerous English experiments showed to be failures. My conviction is that any candid person, willing to view this, the gist of the matter, in this light, will, on perusing the report of the Lyons Commission, and also Mr. Fleming's pamphlet, find abundant evidence in them of its being the truth; and, on the other hand, if prejudiced against this interpretation, the reader will meet with much in both the report and the pamphlet that is irreconcilable and contradictory.

Mr. Fleming asks for more public proof from Badcock. I would rejoin: How can a man in his eighty-third year be expected to reprove what it took twenty years of his prime manhood to do? Moreover, we are still living in the midst of the proof. Hundreds of thousands of people have been vaccinated with Badcock's lymph, and no evidence whatever has ever been advanced of it not being genuine. Indeed, so orthodox are its effects, that each of the three public vaccinators in Brighton has repeatedly received a douceur from the Government; the last occasion (when Dr. Badcock, a son of the experimenter, was the recipient) occurring only two months since.

In conclusion, I may remark that, if Mr. Fleming will refer to the writings of Sir Thomas Watson and Dr. Bristowe, he will see that he is in error in stating that "the opinion (on this subject) among medical men in England has been handed down from one to another, and transferred from text-book to text-book, *without inquiry*".—I am, etc.,

G. F. HODGSON, M.R.C.S.Eng.
Brighton, February 11th, 1882.

DEATH-RATE IN DUBLIN.

SIR,—Your Dublin correspondent states: "We regret that the roseate anticipations the Superintendent Medical Officer of Health of Dublin published some months (ago? *sic*), as to the improvement in the health of the city, have not been realised." I beg to state that I have not published any such roseate anticipations, but, on the contrary, have been most guarded in venturing upon any speculations as to the

future state of public health in this city. The bills of mortality fell steadily from February 1881 (in which month the death-rate was 44.25 per 1,000 persons living) until September, when the death-rate was 21.24 per 1,000, as compared with 38.50 per 1,000 in the previous September. In my report for this month, I stated that "the improvement in the state of public health in Dublin is, I trust, *in some measure at least*, due to the important sanitary works carried out in the city during the last two years". These observations are the only foundation for your correspondent's assertions as to my "roseate anticipations". The death-rate for 1881 was much below the rate for some years past.—I am, sir, your obedient servant,

CHARLES A. CAMERON,
Superintendent Medical Officer of Health.

HOSPITAL AND DISPENSARY MANAGEMENT.

BISHOP RYLE ON HOSPITALS.

AT the annual meeting of the trustees of the Liverpool Northern Hospital, on the 18th January, the adoption of the report of the Committee was moved by the Right Reverend the Lord Bishop of Liverpool. He said, that if there was one point on which they were all agreed, it was, that an institution like the Northern Hospital was one of the most valuable that a city like Liverpool could possess. It was one of the grandest evidences of the value of the truth of Christianity. He did not think they could find a place in England where a hospital was more needed than it was in Liverpool. Planted as it was, close to the docks, and to the goods stations of the great railway companies, it was, of course, patent to any one that a great number of accidents must be treated at the Northern Hospital; whilst, in a port like this, the number of men landed suffering from physical disabilities must supply many patients. His lordship then referred to his visits to the sixteen members of the frostbitten crew, who had been admitted to the Northern Hospital, and said he was delighted to see how well they were cared for there. They had comfortable beds, kind and able nurses, and skilful doctors. The good results he had witnessed within the building afforded him abundant testimony to its usefulness, and he trusted that it would never languish for want of funds.

BATTERSEA PROVIDENT DISPENSARY.

THE Battersea Provident Dispensary held its Sixth Annual Meeting at 175, High Street, on January 19th; Canon Erskine Clarke, President, in the chair. The report, presented by the honorary secretary, testified to the remarkable growth of the institution during the last twelve months. The members entered in 1881 were 8,639, against 6,160 last year. The members' payments were £953, compared with £657 last year. This increase of £296, was mainly attributed to the success of an experiment made in January 1881, viz., the appointment of a collector, who calls weekly for the members' subscriptions, instead of their having, as formerly, to bring them to the dispensary. In addition to £110 for confinement fees, £617 was the sum divided amongst the five medical officers, after all expenses of dispenser, collector, drugs and rent were paid; being an increase of £202 on the residuary balance last year, and an increase of £505 on 1876, when the dispensary (founded in 1844), was reorganised as a provident institution. The work done by the medical staff shows that their office is no sinecure, as in 1881, 5,240 cases of illness were recorded, 13,400 attendances made by patients at the dispensary, and 14,580 at the homes of the members. The report concludes with a very cordial recognition of the services of the medical men, and of Mr Whitehead, who has been resident dispenser ever since the institution was re-modelled on the provident basis.

THE PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL.

THIS institution is evidently carried on with great energy and intelligence. The report, which was recently laid before the annual general meeting, shows that the attention of the managing committee has been chiefly directed during the past year to two points: first, the condition of the hospital buildings; and second, the development of the provident dispensary connected with the hospital. With regard to the first point, it is only necessary to say that certain structural alterations have been made at a cost of £278, with the view of improving the ventilation and the sanitary arrangements of the wards; and also that the committee have it in contemplation to erect a new hospital upon the pavilion principle at no distant date. The provident dispensary, which was formed in connection with the hospital last year, is steadily progressing. In June, there were forty-two members, and their payments amounted to £4 12s. 2d.; in December there were 188 members, and their payments amounted to £31 2s. 11d. This is a good beginning; and as the committee and the medical officers seem fully alive to the importance of this branch of their work, we trust we shall hear that the provident department is growing from year to year. In the discussion which followed the reading of the report, Dr. Axford expressed his confidence in the provident principle, and recommended that pressure should be put upon persons attending the out-patient rooms of the hospital, so as to induce them to enrol themselves in the provident dispensary.

MILITARY AND NAVAL MEDICAL SERVICES.

SURGEON-GENERAL J. S. Furlong, M D., has been appointed by the War Office to be Principal Medical Officer to the forces in Ireland. Dr. Furlong, who served throughout the Crimea and Indian Mutiny campaigns, has been recently serving as Principal Medical Officer in Canada.

ARMY MEDICAL SERVICE.—The following are the names of the surgeons on probation in the Medical Department of the British Army who were successful at both the London and Netley examinations. The final positions of these gentlemen are not affected by the marks gained at Netley.

	Marks.		Marks.
*N. M. Reid	2390	J. W. Jerome	1920
W. H. P. Lewis	2325	W. W. Pike	1875
W. Dick	2298	M. E. Fitzgerald	1870
†F. J. Jencken	2141	L. H. Truefitt	1870
F. H. Treherne	2105	J. M. Irwin	1855
S. F. Lougheed	2100	P. J. Nealon	1850
J. C. Haslett	2075	E. O. Wight	1840
H. J. Barratt	2065	W. A. Morris	1825
H. E. R. James	2025	F. H. M. Burton	1810
H. O. Trevor	1990	J. Heath	1805
A. F. Russell	1985	C. E. Nichol	1805
R. J. Fayle	1971		

* Gained the Martin Memorial Gold Medal.
† Gained the Montefiore Second Prize.

INDIAN MEDICAL SERVICE.—The following is the list of surgeons on probation in Her Majesty's Indian Medical Service who were successful at both the London and Netley examinations. The final positions of these gentlemen are determined by the marks gained in London added to those gained at Netley, and the combined numbers are accordingly shown in the list which follows.

	Marks.		Marks.
*L. T. Young	5317	R. B. Roe	4485
†J. B. Gibbons	5305	John Smyth	4400
‡G. J. Shand	5010	H. Greany	4090
D. St. J. Grant	4825	E. P. Youngerman	3980
D. G. Crawford	4640	J. Kernan	3890

* Gained the Herbert Prize, the Martin Memorial Silver Medal, and the Parkes Memorial Bronze Medal.
† Gained the Montefiore Medal.
‡ Gained the Prize in Pathology.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS, Thursday, Febuary 9th.

The Vaccination Act.—Mr. P. A. TAYLOR asked for leave to bring in a Bill with reference to the compulsory clauses of the Vaccination Act. —Mr. WARTON objected to the introduction of the Bill, which he regarded as a measure for the promulgation of small-pox. Upon a division, leave was granted to introduce the Bill by 107 against 58.

SMALL-POX, which has been more or less prevalent in the Metropolis long, seems to indicate a tendency to spread into the Midland counties. There have been cases at Bedford, Northampton, Irchester, and Huntingdon, and within the last few days a serious outbreak has occurred at Ampthill. In the latter case the importation of the disease is said to be clearly traceable to a tramp, who, in an advanced stage of small-pox, spent several hours begging through the town. It is satisfactory to learn that the sanitary authorities interested are taking active measures to isolate each case as it occurs, and that in the districts affected the outbreak has led to a wholesale voluntary revaccination of the adult population.

THE authorities of the *Assistance Publique* of Paris have decided that the lady pupils of the Paris Faculty shall be allowed to compete for the House-Surgeonship in the Paris hospitals.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

THE recently-published report on the Bradford fever hospital shows it to be an institution of a most valuable character. It appears that the number of cases of scarlet fever which occurred in the borough during last year amounted to 1,062. Of these, 350 were taken to the hospital, leaving 712 to be treated at their own homes. Of the cases treated in the hospital, 34 (or a fraction over 10 per cent.) out of the 350 proved fatal, while of the 712 cases treated privately, there were no fewer than 120 deaths, showing a percentage of 17 against 10 in the hospital.

THE INFECTIVE PERIOD OF MEASLES.

A SHORT article has recently appeared in the *Sanitary Journal* on this subject, in which are especially pointed out (1) that judging from the epidemic of measles in the Fiji Islands, and from numerous isolated instances, the incubative period ordinarily lasts from ten to twelve days, but that in some cases it may only be eight, whilst in others it may be fourteen days; and (2) that the disease may be communicated from one child to another during the catarrhal stage and before the rash appears. There is nothlng particularly new in either of these statements, but they are often forgotten by many practitioners. Dr. W. Squire, in his valuable monograph on the period of infection in epidemic disease, published in 1874, pointed out not only that measles, but also other zymotic diseases, notably small-pox, are infectious before the rash appears. Dr. Squire divides the incubative stage into the latent, during which no symptoms of disease are observable, which in measles ordinarily lasts for about four days, and the period of invasion, when feverishness, loss of appetite, cough, coryza, etc., prevail. During this latter part of the disease there is plenty of evidence that it is infectious. A good instance of this is related in the *Sanitary Journal*. A child at school, feeling ill, was removed to the house of a friend, where there were several children. After remaining there about a week she was taken home, and on the following day the eruption of measles appeared. The previous symptoms were loss of appetite and those of an ordinary cold. Twelve days after her removal, four of the children, on the same day, were laid up with measles. In a second case a child visited, for a few hours only, another child who had a cough, and two days afterwards the rash of measles. She returned home, and ten days afterwards visited some friends for the day. On the twelfth day after her visit to the first mentioned child she had the rash of measles. Some of her friends whom she visited on the tenth day after exposure and two days before the appearance of the rash also took the disease. Dr. Squire gives the following instance. A boy visited a girl on February 5th, and occupied the same bedroom with her from the 9th to the 12th, returned home on the 13th, and had the rash on the 16th and 17th of February. The little girl had cough on the 20th and the rash of measles on the 24th. Many other similar cases are published. Another important point in connection with the infection of measles is not referred to by the writer in the *Sanitary Journal*, viz., the time during which infection may last after the disappearance of the rash. Dr. Squire states that it is probably limited to three weeks from the time of the eruption, but that infection is evidently as intense in the first week of convalescence as at any part of the illness, is considerable in the second, and may persist in the third week. It is therefore almost certain that measles may be communicated by a sick child for a period of at least a month from the time of his receiving the infection of the disease, and that therefore it is not safe to allow him during that time to mix with healthy children.

PRIZES.—The following are the subjects nominated by the Société Francaise d' Hygiène for 1882. 1. Hygiene and Physical Education of Children from six to twelve years old. Home life, school life, country life, and life in the workshop, to be discussed separately. 2. Personal and Domestic Cleanliness. Study of personal and domestic cleanliness of rich and poor of both sexes and all ages, in town and country. 1. The essays must not exceed thirty to forty pages of printed matter in 12mo. 2. They must be sent distinguished only by a motto, to the office of the society, 30 Rue du Dragon, before September 1st, 1882. Candidates who make themselves known in any way shall be excluded from the competitions. 3. The successful essays become the property of the Society, and will be published either in full or in an abridged form; the names of all successful competitors to be in the title page of the published pamphlet, which will be largely circulated. In each competition a gold, silver, and two bronze medals are offered.

OBITUARY.

SIR ROBERT CHRISTISON, BART., M.D., D.C.L., LL.D.,
PHYSICIAN IN ORDINARY TO THE QUEEN IN SCOTLAND: VICE-PRESIDENT OF THE BRITISH MEDICAL ASSOCIATION, ETC.

[*Second Notice.*]

A FEW notes collected from various sources, supplementary of the brief record of the life of Sir Robert Christison, which appeared in last week's JOURNAL, will probably be acceptable to our readers, and especially to that large number of them who enjoy the privilege of reckoning themselves among the pupils of the late eminent professor of Materia Medica.

The early life of Sir Robert Christison was passed under circumstances well calculated to fit him for the duties which afterwards fell to his lot. When he was nine years of age, his father, Mr. Alexander Christison, became professor of humanity (in English parlance, of Latin) in the University of Edinburgh; and hence in that institution Robert Christison received his education, undergoing a complete course of instruction for five years in the Faculty of Arts before deciding on his future profession. His first choice was not medicine; but, for his medical education, his previous training in literature, philosophy, and physical science, gave him advantages which he never ceased to value. The habits of scholarship and taste for literature which he acquired in his youth never deserted him, although to a great extent eclipsed by his fame as a professor in his special departments. He was, we have been informed, well acquainted with the best English literature, including poetry; and possessed a good knowledge of French, German, and Italian authors, as well as of the Greek and Latin writers. From these he could make apt quotations, though not addicted to parade his learning. His literary style was cultivated and elegant. Of it, so competent a judge as Sir William Stirling-Maxwell said, on the occasion of the jubilee of Christison's professorship in 1872, that he was "remarkable for the literary skill with which he had placed before the world the results of his observation and research. The chapters on Medical Jurisprudence" in his work "may be well studied by the non-professional reader for the grace and charm of their appropriate style".

Possessing the advantages of general education to which reference has been made, and having graduated as Doctor of Medicine, Robert Christison proceeded to London, where he studied medicine at St. Bartholomew's Hospital; and to Paris, where he became a pupil of Robiquet, the eminent chemist and *pharmacien*, in whose laboratory he worked assiduously, and, as he used often to say in after-life, with signal advantage. Here, too, he prosecuted, under the celebrated Orfila, the study of toxicology, and had also the opportunity of hearing the lectures of Vauquelin and Thénard on chemistry, and of Guy-Lussac on physics. He was a regular visitor of the French Institute when La Place still attended it, and when Arago, Biot, Ampère, Pelletier, and Caventon communicated their discoveries. When, in 1822, the promotion in the University of Edinburgh consequent on the death of the celebrated Dr. Gregory, Professor of Practice of Physic, left a vacancy in the chair of Medical Jurisprudence, it was thought by his friends that he was a fitting man for the office, and he was accordingly proposed as a candidate during his absence in Paris. The possession of the chair was keenly contested for some months; and, as an illustration of the condition of medical jurisprudence at the time, Sir Robert mentioned, in his speech at his jubilee festival, that not one of the candidates, except himself, had a practical knowledge of chemistry. He did not, however, attribute his success to this, but to the friendship and interest of one whose acquaintance with him dated from early life, and who, at the time, was a Lord of the Admiralty under Lord Melville, in whose hands lay the disposal of nearly the whole of the Crown patronage in Scotland. Notwithstanding Sir Robert Christison's disclaimer of the influence of his own scientific merits, it will be admitted that, as events afterwards proved, no wiser choice could have been made.

Medical Jurisprudence in Great Britain was, in 1822, in a far different position from that which it now occupies. In proposing the health of Sir Robert Christison at the jubilee, Lord Justice-General Inglis thus tersely sketched its history. "If we would rightly estimate the difficulties that necessarily beset a Professor of Medical Jurisprudence half a century ago, we must consider what were the materials at his command, and what was the state of the science in this country. Forensic medicine had, indeed, made progress since its existence and utility were first recognised by the Emperor Charles V, in his *Constitutio Criminalis Carolina*, promulgated at the diet of Ratisbon; but, though the study had been zealously pursued in Germany, France, and Italy, it had been

of a speculative rather than of a practical character. No doubt, at the end of last century, the great work of Fodéré had issued from the Parisian press; and, in 1814, the subject of toxicology had been presented in a new and most attractive form by Orfila. Yet in 1822 there was not in the English language any treatise of authority, either on Medical Jurisprudence generally, or on any important division of the subject; for it was not till the previous year that the useful compendium of Paris and Fonblanque was published in London. Medical Jurisprudence, half a century ago, may be said to have been almost in its infancy as compared with what it is now. Its enormous and wonderful advance since then has been due to the combined efforts of a great many men of ability and science in every nation of the civilised world; and among the foremost of that band will be found the young professor who commenced his prelections in Edinburgh in 1822."

When Sir Robert Christison succeeded to the Chair of Medical Jurisprudence, his class consisted of twelve students (or even, according to some accounts, of a smaller number); when he left it ten years later, he bequeathed to his successor a class of ninety. In the meantime, he had done much. Prepared by his medical studies, he had given to the science a precision which it previously wanted. Very important in this connection was the publication, in 1829, of his *Treatise on Poisons*, which was received at the time by physicians, jurists, and men of science generally, as the most philosophical exposition of the subject that had ever appeared, and is even now regarded as a work of great value. This book has since gone through three other editions, published respectively in 1831, 1835, and 1844. Its distinguishing merit may be said to lie in the breadth of its generalisations. While it has been superseded as a text-book by more modern works, such especially as that of the late Dr. Alfred Taylor, it may still claim precedence in respect of its general grasp of the subject, and will doubtless long continue to be regarded as an invaluable book of reference. From his position as Professor of Medical Jurisprudence, Dr. Christison was naturally called upon to act as an expert in criminal trials; and it was not long before his appearances in that capacity secured for him the reputation of a highly important witness. First engaged on the trial of Burke and Hare, from that time to 1866 he appeared in numerous *causes célèbres*, both in Scotland and in England, more especially such as involved the charge of poisoning—among them being the celebrated case of Palmer; while in civil actions, raising chemical questions, his services were in great request. His character as a witness can, perhaps, be scarcely better expressed than in the words of Lord Justice-General Inglis: "In regard to Sir Robert's qualifications for this particular position, I feel myself privileged to speak with confidence, for I have myself been frequently associated with him both in court and in private consultation. I have examined him, and have heard him examined as a witness upon every variety of question, in cases involving issues of life and death, and the most important issues in regard to private interests that could be tried between man and man; and I never saw him at fault. The reason was not far to seek; for the Professor went into the witness-box not in the spirit of a partisan, but in his proper office as a medical jurist, to aid the court and the jury in the elucidation of truth, and in securing the ends of justice.....He formed his opinions after much and careful deliberation; and when they were once formed, they were not to be shaken.....And the great quality in Dr. Christison's evidence was, that it was almost impossible either to misunderstand or misrepresent him; because, as the course of the reasoning by which he arrived at his result was logical and clear, so his language was terse, unaffected, and precise."

In 1832, on the death of Dr. A. Duncan, Dr. Christison was transferred to the chair of Materia Medica, which he held for the long period of forty-five years. He was advised by his friends to take advantage of the opportunity, and to aim at a physician's practice. But he determined to make the duties of the chair the primary object of his life; and for many years the teaching of Materia Medica, and in connection with it of Clinical Medicine, formed his whole occupation. As he proceeded, he formed the design of investigating the untrodden field of therapeutic physiology; but various circumstances so greatly reduced the number of medical students in the university, and consequently his fees, that he was obliged to relinquish his plan. Physician's practice relieved him from all pecuniary difficulty; but it occupied his whole disposable time, and, to his regret, disappointed his scientific aspirations. Yet, as far as was in his power, he carried out the line of scientific research on which he had entered from the first; and especially was he noted for making experiments on himself, with an amount of enthusiasm and courage bordering on rashness. It is related of him how, to prove that Orfila had an incorrect idea of the taste of arsenic, Dr. Christison, and several of his medical friends, put arsenic on their tongues, discovering that its taste was sweet; how he ate an ounce of the root of œnanthe crocata, to prove that in Scotland it did not possess the virulent properties well known in England and more southern countries; and how, when the Calabar bean was first brought into notice in this country, he produced such alarming symptoms in himself by a dose of the drug, that, with the instinct or a toxicologist, he had recourse to the first emetic which presented itself—namely, his shaving water, which he had just before used for its legitimate purpose. These are only instances of the thorough-going spirit in which his researches were pursued. Besides the treatise on *Poisons*, he wrote the article on "Poison" for the seventh edition of the *Encyclopædia Britannica*, and the article "Orfila" for the eighth edition; as well as numerous papers, elsewhere published, on poisoning with arsenic, opium, and other drugs. He rendered valuable service in connection with the last edition of the *Edinburgh Pharmacopœia*, merged since 1864, like those of London and Dublin, in the *British Pharmacopœia;* and in his *Dispensatory*, published in 1842 (second edition, 1848), he presented a commentary on the then existing pharmacopœias, characterised, like his book on Poisons, by precision in details, and by the concise, yet happy, expression of suggestive generalisations.

In the professorial chair, Dr. Christison proved a singularly lucid and instructive lecturer. Strictly methodical in everything pertaining to scientific inquiry or professional routine, he fostered in his students habits of exact and well-regulated work. As the result of his incumbency, both the chairs he occupied gained great usefulness and importance; while to that of Materia Medica he left a substantial legacy in his splendid museum. By his pupils he was loved as well as admired.

In 1823, the year after his first appointment to a professorship, Dr. Christison became a Fellow of the Royal College of Physicians. Three or four years later he was appointed an attending physician of the Royal Infirmary, an office whose duties he discharged with characteristic energy and ability till 1832. In 1838 he published a work on *Granular Degeneration of the Kidneys*, which is still regarded as a high authority on the subject. Another form of disease to which he devoted special attention was that of fever. Regarding this, he gained much accurate knowledge, which was duly imparted in such papers as that on "Changes which have taken place in the Constitution of Fevers and Inflammations in Edinburgh during the last Forty Years." Other fruits of his multifarious experience and research were from time to time made public in the medical journals. Of the *Edinburgh Medical Journal*, he for some time acted as a conductor; and, more especially during the earlier part of his career, its pages were frequently enriched with his contributions on toxicology and practical medicine.

His coming into the great run of consulting practice was long delayed. His turn came, and his place in a series of physicians whose names have been illustrious in Edinburgh was as follows: Abercrombie, Scott, Davidson, Alison, Christison; and after him came Begbie, Warburton, Begbie, and Sanders. He had a very large practice, and was a capital consultant. He had a long command of country practice, the most lucrative; a shorter of town practice, the easier. He was nearly fifty years of age before he acquired a large practice; but, having once attained it, he held it long—in fact, until he gave the signal of retiring by declining country visits in winter, which he began to do when seventy years old, after a severe illness. He had great respect for the pharmacopœia, and a just kind of belief in it.

He had a remarkably prolonged life of fame; for, as has been shown, more than fifty years ago he was, as a medical jurist, as famous as he ever was in any other capacity. And, while his merits as a physician, teacher, and man of science gained for him a world-wide reputation, the honours which he received in his own country were numerous. On two occasions, in 1838 and in 1846, he was elected President of the Royal College of Physicians of Edinburgh; and this honour was followed up by the fellows according a place in their hall to his portrait by Sir John Watson Gordon. This last honour he most highly valued, coming as it did from men to whom he had been in opposition in matters of medical politics. On the death of Sir David Brewster, he was elected President of the Edinburgh Royal Society, and held the office from 1868 to 1873; and the Society acknowledged his services by adding his portrait (painted by Mr. George Read) to their gallery. In 1858, he was appointed by the Senatus Academicus their representative in the University Court, and was re-elected on several occasions. He was also, in 1858, nominated by the Crown to represent the profession in Scotland in the General Medical Council. His seat at that board he retained till 1873. In 1871, his eminent services to the University were acknowledged in the presentation to the Senatus of a marble bust by Mr. Brodie, which had been subscribed for by numerous members of the University Court and Council, of the General Medical Council of Great Britain, and of the medical profession at large. A duplicate of the bust was at the same time presented to his family. The University of Oxford in 1866 conferred on him the honorary degree of D.C.L.; and in

1872, the fact that he, alone of all the professors who had ever taught in the university, had completed his fiftieth year of active service, seemed to his brethren of the Senatus a sufficient reason for setting aside a standing rule, and conferring upon him that honorary degree of LL.D.

He was for many years physician in ordinary to the Queen in Scotland, and in 1871 a baronetcy was conferred on him. When the proposal was made, he at first declined the honour on the ground of his private fortune not being sufficiently ample. At last he yielded to the personal solicitation of the Prime Minister (Mr. Gladstone) who urged his acceptance, and pointed out that his was a scientific or literary baronetcy, where wealth was not expected. Speaking of the event subsequently at his jubilee dinner, he expressed his special gratification at the honour bestowed on him. The name of Christison, he said, not common in Scotland, but more frequent in Scandinavia—whence his progenitor had probably come in old time as a "piratical rogue"—was nowhere the name of a family of rank; and the honour was, he said, peculiarly gratifying, "inasmuch as I am able to say that, for the first time, the name of Christison has become the name of a family."

No one can understand Sir Robert Christison without keeping in mind his devotion to his University. His father was a professor in it; he was educated in it; he lived in it, and till he died it held the first place in his affection and regard. "From first to last," he said of himself, "I have made my university office my main and primary object." Nor was it only in his professorial capacity that he showed his deep interest in the welfare of his *alma mater*. As a member of the Senatus Academicus, and assessor for that body in the university court—an office to which he was elected five times in succession—Professor Christison took an active and prominent part in the management of college affairs. No demand thus made upon his time seemed ever to be grudged; and alike by virtue of his untiring energy and force of will, his thorough knowledge of the matters dealt with, and the prudence which marked his counsels in difficult emergencies, he attained among his colleagues a position of commanding influence. The administration of university funds in the hands of the Senatus gave scope for his business aptitude as chairman of the finance committee; nor did he ever lose an opportunity of urging the claims of the institution to an enlarged measure of public support. In cases where difference of opinion arose, his views were always indicated with trenchant emphasis, while his perfect straightforwardness and rectitude of purpose ensured respect. Impressed with the importance of clinical teaching, he was one of the most earnest promoters of the rebuilding of the Royal Infirmary, of Edinburgh. The movement for better endowment of the university also found a warm supporter in him; and no one probably was more gratified than he with the change of constitution, which accorded a great increase of academic influence in the management of university affairs.

Besides being a devoted son of his Alma Mater, and one of the most eminent of professors, Sir Robert Christison possessed certain strongly marked physical and mental attributes, which gained for him the character of being a many-sided man.

His neathandedness was noted. It displayed itself in his handwriting; and in the laboratory he was known as a peculiarly neat and clean worker. He had a strong turn for invention, which showed itself mostly in his early work, in devising chemical apparatus to suit his own purposes.

His love of music was innate and great. Possessing a splendid bass voice, which retained its power till late in his life, he was great in glees and choruses. His old Edinburgh friends will long remember his performances in this character; and members of the Association who attended the meeting at Edinburgh in 1858, will doubtless recall the fact that—as stated in the BRITISH MEDICAL JOURNAL of the period—the proceedings at the dinner (at which he presided) "were varied by a glee, which was finely sung by Drs. Christison, Bennett, Peddie, and Douglas Maclagan." He has been heard to delight a critical audience by whistling with remarkable power in accompaniment to a piano. In the University, he was a warm promoter of the cultivation of music. Many years ago, he warmly interested himself in the carrying out of the will of General Reid, who left his fortune for the promotion of music. While some diversity of opinion prevailed in the Senatus of the university as to the manner of carrying out this trust, Dr. Christison headed the thorough-going musical party, and opposed all attempts to divert a portion of the fund to general university purposes. The Students' Musical Association ever found in him a cordial supporter; and, besides the countenance afforded in other ways, he not unfrequently lent the aid of his voice in the public concerts of the society. At the meeting of the association, after Sir Robert's election, the president, Professor Sir Herbert Oakeley, in some written remarks, which were read in his unavoidable absence, bore cordial testimony to the warm support given by Sir Robert to the chair of Music. "Though not his candidate," Sir Herbert wrote, "I received, from the moment of my election, his warmest support; and with his accustomed high sense of probity, honour, and justice, he did all in his power to strengthen my hands, and to aid me at the commencement of a task fraught with difficulties, proving himself on many occasions the wisest as he was the most experienced of counsellors, and recalling a line of Tennysons's—

'Truest friend and noblest foe.'

The older members of this society know how true a friend he was to its best interests.....In 1874, he said that he 'desired to contribute, as far as he possibly could, to encourage students to join this society; and if there was one reason more than another that he could bring forward for their doing so, it was that every man, whether young or old, required relaxation from the ordinary work, particularly that of sedentary professions requiring constant strain on mental powers. And there was no more agreeable or more suitable relaxation for students than that of cultivating choral music'."

It was, perhaps, to have been expected of one so closely identified with all university matters, that Dr. Christison should be found an active promoter of the Students' Rifle Corps. Although he had at first no official connection with the University Volunteer Company formed in 1859, Dr. Christison took a warm interest in its success; and, about two years afterwards, he was induced to assume the captaincy, the duties of which he for some years discharged with vigour and efficiency, and which he continued to hold till 1877. An ardent lover of all manly exercises, he was himself noted, in his youth, as the most accomplished athlete in the University. He was a dexterous boxer, was fond of quoiting, showed astonishing endurance as a walker, and could run, even uphill, with the nimbleness of a mountain deer. A story is told of his having, on one occasion, accomplished the rarely equalled feat of running from the College gate to the top of Arthur's Seat within twenty-five minutes. In after years, athleticism often formed part of the diversions with which the Professor and his friends relieved the cares of professional life. Even as an octogenarian, the vivacious Professor continued to be remarked for the almost jaunty elasticity of his step; and four years have hardly elapsed since, in pursuance of experiments as to the sustaining virtues of the cuca leaf, he walked twice to the top of Ben Voirlich.

In further illustration of the many-sidedness which was a noteworthy characteristic of Sir R. Christison, reference may be made to some of his appearances in the general capacity of a citizen. Among the societies which he took a leading part in establishing, and which he assisted with all the weight of his advocacy, are those which seek to preserve from pollution the rivers and lochs of Scotland, and to secure the health of families by efficient sanitary inspection of their houses. In former years, he rendered good service to the citizens of Edinburgh, in connection with an early stage of the water question. The ceaseless activity of a mind, whose bent was always towards scientific research, found employment, even for spare half-hours and seasons of relaxation, in the investigation of curious and out-of-the-way questions—such as the exact proportions of a well-built man. By way of supplement to the graver inquiries involved in criminal jurisprudence, he bestowed no small amount of attention on handwriting, as an index to individual character and a means of identification. At his public festival, it was mentioned by Professor Sir William Thomson, that Sir Robert Christison had, as a means of relaxation from his other pursuits, engaged in the study of deep-sea thermometry; and that one of his vacations was devoted to determining the temperature at the bottom of Loch Lomond. The results of the observations thus made were communicated by him to the Royal Society of Edinburgh.

His oratorical powers were great, and when he was roused to anger, he carried his elocution and rhetoric on with him without disturbance by his emotions. He indulged little in invective—but still a little. Great field days of speech-making frequently occurred in the early medical reform debates in the Edinburgh College of Physicians; and many of the fellows of the College were strongly disinclined to follow Christison in what they believed to be his plans for giving everything up to the university interests. So greatly, however, did they admire the man, that they unanimously voted that a portrait of him should be hung in the College hall; this motion was seconded, if not proposed, by one who had been his most vigorous opponent. This, Sir Robert regarded as a great honour; "but," he said, "it was a double honour to me, and highly honourable too to my fellow-members"—on account of the differences which had existed.

In politics, he was a Tory of a somewhat old school. Some years ago, he appeared as the champion of that interest in an unsuccessful competition with Lord Rosebery for the Lord Rectorship of the University; and, at the last general election, he warmly supported the

candidature of Mr. Bickersteth of Liverpool for the seat previously and now held by the Right Hon. Lyon Playfair. As a member of the Scottish Kirk, he was repeatedly an office-bearer. He was a religious, even a pious man; and his religion was that of deeds and not of words.

In his private life, Sir Robert Christison was liable to be somewhat misunderstood by those who knew but little of him. He was always regarded as a cold-blooded man; severe, with a tendency to haughtiness. Certainly, he was a man of natural weightiness; for in every assembly, in every interview, his personal ascendancy could not but be and was felt. But those who knew him well tell us that he was warm-hearted beneath the frigid exterior; and that he became sweeter, mellower, and more openly affectionate as he grew older. Strongly marked also, in private as well as in public life, was the contempt with which he treated whatever struck him as paltry or dishonourable. Conscious of his own ability and his loyalty to the profession, he was entirely free from any shade of jealousy in regard to the success of other men; and, closely as he identified himself with the University, he was always ready to show sympathy with professional brethren outside, if only he were satisfied that they were doing their work conscientiously and well.

Future biographers will probably enter more fully on the history of the life and career of this eminent man, and will discuss his actions and the influence which he has for a long series of years exercised in his University and among his professional brethren in Edinburgh. But it may be predicted with certainty that nothing that can be written of him will lessen the affection and esteem in which he is held, not only by his immediate friends and pupils, but by the cultivators of medical science, and the admirers of honesty of character, throughout the world.*

ROGER STURLEY NUNN, M.R.C.S.Eng.,

SENIOR SURGEON TO THE ESSEX AND COLCHESTER HOSPITAL, COLCHESTER.

MR. NUNN died at Colchester on Monday, January 30th. About eighteen months ago he suffered from chronic inflammation of part of the left lung, but after two months' absence in the South of England, he sufficiently recovered to resume his professional duties. Ten weeks before his death he ruptured a blood-vessel, and since that time he gradually failed, being the whole time confined to his bedroom.

Mr. Nunn was born in October 1813, being the only son of Dr. Nunn, a physician and surgeon of great popularity in Colchester during the early part of this century, having been several times Mayor, and taking a very active part in public affairs. He was educated at Guy's Hospital, and subsequently at Rome and Paris. Early in his professional career, he attached himself to the Essex and Colchester Hospital, and at his death was Senior Surgeon to that Institution. For many years he was Surgeon to the Borough gaol; and ever since the revival of the volunteer movement, he has filled the post of Honorary Surgeon to the Colchester corps, in addition to being Surgeon to the 1st Essex battalion. He always also took a warm interest in the Eastern Counties' Asylum for Idiots, and for a long time held the post of consulting Surgeon.

By the death of Mr. Nunn, the medical profession in East Anglia has lost one of its most distinguished and popular practitioners. In addition to a large private practice, in which he was ably assisted by his partner, Mr. Symmons, he enjoyed in a marked degree the confidence of his medical brethren, as well as of the public, in his district, and as a consequence he had one of the largest practices as a consultant in the eastern counties. He was one of the vice-presidents of the East Anglian Branch of the Association, and was president of that Branch in 1855. Mr. Nunn was widely known in the profession, being connected with several medical families. The eminent surgeon of Guy's Hospital, Mr. Edward Cock, married his sister.

In society, Mr. Nunn's genial manner and kindly disposition made him ever a welcome guest; but he was equally at home in the humblest cottage, and, in fact, devoted a great deal of his time and talents towards alleviating the sickness of the poor, being always ready to give freely his professional advice and assistance to the really needy.

The funeral took place at the cemetery, and, as might have been expected, the respect shown for the memory of the deceased was very general, rich and poor alike testifying in the most unmistakable manner to the high regard they entertained for the deceased gentleman.

At the meeting of the Managing Committee of the Essex and Colchester Hospital after his death, the following resolution was unanimously passed:—

"The Committee desire to record the deep regret with which they have heard of the death of Mr. Roger Sturley Nunn, who for a term of forty-five years has been one of the surgeons of this hospital, the interests of which he has ever had most warmly at heart. They also wish to express, in the strongest terms which they can employ, their sense of the value of his distinguished professional ability, coupled with an unfailing courtesy and considerate kindness, which were characteristic of him. And they further desire to convey to Mrs. Nunn and the other members of the family, their most sincere and respectful condolence in their bereavement."

* For the greater part of the information contained in the preceding notes, we are indebted to a copious sketch of his life in the *Scotsman* of January 28th, and to a pamphlet containing a Report of the Proceedings at the Public Dinner given in his honour on February 23rd, 1872, the fiftieth anniversary of his induction as a Professor in the University of Edinburgh.

ANDREW MOFFITT, L.R.C.S.I.,

SURGEON MAJOR, ARMY MEDICAL DEPARTMENT.

THE medical department of the army has sustained a severe loss in the death of the above-named officer, who succumbed to a mortal disease, in Southampton, on the 8th inst. Dr. Moffitt entered the service in the year 1858. In the following year he served with the 67th regiment in China, where he made the acquaintance of Colonel, then Major, Gordon, the famous commander of the ever victorious army, whose brother-in-law he afterwards became. To this army he was appointed principal medical officer, and quickly displayed all the qualifications required for such a position. "It is impossible," says the historian of Gordon's operations, "to over-estimate the good done by Dr. Moffitt, not only to the force in which he served with so much distinction, but to the reputation of his profession and country." Colonel Gordon has in every possible way testified to the value of his services, and has always said that the confidence inspired by Moffitt's surgical skill was so great as to nerve the minds of the soldiers to engage without fear in the many hazardous enterprizes of the war. Nor was this all. Dr. Moffitt, on several occasions, when combatant officers, strictly so called, were few, led the troops into action. Dr. Moffitt's war services are thus given in *Hart's Army List:* Served through the campaign of 1860; in the north of China (medal); also in the operations around Shanghai against the Taepings in 1862; and was present at the capture of the cities Nayscien, Kading, Najon, and Cholin; entered the service of the Emperor of China, with Major Gordon, Royal Engineers, and served with the disciplined Chinese force as principal medical officer until its dissolution, being present at thirty-three engagements against the rebels (presented by the Emperor of China with a general service medal of the first class, and a second special gold medal). On his return home Surgeon-Major Moffitt served for five years on the staff of the Royal Victoria Hospital, Netley, acting as instructor of the army hospital corps, for whose use he prepared a valuable manual, which is still the text-book for their instruction. This work was published by the War Office, but, for some reason never explained, without the author's name—an omission keenly felt by him and resented by his friends. His tour of service at Netley completed, Surgeon Moffitt went to India, and served the usual five years' tour of duty in the Bombay Presidency. There his high professional qualities soon became known, and there, as elsewhere, he secured the love and esteem of all with whom he had relations, for his devotion and zeal in the discharge of severe and responsible duties. He returned to his native land shattered in health, and with the seeds of the disease which at last proved fatal. In the course of last year he went to Homburg, in search of health, but did not find it. There, his disease—aneurysm of the thoracic aorta—developed with rapidity. He was brought home with difficulty, and from that time until relieved by the friendly hand of death, his sufferings were extreme, reaching the utmost limit of human endurance, but borne with a dignity and fortitude that will be remembered with admiration to their lives' end by those who were privileged to witness it. It may be permissible to add that he "died the death of the righteous", with a triumphant expression of hope on his lips. The fittest memorial to cut on his tomb may be thus briefly written—

"Patient in Tribulation."

GEORGE BODINGTON, L.R.C.P.Ed.,

OF SUTTON COLDFIELD.

WE regret to announce the decease of Mr. George Bodington, who was one of the oldest members of the Association, and who died, after a short illness, at Sutton Coldfield, near Birmingham, where he had lived and practised for upwards of forty-five years, on February 4th, in the eighty-third year of his age. Educated at St. Bartholomew's Hospital, Mr. Bodington took the diploma of the Apothecaries Society in 1825, and he was admitted a licentiate of the Royal College of

Physicians of Edinburgh in 1859. As warden and a magistrate, and for many years as a member of the corporation of the ancient royal borough of Sutton Coldfield, he took an active part in local politics and administrative matters, especially devoting himself to educational and sanitary questions. He continued an active member of the corporation till May last, when he resigned his seat through ill-health, amid the widespread expression of sorrow of the people amongst whom he lived, and by whom he was always regarded with respect and affection. He was the author of several essays which were published in our pages.

MEDICAL NEWS.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH.—DOUBLE QUALIFICATION.—The following gentlemen passed their first professional examination during the February sittings of the examiners.

John James Oakeshott, Highgate; John Fitzgerald Burke, Ennis; Charles Horace Barkley, London; Lawrence John Raymond Louis Quinn, Belfast; Charles Cumberland Brodrick, Jersey; Arthur Charles Kemble, Essex; Arthur Foulds Thomas, Halifax; Richard Cody Rowan, Hamilton; Arthur Herbert Butcher, Ripon, Yorkshire; Michael Joseph Molony, Caher, Ireland; Hunter Urquhart Walker, Madras; Charles Alfred Mitchell, Dewsbury; George Easingwood Blanshard, Edinburgh; Robert Buck Carruthers, Wigton, Cumberland; John William Dunbar Hooper, Dinapore, India; John Powell, South Wales; William MacDermott, Ballymoney; John Charles King, Galway; Charles Maxwell, Lockerbie; Samuel William Brierley, Victoria, Australia.

The following gentlemen passed their final examination, and were admitted L.R.C.P.Edinburgh and L.R.C.S.Edinburgh.

Hamilton Meikle, Alabama; Joseph Balfe, Dublin; Augustus William Thomas, Swaffham; George Reginald Eakins, County Tyrone; John Burdon, County Durham; Joseph Hysanth Tynan, Edgeworthstown; Walter Spencer, Yorkshire; Francis Woore, Guernsey; William Robert Allen, County Antrim; William Pennefather Warren, Queenstown; Thomas Galland Charis Hesk, Derbyshire; Arthur Edward Blacker, Somersetshire; George Wiston Baker, London; George Arthur Patrick, Bolton; Frederick Anastasius Saunders, London; Marcus William Alattson Keane, Whitby, Yorkshire; John Fitzgerald Burke, Ennis; Joseph Wallace Duncan, Donegal; Alfred Ellison Muncaster, Manchester; Adam Robert Hamilton Oakley, Highgate; George Dobson Crowther, Yorkshire; Arthur Edward Cecil Spence, Allahabad; Henry Ralph Gatley, Park, near Truro; George Jukes, Cumberland; Thomas Wyld Pairman, Biggar; Thomas Aitchison, Northumberland; George Savage Martin Baxter, Brighton; William Patrick Kirwan, Galway; Henry Hele Bate, Swansea.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.—The following gentlemen passed their first professional examination during the recent sittings of the examiners.

Harry Graham Smith, Edinburgh; Frank Sturges, London; Elwes Steele, Monmouthshire; Thomas Tenison Collins, Tipperary; Frederic John Bateman, Norwich.

The following gentlemen passed their final examination, and were admitted Licentiates of the College.

Charles Dundee, Bruslee, Ireland; Hormasjee Edaljee Banatvala, Bombay; George Henry Butler, Christchurch, Hants; Archibald Clarke Robinson, County Antrim; Septimus Lowes, Newcastle-on-Tyne; Michael Joseph Collins, Cork; James Shedden Elder, Eaglesham.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, February 9th, 1882.

Crone, John Smyth, Evershot Road, Tollington Park, N.
Dunn, Louis Albert, Cavendish Place, Brighton.
Erulkar, Solomon Abraham, The Avenue, Acre Lane, Brixton.
Phillips, Henry Astley, 27, Leicester Square, W.

The following gentlemen also on the same day passed their Primary Professional Examination.

Cardwell, Thomas, Guy's Hospital.
Hoyland, Stanley Stenton, St. Bartholomew's Hospital.
Littlewood, John Oscroft, Guy's Hospital.
Milnes, John George, Guy's Hospital.
Spencer, Walter, Charing Cross Hospital.

At the Examination in Elementary Chemistry, held at the Hall on January 27th, the following gentleman passed his examination.

Jollye, Francis William.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the usual monthly examinations for the Licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, February 6th, 7th, 8th, and 9th, the following candidates were successful.

For the Licences to practise Medicine and Midwifery.—Frederick William Elsner, William Dargan Gray, James Thomas Laffan, John Patrick Nicolls, Michael Joseph O'Doherty, Francis Edward Pim, Charles Frederick Porter, John Alfred Scott, Charles Henry Freeman Underwood.

For the Licence to practise Medicine alone.—Henry Vincent Dillon, Thomas James Hennessy.

The following Licentiates in Medicine, having complied with the by-laws relating to Membership, have been duly admitted to the roll of Members of the College.

John Guinness Beatty, 1866, Dublin; Charles Philip Coppinger, 1871, Dublin; James Barclay Clibborn, 1876, Surgeon R.N., China; George Edward Twiss, 1878, Surgeon A.M.D.

(The numerals indicate the year in which the Licentiateship in Medicine of the College was obtained.)

MEDICAL VACANCIES.

The following vacancies are announced:—

ABERYSTWITH INFIRMARY AND CARDIGANSHIRE GENERAL HOSPITAL—House-Surgeon. Salary, £175 per annum. Applications to Evan Evans, Solicitor, Aberystwith, by 28th instant.

ANDERSON'S COLLEGE DISPENSARY—Physician. Applications to David Wilson, Honorary Secretary, 42, Bath Street, Glasgow.

BELMULLET UNION—Medical Officer for Workhouse at a salary of £50 per annum, together with £5 per annum as Superintendent Medical Officer of Health. Election on the 9th proximo.

BRISTOL GENERAL HOSPITAL—Physician's Assistant. Salary, £50 per annum. Applications by February 18th.

CASTLEBAR UNION—Medical Officer for Castlebar Dispensary District. (North Division No 2). Salary, £110 per annum, with £15 yearly as Medical Officer of Health, registration, and vaccination fees. Election on the 25th instant.

DROGHEDA UNION.—Medical Officer for Monasterboice Dispensary District. Salary, £110 per annum, with £30 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 21st instant.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST AND THROAT, 26, Margaret Street, Cavendish Square, W.C.—Two extra Visiting Physicians. Applications by the 21st instant.

MONAGHAN UNION—Medical Officer for Kilmore Dispensary District. Salary, £110 per annum, with £15 yearly as Medical Officer of Health, registration, and vaccination fees. Election on the 21st instant.

MONTROSE ROYAL LUNATIC ASYLUM—Assistant Medical Officer. Salary, £120 per annum. Applications to Dr. Howden.

NATIONAL DENTAL HOSPITAL, 149, Great Portland Street, W.—House-Surgeon. Salary £50 per annum. Applications by February 24th.

NEWCASTLE-UPON-TYNE INFIRMARY—Senior House-Surgeon. Salary, £100 per annum. Applications by February 22nd.

POPLAR HOSPITAL FOR ACCIDENTS, Blackwall, E.—Honorary Surgeon. Applications to the Secretary by 21st instant.

RADCLIFFE INFIRMARY, Oxford.—Junior Resident Medical Officer. Salary, £60 per annum. Applications by February 22nd.

ROTHERHAM HOSPITAL—Resident House-Surgeon. Salary, £100 per annum. Applications by February 28th.

ST. GERMAN'S UNION RURAL SANITARY AUTHORITY—Medical Officer of Health. Salary, £100 per annum. Applications, marked "Appointment Medical Officer of Health", by March 9th.

ST. MARK'S OPHTHALMIC HOSPITAL, Dublin—House-Surgeon. Salary, £52 10s. per annum. Applications to the Registrar by February 18th.

TEIGNMOUTH, DAWLISH, AND NEWTON INFIRMARY AND CONVALESCENT HOME, Teignmouth—House-Surgeon. Salary £65 per annum. Applications by February 20th.

TIVERTON INFIRMARY—House-Surgeon and Dispenser. Applications to E. F. C. Clarke, Honorary Secretary, Tidcombe Villas, Tiverton, Devon.

WESTERN GENERAL DISPENSRAY—Marylebone Road—Honorary Physician. Applications by March 6th.

WEST LONDON HOSPITAL, Hammersmith, W.—Assistant Physician. Applications by 1st March.

WESTERN OPHTHALMIC HOSPITAL, 155, Marylebone Road—Surgeon. Applications by the 28th February.

MEDICAL APPOINTMENTS.

BERESFORD, F. J., L.R.C.S., appointed Resident Medical Officer to the Heckmondwike Industrial Co-operative Society (Limited), Medical Aid Department, *vice* J. Stewart, L.R.C.P., resigned.

BOND, Thomas, M.B., appointed Medical Officer to the Great Western Railway Company, *vice* Thomas Cooper, M.R.C.P., deceased.

CHAVASSE, T. F., F.R.C.S., appointed Honorary Surgeon to the General Hospital, Birmingham.

COXWELL, C. F., M.B., appointed Resident Medical Officer to the National Hospital for the Paralysed, *vice* C. E. Beevor, M.B., resigned.

EMRYS-JONES, A., M.D., M.R.C.S.Eng., appointed Honorary Surgeon to the Manchester Royal Eye Hospital.

FIELD, J. W., M.R.C.S., appointed House-Surgeon to the London Lock Hospital, *vice* F. N. Cook, M.R.C.S., resigned.

FOTHERBY, H. A., M.R.C.S., appointed House-Surgeon to the Royal Cornwall Infirmary, *vice* W. Allsworth, M.B., resigned.

HASLAM, W. F., F.R.C.S., appointed Assistant-Surgeon to the General Hospital, Birmingham, *vice* T. F. Chavasse, F.R.C.S., resigned.

KEENAN, J., L.R.C.S.I., appointed Resident Medical Officer to the Mercers' Hospital, Dublin, *vice* C. B. Gaffnay, L.R.C.S.I., resigned.

KNOTT, W., M.B., appointed House-Surgeon to the North Ormesby Cottage Hospital, *vice* J. P. Sleightholme, deceased.

LAURENT, E. A. O., M.B., appointed Resident Surgeon to the Bedford General Infirmary, *vice* C. J. Bond, M.R.C.S., resigned.

LUBBOCK, M., M.D., appointed Assistant-Physician to the Charing-Cross Hospital, *vice* W. B. Houghton, M.D., resigned.

POPE, Charles, L.R.C.S., appointed Medical Officer to the South Shields Workhouse, *vice* J. S. Denham, M.D., deceased.

PRENTICE, Z., M.R.C.S., appointed Junior House-Surgeon to the Huddersfield Infirmary, *vice* Robert Farrer, M.R.C.S., resigned.

SCOTT, R. J. H., M.R.C.S., appointed Honorary Surgeon to the Eastern Dispensary, Bath, *vice* H. C. Hopkins, M.R.C.S., resigned.

SHEARS, C. H. B., L.R.C.P.Lond., M.R.C.S., appointed House-Surgeon to the Liverpool Eye and Ear Infirmary, *vice* C. Atkin, L.R.C.P.Lond., M.R.C.S., resigned.

SYKES, J. F. J., M.B., appointed Visiting Physician to the Infirmary for Consumption and Diseases of the Chest and Throat, *vice* R. A. Gibbons, M.D., resigned.

WELDON, G., M.B., appointed Medical and Surgical Registrar to the Victoria Hospital for Children, *vice* Dawson Williams, M.B., resigned.

WHITELEGGE, B.A., M.D., appointed Resident Medical Officer to the Hospital for Infectious Diseases, Sheffield.

WILLIS, Julian, M.R.C.P., appointed Visiting-Physician to the Infirmary for Consumption and Diseases of the Chest and Throat, *vice* J. F. Palmer, L.R.C.P., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., *which should be forwarded in stamps with the announcements.*

BIRTHS.

GRIFFITH.—February 12th, at Castle Square, Carnarvon, the wife of G. R. Griffith, M.B., of a daughter.

WRIGHT.—January 28th, the wife of Francis Jas. Wright, M.D., Northumberland, House, Finsbury Park, N., of a daughter.

DEATH.

FOWKE.—On Tuesday, the 14th instant, at Richmond Hill House, Edgbaston, Birmingham, Sophia Fowke, widow of John Fowke, F.R.C.S., of Wolverhampton, aged 75.

GEORGE LOWE, M.B., Middleton-in-Teesdale, Durham, has been awarded a Government grant for proficiency in vaccination in his district.

PRESENTATION.—Dr. Eberle (now of Thirsk) for the past seven years Principal of the Medical College, Easingwold, has been presented by the inhabitants with a massive black marble timepiece, beautifully decorated in the Egyptian style; and on a silver tablet the following inscription: "Presented to J. J. Eberle, Physician, in recognition of the high esteem in which he was held during his residence in Easingwold."

HEALTH OF FOREIGN CITIES.—The Registrar-General's last weekly return contains a table, from which we derived the following facts, affording trustworthy indications of the recent health and sanitary condition of various foreign and colonial cities. According to recent weekly returns, the annual death-rate in the three principal Indian cities averaged 36.4 per 1000, and was equal to 30.1 in Bombay, 36.2 in Madras, and 36.3 in Calcutta; cholera caused 17 deaths in Bombay, 23 in Madras, and 30 in Calcutta. Fever mortality showed the usual excess in each of these Indian cities. The death-rate in Alexandria was equal to 35.3, and the 205 deaths included 13 fatal cases of typhoid fever, and 7 of whooping-cough. In twenty-one European cities, the death-rate averaged 31.3, and exceeded by 1.5 the average rate prevailing last week in twenty-eight of the largest English towns. The death-rate in St. Petersburg further rose to 52.4; 45 deaths resulted from typhus and typhoid fevers, and 24 from diphtheria. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate did not average more than 24.8; measles caused 12 deaths in Christiania and 8 in Copenhagen. In Paris, the death-rate further rose to 31.7; 52 deaths resulted from diphtheria and croup, 31 from typhoid fever, and 10 from small-pox. The death-rates in Geneva and Brussels were 33.1 and 24.9 respectively; whooping-cough caused 8 deaths in Brussels. In the three principal Dutch cities, the death-rate averaged 27.6, and was equal to 25.2 in Amsterdam, 26.5 in the Hague, and 29.4 in Rotterdam; whooping-cough was somewhat fatally prevalent in each of these cities. The Registrar-General's table includes returns from nine German and Austrian cities, in which the death-rate averaged 30.7; it ranged from 23.0 and 24.8 in Berlin and Dresden, to 39.8 and 39.9 in Buda-Pesth and Trieste. Small-pox caused 16 deaths in Vienna, 10 in Buda-Pesth, and 4 in Prague; diphtheria showed fatal prevalence in Berlin and Trieste. The death-rate was equal to 27.3 in Turin, and 30.8 in Venice; the deaths in Turin included 6 from typhoid fever and 5 from diphtheria. The usual return from Naples is missing, and no returns have been received from Rome since the middle of September last. The average death-rate in four of the principal American cities was equal to 29.1; the rates in these cities ranged from 24.2 in Baltimore, to 32.8 in New York. Small-pox caused 23 deaths in Philadelphia and 13 in New York. The fatal cases of diphtheria were excessive in each of these four American cities.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p. Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 2; Eye M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Dr. Braxton Hicks: Two Cases of Abdominal Disease, of clinical interest. Dr. Day: A Case of Inflammation of the Appendix Vermiformis, followed by Fatal Peritonitis. Mr. Spencer Watson: A Case of large Gall-stone impacted in the Bowel and simulating Abdominal Tumour. Mr. Parrott will exhibit Gall-stone of unusual size. The President will also exhibit Gall-stones.—Royal College of Surgeons of England, 4 P.M. Professor W. K. Parker: On the Morphology of the Mammalian Skull.

TUESDAY.—Pathological Society of London, 8.30 P.M. Dr. S. West: 1. Cardiac Hypertrophy; 2. Acute Fatty Degeneration of Heart. Dr. Norman Moore: 1. Specimens of Gout; 2. Osteoma of Tibia. Dr. Hale White: Changes in Medulla Oblongata causing Sudden Death. Mr. Roger Williams: 1. Sarcoma of Bladder; 2. Arthritis of Wrist-Joint. Mr. Godlee: Femoral Arteries tied for Aneurysm. Mr. Davies Colley: Congenital Hypertrophy of Toes. Dr. Baxter: Chronic Hydrocephalus. Mr. Jonathan Hutchinson: 1. Anomalous Nerve Disorder in Infancy; 2 (for Dr. Elder of Nottingham): Multiple Osteochondromata (living specimen).

WEDNESDAY.—Royal College of Surgeons of England, 4 P.M. Professor W. K. Parker: On the Morphology of the Mammalian Skull.—Hunterian Society 8 P.M. Address by President, Dr. Hughlings Jackson. Dr. Stephen Mackenzie: Some Cases of Acute Polio-myelitis.

THURSDAY.—Abernethian Society, St. Bartholomew's Hospital, 8 P.M. Mr. C. E. Paget: Tobacco.

FRIDAY.—Clinical Society of London, 8.30 P.M. Report of Committee on Dr. Finlay's case of Aortic Aneurysm. Mr. R. J. Godlee: On a case in which a Piece of Grass swallowed by a Child made its exit in an Intercostal Space. Dr. George Johnson: On a Case of Sudden Perforative Pneumothorax, with rapid and complete Recovery. Mr. Spencer Watson: Sequel to a case of Eyeball Tension, reported in *Clin. Soc. Trans.*, vol. xiv. Mr. George Lawson: On a case of Chimney-sweeps' Cancer of Axilla, treated by Excision of the Growth, Ligature of Axillary Artery, and Amputation of Arm at Shoulder-joint. Dr. T. H. Green will show a case of Subcutaneous Fibroid Nodules in Rheumatism. Mr. B. Squire will show a case of Lupus of the Forehead, treated by Erosion and Linear Scarification.—Quekett Microscopical Club, 8 P.M. Mr. T. Charters White (President): On the Histological Development of the Larva of *Corethra Plumicornis*.—Royal College of Surgeons of England, 4 P.M. Professor W. K. Parker: On the Morphology of the Mammalian Skull.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

NEW TREATMENT OF SMALL-POX.

AT the meeting of the Paris Académie de Médecine on August 30th, M. du Castel gave an account of a new therapeutic method instituted by him in his wards at the St. Antoine Hospital during a severe epidemic of small-pox. He stated that he had obtained most successful results from this method, which should be resorted to at an early stage of the disease, before the stage of suppuration has been reached, but when many symptoms indicated a serious attack. The method is as follows. Subcutaneous injections of ether are made twice daily with one of Pravaz's syringes, completely filled. Opium is administered in the form of thebaic extract, to which is added perchloride of iron in hæmorrhagic cases. The opium and perchloride are taken internally every hour, and a rather large quantity of alcohol is given to the patient daily. The effects of this treatment are affirmed to comprise diminution of the morbid phenomena, desiccation of the pustules before suppuration in the majority of the patients, arrest of the development of the pustules, absence of salivation, and convalescence between the sixth and the ninth day from the appearance of the eruption. The drawbacks are very slight, and can easily be avoided. The operation is not very painful. If the injection be badly done, it may produce small eschars and indurations under the skin; but to prevent these occurrences it is only necessary to push the handle of the piston of the syringe very deliberately. M. du Castel reports that, out of seventy-six cases, thirteen only died during the suppurative stage. He was able to determine that the ether acted specially on the suppuration of the pustules, and that this action was weaker in unvaccinated cases. MM. Hérard, Lasègue, and Marotte, were delegated to inquire into M. du Castel's statements; and, at a subsequent meeting, M. Marotte presented a report on the subject. He noted with satisfaction the good effects of this method, but it seemed to him too complex to allow a thorough explanation of the action of the remedies. He recommended that, if there were sufficient reason to encourage trials so fortunately commenced, a greater number of cases should be waited for, before expressing a decided opinion as to the value of the method.

F. W. J.—Chloral is already on the poisons list. The other matters, relating to business questions, should be addressed to the General Manager. The advertisements in the JOURNAL are not in the Editor's department.

EARLY VACCINATION.

SIR,—In your leader on "How Small-pox Spreads", I see that last year only seven out of two hundred children born in Marylebone Workhouse were accounted for as being vaccinated. Had the medical officer there adopted the plan I always do, this would not have occurred. I vaccinate all children born in the city of Exeter Workhouse when a fortnight or three weeks' old, and before the mothers leave the house. The cases always do well.—I am, sir, yours truly, JOHN WOODMAN, F.R.C.S.

DR. DRURY'S communication respecting the non-arrival of the JOURNAL is referred to the General Manager, to whom, as Dr. Drury will note, it is requested, by the standing notice which appears every week, that all communications respecting advertisements, forwarding of the journals, and similar business matters, should be addressed, to the Manager, Mr. Fowke, 161A, Strand, and not to the Editor.

AMBULANCE COT OF DR. GORGAS.

SIR,—It appears, by the recently published *Transactions* of the International Medical Congress, that, in the discussion on Professor MacDonald's paper (vol. ii, p. 570, Section, Military Surgery), an erroneous impression was entertained with regard to the Gorgas Cot. It was supposed certain changes were improvements of mine, whereas they were suggested by Dr. Gorgas himself in a letter to me in 1870. The error may have arisen from the omission of the words "suggested by Dr. Gorgas" which followed that portion of my letter read at the Congress. In justice to my friend Dr. Gorgas, I request you will allow me to correct the mistake through your columns.—I am, sir, your obedient servant,

FRANCIS WM. DAVIS, Deputy Inspector-General, R.N.

LECTURES ON PUERPERAL FEVER.

SIR,—If any of the readers of the JOURNAL may wish for a copy of the Lectures on Puerperal Fever which I delivered at the College of Physicians, and were published in the JOURNAL, I have requested Mr. Richards, 37, Great Queen Street, W.C., to forward one post free on receiving notice before the end of this month.—Yours truly,

ROBERT LEE.

6, Savile Row, W., February 7th, 1882.

J. H.—The most useful would be Barnes, Thomas, Galabin, or Edis, on *Diseases of Women*.

RAILWAY ACCIDENTS AND SURGEONS.

MR. ROBERTS (Keighley) brings before our notice the case of a patient who, having injured his leg, and being insured in the Railway Companies' Accident Insurance Company, was attended by a medical man sent by the company seven weeks after the accident. The doctor, he says, carefully examined the patient, and asked what treatment he had adopted. The doctor never in any way communicated with him as to his going to see the patient. Mr. Roberts asks:

"1. Ought not the doctor to have told me or written to me that he was going to see the patient, and also the time, so that I could have met him?

"2. Had the doctor any right to ask the patient how his leg was treated?'

The practice of surgeons making examinations on behalf of railway companies, and of surgeons reporting for the Accident Insurance Company, is somewhat different. The railway surgeon knows, or it is his own fault if he do not have inquiry made for him by the railway officials, who is the private medical attendant, and he makes an appointment with him before seeing the patient. The Accident Insurance Company merely gives instruction to Mr. So-and-so to go and see an injured person and make a report, so that the compensation due by the terms of the agreement may be forthwith paid; and does not know, or does not take the trouble to inform him, who the private attendant is. And thus it happens, we believe, that examinations are often made for the Insurance Company without the presence and without the knowledge of the private doctor. It would doubtless be much better if the practice were in both cases alike, but it would be hardly practicable for this to be so when the surgeon for the Insurance Company had to see perhaps many cases in one day, as for example in London. In this particular instance, it would have been wiser had the doctor sent by the Insurance Company informed the private attendant that he had been. We see no objection in questions as to how the limb was being treated, for they might have been questions necessary to enable the surgeon to arrive at an accurate knowledge of the facts. We could pronounce no judgment unless we knew the motives of the questions. A mistake, it seems to us, has perhaps been made, but not one of a gross character.

DR. ALLFREY'S suggestion, that the whole of the outlying metropolitan districts within the Metropolitan Police range should be included within the hospital ambulance system, is one in which we entirely concur, and which will, we hope, be included in the scheme when carried out.

UTERINE PAINS.

SIR,—Some recent cases have impressed upon my mind a condition of uterine contraction to which, I think, sufficient attention has not been drawn. In a case of slight contraction of the pelvic brim, of large head on the part of the child, or of malpresentation, when the os is fully dilated, but the head does not descend, we sometimes find pains, which seem slight and insufficient; and we are apt to attribute our slow progress to deficient uterine action. In such a case, the painful work of stretching the os is over or nearly over, and distension of the vagina has not begun. These elements, then, of suffering to the patient are absent, and she may seem comparatively easy, while the strain upon the uterus caused by its ineffective exertions may be quite as great as at other times, when the patient shows much greater signs of distress. In such a case, if by means of the forceps we pass the rubicon of the pelvic brim, we find that we have to do with powerful down-bearing pains, which perhaps render further traction unnecessary. On the other hand, if we leave the case to nature, we soon find that what we considered slight pains have exhausted the strength of the uterus. This is, of course, a condition which has often been studied from the point of view of the obstruction; but if this be slight we may be led by the pains into the error of waiting or administering ergot.—I am, etc.,

Glossop, Derbyshire. DUNCAN J. MACKENZIE, M.D.

HISTOLOGIST.—Dr. Schwann, who died on January 11th, was successively Professor of Physiology at Louvain and Liège. His celebrated work on the cellular structure in animals was published in 1838, and was first made known to English readers through a review, containing a copious extract of its contents, in the ninth volume of the *British and Foreign Medical Review*. A summary of his views also appeared in Baly's translation of Müller's *Physiology*, published in 1841. Several years after this, his work was translated for the Sydenham Society by Mr. Spencer Smith.

OZÆNA.

SIR,—I recently, after a long interval, saw a patient, aged 21, who has been under my care for the last seven or eight years on account of ozœna (erosions of coverings of spongy bones without necrosis). About a year ago, he spent five months at Davos, whence he was recommended to proceed to the Engadine, etc., and to spend as much time as possible on the glaciers. He has certainly, both to his own sensations and his parents' observation, as well as on physical examination, made immense progress: that is to say, that similar remedies, as pursued previously with but little effect, have been much more beneficial in their results. One nostril is quite well, and in the other there was but one slight erosion remaining when he returned a fortnight since, which has since healed, after two applications of the galvano-cautery. His mouth was so bad when I first saw him, that he begged his father to remove him from Harrow, a course which his house-master also advised, as he was becoming quite a recluse, always shunning, and indeed being shunned by, his schoolfellows. He is now, at his own request, proceeding to Oxford, because he feels himself, if not cured, at least on the high road to cure.

This is only one case, but it encourages me to advise a similar plan where practicable in the future. The result is certainly far better than that obtained by sea voyages.—Yours faithfully, LENNOX BROWNE.

P.S.—It may interest G. A. to learn that the hot dry air of a Turkish bath is very beneficial in many cases of ozœna, and this, as it appears to me, by its local as well as by its sudatory action.

MEDICUS.—If you were summoned to attend the child, we think you were entitled to receive a fee from the coroner. It might, however, be alleged that the child being dead on your arrival, you were in the position of a common witness, and only able to testify as to medical facts by hearsay. The proper course was not to retain any portion of the medicine, but to seal up the whole with your own seal, and mark the bottle before delivering it to the police.

A Case of Adherent Placenta.

Sir,—The following case may prove interesting. On Friday morning, November 25th, my assistant, Mr. Churchouse, was called to see a girl, aged 16, who had given birth to a child; and the midwife had sent, being unable to remove the placenta. The child had been born at 1 A.M., on the floor, and the cord had snapped at its attachment to the placenta. On examining, he found the uterus in a state of rigid hour-glass contraction; but, after some little trouble, he managed to pass his hand through this, and found the placenta firmly attached to the fundus of the uterus—so firmly, indeed, that he could not remove it; he therefore sent for me and the chloroform.

On my arrival, I placed the girl under chloroform, and Mr. Churchouse again tried, but without success. We then changed places, and I attempted to get the placenta away, but found it impossible to do so. So firmly was it adherent, that it seemed almost part and parcel of the uterine wall; we therefore decided to leave it, as we feared that if we made further attempts we might injure the uterus itself. We therefore gave the girl a dose of ergot, put on a binder, and left her, telling the nurse to send at once in case of any hæmorrhage. The girl from that time had not a bad symptom. We syringed out the uterus three times daily with a solution of permanganate of potash, and gave her ergot combined with opium. On Thursday, December 2nd, the placenta suddenly came away of itself, in a very putrid condition, and the girl is now well.

I may add that, having occasion to write to one of our leading obstetric physicians, I mentioned the case to him. He told me he had had such a case three or four times, and advised me to keep a sharp look-out for fever or hæmorrhage, and, if either occurred, to again put the girl under chloroform, push my finger through the centre of the placenta, and to peel it off from the uterus; and, if I felt any hard nodules, to peel off the placenta around them, but leave them intact. I quote his advice, thinking it might be serviceable to some brother practitioner.—I am, etc.,

S. B. Farr.

Andover, Hants.

R. M. Simon.—Shall have early publication.

Fees for Attendance on Families of Medical Men.

Sir,—In your issue of January 28th appears a letter, signed by Joseph Thompson, animadverting on the profession in Dumfries; and I have waited until now, expecting some further light to be thrown thereon, either by the writer of the letter referred to, or by some one more conversant with the facts than myself. Nothing having appeared, I think it a professional duty to state my experience of the Dumfries practitioners during a residence of about four years in the neighbourhood. Although living on my own estate, about eight miles from Dumfries, and not practising, I had to call on two of the leading practitioners of that town to see me through a very dangerous attack, which they not only did willingly, most attentively, and gratuitously, but I hold their letters acknowledging my small recognition of their services, each repudiating the thought of fee or reward from me as a professional brother. Such is my experience; I give it in justice.—Yours obediently,

Theo. Byrne (of Elshieshiels, etc.).

Ellenslea, South Molton, Devon, February 13th, 1882.

X.—Under the circumstances, we do not feel that we have enough of the facts before us to give an opinion.

The High Atmospheric Pressure.

Sir,—The extraordinary atmospheric pressure which prevailed over this kingdom and on the continent last month commenced here—Portsmouth—on the 14th, the mercury then standing at 30.534 inches; it reached its highest point, 30.986, on the 18th, when it fell gradually, the reading on the 26th being 30.581. During this period I was called on to treat an unusual number of cases of febricula, or febrile catarrh. The symptoms were high temperature, ranging from 99° to 103°, accompanied by pulmonary or gastric catarrh, and preceded by rigors. The duration of the attacks varied from twenty-four hours to a fortnight. Was there any connection between the physiological and meteorological disturbance?—Your obedient servant,

Medical Meteorologist.

P.S.—The above barometer readings are reduced to mean sea-level and 32° Fahr., and were taken at 9 A.M.

Dr. Vines was no doubt right in treating the matter as a joke

Small-Pox and the "Cranks."

"Small-pox" says the *New York Sanitary Engineer*, "is increasing in the West. Cincinnati, St. Louis, and Chicago, with their large emigrant populations, are especially afflicted in this way, and wherever the disease spreads and increases the mortality is, as a rule, among the emigrants, and always among the unvaccinated. Almost every newspaper contains a paragraph upon it, and some contain not merely news items, but 'explanations,' and 'views' and 'remarks', which arouse and keep up the public interest. Under these circumstances, the Antivaccination Crank sees his opportunity for securing fame by getting his name in the papers, and acts accordingly. Under pretext of anxiety for the public good, he proceeds to write articles for the Press, denouncing vaccination, and urges his point partly by square and solid lying, and partly by insinuations against the honour and morality of those who are striving to avert the spread of the pestilence by the one and only means which the experience of the civilised world has found to be efficacious for that purpose. Argument he has none; but by dint of brazen-faced assertions that vaccination transmits tubercle, syphilis, etc., he does sometimes succeed in getting up a little scare, and in inducing someone to reply to him, which is all that he desires. The sickness and suffering, and the thousands and tens of thousands of deaths, in one of the most horrible and loathsome forms known, which would follow if his recommendations are carried out, are nothing to him, so long as he can make his offensive personality conspicuous. The self-conceit, and other well-known characteristics of the Crank, with which the Washington trial is making us so unpleasantly familiar, are manifested in almost every publication of these antivaccinationists. Having no reputation whatever as scientists, they coolly ask us to accept their dicta in place of the advice of the educated and skilled physicians of the whole world, and proceed to quote their manufactured and utterly untruthful statistics, in the face of the experience which every one of us possesses as to the power of vaccination to prevent small-pox, and as to the absence of unpleasant results of any kind from the operation of vaccination itself in the immense majority of cases. There have no doubt been a few deaths from vaccination, about as many as there have been from pin-pricks; there may have been a few cases in which syphilis was transmitted by the use of improper matter, about as many as where syphilis has been transmitted by cigars—and that is all; and even that slight risk no longer exists, as pure bovine virus is within the reach of every physician. It is, of course, an absolute waste of time to argue with the Crank, or to attempt to expose in detail the falsity of his statements. But we appeal to the editors of our great journals and newspapers not to lend the influence of their columns to aid these men in advertising themselves, and thus gratify their selfish and unscrupulous vanity."

Canadian Medical Fees.

It may be interesting to many, as throwing a light upon colonial medical fees, to compare some of the existing British provincial tariffs with the following, which is the new tariff of fees recently adopted by the board of governors of the College of Physicians and Surgeons, Quebec. It is published in the Canada medical journals. The items represent the maximum fees to be charges for services rendered. The value of the dollar is about 4s. 2d. Visits from 8 A.M. to 9 P.M., not exceeding half a mile, $2; visits from 9 P.M. to 8 A.M., not exceeding half a mile, not to exceed $4; visits, each additional mile, in daytime, 50 cents; at night, $1; detention a whole day, $20; a whole night, $52; ordinary office consultation, with prescription, $2; the same at night, $3; consultation, with special examination, $5; with a practitioner, $5; by letter between practitioners, $10; ordinary certificate of health, $5; special certificate, attested with report, $8; certificate, with report on disease and death, $5; *post mortem* examination, external, $5; with sectio cadaveris, $10; ordinary cases of midwifery (subsequent attendance extra), $15; turning, application of forceps, extraction of placenta (subsequent attendance extra), $30; miscarriage, premature confinement (subsequent attendance extra), $15; for attendance with a midwife, in all cases the charge is the same as for delivery; catheterism, ordinary cases, $3; each subsequent operation, $1; vaccination, bleeding, extraction of teeth, hypodermic injection, etc., $1; introduction of stomach-pump, $5; application of cupping-glasses, leeches, setons, moxa, plugging, etc., $5; chloroformisation, or other anæsthetics, $5; setting fracture of the thigh, $25; of leg or arm, $20; reducing dislocation of thigh, $50; of leg or arm, $25; amputation of the thigh, $100; of leg or arm, $50; operation for strangulated hernia, $100; reduction of hernia by the taxis, $25; lithotomy or lithotrity, $200; ovariotomy, $500; tracheotomy, $50; operation for cataract, $100; extirpation of the breast, $50; of the tonsil, $10; amputation of fingers or toes, $10; capital operations, not already specified, $100; minor operations, $25. The above charges for surgical operations are for the operation only; subsequent attendance and services being extra.

A Subscriber (H. G. C.).—1. It is within his discretion to put off the inquest. 2. No fee can be claimed where the witness is not duly summoned in writing to give evidence, and in no case without having actually attended. 3. To the Home Secretary. Surely, H. G. C. will communicate with B. as to his certificate.

COMMUNICATIONS, LETTERS, etc., have been received from:—

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REPORTS
TO THE
SCIENTIFIC GRANTS COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION.

THIRD CONTRIBUTION TO THE LIFE-HISTORY OF CONTAGIUM.

By PETER MURRAY BRAIDWOOD, M.D., F.R.M.S.,
AND
FRANCIS VACHER, F.R.C.S.Ed.

(*Concluded from page 222 of last number.*)

Review of Former Experimental Researches.

Like many other diseases, pyæmia and septicæmia have been subjected to scrutiny by experiments on animals. The general inference derived from these experiments is, that the introduction into animals of solutions of different substances, organic and inorganic, as also the injection of variable quantities of many different fluids, will induce in animals a pathological state, followed by definite visceral changes resembling, more or less, some of the Protean forms of pyæmia. Such researches have not, however, cast any important light on the elucidation of the essential nature of this disease or its cause. We do not on this account esteem lightly the labour and time expended by the several observers who conducted these researches; and we must exclude from this category those of Dr. Burdon Sanderson and Professor Koch, inasmuch as from their experimental inquiries Drs. Sanderson and Koch are able to draw *definite* conclusions, and to trace out a very important *essential* difference in the pathological conditions induced in animals by inoculation with various fluids.

Among the earlier workers in this field are Castelnau and Ducrest, who obtained the following results from injecting into animals such substances as milk, urine, semen, putrefying fluids, pus, metallic mercury, etc. *a*. Visceral abscesses following the injection of other fluids than pus are situated almost always in the lungs; while those induced by pus may occupy various other parts of the body, and may even be met with in them while the lungs continue exempt. *b*. There is no single symptom arising from purulent poisoning which may not be caused by the injection of some of these substances; but this is not the case as regards the combination of the symptoms. *c*. Each category of foreign bodies has its own mode of action. They injected pus into the saphena vein of seven dogs, and of this number five died. In these latter were found either "multiple" abscesses completely formed, or lesions indicative of the incipient stage of such abscesses. They arrived at the following conclusions from their observations. 1. "Multiple abscesses are due to an altered condition of the blood, which is most frequently, and perhaps always, produced by the presence of a foreign principle in this fluid." 2. "In those abscesses which are developed in the puerperal state, after traumatic lesions, surgical operations, or phlebitis, this principle is pus." 3. "When abscesses are developed in certain other diseases, the principle is that which gives rise to the disease itself." 4. "The progress, prognosis, and treatment of these abscesses depend entirely upon the nature of the cause which has produced them."

In the next place, Sédillot obtained the following results from forty-five experiments on dogs. After the single injection of 61.736 grains (Troy) of pus, the animals recovered. After inoculation with 231.510 to 308.680 grains of pus, the animals also recovered, but suffered with much more severe symptoms. After the injection of fœtid pus, they recovered; but a much smaller amount than that last stated was fatal. This he ascribed to the fœtidity of the fluid. Sédillot observed also that inoculation with diluted chyme produced very analogous, and, when in equal quantities, perhaps even more serious, symptoms. In two instances, putrid water was injected, and both terminated fatally. In three instances, he injected pus diluted with water, and these died. Into three more animals he injected the serum of putrid pus, and these died from gangrenous lesions in the lungs. Four others had serum of pus (not putrid) injected into their veins, and of these three terminated fatally, one showing distinct metastatic abscesses. Blood and its serum were injected separately by Sédillot, and induced severe symptoms; but only in one instance caused death. He found further that the insertion of the septic fluid into the mesenteric veins gave rise to exactly the same appreciable changes as when it was injected into the jugular vein—"the liver seeming to offer no obstacle to its passage to, and arrival at, the lungs." Sédillot considers that there are "two distinct diseases, though connected by some appearances in common: the one is determined by the solid elements of the pus; the other, by the putridity of some animalised substance." He holds that the products of the putrefactive alteration of pus do not induce pyæmia, but give rise to gangrenous affections (septicopyæmia). He sums up his conclusions thus. 1. After single injections of pus (into a vein), animals, if previously healthy, usually recover; but this is not invariably the case. 2. The simple inoculation with pus of the tissues surrounding a vein is followed by slight local suppuration, the blood remaining unaffected in the adjacent vessels; no change results from the application of pus to the edges of wounds in venous trunks, although, in these experiments, some pus-globules probably pass into the circulation, and the wounded veins are repaired in the usual manner. 3. Repeated injections of small quantities of pus are usually followed by secondary deposits. 4. If the animal be healthy, the secondary appearances pass off. 5. Secondary abscesses can be induced by injections repeated at intervals in animals constantly enfeebled by disease. 6. Similar results follow the injection of many other substances besides pus. Lastly, remarks Sédillot, it happens sometimes that pus, and it is only of pus the fact has been noted, slips by one set of capillaries.

Another experimental observer to whom we would refer is Mr. Henry Lee. He concluded from his experiments that "the introduction of pus into the system through an injured or inflamed vein can rarely be the first step towards purulent infection of the system. Some change must have previously passed in the blood, by which its coagulating power is impaired, or some unusual mechanical means must have been employed, before the pus can find its way into the circulation. It would appear, therefore, that there are two principal conditions under which local disease can produce a general infection of the system: the first of these is connected with defective union in injured veins; the second is associated with want of healthy adhesion in inflamed lymphatics."

Gaspard found that many substances which he introduced into the circulation produced no effect on the coats of the veins which they traversed; and yet the general symptoms were precisely similar to those arising from genuine phlebitis. He found that greasy fluids, and such as contained sediments did not readily make their way from the small arteries into the veins. Some clear fluids, on the other hand, as solutions of tartar emetic, of opium, or of nux vomica, when introduced into an artery, passed readily into the course of the circulation, and produced their full effect upon the system without irritating the blood-vessels through which they passed. An infusion of tobacco, a solution of acetate of lead, putrid fluids, etc., Gaspard observed, did not offer in themselves any mechanical impediment to the circulation of the blood, and *did not produce the same constitutional symptoms when injected into an artery as when thrown into a vein;* but they all excited violent local irritation in the parts to which the branches of the injected artery were distributed, and the constitutional symptoms were due to the local irritation. He noticed that the injection of putrid matter into the blood-vessels of living animals "sets up inflammation of the whole alimentary and respiratory mucous membranes," and explained thus the occurrence of diarrhœa and pneumonia in cases of septicæmia. Gaspard further injected into a dog's vein the blood of another dog which had died from inoculation with putrid matter, and succeeded thus in inducing blood-poisoning. "It is certain," he says, "that putrid substances injected into the veins affect the general mass of the blood, notwithstanding their successive passage and their filtration through the two systems of the lungs and other organs. It is evident that putrid fluids injected into the jugular vein circulate through the whole body, and are not arrested in the capillaries, like mercury, fat, oil, viscid substances, and powders." (*Vide* Braidwood, *On Pyæmia*, page 230.)

The experimenters whose observations next require notice are Magendie, Leuret, and Hammont. They concluded from their researches that putrid animal and vegetable fluids, when introduced into the cellular tissue or injected into the blood, produced symptoms very similar to those of typhus and yellow fever; and that dogs confined over and breathing the effluvium proceeding from decaying animal and vegetable matters experienced similar symptoms and the same alterations of the blood, of the secretions, of the excretions, and of the viscera, as are observed in yellow fever. Leuret induced charbon in horses by placing under their skin and by injecting into their veins the blood of horses which had died from this disease. (Copland's *Dictionary of Practical Medicine*, page 193.)

Abscesses in the lungs, and in one instance purulent pleurisy, were found by Batailhé in "dogs into whose veins pus had been injected, provided the animals were not poisoned in a few hours after the injection of the pus." After making manifold experiments, he concluded

that "putrefied pus, mixed with the blood in very small doses, produces metastatic abscesses, provided the pus be injected in small quantities, so as not to kill the animals at once, and to allow their living long enough for the formation of the abscesses." (BRITISH MEDICAL JOURNAL, October 3rd, 1863, page 377.)

Braidwood (*Astley Cooper Prize Essay*, 1868, page 235) endeavoured to induce pyæmia in animals by the intravenous injection of various solutions, and drew the following inferences from his experiments. 1. Yeast gives rise to the same symptoms, and produces like results with other foreign bodies injected amongst the living tissues of an animal—namely, local irritation terminating in sloughing. 2. Though exposed to the injurious influences of pus and of unhealthy suppuration, animals are not necessarily infected from this source with the constitutional condition termed suppurative fever. 3. The intravenous injection into an animal of a small quantity of pus from a pyæmic patient might induce a state like that termed suppurative fever. 4. But even if the symptoms (as far as such are recognisable in animals) and the pathological alterations we have described as characteristic of pyæmia could be thus (experimentally) produced in animals, it would still be unwarrantable to assert that the disease thus induced, and that met with in the human subject, are identical.

G. Clementi and G. Thin (*Wien. Med. Jahrb.*, 1873, page 292, instituted experiments "for the purpose of comparing the results of inoculation with healthy and putrid blood; of seeing whether the blood of animals infected by putrid inoculation would produce the same condition in other animals; and of discovering how small a quantity would produce such a condition, and whether the septic power of the blood might be modified by dialysis, boiling, etc." Among 123 rabbits and guinea-pigs experimented on, of 23 rabbits inoculated with healthy blood, only 4 died; of 68 inoculated with blood taken from artificially infected animals, 54 died; and of 23 rabbits inoculated with putrid blood, 11 died. They found that "boiling had very little effect, and dialysis none, in modifying the septic power; while, in the case of animals inoculated with blood which had been previously distilled or digested in alcohol, no death occurred. The necropsies in the fatal cases showed suppurative infiltration of the skin and subcutaneous tissue in the neighbourhood of the punctures; in addition to the presence of ordinary pus-cells, they found countless large and small, round or irregular, granules, as to whose nature they express no opinion. In some instances, there was swelling, and in one ulceration of Peyer's patches."

Orth (*Untersuchungen über Puerperal Fieber*, in Virchow's *Archiv*, Band lviii) "finds numerous micrococci, but no bacteria, in the peritoneal fluid in cases of puerperal fever. Injection of this fluid into the abdomen of animals was followed by similar results, so far as inflammation and the presence of organisms were concerned."

Puky (Virchow's *Archiv*, Band lxix, lxx, page 331) experimented on rabbits, and used the yolk of egg as his septic medium, believing this to be purer than putrefying blood or muscle, and the like. The yolk, freed from albumen, was placed in a carefully cleaned dish, covered, and not in contact with the air. None of the animals were killed after experimentation; the septic fluid was examined microscopically, and shown to contain "fat-cells, crystals, and globules, more or less actively moving vibriones, minute molecules, and globules seldom forming groups (colonies)." He groups his experiments as follows. 1. Those injected with an emulsion of fresh yolk in salt water, gave no results; all recovered. 2. Those injected with yolks two to four weeks putrid, as emulsion or as watery supernatant fluid. 3. Those injected with emulsion from yolks, which had stood four to sixty days, filtered through fine cloth or through paper. From these three groups of experiments, Puky learned that only one death resulted from the subcutaneous injection of putrid yolk emulsion; while all the animals (except one) died when this was injected into the veins in like amount and of like quality. The animals which recovered showed local inflammations, diarrhœa, and wasting. When the septic fluid used gave an acid reaction, death occurred during or soon after injection, and in several instances; whereas, when it gave a neutral reaction, death took place in two instances only. Two of the animals forming the third group (one of which died in twenty hours and the other in three minutes after injection into the jugular vein) showed colonies of micrococci in the viscera. The septic fluid used in these two instances had been putrefying from four-and-a-half to five weeks, and was acid. This fluid produced micrococcous infiltration, even after standing for six weeks; whereas, after standing six days, it was poisonous, but did not produce micrococci in the poisoned animal. "*Poisoning and the development of micro-organisms do not conceal each other, but poisoning may take place without the formation of micrococci.*" 4. Putrid emulsion, which had been boiled once or twice, and filtered once or twice. By boiling were produced, not only shrinking of the albumen, but also chemical changes, which might affect the virulence of the fluid. The potency of the emulsion was less as the boiling was longer. Five to ten minutes of boiling postponed death for three-and-a-half days, but did not destroy the power of producing micrococci in the animal. Boiling for an hour destroyed the septic property of the fluid. The entrance of putrid substances into the living body produced *(a)* poisoning by means of bodies resulting from the disintegration of organic substances (putrid or septic infection); *(b)* the alterations which arose when the micro-organisms concerned in putridity grew and increased in the living body (micrococcic infection). These experiments proved that the latter resulted only when the emulsion used had been putrefying for some weeks; when it was only a few days old, putrid poisoning alone took place. The acid reaction seems unfavourable to germ-growth, while the putrid poison was (according to these experiments) most active during acid reaction. Micrococci were only developed in animals when emulsions which had putrefied by themselves were used, not when the yolk had putrefied from something added, and had been emulsified just before the experiment. The dilution, and perhaps also the larger exposure to air during emulsion, seem to influence germ production. 5. The last form of emulsion, mixed with glycerine and filtered through paper.

A. Hiller mixed glycerine with putrid solutions, especially those from the blood of poisoned animals, and found these mixtures very efficacious—so that glycerine is very useful for the reception of the septic poison, as well as for the extraction of certain ferments. Puky's researches do not coincide with Hiller's. The latter mixed putrid yolk emulsion with glycerine, filtered them, and injected two-and-a-half cubic centimètres of this mixture subcutaneously into one rabbit, and into the veins of another, producing no effect. Among Puky's experiments, almost all the fatal cases occurred in those where injection into the jugular vein was used, while only three infected by the method of subcutaneous injection succumbed.

Chauveau, who, for many years past, had been studying the mode of action of the infective products of virulent inflammation, recently instituted experiments to show the effects of introducing the infective fluid into the arterial blood-stream. The infective liquid was obtained from subcutaneous suppuration produced by setons. In fourteen of the twenty animals experimented on (horses and asses), this infective fluid "produced either a transitory swelling, or an abscess; but, in the remaining six, a diffuse gangrenous suppuration," which became fatal in four instances. It was observed that, throughout the series, there existed a "complete correspondence between the intensity of the transmitted inflammation and that of the primary inflammation from which the infecting liquid was obtained." As regards the pathological lesions found after death, in this series, Chauveau found in one instance "infective foci of inflammation in the lungs"; but "in general the lesions were confined to the area of distribution of the artery into which the infecting agent was introduced." (*London Medical Record*, January 15th, 1876.)

In December 1872, Davaine communicated to the Académie de Médecine the following results from his experimental inquiry. "Putrefied blood, injected into guinea-pigs and rabbits, does not kill more than half of the animals operated on, when the quantity injected is less than one drop. But, by the injection of a minute portion of the blood of animals that have died from septicæmia, the toxic power increases; and this to such a degree, that blood, taken from animals of the 25th series of experiments, is able to kill in the injected dose of one trillionth of a drop." The septicæmic virus, he found, was gradually destroyed during the putrefaction of the animal it has killed. Davaine's observations have been confirmed by Vulpian, H. Bouley, and Stricker. That the septicæmic poison acquires wonderfully increased power when transmitted through living animals, has been since noted by Stricker, Burdon Sanderson, and Koch.

Onimus (*Gaz. Hebdom. de Méd. et de Chirur.*, March 7th and 14th 1873) concludes, from his experiments with putrid and with septicæmic blood, that "bacteria are not the causes of the propagation of putrefaction or of the septic poison." The poison of septicæmia he considers to be *a non-dialysable substance*. In this last observation, Onimus is opposed to Stricker.

Dr. T. E. Satterthwaite (of New York) publishes the following conclusions, derived from experiments instituted by himself and Dr. Curtis. 1. Putrid matter, when introduced into the system, is capable of inducing a well-marked train of symptoms, which are extraordinarily like those generally known as sepsis. 2. The poisonous quality does not reside in the absolutely clear liquid, when entirely freed from granules. 3. The poison is sometimes separated by coarse methods of filtration—that is, through ordinary filtering paper—though on this point the results were not sufficiently uniform to establish certain conclusions. 4. Continuous boiling and evaporation to dryness will not destroy the poison. 5. Continued boiling and evaporation to dryness, and boiling thereafter with absolute alcohol, will not destroy the poison. 6. The

dry alcoholic extract, freed from alcohol by evaporation with heat, was poisonous. (The liquid alcoholic extract furnished uncertain results.) 7. Of putrid matter which, after several filtrations, was boiled down to dryness, then boiled with absolute alcohol, again dried and extracted with water, the filtrate was poisonous. 8. This aqueous extract failed in a number of instances to produce bacteria under circumstances favourable for their development; and hence the granules, which are the bodies most likely to represent the poisonous principle, appear not to be bacteria nor their spores. (*London Medical Record*, January 15th, 1876.)

F. A. Kehrer (*Versuche über Entzündung und Fieber-erregende Wirkungen der Lochien*, in *Centralbl. für die Med. Wissen.*, January 15th, 1876) states that the subcutaneous injection of lochia, from healthy parturients into rabbits, excited always severe inflammation, and increased growth of connective tissue; and that lochia, in a few days later, produced great abscesses, which could not be distinguished from those induced by putrid lochia of an earlier date. Lochia, of the fourth to the sixth day, killed the animals with the symptoms of inanition. The temperature rose somewhat (but this varied), and sank before death. Inoculation of the parturient herself on her legs, with lochia of the third day, was always followed by an inflammatory process at the site of puncture. Kehrer concludes, from his experiments, that this philogistic character of lochia explains the febrile state met with so commonly after parturition. Fever is avoided by the abrasions and wounds produced during labour having become granulated, and covered with a film, before the lochia had become infective—that is, before the third day. In practice, he says, it must be borne in mind that the lochia of every woman is infective; and that any means or procedures which cause wounds or abrasions of the mucous membrane are to be regarded as dangerous and to be avoided.

We will state shortly, in the next place, the results obtained by a committee appointed by the Pathological Society of London (*Transactions*, vol. xxx, 1879).

The observations detailed in this report were based on clinical study. The reporters state that at present the terms septicæmia and pyæmia are used in a confused manner which prevents definite results being obtained. Under each of these names they have classed two affections, "one which is not infective, and in which the poison does not multiply in the organism, and another in which a true general infective process is established." "There may be a local thrombosis, with decomposition and disintegration of the thrombus, followed by embolism, causing local abscesses in the viscera only, which cause the death of the patient; or there may be a true general infective process, the local manifestations of which are congestions, inflammations, and suppurations disseminated through the body, both in the viscera and elsewhere. At the same time, there is nothing improbable in both these conditions co-existing in one patient." Further, in almost every case reported, the secondary disease (septicæmia or pyæmia) arose "in connection with decomposing discharges." "Microcytes were rarely seen" in the blood; the "white corpuscles were greatly in excess;" but neither classes of corpuscles showed any alteration in appearance or contour. Bacteria of different forms were found in some instances in the blood. In a large number of cases, micrococci were detected in many of the viscera, nearly always in blood-vessels, and chiefly in capillaries, but "their distribution is most unequal." Bacteria were found in three instances, in one case in the kidney, in another in the heart, and in the third case in both kidneys and heart; but this appearance may have been of *post mortem* origin. "In almost all the tissues, the endothelium of blood-vessels has been found detached to a greater or less extent from the walls of the vessels." "Frequently, the deeper layers of the intima were much hypertrophied." Thrombi were very common in the veins, leading frequently to minute abscesses in various organs.

We have, lastly, to refer to the recent important contributions of Drs. Koch (New Sydenham Society Series for 1880) and Sternberg (*National Board of Health Bulletin*, April 30th, 1881).

Koch (*Investigations into the Etiology of Traumatic Infective Diseases*) found that at first he obtained perplexing results, due to his methods for examining the tissues being imperfect. By a new and beautiful mode of staining and illuminating specimens, he at last overcame this difficulty. He says (page 64): "In the materials used for inoculation, bacteria were without exception present, and in each disease a different and well-marked form of organism could be demonstrated. At the same time, the bodies of those animals which died of the artificial traumatic infective diseases, contained bacteria in such numbers that the symptoms and the death of the animals were sufficiently explained. Further, the bacteria found were identical with those which were present in the fluid used for inoculation; and a definite form of organisms corresponded in every instance to a distinct disease. These artificial traumatic infective diseases" he considers to "bear the greatest resemblance to human traumatic infective diseases, both as regards their origin from putrid substances, their course, and the result of *post mortem* examination." Koch observed that "a definite pathogenic bacterium—*e.g.*, the septicæmic bacillus—cannot be inoculated on every variety of animal" (a similar fact is also true with regard to the bacillus anthracis); and hence the septicæmia of mice, rabbits, and man, are not, under all circumstances, produced by the same bacterial form.

The most important conclusions drawn by Koch, from his experimental inquiry, are these. *a.* "A distinct bacteric form corresponds to each disease, and this form always remains the same, however often the disease is transmitted from one animal to another. Further, when we succeed in reproducing the same disease *de novo*, by the injection of putrid substances, only the same bacteric form occurs which was before found to be specific for that disease." Each form of bacterium is "distinctly characterised by its physiological action, by its conditions of growth, size, and form, which, however often the disease be transmitted from one animal to another, always remains the same, and never passes over into other forms, *e.g.*, from the spherical to the rod-shaped." He says: "One has it completely in one's power to cultivate several varieties of bacteria together, to separate them from each other, and eventually to combine them again;" so much so that when, in examining a traumatic infective disease, several different varieties of bacteria are found, as, *e.g.*, chains of small granules, rods, and long oscillating threads, we may conclude that "we have to do with either a combined infective disease—that is, not a pure one—or, what is more probable, an inexact and inaccurate observation." *b.* The number of the species of pathogenic bacteria is limited; for, "of the numerous diverse forms present in putrid fluids, one, or but few, can, in the most favourable cases, develop in the animal body. Those which disappear are, for that species of animal at least, not pathogenic bacteria. If, however, as follows from the foregoing, there exist hurtful and harmless bacteria, experiments performed on animals with the latter, *e.g.*, with bacterium termo, prove absolutely nothing for or against the behaviour of the former—the pathogenic—forms." *c.* "In all my experiments", says Koch, "not only have the form and size of the bacteria been constant, but the greatest uniformity in their actions on the animal organism has been observed, though no increase in virulence, as described by Coze, Feltz, Davaine, and others. For the first infection of an animal, relatively large quantities of putrid fluids are necessary; but, in the second generation, or at the latest in the third, the full virulence was attained, and afterwards remained constant. If one inject a large amount of the septic poison, and a large number of that variety of bacteria which increases locally, but only a very small number of the bacteria (bacilli) which pass into the blood, the first animal experimented on will die, as a result of the preponderating influence of the first two factors, before many bacilli can have entered the blood and multiplied there. Of the blood of this first animal, containing, as it does, proportionately very few bacilli, one-fifth to one-tenth of a drop must be inoculated, in order to convey the disease with certainty. Into this second animal, however, only the bacilli are introduced, and develop undisturbed in the blood. For the infection of the third animal, the smallest quantity of this blood which can produce an effect is then sufficient; and, after this third generation, the virulence of the blood remains uniform." The anthrax bacilli have this advantage, that, "provided they be inoculated in considerable numbers, they kill even within twenty hours, while the septicæmic bacilli only destroy life after fifty hours."

Lastly: Dr. G. M. Sternberg, in a special report to the National Board of Health in America, describes "a fatal form of septicæmia in the rabbit, produced by the subcutaneous injection of human saliva" (Baltimore, 1881). He has demonstrated the following facts by repeated experiments. 1. His own saliva, "in doses of 1.25 cubic centimètres to 1.75 cubic centimètres, injected into the subcutaneous connective tissue of a rabbit, infallibly produces death, usually within forty-eight hours." 2. One cubic centimètre of his own "blood failed to kill a rabbit; one cubic centimètre of putrid urine, containing bacterium termo in abundance, failed to kill a small rabbit; one cubic centimètre (each) of liquid fæces and distilled water (1 to 10), failed to kill two rabbits; 1.25 cubic centimètres of bouillon, undergoing putrefaction and loaded with bacterium termo, failed to kill a rabbit; one cubic centimètre of sediment from Baltimore water," rich with organic *débris* and organisms, failed to kill a rabbit. 3. "The saliva of four students, residents of Baltimore (in March), gave negative results; eleven rabbits, injected with the saliva of six individuals in Philadelphia (in January), gave eight deaths and three negative results; but, in the fatal cases, a less degree of virulence was shown in six instances by a more prolonged period between the date of injection and the date of death." 4. As regards the susceptibility of different animals to this

form of septicæmia, Dr. Sternberg found that the subcutaneous injection of four cubic centimètres of virulent human saliva "into each of two small dogs produced local abscesses at the point of injection, but no other noticeable result. Injection of 0.25 cubic centimètre (each) into five chickens produced no result. Injection of 0.75 cubic centimètre (each) into three guinea-pigs proved fatal to two—one in three and one in seven days. Injection of 0.5 cubic centimètre (each) into five rats resulted fatally to one only." 5. "The course of the disease, and the *post mortem* appearances, indicate that it is a form of septicæmia." There is rise of temperature, with a subsequent fall, loss of appetite, and marked debility, the animal dying commonly during the second night after experimentation. The most marked pathological lesions found are: diffuse inflammatory œdema, or cellulitis, extending from the point of puncture; and, in the subcutaneous connective tissue, a "quantity of bloody serum, which possesses virulent properties, and which contains a multitude of micrococci." 6. "The phenomena detailed result from the presence of a living organism found in the saliva—a micrococcus—which multiplies abundantly in the subcutaneous connective tissue, and also in the blood, shortly before or after death." This micrococcus is considered to be "identical with the micrococcus septicus of Cohn, and with the organism found by Pasteur in the 'new disease' described by him" in *Comptes Rendus de l'Académie des Sciences*, 1881, tome xcii, p. 159. 7. As regards the physical characters of this septic fluid, Dr. Sternberg finds it to be particulate; the virulence of the saliva is destroyed by boiling; the saliva loses its virulence when kept for twenty-four hours in a culture-chamber, at a temperature of 37° C. (98.6° Fahr.); the addition of one part of a ten per cent. solution of carbolic acid to two parts of saliva destroys its virulence; the effused serum from the subcutaneous connective tissue of a rabbit recently dead, produces death attended with the same phenomena as resulted from the injection of the saliva in the first instance; this serum loses its virulence by filtration; the micrococcus present in the serum from the connective tissue of a rabbit which has succumbed to a subcutaneous injection of saliva, may be cultivated in *bouillon* made from the flesh of a healthy rabbit, or in blood-serum obtained from a healthy dog, and these fluids thereby acquire a virulence which they did not have before; successive cultures in which but a small drop is taken each time to inoculate a fresh quantity of *bouillon*, exclude the white and red blood-corpuscles as possible agents in the production of this virulence, and prove conclusively that the veritable cause is the presence of a micrococcus, found first in the saliva, then in the serum from the connective tissue, and (usually) in the blood of the animal killed by the injection of saliva, and, finally, in each successive culture-fluid inoculated (in the first instance) with a small quantity of this serum or blood. Dr. Sternberg's very interesting *brochure* concludes with a detailed account of the morphology of his septic fluid, and is illustrated by several excellent heliotype prints showing its microscopical characters.

IV.—Concluding Remarks.

In bringing to a close our work on contagium, we desire to tender our sincere thanks to the Science Grants Committee of the British Medical Association, without whose monetary assistance we could not have ventured. The work is in many respects unfinished, and we leave it at an imperfect stage; still we have obtained definite results. Starting with the threefold inquiry—1. What is contagium? 2. In what manner is it generated or communicated? 3. What are the conditions on which its life or activity depend?—we endeavoured, by means of that typical contagium, vaccine lymph, to obtain positive replies. As regards the nature of the vaccine contagium, our experiments confirmed the conclusions previously arrived at by M. Chauveau and Dr. Burdon Sanderson, and added thereto. From our researches on measles, it would appear that the contagium of this affection also is associated with albuminoid particles. Then, by careful microscopical investigation of the changes induced in the tissues by the contagium of vaccinia, variola, scarlatina, measles, and septicæmia, as seen in preparations removed from the living subject and after death, we have been able to demonstrate and delineate structural changes effected. We have further shown that, in vaccinia, the contagium-particles, when in contact with the cellular elements, propagate by a process of germination. Thus have been obtained partial answers to the first and second inquiries. Again, by inoculating animals with a healthy human secretion, we have obtained pathological appearances resembling those of septicæmia in man. Perhaps the most practical part of our research refers to the conditions influencing the life or activity of contagium—how it is affected by heat, cold, desiccation, dilution, and exposure to certain gases, vapours, liquids, and solids. We have abundant evidence that this portion of our labours has proved useful to many. We appreciate, also, the opportunity afforded us, in our brief *résumés*, of giving the profession, in a concise form, the views and results of other observers.

REMARKS
ON
THE TREATMENT OF GUNSHOT-WOUNDS OF THE ABDOMEN IN RELATION TO MODERN PERITONEAL SURGERY.

By J. MARION SIMS, M.D., LL.D., etc.

[*Continued from page 223 of last number.*]

Occasionally, wounds of the abdomen above the brim of the pelvis recover; but it is always when there is a chance for drainage. Dr. Pallen saw a Confederate soldier recover, where a large part of the abdominal parietes was blown off by a bursting shell. The wound was immense, and diagonally across the abdomen. The bowels fell out on the ground, but were not wounded. They were washed clean, returned to their proper place, and the wound was closed as well as possible with strong coarse thread, leaving an open space six inches long and two inches wide, through which the intestines could be seen. They were retained *in situ* by compress and bandage, and the man eventually recovered without a single drawback. He recovered because the intestines were not injured, and because there was drainage. This was a case in which we might have supposed there was danger of peritonitis; but peritonitis and free drainage are antagonistic.

Dr. Newall of New Brunswick, New Jersey, reports to me the following interesting case. A large man, with a "full abdomen", shot himself accidentally with a shot-gun in 1847. The charge entered the abdomen an inch below the sternum, and to the left of the median line. Introducing the finger, Dr. Newall plainly felt the left lobe of the liver, and the inner wall of the abdomen. The next day, twenty-nine shot passed the bowels. Three shot made their exit one inch and a half above the crest of the ilium, and three and a half inches from the spine. "An incision was made here into the cavity of the abdomen, and I removed the gun-wad, composed of tow, paper, shot, a printer's type, and a piece of the man's vest—in all, sufficient to fill a tumbler half full. The patient was kept under the influence of opium for several days. He recovered completely, and is now living." In this case, Dr. Newall did, thirty-four years ago, what I now advise to be done in all cases of shot-wounds of the abdominal cavity. His patient was saved by the removal of foreign bodies, and by an opening in the iliac region which permitted free drainage.

Having now brought forward all the facts observed by myself and by personal friends, let us turn to the records of the American Civil War for further facts illustrating this important question.

1. *Wounds of the Stomach.*—There were sixty-four shot-wounds of the stomach, more or less complicated with wounds of neighbouring parts. There was but one well authenticated case of recovery. Other reported cases of recovery were carefully analysed by Otis, and pronounced wholly unreliable.

There were nine cases of bayonet-wounds penetrating the peritoneal cavity without lesion of viscera. Six terminated favourably. Seven had traumatic peritonitis. The diagnoses were not clear in every case.

There were four fatal punctured or incised wounds of the stomach. Five fatal shot-wounds are reported as having survived seven, eight, and nine days; and one forty days. The length of time that these survived indicates clearly how different the result might have been in some of them, if prompt measures had been taken for exploring the seat and nature of the wound; and resorting to gastrorrhaphy, the only rational treatment in such cases. There was not a single case of gastrorrhaphy during the whole war. This is explained by the fact that the stomach does not prolapse through an ordinary bullet-wound; and surgeons did not then dare to enlarge such wounds to investigate the nature and extent of internal injuries.

There were three cases of secondary gastric fistulæ, which terminated fatally. One lived four weeks, another seven weeks, and the third eighty days. Timely interference and gastrorrhaphy would almost certainly have saved all of them.

Considering the facility and comparative safety with which gastric fistulæ are now established by surgical means, it is a little surprising that (according to Otis) we have the record of but two cases which have survived shot-wounds of the stomach for any length of time. The first "is that of Maillot, wounded in Möllendorf's repulse of the French at Kaiserslautern, in May 1794. In this little known, but

authentic case, recorded by Baron Percy, the fistula gradually contracted, and ultimately closed". The other is the well known case of Alexis St. Martin, made famous by Beaumont, who, nearly fifty years ago (1833) published an account of the digestibility of various articles of diet as observed in the stomach of St. Martin. Beaumont states that St. Martin, a Canadian, of French parentage, was about eighteen years old when wounded (June 6th, 1822) at Fort Mackinan, where Dr. Beaumont was stationed as surgeon to the post. As St. Martin died only a few months ago, he survived his anomalous injury about fifty-nine years.

Dr. Otis sums up wounds of the stomach in the following words. There were "four fatal punctured or incised wounds; one incontestable recovery from a shot perforation; a few recoveries from shot-wounds in the gastric region, in which the diagnoses were not determined unequivocally; and nearly sixty fatal cases of more or less complicated shot-wounds of the stomach".

The records of military surgery (according to Otis), from its earliest period to the present time, furnish but six or seven well-authenticated cases of recovery from shot-wounds of the stomach, with or without fistula. To this list must now be added another example of recovery from undoubted shot-wound of the stomach. It is the case of the distinguished gynæcologist, Dr. R. Beverley Cole, of San Francisco. I have just received a letter from him, dated London, January 17th, 1882, detailing the following particulars. Dr. Beverley Cole, at the age of twenty-five, resided in San Francisco, where he had suffered from repeated attacks of intermittent fever. When just recovering from one of these, he left his house, on June 3rd, 1854, without taking breakfast; his stomach was therefore empty. Whilst in the act of packing his trunk, preparatory to making a visit to the country, a Colt's six-inch revolver (old pattern) fell from his inside breast-coat pocket, the body being bent over the trunk at the time; and, the hammer of the pistol striking the edge of the trunk as it fell, the cap was exploded, and the ball entered the breast—the muzzle being not more than eight inches from the body. He did not fall, but, raising himself up, he tore open his vest and shirt, and saw that he was wounded. Syncope occurring, a friend caught and laid him on a sofa near by. When consciousness returned, he found himself surrounded by a number of his medical friends, amongst whom were Drs. C. S. Tripler and H. S. Hewitt, of the United States army; and Drs. Valentine Mott, jun., A. B. Stout, and Charles Bertody. He was totally blind, but recognised them all by their voices. He heard Dr. Tripler say to his comrades: "Never mind the ball; it can be sought for at any future time. We must first bring about reaction." Soon after this, he was suddenly seized with an indescribable pressure in the rectum, and a desire to defæcate. Morphia was administered; sinapisms were applied to the extremities; and ammonia was given internally, in very minute quantities—minute, for fear of its escaping through the gastric wound into the peritoneal cavity. As reaction came on, the sensation in the rectum increased till he vomited nearly a wash-hand bowlful of blood, black and partially coagulated. It was estimated by the attending surgeons to be from a quart to a half-gallon, or more. This gave some relief. But the rectal pain and tenesmus were not completely relieved till he was brought fully under the influence of morphia. As he lay on his back, his clothing was all cut away without turning him on either side, and he was then placed in bed. The collapse was very complete, and several hours elapsed before reaction was fully established. During all this time, he could not see; but, from the conversation of the surgeons, and from the frequency with which they examined the cardiac region, he inferred that death was imminent. The sinapisms were forgotten, and were not removed for four or five hours; and they produced sloughing ulcers, which were nearly twelve months in healing. When reaction was fully established, Dr. Tripler passed the end of the little finger along the track of the ball, through the conjoined cartilages of the seventh and eight ribs—an inch and a half to the left of the median line of the ensiform cartilage. He then passed a probe along it into the stomach. The lodgment of the ball was not discovered for two weeks or more later. It was then found between the eleventh and twelfth ribs on the back, two inches to the left of the median line. This showed that the course of the ball was directly through the body—the difference between the parallels of entrance and exit being due to the difference between the bent and the erect posture.

For three weeks, he was nourished by the rectum. Beef-tea was thus given every three hours: at first one ounce, then two, then three, and finally four ounces. During this time, a small quantity of beef-tea was given by the mouth; but it produced such severe pain, as it entered the stomach, that it was not soon repeated. Small lumps of ice were allowed to quench the thirst produced by the morphia, which was given in half-grain doses three or four times a day, or whenever needed. On the twelfth day, the bowels were moved by enema. On the twenty-first day, he was removed to his own home. He then began to suffer from severe paroxysms of pain in the back, which were so intense as to obstruct respiration. They continued without abatement for three weeks. Dr. Tripler then removed the ball, and they ceased. He was confined to bed six weeks. When he got up, it was discovered that the left shoulder was lower than the right, the result of a constrained position while in bed; and there was a dragging sensation in the gastric region, not only disagreeable, but quite painful, as if the stomach had formed unnatural adhesions. On account of these disabilities, he was compelled to go on crutches for two years before his body attained its natural erect manner of carriage.

The posterior wound closed in a few days after the removal of the ball; but the anterior wound did not close for four years, which was doubtless due to the injury of the cartilages, which are always tardy in reparation. For many years, an ordinarily hearty meal (in consequence of adhesions between the stomach and contiguous parts) produced a dragging uneasy sensation, which rendered life very uncomfortable.

Recovery was eventually complete; and no one now would suspect that he had ever been the subject of such a serious accident. A peculiar feature of the case was total loss of vision for three days, during which time he could not distinguish daylight. There can be no doubt that the ball in this case perforated the stomach. The large quantity of blood vomited, soon after the wounding, establishes the diagnosis beyond question. From the point of entrance and direction of the ball, it must have passed through the stomach, below the lesser curvature. As the ball was very small, the wound of the stomach was likewise very small: hence there was less probability of gastric effusion than if the ball had been larger. But recovery was chiefly due to the fact, that the stomach was quite empty at the time of the accident. If it had been even partially full, there would have been effusion into the peritoneal cavity, followed by certain death.

The history of Dr. Beverley Cole's case was published in the *Detroit Medical Journal*, in 1855 or 1856, by Dr. C. S. Tripler, United States Army. But, as Dr. Otis insinuated, in a note in the *Surgical History of the War* (Part II, "Surgery"), that the case was not incontestably one of wound of the stomach, I place it on record here that others may judge for themselves.

2. *Wounds of Small Intestines.*—Of about six hundred and fifty cases of penetrating wounds of the abdomen, during the war, fifty were of the small intestines; eighty-nine of the large intestines; and over five hundred in which the location of the wound was not discriminated, or was complicated with other lesions. Very few sword or bayonet wounds of the abdomen came under treatment; but a number of such injuries were observed amongst the slain on the field of battle. Wounds of the small intestines are more frequent than those of other portions of the alimentary canal, and are attended with higher mortality. They are more exposed to injury, being less protected by bony structure than other viscera. The ileum is most exposed, the jejunum less, and the duodenum still less. Wounds of this portion of the canal are regarded as almost necessarily fatal. Of shot-wounds of the small intestines during the war, Otis says: "It may still be doubted if an incontestable instance of recovery was observed." There were five cases of wounds of the duodenum, all complicated with wounds of other organs. They all died. One survived eight days; another twenty-four days. If the external wound had been sufficiently enlarged in time, the wounded portions might have been exsected, and the ends sutured, with chance of recovery.

3. *Wounds of Large Intestines.*—Injuries of this group are less fatal than wounds of small intestines. There were a few instances of recovery from shot-wounds of the transverse colon; many after perforation of the cæcum and ascending portion of the bowel; and a still larger number in wounds of the sigmoid flexure and contiguous part of the descending colon. Many of these were complicated with injuries of the innominata. Nearly all resulted in fæcal fistulæ, which usually closed after a while without surgical interference. There were, in all, fifty-nine recoveries out of eighty-nine shot-wounds of the cæcal and sigmoid extremities of the large intestine. Fæcal fistulæ persisted in nine, and were closed in fifty; seventeen within a month, twenty-eight within a year, and five at periods from one to five years. Ten per cent. of all slain in battle die of wounds of the abdomen; and from three to four per cent. of the wounded who come under treatment are wounded in the abdomen.

4. *Wounds of the Bladder.*—Baron Larrey was the first to show that gun-shot wounds of the bladder were less dangerous than those made by puncture or incision; because the tissues are so crushed by the missile, that eschars are produced, which protect the connective tissues from urinary infiltration. There was no case of punctured, incised, or lacerated wound of the bladder in our war. Of one hundred and eighty-three shot-wounds of the bladder, eighty-seven (47.5 per cent.) survived. A

large majority of these suffered from grave disabilities, and many from distressing infirmities, a few of them dying after years of suffering; several recovered, with permanent urinary fistulæ. Some had recto-vesical fistulæ, which closed early in a few, and later in others. However, it is rare to find the functions of the bladder perfectly restored after shot-injuries. Shot-wounds of the bladder are often complicated by the presence of foreign substances in it—such as bullet, bone, or other material—which serve as nuclei for calculous deposits. There were twenty-one cystotomies for the removal of such formations. Many cases died from infiltration of urine into the cellular tissue, and many from extravasation of urine into the peritoneal cavity. Cystorrhaphy, recommended by Legouest, was not practised.

The teachings of Vincent of Lyons, and of Fischer of Buda-Pesth, at the late International Medical Congress, alluded to in the early part of this paper, prove that we may now safely undertake cystorrhaphy in all wounds of the bladder. Abdominal section, and cystorrhaphy, and clearing out thoroughly the peritoneal cavity, are the only means of safety in shot or other wounds of the bladder, where there is urinary extravasation into the peritoneum.

5. *Shot-Wounds of the Rectum.*—One hundred and three shot-wounds of the rectum were reported, of which forty-four (or 42.7 per cent.) resulted fatally. Thirty-four of the cases, of which four were fatal, were complicated with wounds of the bladder. Fæcal fistulæ, after shot-perforation of the rectum, were not uncommon, and were more persistent than cæcal or sigmoid fistulæ. Shot-wounds of the rectum are not so dangerous as those of the upper bowels, but are about on a par with wounds of the cæcal and sigmoid ends of the colon. Hæmorrhage was not a frequent complication of shot-wounds of the rectum.

[*To be continued.*]

ABSTRACT OF LECTURES
ON THE
MORPHOLOGY OF THE MAMMALIAN SKULL.

Delivered at the Royal College of Surgeons of England.

By W. K. PARKER, F.R.S.,
Hunterian Professor of Anatomy in the College.

Lecture I.—Introductory.—On the Vertebrata as a Group, and on the Vertebrate Embryo.

Taking the Vertebrata as a group, we are now able to make a more accurate classification of them than that introduced by Cuvier. This arrangement divided them into (I) Fishes, (II) Reptiles, (III) Birds, and (IV) Mammals. It is now usual to separate those forms which have aquatic respiration, either permanently or for a time during their larval state, from those which never develop gills, but breathe by lungs from the first. The former are also characterised by never developing either amnion or allantois, and are hence called Anamniota or Ichthyopsida.

All the remaining groups of the vertebrates develop both amnion and allantois, and their respiration is pulmonary from the first. These are classed together as the Amniota, which group is again subdivided into oviparous forms—the Sauropsida, including reptiles and birds; and the Mammalia, which develop a placenta as a rule, and nourish their young by means of milk.

Several of the lowest of the Vertebrata proper, such as the suctorial fishes and the ganoids, undergo true metamorphosis after hatching. Certain forms of creatures also, which ultimately breathe air—the Amphibia—undergo a series of structural changes so great, that, whilst they begin life as a form of fish *lower than any we know existing in an adult form*, in the course of a few months are transformed to such a degree, that they have, until lately, been classed with true reptiles—animals which never possess gills, and belong altogether to a higher level.

The researches of von Baer, Reichert, Rathke, and others, laid the foundation of our modern embryology. But it is only during the last twenty years that the important results up to that time arrived at were applied to the testing of the showy but unsafe theories which had been made without the help of this branch of science. This method, however, shows us no royal road to accurate morphological results; without embryology, we had morphology made easy. Now, however, the labours of many hands and much time are required, even to lay the foundations of a true scientific study of the vertebrate form.

The only true test of all morphological theories is the study of development; although a gradational study of the vertebrate forms is very important and instructive, especially if it be made to include the forms presented to us by palæontology, as well as existing forms.

If the palæontological list were perfect, and could be made to take its place as the great and deep substratum of the countless forms belonging to the vertebrates, the gradational study would yield much more light than is possible in its present most fragmentary state. It is impossible to construct a genealogical tree showing the descent of any existing type, because of the loss of countless forms during time. Moreover, a very large proportion of the existing forms of Vertebrata belong to types which have acquired the last degree of specialisation, and are therefore, as far as possible, removed from the simple generalised types from which we suppose they first arose.

Embryology will do very much, though not all, for us. For not only do the lower forms pass through their transformations, some of which are true metamorphoses, but all the higher forms, during their development, pass more or less quickly through stages which are the equivalents of what is persistent in types beneath.

The ovum of Vertebrata presents two important types: 1. Those in which the entire ovum divides into segments, hence called holoblastic, in which case the egg is usually very small, and possesses only a small amount of good yolk; and 2. Those in which only a part of the egg divides up to form the blastoderm, called mesoblastic, these being large, and containing a sufficient quantity of good yolk to nourish the embryo for a considerable time. The fact of two groups possessing the same kind of ovum does not, however, indicate their close relationship; *e.g.*, both Mammalia and the lamprey have holoblastic ova.

The germ of all vertebrates primarily consists of two layers, the epiblast and the hypoblast; and between these another layer, the mesoblast, is soon developed. It is this latter that the subject of these lectures most concerns, as from it is derived the entire skeleton, as well as the muscular, vascular, and urino-genital systems. The epiblast is the source of the entire axial and peripheral nervous system, the organs of special sense, and the epidermis; while the hypoblast gives rise to the epithelial lining of the alimentary canal and its appended glands.

The mesoblast on each side of the vertebral column early splits into two layers—an outer, which applies itself to the epiblast to form the somatopleure; and an inner, which joins with the hypoblast to form the splanchnopleure, the cavity between these being the pleuro-peritoneal cavity. The upper or vertebral part of the mesoblast, lying on each side of the neural axis, also becomes divided transversely into what are usually spoken of as protovertebræ, or mesoblastic somites; and these soon lose their connection with the lower or lateral portions of the mesoblast. Thus each protovertebra contains a small isolated portion of the primitive body-cavity.

This transverse splitting of the mesoblast into somites only extends a very short way into the cephalic region; but the body-cavity proper extends forwards on each side of the pharynx to a point a short distance in front of the mouth.

The outgrowth of the gill-pouches from the hypoblast of the pharynx, which meet and fuse with the epiblast—the gill-slits being formed at their junction—of necessity breaks up the primary body-cavity of this region into a series of head-cavities. These are very transitory, and the cells forming their walls become transformed into the muscles of the face and throat.

The median oval opening is formed by an involution of the epiblast in front of the primitive hypoblastic alimentary canal, into which it comes to open. This secondary cavity is therefore more strictly comparable to the nasal and lacrymal passages—which are also formed as involutions of epiblast—than with the proper respiratory clefts.

The lowest form of gills seen in the Vertebrata is met with for a short time in the larvæ of the Anura, and also permanently in some Urodeles, and in the larvæ of all. These are developed as epiblastic outgrowths from the gill-arches, and are true external gills. In the Anura, these soon give place to hypoblastic gills, which they have in common with all true fishes. In an early condition of sharks and skates, there are long filamentous gills, which, however, are hypoblastic, and not epiblastic in origin.

The number of gill-openings may amount to as many as eight pairs in some of the lower forms; the number lessens as we ascend, until, in the abranchiate forms, they never more than slightly open, the first alone becoming permanent as a tympano-Eustachian cavity.

The limbs belong to the postcephalic region, and are not to be classed with anything in the head. They arise as small outgrowths from the sides of the body, and are comparable to the upper and lower median folds which form the dorsal and ventral fins in fishes.

ANALOGY BETWEEN THE MOVEMENTS OF PLANTS AND THE MUSCULAR MOVEMENTS OF CHILDREN, CALLED CHOREA.

By FRANCIS WARNER, M.D.Lond., M.R.C.P.,
Assistant-Physician and Lecturer on Botany at the London Hospital; Assistant-Physician at the East London Hospital for Children.

If an analogy can increase knowledge, give more precise ideas, or guide observation, it is useful, and not a mere indulgence of the imagination. The analogy between plant movements and muscular movements appears to me to be legitimate. We will examine a few cases of the movements of plants, as demonstrated by Charles Darwin in his work on *The Movements of Plants* (1880). In the oxalis (wood-sorrel) tribe, and in the mimosa (sensitive plant), movements of leaves are seen. In each case, the movements are effected by an arrangement of cells at the junction of the leaf with its main stalk; this group of cells is called a *pulvinus*. The pulvinus is the mechanism by which move-

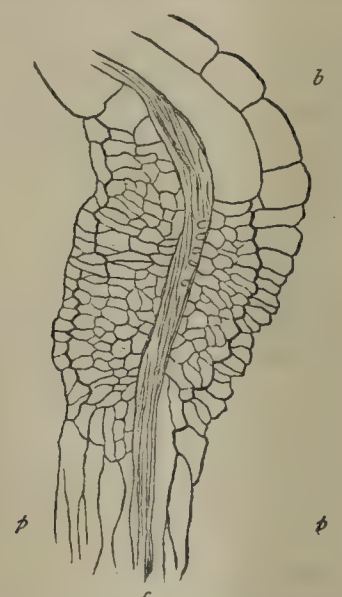

Fig. 1.—After Darwin. Longitudinal Section of a Pulvinus, magnified seventy-five times. *p p*, Petiole, or Leaf-Stalk; *f*, Fibro-vascular Bundle: *b b*, commencement of Blade of Cotyledon.

ment of the leaf is effected; it consists of a mass of small cells, destitute of chlorophyll, and therefore incapable of performing any nutritive function in the plant, or of taking any direct part in the elaboration of its nourishment. This pulvinus is the lower portion of the petiole or leaf-stalk; and the movements of the leaf depend upon its cells, which expand alternately, first on one side, then on the other. Structurally, the pulvinus consists of small cells arrested in their development while still young. These, when turgescent with sap, swell up, thus increasing suddenly the bulk of the structure composed of them; and this turgescence leads to motion only. It is not followed by growth; no nutrition of the plant results from the turgescence. It must be noted that the cells possessing this special function of producing motion only, fulfilling no direct nutritive purpose, are smaller than their neighbours, arrested in their growth, and destitute of chlorophyll. This is the condition of the cells of the pulvinus as long as it is capable of producing movement. In the *oxalis corniculata*, the pulvinus is developed imperfectly and to an extremely variable degree, so that it is apparently tending towards abortion. Its cells contain chlorophyll; that proves they have nutritive functions to perform, as well as the production of movement. These cells are more like the normal cells of the petiole than those usually characteristic of a pulvinus.

In the young seedling plant, the root and seedling leaves (cotyledons) are constantly moving (circumnutating); this movement being due to the order and method of growth of the cells of the part. In many cases, all parts of a plant are constantly moving; and, under special circumstances, this movement may be modified in one direction. Thus, with the sensitive plant, under the influence of light, a rapid movement of the leaf may occur in one direction; such movement being but a modification of the motion constantly occurring in a manner usually imperceptible. These facts are borrowed from Mr. Darwin's book, which is full of such illustrations.

Now, it seems to me, after carefully watching the conditions of spontaneous involuntary movement in children under different circumstances, that a very fair analogy may be made between these movements of plants and the choreic movements of children. If we assume that in the brain of a child there be certain nerve-cells in a condition analogous to the vegetable cells in the pulvinus, they would be smaller than healthy ones, lacking in full development, more liable to turgescence (active determination of blood or nutriment), such turgescence causing the liberation of motor force only, which is transmitted by the nerves to the muscles, the mechanism of movement. The turgescence leads to motion only, not to nutrition. We should, then, expect to see in the patient an excess of spontaneous irregular movement, nutrition being defective. Again, there might be supposed to exist in a child's brain cells analogous to those of the rudimentary cells of the pulvinus of *oxalis corniculata*, apparently passing over, in the stages of development, from the condition of cells above described, to acquire the power of receiving nutrition from turgescence, and thus produce growth and their own specific functions in place of motor power only. In such a case, the brain would become less mobile, less choreic, but more capable of its own proper functions.

Again, if we inquired as to the movements of the primary leaves (cotyledons) of seedling plants, we should see what a large amount of movement the young growing parts produce; how the movement is mostly due to the growth of cells alternately on each side of the leaf—that side on which growth is for the time occurring more rapidly becoming convex; then, as the seat of most rapid growth is transferred to the other side of the leaf, the side of convexity is reversed. Here, then, in the young rapidly growing cellular vegetable organism, without circulatory or nervous systems, spontaneous movement is constantly occurring, owing to that *unknown law which causes the cells to be specially nourished first in one part, then in another*. Many other analogies might easily be suggested between the known action of vegetable cells in causing movements, and the spontaneous involuntary movements produced by the nervous system, which we may observe in children and other young animals. The inference is, that there may be a true analogy between the conditions of life and development of vegetable cells producing movement, and the nerve-cells which produce movement in animals; and that, as in the plant, so in the animal, the arrest of development of cells may cause them to be liable, on stimulation, to produce motion in place of their proper functional effects; and that, in plants and animals, growing young cells often produce much motion.

In children, I have often observed that "the weak and nervous" have much spontaneous finger-twitching; and I described this as one of the physical signs seen in children who suffer from recurrent headaches and associated pathological conditions (British Medical Journal, Dec. 6th, 1879; see also *Brain*, 1881, parts xi, xii, xiv). Such muscular unsteadiness seems very analogous to the movement of young, growing, sensitive vegetables.

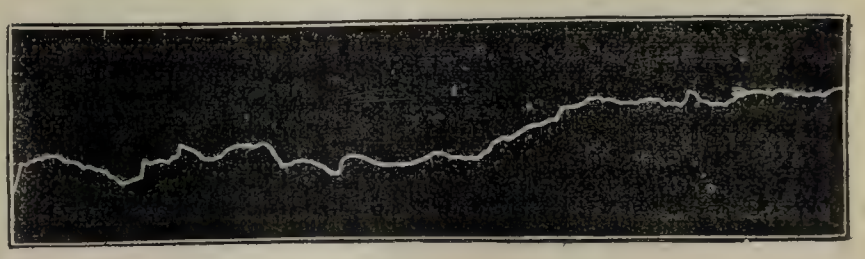

Fig. 2.—Tracing of Involuntary Movements of the Finger in a Nervous Child.

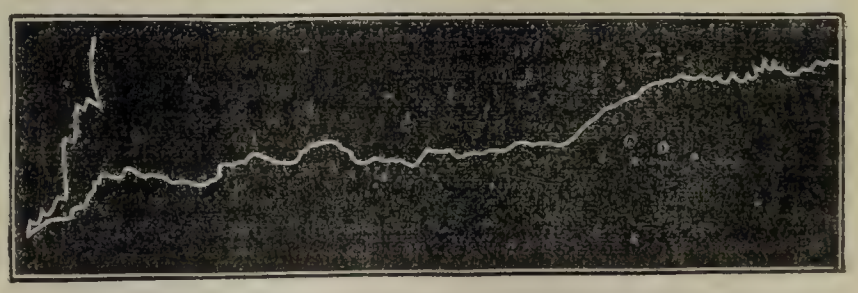

Fig. 3.—Tracing of Involuntary Movements of the Finger in a Nervous Child.

These two tracings indicate the continuous condition of spontaneous muscular unsteadiness of the finger of a nervous child; and the continuous involuntary movement appears analogous to that indicated by the tracing of the movements of some plants. Now, if this analogy between unstable mobile vegetable cells and unstable nerve-cells be legitimate, it should guide us to further useful observations.

To be brief, Darwin's observations show that movement produced by the growth of vegetable cells is constant in the leaves, stems, and roots of many young plants. If the movement of nervous children be produced

by a condition of brain-cells analogous to that of the growing parts of plants or the cells of the pulvinus, it should be liable at times, under certain circumstances, to great exacerbations. Thus guided, I have taken tracings of the finger-movements of nervous children and of those suffering from chorea. Samples are presented here, and seem to indicate the following results.

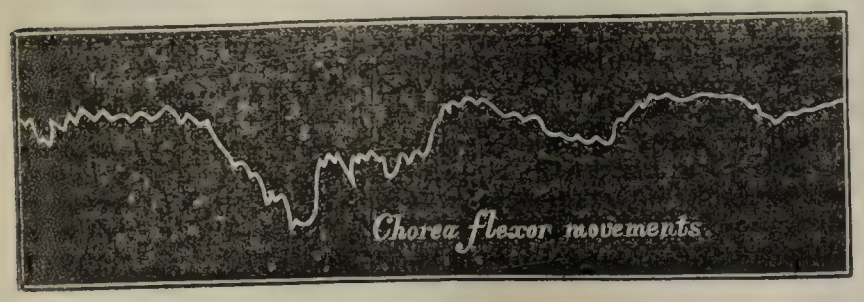

Fig. 4.—Tracing of Finger-Movements in Chorea

1. The movements of chorea are far more frequent and continuous than might be expected from mere inspection of the hands.

2. These movements may be but an exaggeration of the movements of a nervous child, usually present, but often overlooked, tracings of which are given in Figs. 2 and 3.

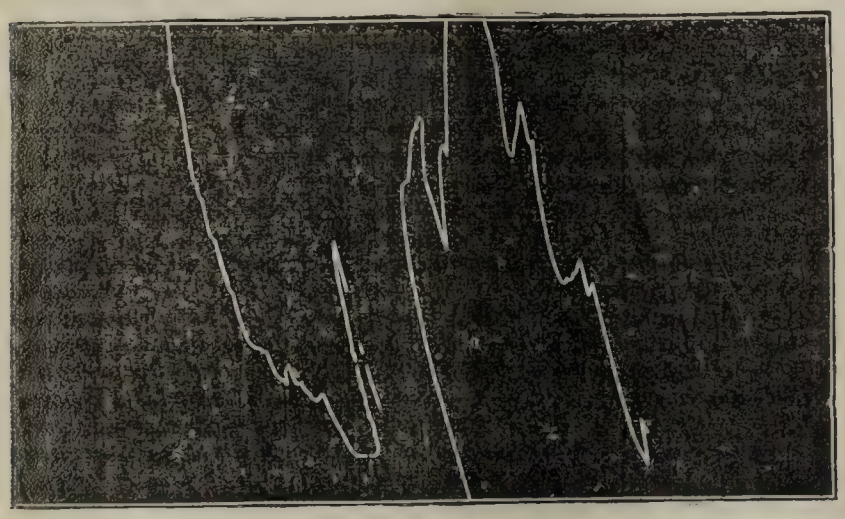

Fig. 5.—Finger-Tracings in Chorea. The twitching movements are compound.

3. The twitching movements of chorea may be compound, each visible twitching being compounded of many of the little movements seen in the other tracings. I have never found such compound tracings in tremors as paralysis agitans.

To prove these points with certainty, numerous tracings from many cases would have to be compared.

As to the treatment of the class of children referred to, the following experiments are very suggestive, and the analogy to the case of children hardly appears to require verbal description. Mr. M. Voss of Streatham has kindly communicated to me the results of his investigations.

Three years ago, some seed of the sensitive plant (*Mimosa pudica*) was set to grow, and at a moist heat of about 90° Fahr. it soon germinated. Before the compound foliage growth had commenced, the seedlings were potted off into different earths and sand. Those planted in a soil of two parts of decayed vegetable mould to one of sand grew more vigorously both in height and foliage than the others; and, after two months' growth, they were much less sensitive than others planted in two-thirds of silver sand and only one-third of leaf-mould. One or two plants were grown entirely in silver sand. These showed extreme sensitiveness to the slightest touch; even a breath of air, or the slightest jerk of the pot in which they grew caused all the foliage to shut up. Those plants having no nourishment beyond the gases in the air or sand soon turned yellow and died. The plants in two-thirds sand and one-third decayed vegetable mould were not so robust or strong as those grown in a greater proportion of vegetable mould. They failed to produce any flowers, and died off at the lower temperature to which all the plants were exposed; whilst those planted in two-thirds vegetable mould and one-third sand fully matured their growth, flowering in a temperature of 50° or 60°, the foliage being of that full green colour denoting the fact that the spongioles of the roots had necessarily been supplied with the various chemical gases in the soil (set free by a due amount of moisture) requisite for producing the continued support of the plants. Their sensitiveness had, at the end of August, almost left them; indeed, after a blow on the leaf with a twig, the foliage would fall, but almost immediately regain its horizontal position.

Many other useful analogies might, I think, be made in this direction; and the subject is one full of interest to all who look upon the conditions of health or disturbance of the system throughout the whole organised world. Among other matters, we might consider the transmission of sensitive impressions from one part of the plant to another; the metamorphosis of parts of a plant according to the functions discharged; the irritability or sensitiveness of plants, which is in some cases far greater than anything seen in man; the production of acid secretions in mobile plants; and numerous other facts easily observed in plants—facts of great interest to the physiologist and pathologist; and in this direction Mr. Darwin's researches, following those of Sachs, are a climax to investigations carried on since the time of Sprengel; facts which Sir James Paget would have us apply to the study of human pathology.

NERVE-STRETCHING IN INFANTILE PARALYSIS.*

By R. M. SIMON, B.A., M.B.Cantab., M.R.C.P.Lond.,
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In bringing the subject of infantile paralysis before this Society, I do not propose to enter at length into the etiology or symptoms of the disease, but, by briefly recording the accepted views as to its pathology and treatment, attempt a justification of the treatment adopted in the case to be brought before you.

Numerous *post mortem* examinations have proved beyond question "that the earliest condition is one of subacute myelitis, with softening and destruction of the nerve-elements of the anterior cornua of the spinal cord exclusively. Some of the nerve-cells of this portion of the cord are sometimes filled with granular pigment-deposits, while others are disintegrated and broken up. The nerve-tubes of the anterior roots are found shrunken, the myeline absent, but the axis-cylinder nearly always intact. In other cases of longer standing, there are evidences of atrophy of the anterior horns, perhaps amyloid degeneration, and sometimes sclerosis. The nerve-cells are found in an atrophied condition or absent altogether" (Hamilton on *Nervous Disease*). However the disease may be caused, the multiple paralysis which may be observed at the beginning soon disappears, leaving behind a paralysis, or rather paresis, of some limb, or more often group of muscles, or perhaps only one muscle. With this paresis are associated a rapid atrophy of the affected muscles, and a lowering of temperature in the paretic part. Unless, as scarcely ever happens, a rapid recovery occur, the atrophy continues, and after a time the muscular tissue becomes replaced by connective tissue and fat. The blood-vessels diminish in size, and the bones do not develop in equal ratio with those of the corresponding limb on the other side of the body, but become friable and thin.

I may, I trust, be excused for recapitulating these trite facts to show the appalling nature of the disease, and the great need of the suggestion of useful treatment. Hitherto, any success attending treatment has been met with from the use of electricity, generally galvanism, to the spine, and faradism of the affected muscles. Success has attended such treatment, but unfortunately in so small a number of cases as to furnish no precedent for favourable prognosis. What the *rationale* of such treatment has been is difficult to understand, as, beyond keeping the muscles in working order by electrical stimulation, no direct benefit from spinal galvanism can, I think, be expected. The atrophied nerve-cells cannot be restored, or nerve-conductivity through the atrophied cornua re-established.

Peyer and Krause have found by experiments on rabbits, that most muscles are supplied by more than one root of a plexus; and Ferrier concludes that there are probably several spinal nuclei for the same muscle. If this be so, it is a possible explanation of the good results of electricity that, by stimulation, the other nerve-nuclei are induced to take on extra action, and supply the deficiency resulting from destruction of those anterior horns more particularly concerned in the government and nourishment of the affected muscles.

With these considerations in my mind, I asked Mr. Chavasse, on August 5th, 1881, to stretch the sciatic nerve of the patient I propose to show you. He is now five years old, and for three years has been under treatment for infantile paralysis affecting the right leg, at the General Hospital, Birmingham.

During the last two years, he has had continuous electrical treatment, with the result that, though the right leg has not kept pace in development with the left, there has resulted no deformity, and the muscles

* Read before the Birmingham and Midland Counties Branch.

of the right leg remain fairly nourished. Tested by the application of forty Leclanché cells, the following results were noticed; free contraction of the gluteus maximus; slight contraction of the muscles of the ham; the tensor vaginæ femoris and rectus femoris contracted readily and well, while the contraction of the sartorius and adductor muscles was slow and feeble. Below the knee, there was free contraction of the gastrocnemii, the peronei, the extensor proprius pollicis, and the muscles of the sole of the foot; while the anterior tibial and the extensor brevis digitorum responded only faintly to the electrical stimulus, and the extensor longus digitorum not at all. It is important to bear in mind from these facts, that the muscles supplied by others than the sciatic nerve were affected.

Though the little boy had not got worse during the last twelve months, he was not improving, and fell easily on coming into contact with slight obstacles. He used to swing the right leg in walking, bringing it down with a jerk, and not moving it straight forward.

The operation was done antiseptically in the out-patient room, without difficulty. Mr. Chavasse raised the sciatic nerve, and pulled it strongly three times. The boy was treated as an out-patient, and made a good recovery from the operation.

Two months later, Mr. Chavasse kindly made a series of measurements for me, and found that there had been a gain of a quarter of an inch in the circumference of the right thigh and calf respectively (owing to a slight diarrhœa and bronchitis, the boy's health had not been good in the interval), and no difference was found between the measurements of the left leg on the two occasions. There seemed to be a slight gain in the length of the limb, but of this I am not sure. However that may be, there was a very decided improvement in the manner of walking; he no longer swung his leg, and I was informed that he rarely fell.

On January 2nd, it was found that, while the sound thigh and calf had gained respectively three-quarters and one-eighth of an inch in circumference, corresponding measurements on the right or affected side showed a gain of one inch and a quarter in the thigh and three-eighths of an inch in the calf, while there was a decided improvement in the manner of walking.

I should not have ventured to bring forward a novel treatment to be judged by its results in a single case, had I many opportunities of seeing such cases; but at a general hospital they are rare, and I have brought this one forward in the hope of inducing others with greater opportunities to put this treatment to the test. It is a procedure at the worst harmless, and it seems to me to be likely to do great good in a class of patients, regarded by many as beyond the hope of improvement, or even outside the pale of treatment.

ON THE TREATMENT OF HYPERTROPHY OF THE TONSILS.

By JOHN BISHOP, M.D., F.R.C.S.E.,
Assistant-Surgeon to the Royal Infirmary, Edinburgh.

THE BRITISH MEDICAL JOURNAL for January 28th, 1882, page 130, gives an interesting annotation on various methods of treating hypertrophied tonsils. Probably every practical surgeon will read with satisfaction that the inefficient or dangerous methods for the "removal of diseased tonsils by the help of the finger, ligature, cauterisation by caustics or the actual cautery.....have fallen into disuse"; and many, especially those of the Edinburgh School, will hear without surprise that "the fashionable treatment by the guillotine has given rise to very serious and often fatal hæmorrhages". There must be surprise at the remark that, "in Europe, the bistoury only reckons a few partisans", in view of the fact that, from the beginning of Mr. Syme's practice to the present day, the surgeons of this, the largest medical school of Great Britain, have practised and recommended "the curtailment of enlarged tonsils" by means of the probe-ended curved bistoury and vulsellum.

Though I have served in various capacities under three successive professors of clinical surgery—the late Mr. Syme, his successor Mr. Lister, and the present professor Mr. Annandale—and have seen them operate very frequently, have heard of the work of the other surgeons of the school, at the head of whom stands the venerable professor of surgery Mr. Spence, and have operated frequently myself, yet I have never seen nor heard of any injurious effects from the operation, nor of the use of the guillotine in Edinburgh.

The operation by bistoury causes little pain or bleeding, admits of the removal of much or little of the tonsils; and, being thus safe, easy, and satisfactory, it is not likely that the surgeons who have gone out from this school in such great numbers during the past fifty years have abandoned this simple method in favour of more complicated and less efficient means.

Mr. Syme used to point out that this was an operation "perfected in the first instance, and subsequently impaired through alterations in the mode of its performance proposed by would-be improvers. All other means having failed to remove the swelling, it is the duty of the surgeon, says Celsus, 'hamulo excipere et scalpello excidere'". The operation, as performed by Mr. Syme and others in Edinburgh, may be described as follows. The patient sits opposite the light, with mouth open and tongue depressed by an assistant; the surgeon seizes a tonsil with the vulsellum, and draws it towards the middle line, whilst with a probe-ended curved bistoury, thoroughly sharp, he rapidly cuts from above downwards, so as to remove as large a portion as seems needful. The patient is allowed to rinse the mouth with cold water, and then the process is repeated on the other tonsil, if necessary. It is better to remove the right tonsil first, because to most men the operation is slightly more difficult, on account of the crossing of the hands. Injury of the carotid artery is impossible, because, during the act of cutting, the knife is never allowed to pass further out than the line of the molar teeth. The most useful vulsellum is that designed by Mr. Syme, with a special hook to hold the gland more securely.

The patient is told to stay in the house for two days, and perhaps to gargle with Condy's fluid.

THERAPEUTIC MEMORANDA.

THE TREATMENT OF PEMPHIGUS.

VARIOUS communications have recently appeared in the BRITISH MEDICAL JOURNAL as to the value of arsenic in the treatment of pemphigus. As a contribution to the literature of the subject, I beg, under sanction of Professor Maclagan, in whose ward it was treated, to send the short notes of the following case, illustrating the effects of simple local treatment.

A. C., aged 23, a shepherd, from the neighbourhood of Dunfermline, was admittted to the Royal Infirmary on December 5th, 1881. He was in good condition, and felt perfectly well, except for the annoyance of the skin-eruption. His family history was good, and his circumstances comfortable; but he was often exposed to cold and wet in his occupation. The eruption covered the whole body, and had begun to appear a week before admission, in the form of red spots, on which bullæ soon formed and became rapidly larger, varying in size from a pea to a hen's egg. The bullæ were at first clear, but in a day or two became opaque, and then burst, leaving excoriated surfaces, on which crusts formed. The patient was put to bed; and a layer of cotton-wool was put under the back, to keep the raw surfaces left from being rubbed. In order to soften the crusts which had formed over the rest of the body, a little vaseline was applied to them. The bullæ were punctured at the most depending part, the serum which they contained allowed to escape, and care taken that the raised epidermis was laid down flat on the derma, so as to form a complete covering for it. Around the bullæ, which had become opaque, and their contents puriform, there was a ring of inflammatory redness and a good deal of irritation; but when they were punctured while the contained serum was still clear, there was no such irritation, new epidermis formed beneath quickly, and little or no discoloration of skin remained. The last crop of blebs appeared about a week after the patient was admitted; and a week later he was dismissed quite better, with only a few blains on the site of the bullæ, which had been followed by crusts. No internal treatment by arsenic or other drug was adopted, no medicine being given except a laxative; and the patient was put upon ordinary diet.

At the clinical lecture on the case, Professor Maclagan stated, as the result of his experience, that acute pemphigus in a healthy subject, as in the present instance, needed nothing but the local treatment as described above, which opinion was confirmed by the result of the case; that in chronic pemphigus, as in other forms of skin-disease, arsenic was useful; and that, in pemphigus foliaceus, neither arsenic nor any other treatment was of real avail.

CHARLES KENNEDY, M.B., C.M.,
Resident Physician, Royal Infirmary, Edinburgh.

THE TREATMENT OF DIPHTHERIA.

THERE is little doubt that, if the formation of the membrane go on unchecked, fresh absorption of the poison takes place, and the disease becomes more intractable. I believe that the application of caustics to the throat is in all cases harmful, except where there is distinct *syphilitic ulceration;* and, as we have in boracic acid a powerful non-irritant antiseptic, I most certainly prefer this in cases of diphtheria. The formula I adopt is twenty or thirty grains of the acid to a drachm

of glycerine and seven drachms of the compound infusion of roses. It can either be applied as a gargle or by means of a camel's hair brush frequently during the day. I have used iodine in the shape of a gargle (twenty minims of the tincture to the ounce of water), but am not so satisfied with it as with boracic acid. As to the internal treatment, all, I think, are agreed as to iron being positively essential. A very good way of prescribing it is the following: fifteen minims of dilute nitric acid, ten grains of chlorate of potash, fifteen minims of tincture of perchloride of iron, with a little syrup of essence of lemon, and water, every four hours. The patient should be, of course, well supported with beef-tea, barley-water, and milk; and port wine should be given in quantities strictly regulated according to the necessity of the case. F. P. ATKINSON, Kingston-on-Thames.

OBSTETRIC MEMORANDA.

INSTRUMENTAL *v.* NORMAL PARTURITION.

HAVING read a communication on the above subject from Mr. Greenwood in the JOURNAL of February 11th, I venture to suggest that freely rubbing the perinæum, when rigid, with lard, has a relaxing effect, and expedites delivery. This plan I have frequently adopted myself, causing, as I believe, satisfactory results. If the reason for adopting the above method be explained to the patient, no objection can be well made to it. J. T. KNIGHT, Carlton, near Nottingham.

SURGICAL MEMORANDA.

SPONTANEOUS CURE OF SPINA BIFIDA.

THE spontaneous cure, by absorption, of the spina bifida, recorded in the JOURNAL of February 11th, must surely be unique. May I suggest that the tumour belonged to the class of so-called congenital cystic tumours, to which reference was made at a recent meeting of the Pathological Society, also recorded in the JOURNAL? These not unfrequently disappear spontaneously; while spina bifida, in my experience, never does. The facts that the bones were completely ossified so soon after the disappearance of the tumour, and that nothing remained but an indurated cicatrix, lend, I think, support to the view I venture to submit. ROBERT WILLIAM PARKER.

CHRONIC ŒDEMA OF THE EPIGLOTTIS, CAUSING GREAT DIFFICULTY OF DEGLUTITION, CURED BY SCARIFICATION.

W. R., from Gateshead, aged 53, applied at the Throat and Ear Infirmary, Newcastle, on December 22nd, 1880, on account of difficulty of swallowing, and pain in the throat, which had been gradually coming on for fifteen weeks. For a fortnight, he had not been able to swallow solids; and for the last forty-eight hours previous to being seen, liquids could only be taken with the greatest difficulty. Attempts at deglutition in the ordinary method resulted either in the food being forcibly ejected through the nares, or in a violent paroxysm of coughing. The laryngoscope showed the epiglottis to have a varnished appearance—indeed, not at all unlike pharyngitis sicca; it was enormously œdematous, and covered the greater part of the right side of the larynx. He was ordered to inhale medicated hot steam for two days continuously, but he became gradually worse. To give some idea of the state of matters found, before a view of the larynx could be obtained at all, an epiglottic pincette had to be used to hold it and draw it forward, which certainly succeeded in some measure, but not without causing great discomfort to the patient by irritating his throat.

December 26th. The patient was worse; he was totally unable to swallow, and had to be fed by nutrient enemata.

December 27th. The epiglottis was freely scarified with one of Tobold's knives, causing almost uncontrollable hæmorrhage, which was in the first instance, however, regulated by ice, though eventually, when it gave symptoms of becoming too profuse, it was suppressed by swabbing with the perchloride of iron. He was able to swallow on the following morning, though with some degree of pain.

REMARKS.—What was the cause of this œdema, I am not prepared to state, but noted while scarifying that the epiglottis had, if I might so express it, a warty feeling. The patient's general health was good; but, seventeen years ago, he had a primary venereal sore, which was followed by secondary symptoms. On account of the swollen condition of the epiglottis, it was difficult to get an extensive view of the larynx, and it rendered it very inconvenient in operating. The hæmorrhage, while it lasted, was really alarming; but the iron, and subsequently a saturated solution of tannin used as a gargle, ultimately arrested it. Several careful examinations have been made during the past year, but now it looks tolerably healthy; and all that the patient complains of is occasionally a slight tickling in the throat.

ROBERT TORRANCE, Surgeon to the Newcastle-upon-Tyne Throat and Ear Infirmary.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

KING'S COLLEGE HOSPITAL.

CENTRAL NECROSIS OF THE HEAD OF THE HUMERUS: EXCISION: RECOVERY.

(Under the care of Mr. HENRY SMITH.)

[Notes by Mr. SEPTIMUS FARMER, House-Surgeon.]

THE patient, J. L., a man aged 29, had been employed in a bakery. There was a history of phthisis in the family. He stated that he had always been temperate; and in June 1879, after working continuously for twenty-two hours, he had a fit and fell on to his right shoulder; he at the same time burnt his hands and legs. He was taken to the London Hospital, and remained there for six weeks. After this he returned to work, and continued at it for twelve months; at the end of that time his right shoulder commenced to swell, and rapidly became three times its ordinary size. He suffered continuous pain, and was unable to raise his arm at the shoulder-joint. He was admitted into St. Bartholomew's Hospital, and was under treatment for some weeks, and was discharged on August 17th, 1880. The pain, however, still continued, and he was totally unable to use his arm. In October, an accidental blow over the shoulder was followed by an abscess, which was opened by one of his fellow-workmen with an ordinary penknife; a quantity of thick yellow pus escaped. Three weeks after this, on November 12th, 1880, he was admitted into King's College Hospital. On admission, he was an anæmic and unhealthy looking man. There was total inability to raise the right arm at the shoulder-joint, and pain of a dull and aching character was more or less continuous. There was no increase of pain on pressing the joint surfaces together. A sinus, situated at the anterior border of the insertion of the deltoid muscle, discharged ichorous pus; a probe could be passed along it towards the joint for about three inches, and bare bone could be felt. He had a troublesome cough, and perspired freely at night. The left pulmonary apex was dull, and fine crepitation could be heard there. The urine was free from albumen. He was ordered cod-liver oil, and a mixture containing iron and quinine.

On November 26th, it was noted that the temperature had been hectic in character, varying from 98° to 98.8° in morning, and from 100° to 102° in the evening. Night-perspirations had been very profuse.

On November 27th, under the influence of ether, the arm was freely manipulated, but no grating could be detected. Mr. Smith laid the sinus freely open, and a small bare surface of bone could then be felt. A large drainage-tube was put in the wound, and the edges brought together by two sutures. It was hoped that by means of free drainage a cure would be effected.

On January 14th, 1881, the condition of things had not improved; the pain continued, and a sinus remained. The temperature was still of the hectic type, night-perspirations were profuse, and the patient was evidently becoming weaker. Mr. Smith therefore determined to operate again; and on January 15th, ether having been given, an incision was made for 3½ inches from the acromion process along the outer margin of the bicipital groove. On examining carefully, a piece of necrosed bone was found to be lying in a cavity in the head of the humerus. The ligaments were cut through, the bone was dislocated and forced out of the wound, and sawn off just below the lower margin of the cavity. The glenoid cavity was perfectly healthy. The wound was washed out with a solution of chloride of zinc (40 grains to the ounce. A large drainage-tube was put in, and the edges of the wound were brought together by sutures, and dressed loosely with lint and carbolic lotion. On examining the specimen when removed, it was found that there was an opening rather more than half an inch in diameter right through the bone in the anterior-posterior direction, involving portions of the head (anatomical and surgical necks). Lying loose in the cavity thus formed, was a sequestrum of bone as large as an almond.

From this date the patient made an uninterrupted recovery. In a few days the pain had entirely left him, the night perspirations ceased,

and within a week his temperature became normal, and remained so until the time of his discharge. Passive motion was commenced on the fourth day after the operation; on the twentieth day the wound was healed. He was discharged on March 23rd (having been kept in the hospital longer than was necessary for the purpose of clinical observation).

On discharge, he had an exceedingly useful arm, being able to perform all the movements at the shoulder-joint with ease; the power of raising the arm was somewhat defective, but was improving every day.

ROYAL ALBERT EDWARD INFIRMARY, WIGAN.

RECTO-VAGINAL FISTULA, AFTER CONFINEMENT WITHOUT USE OF FORCEPS.

(Under the care of Mr. WM. BERRY.)

MRS. D., aged 28, was attended by a midwife on September 28th, 1880, in her first confinement. She was in labour for twenty-four hours, with very strong pains during the last three or four hours; the midwife stating that medical aid was not required, she was kept out of bed between two women all through the second stage. The midwife described the head as being suddenly expelled, the rest of the child immediately following. I was called to the patient three days after confinement, as she was said to be suffering from piles. On examining her, I found the perinæum torn through the sphincter ani into the rectum. Next morning, I put in two deep wire-sutures, and kept her knees well together; these sutures were removed on the fifth day, and she passed, the same day, a hard motion, although castor-oil and laxatives had been administered. The discharges, also, had been abundant; therefore very little union was effected; the wound, however, granulated fairly well, leaving a small band for a perinæum, but, unfortunately, a small opening existed between the vagina and rectum. She was admitted into the infirmary on March 19th, 1881.

March 26th, 1881. The menstrual period was just over. I operated, cutting away the band which was formed by granulations, and pared the edges well; quill-sutures were used, the raw surfaces being well in apposition. The urine was drawn off by the catheter two and three times a day. On the fourth day, the stitches were removed. A little ulceration was taking place around the threads. The bowels were moved slightly after a colocynth pill on the sixth day, but, the motion being hard, an enema of castor-oil was administered, when a good motion followed. Union was found to be complete. She was discharged cured April 16th, 1881.

GENERAL INFIRMARY, LEEDS.

A CASE OF HYSTERICAL PARAPLEGIA IN A BOY.

(Under the care of Dr. CLIFFORD ALLBUTT.)

[Reported by A. G. BARRS, M.B., Resident Physician.]

JOSEPH A., aged 12, was admitted on November 23rd, 1881. He had been attending in the out-patient department for some months previously to admission, suffering from nocturnal incontinence of urine, for which galvanism, bromide of potassium, and many other remedies had been tried with no appreciable result. He had been circumcised, according to the Jewish rite, in infancy. Seven days before admission, up to which time he had been in his usual condition, and while walking, his left leg suddenly gave way under him, and he appears to have become completely paraplegic in a few minutes. There was no pain in the limbs, and no convulsion.

On admission, he was a perfectly healthy looking lad, lying in bed. He was a little emotional. The pupils were widely dilated. The hands and arms were unaffected. He said he was quite unable to move the legs in the least degree. On turning down the bedclothes, one was at once struck with the completely healthy appearance of the legs. The skin was quite natural; the muscles of good volume and tone. There was no evidence of any trophic changes in the skin, bones, or joints. The limbs were held in a completely extended position. There was no absolute spasm, but decided increase of resistance to passive flexion of the knee. There was complete and absolute anæsthesia, with analgesia of the whole circumference of the limbs, from the level of the patellæ to the roots of the toes. The upper and lower limits of the anæsthetic area most sharply and clearly defined. The plantar, patellar tendon, and cremasteric reflexes, were all normal. There was no ankle-clonus. Voluntary power was completely lost. Since the onset of the paraplegia, he had not once wetted the bed at night.

On November 25th, the anæsthesia had entirely disappeared, and some movement was returning in the legs. On the 26th, he could stand and walk with assistance; and, on December 6th, he left the hospital well and, for the time being, free from incontinence of urine.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, FEBRUARY 21ST, 1882.

SAMUEL WILKS, M.D., F.R.S., President, in the Chair.

Report by Drs. Gowers and Savage on Dr. Harbinson's Case of Hereditary Cerebral Sclerosis.—The report (read by Dr. PAYNE, Secretary of the Society) stated that evidence of nerve-degeneration was found throughout the brain, with an increased quantity of leucocytes. There was no distinct evidence of sclerosis. The changes seemed to come under the head of chronic atrophy or chronic cerebritis.

Hypertrophy of the Heart.—The specimen was shown by Dr. SAMUEL WEST, who stated that the patient had only suffered from symptoms of heart-disease for about three months; when admitted to the Royal Free Hospital, the heart was enlarged, there was some pulmonary emphysema, and the urine contained a little albumen. The cardiac hypertrophy was, at the time, attributed to this latter condition. After death, the kidneys, liver, and spleen were congested, but otherwise unaltered; the heart, which was fatty, weighed twenty ounces; the hypertrophy was limited to the left side; there was no disease elsewhere to account for the hypertrophy. The explanation of such a case as this was very difficult; he attributed the break-down to some failure in the circulation of the heart; he believed that the coronary arteries in these cases did not enlarge in proportion to the enlargement of the heart, and that this resulted in faulty nutrition of the organ.—Dr. STEPHEN MACKENZIE said that there were many cases now on record which proved that hypertrophy did occur independently of degeneration of the kidneys; it seemed that there was a disease of the arterial system which could lead to this hypertrophy. He wished to inquire whether the arteries had been examined microscopically in this case.—The PRESIDENT said that several cases of disease of arteries and hypertrophy of heart without kidney-disease had been brought before the Society.—In reply, Dr. WEST said that the arteries of the kidneys had been examined, and found free from disease.

Acute Fatty Degeneration of the Heart.—This specimen also was shown by Dr. WEST. The patient was aged 16. Two months before admission, he had a mild attack of rheumatic fever; he recovered to some extent, but soon began to get worse; and, when first seen, he had evidence of disease of both the mitral and aortic orifices. After being a few days in hospital, he died. Beyond some old phthisis at the apex, the only important lesion found was in the heart. That organ was yellower than natural; and, when it was cut under water, the fat ran off in greasy drops. There was no pericarditis, and no endocarditis, except of the valves. There was fatty degeneration of the muscular fibres, but no interstitial change. He thought that the cases of acute degeneration of the heart fell into three groups. Firstly, fatty degeneration might occur acutely in extreme anæmia, as, for instance, in idiopathic anæmia; cases of acute degeneration occurring in the course of acute fevers and in phosphorus-poisoning formed another group; the third group comprised cases where there had been an antecedent myocarditis. He thought this case fell into the last group.—Mr. ALBAN DORAN asked whether Dr. West believed that fatty degeneration of the heart could occur without symptoms which were more pronounced, and of longer duration. The question was important from a medico-legal point of view, and also in relation to death from chloroform. There was a fallacy underlying the descriptions of fatty degeneration of the heart; decomposition very rapidly produced an appearance of the muscular fibres which, he believed, had often been described as fatty degeneration. Such an error might be of great importance.

Joints from Three Cases of Gout; Osteoma of Tibia.—These specimens were shown by Dr. NORMAN MOORE. The first consisted of the great toe-joints from a cellarman, aged 37, who died, with three cerebral hæmorrhages. He had very small granular kidneys. The left toe showed an abundant uniform deposit of urate of soda, while the corresponding right joint, and all other joints examined, were quite free. As the deposit was too large to have been the result of one attack, the specimen was interesting as showing that the symmetrical affection of joints occurs late. The second specimen was the left knee-joint of a man aged 47, who died of cerebral hæmorrhage. He had small granular kidneys. The knee-joint showed a scattered deposit of urate of soda, with erosion of the patella. The left toe was coated. The joints on the right side were normal. The case showed an appearance not hitherto recorded—a considerable deposit of urate of soda in the prævertebral fascia of the neck. The third specimen consisted of the tibia and great toe from a man who died of pneumonia, aged 45.

The great toe-joints on the right had a scattered deposit of urate of soda; the left none; the other joints were free. The tibia showed uniform enlargement following the long axis of the lowest third of its shaft. The medullary cavity and outer layer of the tibia looked normal. The enlargement was of greater diameter than the shaft of the bone, and was dense externally, less dense within. The periosteum was very slightly, if at all, thickened over it. It was certainly not a node, probably an osteoma; possibly, however, it might have been produced by a very oblique fracture, which had occurred early in life.—Mr. GODLEE thought the possibility of the deformity in the last case being a fracture ought to be carefully considered; he was inclined to think, from the appearance of the medullary cavity, that it had been thus produced.—Mr. BUTLIN thought that it was either due to inflammatory changes, or to some early fracture, as suggested by Mr. Godlee.—Mr. BOWLBY pointed out that there was no evidence of any injury of the fibula; he also thought the new material lay upon the surface of the tibia, and that the bone was not expanded over it, as might have been expected to have been the case if the thickening were due to callus. For these, and for other reasons, he thought the enlargement must have been produced by some form of new growth.

Hyperæmia and Hæmorrhages in the Medulla Oblongata causing Sudden Death, probably owing to the Implication of the Vagal Nucleus.—Dr. HALE WHITE exhibited sections showing these changes. He had examined microscopically the medullæ of three children who had died without any cause of death being detected by the naked eye. On *post mortem* examination, one of these cases exhibited these changes; the other two were healthy. There was extreme vascular dilatation over a considerable extent of the medulla, with several hæmorrhages. One of these occurred just at the margin of the vagal nucleus; this, Dr. Hale White considered, had, by stimulation of the cardio-inhibitory centre, caused the sudden death that occurred in this child. For a few hours before death, the temperature had been up to 100° Fahr., and the patient had breathed badly. It was suggested that this was due to the dilatation of the vessels implicating the vital spot. It was pointed out that these vascular changes differed from those described as occurring in the medulla in tetanus, hydrophobia, and diabetes, inasmuch as there was an effect from the implication of a vital nucleus; whilst in these diseases, although the whole medulla might be affected, there was often no evidence of any of the special centres being affected, such as the cardio-inhibitory; and in those cases that recovered, there were no remaining paralyses, such as glosso-labio-laryngeal, as a result of tetanus. This was, he believed, the only case of the kind on record, and was an example of the "apoplexie foudroyante" of French authors.—Dr. BUZZARD, about a year ago, during the course of a lecture at the National Epileptic Hospital, had shown a case of infantile paralysis in which there was one-sided facial paralysis. He then remarked on the extreme rarity of such an affection, and suggested that this was due to the probability of an inflammatory change in the facial nucleus involving also the vagus nucleus, and so causing death.—Dr. HUGHLINGS JACKSON had seen two cases which bore on the subject under discussion. In one, in which double facial paralysis suddenly occurred, an old clot was found in the optic thalamus, and a recent one in the medulla oblongata. In another case, there was paralysis of one side of the tongue, one side of the soft palate, and one vocal cord; such a combination pointed to implication of the medulla. This patient had Bright's disease, so that the lesion was in this case also probably a hæmorrhage.—Dr. HALE WHITE, in reply, said that it had been the observations made by Dr. Buzzard in the lecture to which he referred, which had led him to make these investigations of the medulla.

Sarcoma of Bladder.—Mr. ROGERS WILLIAMS, who showed the specimen, said that the patient was a woman, aged 50, who had suffered for two years from hæmaturia and incontinence of urine. An operation was performed in the country, which gave her some relief. When admitted into the hospital, she complained of great pain, in addition to the above symptoms. No stone was detected. After death, the growth had a fungoid appearance; microscopically, it was made up of granular nucleated cells, without any distinct stroma; the growth was very vascular; there was some enlargement of the pelvic glands; the other organs could not be examined.—Mr. BUTLIN had only examined one case of sarcoma of the bladder; it was a round-celled sarcoma in a child of three or four years old. Growths protruded from a cavity common apparently to the vagina and urethra. The whole of the region of the bladder and vagina was occupied by masses of dendritic growth of a sarcomatous nature.

Acute Suppuration of the Wrist-Joint.—A dissected joint was shown by Mr. ROGER WILLIAMS. The bones entering into the wrist-joint were completely denuded of cartilage: but the intercarpal joints were quite unaffected. This seemed to confirm Mr. Teale's view that the intercarpal joints were anatomically quite distinct from the wrist-joint.

Comparative Pathology.—Mr. EVE exhibited the following specimens: 1. Chronic synovitis of the radio-carpal joint of a horse, with hernial bulgings of the synovial membranes into the sheaths of the extensor tendons. These herniæ corresponded, he thought, to the cysts described by Mr. Morrant Baker as occurring in chronic cases of knee-joint disease on the posterior aspect of the joint.—Mr. MORRANT BAKER did not think that the cysts in the cases he had described were due to hernial protrusions; they were situated among the muscles of the calf, and had their origin, he believed, in the escape of small quantities of fluid from an over distended joint.—2. Sarcoma of the breast in a plover. Microscopical examination showed that the growth was an alveolar sarcoma. 3. Overgrowth of hoof and deformity of bones of the forefoot of a horse. Mr. Eve attributed the overgrowth to the horse having inhabited soft marshy ground; Prof. Flower had told him that in wild horses, when they left the hard stony ground in which they usually dwelt, and came down to marsh lands, such an overgrowth commonly occurred. 4. Lympho-sarcoma of the mesenteric glands of a Dasyurus.

Femoral Arteries Tied for Aneurysm.—Mr. R. J. GODLEE showed the arteries of the lower limbs, dissected out in a case where both superficial femoral arteries had been tied. The patient suffered from popliteal aneurysm first on the right and then on the left; the patient died some years later of pulmonary phthisis. On the right side, the vessel was converted into a firm fibrous cord, both above and below the seat of ligature. On the left side, the vessel at the seat of ligature was converted into a fibrous cord; below, the artery was only partly converted into a fibrous cord, other parts were filled with recent clot; and the vessel just above the aneurysm was dilated. There was atheroma of the vessels, but no disease of other organs. The ligatures used had been of catgut.

Chronic Hydrocephalus with Asymmetrical Deformity.—Dr. E. B. BAXTER said that the head had commenced to increase in size at the age of three months. A prominence appeared on the right side of the forehead, and rapidly developed. There was no paralysis of limbs, and no impairment of intelligence; on the right side of the forehead was an elongated prominence, tense and fluctuating; it could not be emptied by pressure, but grew more tense when the child cried. Ophthalmoscopic examination showed that one of the discs was partially atrophied, while in the other eye a similar change was commencing. Death was preceded by a little fever and vomiting; immediately before death the prominence sank inwards, so that it was replaced by a depression. On removing the skull-cap after death, about five pints of fluid escaped; the convolutions were flattened; over the surface of the pons was evidence of recent inflammation, and a thin layer of blood over the cerebellum, but no tubercle was seen. The cerebro-spinal opening was closed. The gap in the frontal bone at the site of the prominence was covered in, not by the dura mater, but by the external periosteum and skin only. Dr. Baxter remarked on the unusual site of the hernial protrusion, which was not in the middle line. This was also the first case in which he had found evidence of closure of the cerebro-spinal opening. The optic chiasma was examined by Dr. Walter Edmunds, who had demonstrated a partial descending neuritis. In this case, optic neuritis had been carefully searched for by the ophthalmoscope, so that the case, Dr. Edmunds remarked, confirmed the view that neuritis might exist for some time without producing papillitis.—Dr. STEPHEN MACKENZIE said that he had found occlusion of the cerebro-spinal foramen in three cases of hydrocephalus which he had examined. If this foramen were occluded, then the continuance of the secretion of fluid from the ependyma would lead to gradual distension of the arachnoid space.—Dr. LEES had seen a considerable number of cases in which the foramen of Magendie was closed, and in all there was hydrocephalus. He found a certain number of cases in which a retraction of the head, with other symptoms of meningitis, occurred; if the patient survived, the retraction might go off, but it was safe to prophecy that hydrocephalus would develop.—Mr. MORRIS wished to know whether the heart and vessels were in any way diseased. It had been contended that this great accumulation of fluid and increase of pressure in the head led to cardiac hypertrophy.—Mr. JONATHAN HUTCHINSON had shown a patient before the Society many years ago, in whom a similar yielding of the bones had occurred in a localised position. The sutures had united prematurely, but gave way at one point. The development of the hydrocephalus had occurred entirely external to the skull, and under the scalp. After the date at which it was shown, the child lived five or six years, and the swelling became much larger. After some years, the child died of meningitis, after an operation performed by another surgeon. The swelling consisted of brain-substance distended with fluid.—Dr. SEYMOUR TAYLOR said that the most interesting point in the case was, that the bulging was asymmetrical. He wished to ask

whether the condition of the bone as to ossification had been examined. Mr. EVE said that the preceding speakers who had related cases of hydrocephalus appeared to ascribe the shutting off of the subarachnoid spaces at the base of the brain from the subarachnoid space of the spinal cord to adhesions blocking up the foramen of Magendie. He had investigated the relations of the spinal and cerebral subarachnoid spaces by injecting coloured gelatine injection into the subarachnoid space of the cord, and had found that the fluid passed freely over the anterior surface and sides of the medulla oblongata and pons Varolii into the subarachnoid spaces at the base of the brain; therefore the free communication which existed between them could only be occluded by a basi-meningitis, which glued the arachnoid to the pia mater around the whole circumference of the medulla. The injection also passed into a large subarachnoid space formed by the reflexion of the arachnoid from the posterior pyramids and posterior surface of the medulla on to the inferior surface of the cerebellum, and thence through the so-called foramen of Magendie and "iter" into the ventricles.—Dr. BARLOW thought Mr. Eve's criticism a perfectly just one; he did not think that mere closure of the foramen of Magendie could lead to hydrocephalus. Investigations had been published in *Revue Mensuelle* which showed that the communications between the ventricles, the cranial subarachnoid, and the spinal subarachnoid were very free. In the cases referred to by Dr. Lees, there was much false membrane which was adherent, even to bone. There was not merely closure of the foramen of Magendie, but a large mass of false membrane about the pons and medulla which was firmly adherent on all sides; for instance, it was with difficulty removed from the bones. Leaving out of count truly congenital hydrocephalus, he believed that most if not all cases arose in the way and with the premonitory symptoms described by Dr. Lees; that is to say, that there first occurred a limited basal meningitis, manifesting itself clinically by the retraction of the head; and then, if the meningitis so far subsided that the patient survived, hydrocephalus came on.—Dr. BAXTER, in reply, said that, though he had for the last ten years carefully searched for this blocking of the foramen of Magendie, he had only found it in this one case. In a case of retraction of the head and meningitis recently under his care, there was a good deal of fluid in the ventricles, but no evidence of basal meningitis.

CLINICAL SOCIETY OF LONDON.

FRIDAY, FEBRUARY 10TH, 1882.

JOSEPH LISTER, D.C.L., F.R.C.S., F.R.S., President, in the Chair.

Suppression of Urine threatened several times after Ovariotomy.—Mr. KNOWSLEY THORNTON brought forward this case. On each occasion, packing the arms in cold wet towels relieved the symptoms, and the patient made a good recovery, and has remained in perfect health since. The following is a brief outline of the case. J. W., aged 39, married, and the mother of two living children, the youngest aged 7½, was admitted into the Samaritan Hospital in October 1880. An abdominal tumour was first noticed early in the last pregnancy (September 1879). A few weeks before admission, Dr. Pierce of Denbigh tapped the tumour, and removed twenty-four pints of greenish fluid. On admission, she looked older than her age, and had a waxy skin. The kidneys acted badly, and the skin was dry and harsh. There was no albuminuria. Ovariotomy was performed on November 4th, 1880, and a tumour of the right ovary removed, weighing, with contents, twenty-eight pounds. The operation was of average difficulty; a good deal of sponging was necessary; it occupied an hour. The temperature and pulse rose rather rapidly; and on the day after the operation the urine was scanty and dark, and the kidneys were very irritable. Digitalis and citrate of potash were given, and next day the urine was free and loaded with lithates. On the fourth day, the renal irritability returned, and the temperature and pulse rose again. Sympathetic vomiting came on; and on the sixth day, the condition appearing critical, the arms were bared and packed in cold wet towels, which were kept wet with iced water. In twelve hours, all bad symptoms had disappeared. The towels were allowed to dry, and in five hours the patient was as ill as ever. The towels were wetted again, and were kept on for forty-eight hours, during which time the patient appeared quite well; and the wound was dressed for the first time, and found soundly healed, and all the sutures were removed. The towels were removed; but during the day the kidney-symptoms and sickness gradually returned, and they were reapplied. Temperature and pulse remained unaffected; but the kidney-symptoms at once yielded. On the eleventh day, they were again removed; and on the twelfth, the temperature being normal, the patient was allowed to get up. A few days later, she went home; and Dr. Pierce wrote that she was now in better health than she had enjoyed for some years. Mr. Thornton remarked that Mr. Doran had shown by his *post mortem* observations that advanced granular disease of the kidneys was common with large abdominal tumours; and this condition frequently existed without any clinical evidence of its presence. In the present case, no albumen was detected; and, though the kidneys acted badly before the operation, they were equal to the excretion of a fair quantity of urine, loaded with urates, on the second day after operation. The symptoms, detailed at length in the paper, were clearly due to the condition of the kidney and the application of cold wet pack to the arms on three separate occasions acted like a charm. To what was this rapid action to be ascribed? The author discussed the method of applying dry and wet cold, not only to reduce temperature, but to relieve serious internal congestions. In the latter class of cases, he believed the action to be a reflex one through the nervous system, and not a mere cooling of the blood generally. He referred to the action of external chill in producing inflammations, and to the well-known action of counterirritants. While believing that ordinary cases might be explained by one or other of the theories mentioned, he was still at a loss to explain the rapid action on the kidneys in this case from such a very restricted pack. The repetition of the treatment, and its unfailing effect on three separate occasions, and especially on the last, when the pulse and temperature remained unaffected, made it clearly a case of demonstrated therapeutic action, not a mere coincidence.—The PRESIDENT said that in the case just narrated the same effects had been produced time after time. Had this not been so, it might have been said that the coincidence was accidental. Besides, Mr. Thornton had found the ice-cap of use in other cases, and this could hardly be due to a general cooling of the blood, or even of the brain itself, by the local application. It might, however, be brought about by the local influence of the ice-cap on the capillaries, in turn affecting the centres, and so ultimately the kidneys. He had shown that raising the arms produced not only an emptying of the veins, but a contraction of the arteries; and raising the hands was often useful in arresting epistaxis. So, too, in the same way, raising the feet was sometimes useful in disease of the pelvic viscera; in one case he had known it allay pain in the testicle, even though the action would seem to favour the accumulation of blood there.—Dr. C. T. WILLIAMS had tried the ice-bag to the head in some cases of pneumonia and some acute tubercular attacks. He had usually found it fail when there was much local change, but it seemed to do good when the pyrexia was of a more general character.—In reply to Dr. Wiltshire, Mr. THORNTON said the operation had been done antiseptically. He had found the ice-bag of most service when the congestion was local.

Case of Erythema Iris.—Mr. BALMANNO SQUIRE read notes of this case, exhibited at the last meeting; it was that of a woman, aged 28, presenting a copiously sprinkled eruption limited to the palms of her hands and fingers, and the backs of the ends of her fingers. The eruption had lasted a month. Within the last two years she had had two previous attacks, each lasting three weeks. Each spot of the eruption consisted of a circumferential, definitely raised, faintly pink ring, enclosing a disc-shaped, flat, unraised, dark-coloured, brown-crimson, abruptly limited stain, disappearing completely for the moment on pressure, the centre of the dark-crimson stain being faded, and of a pale buff-yellow hue. The average diameter of the spots, including the ring, was eight millimètres. The eruption was attended with a sensation of itching, and occasionally of burning. There was also considerable tenderness of the affected skin, so as to preclude any use of the hands. There was no desquamation, nor was there any vesication; but, by the patient's account, the previous attacks had terminated in free desquamation.

Aneurysm of the Ascending Aorta.—Dr. FINLAY showed this patient, a woman, aged 32. She complained only of shortness of breath on exertion, and a slight cough at times. She had no difficulty in swallowing, and the pupils were equal. An oval-shaped pulsating swelling, three inches by two-and-a-half, and projecting about half-an-inch from the surface of the chest, appeared to the right of the sternum, and extended in an almost vertical direction from the lower border of the second to the lower border of the fourth costal cartilage. There was no discoloration of the skin, nor enlargement of the cutaneous veins. Over the swelling there were a thrill and a loud double murmur, the diastolic part being loudest and longest. A double murmur was also heard at the heart's apex, which appeared in the fifth interspace in the nipple line. The murmurs were heard generally all over the chest, both back and front. They were also heard in both carotids, and there was visible pulsation of the vessels of the neck. Dull percussion was found over the tumour, shaded off for some distance beyond. Inspiration was wavy at the left apex in front, and expiration was prolonged over the right upper

scapular region. The appearance and action of the vocal cords were normal. There was no specific history; the patient was married, but childless, and had had no miscarriages. She had a severe attack of rheumatic fever at the age of twenty; and thought she strained herself about four-and-a-half years ago while engaged in house cleaning. A year later, a continuous dull aching pain in the right side of the chest began to trouble her; and, on examining the part, she discovered pulsation and swelling. She was admitted to the Middlesex Hospital, and remained there from January 22nd to July 7th, 1879, being treated with gradually increased doses of iodide of potassium, confined strictly to the recumbent position, and dieted on the plan advocated by Mr. Tufnell. After nearly six months of this treatment, she was discharged much relieved, being free from pain, and with diminished pulsation in the aneurysm. There was, however, no evidence of consolidation. Since her discharge, she had continued to attend the out-patient department. On comparing her condition on physical examination when in the hospital with what it was now, the following differences appeared. At the former period, the diastolic sound over the tumour was accompanied by a "thud", indicating the competent closure of the aortic valve; the situation of the apex-beat was normal, and the heart's sounds there were unaccompanied by murmurs. Now, the thud had disappeared, the apex-beat was somewhat outside its normal position, and there was a murmur at the apex both with the systole and the diastole. The pulsation in the tumour, too, felt more superficial now than it did then. From this comparison, the sequence of events seemed to be: weakening of part of the wall of the aorta in connection with the attack of rheumatic fever, and its giving way under the strain referred to; then the gradual dilatation of the aneurysm leading to incompetence of the aortic valve; and this, in turn, to dilatation and hypertrophy of the left ventricle, with mitral incompetence. The question for consideration now, seeing that medical treatment had so far failed, was, whether it would be proper to resort to operative procedure; and, if so, what that procedure should be. Galvano-puncture might commend itself to some; the distal ligature, as exemplified in cases recorded by Dr. Cockle and Mr. Heath, Mr. Holmes and Mr. Barwell, and by others. There seemed to be points in the case both in favour of and against operative interference. In the former category might be mentioned the patient's youth and good general health, the circumscribed appearance of the aneurysm, and the absence of pressure-signs. On the other hand, there were the nearness of the aneurysm to the aortic orifice, and the aortic regurgitation, which would expose her to the danger of portions of clot being washed back into the left ventricle, together with a greater risk than in cases where the valve was competent, of clots being detached and carried forward in the other direction. At the same time, the regurgitation might be slight, judging from the small amount of dilatation and hypertrophy. Altogether, the *pros* and *cons* seemed so equal that it was difficult to strike a balance in favour of either side—all the more so, when it was considered that the patient was not unlikely to live for a considerable time in fair comfort without surgical treatment.——Dr. POWELL thought this aneurysm a sacculated one. If it were of the globular kind, an operation would be more risky. The relief already afforded showed that it was probably sacculated; but the layers of deposit had now melted down, and the aneurysm was nearer the surface than before. If it were certain that the *bruit* with the second sound was not due to the aneurism, but to regurgitation, he would not operate; but he was not sure that this was the case here. The *bruit* did not exist when the patient was seen first; then there was a well-marked thud, and there was still some shock. The sound was, moreover, loudest above and to the right. The illness seemed to have dated from an attack of rheumatism, or soon after that, and he thought in many cases the walls of the aorta were weakened in that disease.—Dr. DE HAVILAND HALL had only seen one case of acupuncture, that was under the charge of Dr. Hughes Bennett, and was undertaken too late. The aneurysm was in many ways similar to this; but the skin was reddened at the time of operation, and it soon after gave way. This was probably determined by the needle. If performed earlier, the operation might have been successful.—Dr. LONGHURST thought that the great principle both of medical and surgical treatment was rest. He did not think this a case for operation.—Dr. C. T. WILLIAMS mentioned a case similar to this, where rest was employed with great benefit. The main principle was to avoid all strain. In this case the tumour became so greatly thickened, that the man could strike himself with force upon it. But, after going out, the layers newly formed gradually disappeared, and he died. Nearly all aneurysms, however, opened elsewhere than on the skin if let alone.—Dr. GREEN thought the question of the condition of the aortic valves very important, as was that of the rheumatic origin of such cases. He had tried galvano-puncture in two cases: in one it did no good, in another there was slight improvement.—Mr. HOWARD MARSH referred to Mr. Stanley's well-known case, which proved the spontaneous curability of aneurysm by rest. In one case, where rest did no good, he tied two arteries, but there was an increase of the aneurysm towards the left in consequence of it. In this case the patient died by rupture at the spot where the subclavian was tied. Many points were to be considered in determining on an operation. Still, many cases were wonderfully benefited by distal operation. He was not aware, however, that a single person so operated on was now alive. The longest-lived patient was in Mr. Heath's well-known case, where the woman lived four years. Still, the operation was worthy of trial, especially with the new kind of ligatures which might be allowed to remain. Galvano-puncture usually failed.—Dr. FOWLER thought the *bruit* in Dr. Finlay's case partly aneurysmal. He had made the necropsy in Dr. Bennett's case. The clot found had been in part existent for some time, and in some parts it seemed charred as if by the needle, and it was here the aneurysm gave way. He had only seen one case of abdominal aneurysm treated on Tufnell's method. Here no laminar clot whatever was found.—Mr. PARKER said that galvano-puncture was considered to be unreliable, but it was a question whether the right kind of battery was commonly employed. He had found this in dealing with nævi. It was important to use the right kind of cell, and a galvanometer to determine the strength of the current passing.—Dr. POWELL, on looking at the pulse-tracing, said that it did not show regurgitation. It was a case where this should be carefully examined into.—Mr. WALSHAM thought the case was good in one sense for operation, the patient being young and healthy; but the aortic regurgitation was against it.—Dr. SILVER said that the case operated on by Mr. Heath had at one time been under his care. She was most troublesome to manage, and when she grew tired of the hospital, left, and was commonly soon found drunk in the streets. Had she taken more care, she might have lived longer.—The PRESIDENT nominated Dr. Powell and Dr. Green to act as a committee and report on the case.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

FRIDAY, JANUARY 20TH, 1882.

J. W. TRIPE, M.D., President, in the Chair.

Duties of Medical Officers of Health.—The Council brought up a report protesting against sanitary authorities expecting their medical officers of health to undertake other duties than those which properly belong to their office, as in the case of Sunderland, where the medical officer of health had been expected to perform the duties of chief scavenger, and to make purchases for the local authority. The report was unanimously adopted.

Practical Working of Direct Calf-Vaccination.—Dr. BENJAMIN BROWNING, Medical Officer of Health to Rotherhithe, read a paper on this subject. After referring to the number of cases in which small-pox occurred in vaccinated persons, Dr. Browning stated the opinion that it was no longer advisable to use humanised lymph for vaccination, because it was not easy to procure on an emergency, it sometimes failed to afford the desired protection, and it was suspected by some to be the means of conveying constitutional infection; while calf-lymph was available on the briefest possible notice, never failed in preventing small-pox, and was not known to have produced any bad symptoms. After quoting the statistics of the Metropolitan Asylums Board hospitals as evidence that humanised lymph did not afford any but a limited protection against small-pox, Dr. Browning alleged that calf-lymph never failed to secure immunity from disease. He defended it against the accusation that, in practising direct animalised vaccination, whether from animal to animal, or from animal to man, there was probability of failure, that papulo-vesicular eruptions were specially induced by it, or that it was followed by erysipelatous symptoms, and that the local as well as constitutional disturbance was much more severe than after humanised vaccination. Dr. Browning first selected two calves, three weeks old, and, having shaved one behind each wither, vaccinated it by scarification, employing Beaugency lymph. The animal, subsequently wearing a cradle, was tied up within sight but not within reach of its fellow. The vaccination succeeded, the vesicles rose, and, on the seventh day, when he proceeded to collect lymph, they were found loaded with pus. From some vesicles on the nose of this calf, he vaccinated the second calf, and, on the second day after the operation, found distinct vesicles on its nose; he then found that they had got out of their cradles, and had vaccinated themselves and each other. Calves of a month old were best for use; the lymph should be as fresh as possible, and therefore derived from an English source. The calves should be kept in a well drained and ventilated stable, in stalls not wide enough to allow them to turn round. A strong reversible table should be provided, slightly hollowed on the top, with holes to permit the escape of ordure and urine, and fitted with a post, two horns, and rings, so as to facilitate the spread-eagling of the animal. The other appliances were a water-bath, a drying-oven with a centigrade thermo-

meter, some paraffin, a pair of forceps, a scalpel, vaccinating-needle, etc., together with ivory points, glass tubes and squares. The calf was fastened to the table, with the head between the iron horns, the fore-legs strapped together, the hind legs separated and lashed respectively to the posts and left-hand corner. The abdomen of the calf was then shaved, washed with a solution of thymol or carbolic acid, and scarified in fifty to eighty places for the secretion of lymph. If the vaccination were direct, an equal number of punctures with the needle answered better. Within twenty-four hours, each insertion was reddened, and a vesicle developed and acuminated from the third to the fifth day; later, its contained lymph slowly passed into pus, and, by the seventh or tenth day, dropped off. During this time, the animal remained free from constitutional disturbance. To collect the lymph, the animal was again placed on the table; the vesicle, pinched up with forceps, was removed with a double-edged scalpel, and drained by slight pressure on to a piece of glass; the dry scab was left alone, but the pool of lymph running from it was used for coating points or glasses, and filling tubes. The points were dried in the oven at a temperature of 100°. The glasses were each coated with lymph and put together; and their edges were plunged into paraffin, melted over the water-bath. The tubes were filled with lymph which was defibrinated by exposure to the air and gravitation, and then closed with paraffin or hermetically sealed.—In the discussion which followed, Dr. Drysdale, Dr. Renner, Mr. George Turner, Mr. Wynter Blyth, Dr. Corfield, and the President took part.

SURGICAL SOCIETY OF IRELAND.

FRIDAY, JANUARY 13TH, 1882.

B. WILLS RICHARDSON, F.R.C.S.I., in the Chair.

Obturator Hernia.—Mr. CROLY exhibited the intestine of a woman aged 70, who had died under his care in the City of Dublin Hospital, from obturator hernia. The case was admitted into hospital in a state of collapse. The history given was that, up to four days previously, the bowels had acted regularly. She then got colicky pains in the abdomen. Two days afterwards, she vomited, first the contents of the stomach, and subsequently stercoraceous matter. The abdomen was painful on pressure, but there was no tension. On the following day, symptoms of collapse set in, and next day she died. All the sites of external hernia were carefully examined, and the obturator-spaces were also examined, but no hernial tumour could be felt. The diagnosis of internal obstruction was made; and abdominal section was considered, but was not carried into execution, owing to the collapsed state into which the woman sank, and from which she could not be roused. The *post mortem* examination showed some peritonitis to exist. A hernia of the size of a filbert-nut was discovered in the right obturator foramen. Owing to its small size, it had produced no dulness on percussion, or tension or fulness of the space during life; pain down the thigh, a symptom often found in obturator hernia, was also absent, as the nerve lay to the inner side of the tumour, and was not therefore pressed upon by it.

Obstruction of Pharynx by Food: Death.—Mr. WILLIAM THOMSON exhibited a piece of boiled beef which a pensioner had tried to swallow, but which stuck in his pharynx, and caused his death. The man was eating his dinner at an eating-house, and was observed to fall off his seat, apparently choking; he was at once conveyed to the Richmond Hospital, where the resident surgeon endeavoured to remove the mass of meat with his fingers, but, though he could catch a firm hold of it, he was unable, owing to its size, to get it out of the mouth. A forceps had to be employed for the purpose, and succeeded, but too late to save the man's life. The piece of beef removed weighed two ounces, and seemed to have caused death, not by sticking in the larynx, but rather by mechanical wedging of itself into the pharynx, and pressing on the epiglottis.

Therapeutical and Poisonous Effects of Carbolic Acid.—The discussion of Mr. WARREN'S paper on this subject was renewed.—Mr. WHEELER, quoting from a paper which he had read before the Society last session, stated that, in a series of cases treated by Listerism, the temperatures ran higher than in a similar series treated by simple antiseptics; and mentioned one case, dressed after Lister's method, which he believed died of "aseptic fever".—Mr. T. STOKER had used the spray in several hundred cases, and had never seen a single case of poisoning by the acid so used. In one case of a large superficial burn, poisonous symptoms were exhibited when the surfaces were dressed with carbolic oil; in such cases, he had now abandoned that mode of dressing.—Mr. CROLY never had a case of carbolic poisoning in his practice, though he used the spray freely.—Mr. STOKES compared the present complete immunity of the Richmond and other Hospitals from hospital-gangrene and erysipelas, since the introduction of Listerism, with the frequent occurrence of such cases before that method was adopted.—Surgeon-Major MYERS stated that, in military circles, there was no question as to the value of Listerism in the treatment of wounds; the only question was, how could the method be best adapted for use in the field of battle?—Mr. O'GRADY had, for sixteen or seventeen years, not seen a case of surgical erysipelas or hospital gangrene in Mercer's Hospital, although Listerism was not employed there; he did not think the diminished frequency of such diseases could properly be ascribed to the use of Lister's dressings. In one case of ovariotomy, when subsequently washing out the cavity with carbolic lotion (1 in 40), the woman became suddenly insensible, and died in five minutes, he believed from the effects of carbolic acid. The *post mortem* examination failed to discover any morbid appearance in any part of the body. Some people seemed to have a strong idiosyncrasy against carbolic acid, therefore the greatest caution should always be exercised in its use.—Dr. ATTHILL had performed ovariotomy thirty or forty times under the spray, and never saw a sign of carbolic acid poisoning from it. He had, however, now given up the use of the spray in such cases, in consequence of the undue coldness produced by it, not because of its toxic effects.—Mr. CORLEY considered that wide differences existed in the quality of the acid used, and that many of the apparently irreconcilable results obtained were due to the use of impure acid, which had a numbing and otherwise detrimental effect.—Mr. Hamilton, Mr. Thomson, Mr. Arthur Benson, and Dr. Duffey also took part in the discussion; and Mr. Warren replied.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, JANUARY 14, 1882.

WILLIAM STOKES, M.D., President, in the Chair.

Melanotic Sarcoma.—Mr. WHEELER showed the right index finger of a woman, aged 50, which was the seat of a melanotic sarcoma of two years' standing. The tumour was seven inches in circumference, four inches and a quarter in diameter. The finger was amputated through the metacarpo-phalangeal articulation. The new growth originated in the subcutaneous tissue. There was no glandular engagement. On microscopical examination, numerous blood-vessels were seen, and many spindle and oval cells, with marked pigmentation. Evidences of secondary fatty degeneration were visible in places.

Vesical Abscess.—Brigade-Surgeon JACKSON, C.B., showed a sacculated bladder, with an abscess in the recto-vesical fascia, from the body of a private in the Coldstream Guards, aged 23. The patient had suffered from gonorrhœal orchitis in July 1880, and became the subject of chronic cystitis early in 1881. Owing to increasing retention of urine, Surgeon Barrow tapped the bladder *per rectum* on October 28th, 1881, when a pint and a half of most fœtid dark green purulent urine escaped through the cannula. Urethrotomy was performed on December 3rd, but the patient died on the 12th of that month. The walls of the bladder were found to be half an inch thick; its mucous surface was dark purple. To the right of its floor was a circumscribed opening into a well defined sac, in Tyrrell's fascia, from which a thin pus escaped into the bladder. The wall of the sac was three-sixteenths of an inch thick; its upper surface was covered by the peritoneum, to which it was firmly adherent. After a discussion, the specimen was referred to the Committee of Reference.

Ciliary Staphyloma.—Mr. ARTHUR H. BENSON exhibited a specimen of ciliary staphyloma. He had, the same morning, enucleated the left eyeball of a stonecutter, aged 62, who had been struck by a splinter of stone in the left eye sixteen years previously. The sequence of events was probably as follows. The wound set up acute iridocyclitis and general inflammation of the anterior structures of the globe. This never totally subsided, but gradually changed into the chronic form of sclerotico-choroiditis anterior, with effusion of lymph into the anterior chamber, and blocking up of the iritic angle and of the percolation-spaces therein, thus producing a secondary glaucomatous condition, with increased tension of the intra-ocular fluids. Intense pain was produced in the same way. The increased tension, then acting on the anterior coats of the eye, weakened by the chronic inflammation which deprived them of their normal resiliency, produced the staphylomatous swelling, thus relieving the tension, and at the same time the pain.

Ovarian Dermoid Cyst.—Dr. WALTER SMITH presented a large dermoid cyst of the ovary from the body of a girl, aged 17, the subject of an abdominal swelling of some months' standing, and who died of gradual exhaustion. On examination, the tumour presented a multiplicity of tissues, all referable to the connective tissue series. The outer wall of the cyst consisted of true skin, and the tumour contained numerous loculi, filled with various matters, including fat, cartilage, hair, and bone.

SATURDAY, JANUARY 21ST, 1882.

WILLIAM STOKES, M.D., President, in the Chair.

Epithelioma of Fundus Uteri.—Dr. L. ATTHILL showed the uterus and neighbouring parts from a woman aged 58, married, mother of a child born twenty years previously. The patient ceased to menstruate in 1875. In September 1880, profuse uterine hæmorrhage unexpectedly occurred, and from that date bleeding went on almost incessantly. At last (in July 1881) a severe paroxysmal and periodic pain occurred in the vagina, the left groin, and along the inside of the thighs. The uterus was enlarged, movable, but although five inches long it admitted the sound to the depth of only two inches and a half. The os was normal in size; the cervix was somewhat thickened. A diagnosis of cancer of the fundus uteri was made, and it was resolved to remove the mass, which was done by making a free abdominal section. In the uterus, a soft semi-pultaceous mass, covered with a greenish slough, was found. This proved to be an epithelioma of the fundus uteri. The woman sank in thirty-six hours. At the necropsy, evidences of a septic peritonitis were found; the ovaries were atrophied. The stump of the uterus was adherent to some of the coils of the small intestines by recent lymph. The case was especially interesting as being the first in Ireland in which the uterus was amputated for a primary cancer of the fundus, the os and cervix being healthy. The recognition of the nature of the disease during life is also noteworthy.

Perforating Ulceration of Vermiform Appendix.—The PRESIDENT exhibited the intestines of a lad aged 16, who had been seized with violent and sudden pain in his abdomen eight days before his death. The bowels never moved after the onset of pain, and he became extremely prostrate. There was a history of hernia on the right side. Continual vomiting of fœtid, almost stercoraceous matter occurred, and the patient sank in collapse. On opening the abdominal cavity extensive old adhesions were observed glueing the intestines together, and to the anterior wall of the abdomen. The transverse and descending portions of the colon were collapsed, but its ascending portion was dilated as far as the hepatic flexure, just below which there was a constriction. The vermiform appendix was tightly bound down to the neighbouring intestines by firm adhesions. In its wall was an ulcerated opening, plugged by a mass of cretaceous matter or inspissated secretion embedded in solid fæces. Owing to this plugging of the perforation very little fæcal matter had escaped into the cavity of the peritoneum. An instructive discussion ensued, in which the Rev. Professor Haughton, Drs. Finny, Gordon, T. E. Little, W. G. Smith, Foot, and the President took part.

Pyæmia from Otitis.—Dr. WALTER SMITH showed the left petrous bone, cerebellum, and lungs of a young man aged 21, who had enjoyed good health until December 23rd, 1881, when severe pain suddenly set in in the left ear and left side of the head. Next day there were rigors, sweatings, and vomiting. The patient was admitted to Sir P. Dun's Hospital on January 1st. There was no history of any discharge from either of his ears. The temperature ran a completely typical course—on one occasion it fell to 96.7°, on another it rose to 107.4°. There was a similar want of accordance between the pulse and respiration records. There was a complete absence of any paralytic symptom, general or special. The sputum was rusty and streaked with blood, but physical signs of pneumonia were not discovered until January 9th. The cerebral symptoms then became latent. Examination showed bulging of the left membrana tympani, but there was no perforation or otorrhœa. After increasing dyspnœa, death ensued on January 15th. The spleen was large and pulpy; it weighed ten ounces and a half. There was some left pleural effusion; foci of embolic pneumonia were found in the left lung. The right lung was tough, non-crepitant, and in places quite gangrenous, with several softening embolic pneumonic patches. Necrosis of the pleura was well marked on the surface of the lung. A small greenish abscess was observed in the cerebellum, below the left corner of the pons Varolii. A thrombus lay in the left lateral and superior petrosal sinuses. The left petrous bone was diseased and very fœtid. The cavity of the tympanum was full of brown grumous stuff, and its roof was broken down and perforated.

SATURDAY, JANUARY 28TH, 1882.

Embolic Hemiplegia.—Dr. C. J. NIXON showed several of the viscera of a man aged 36, who became suddenly hemiplegic on the morning of December 14th, 1881. There was complete motor paralysis of the right leg and arm, and partial paralysis of the right side of the face. On examining the heart, a presystolic thrill and murmur were detected. He had suffered from rheumatic fever a year previously. The diagnosis was embolism of the left middle cerebral artery. Notwithstanding an attack of traumatic erysipelas from blistering the vertex, the patient did well until January 23rd, when a febrile attack, apparently due to pneumonia, set in suddenly and terminated fatally on the fourth day. After death, marked mitral obstruction was found, with a patch of recent ulcerative endocarditis. The chordæ tendineæ of the mitral valve were thickened and in some cases were snapped across. The right auriculoventricular valves were dilated. The lungs were congested. The much enlarged spleen contained one hæmorrhagic infarction. Peyer's patches were prominent. A plug occupied the left middle meningeal artery; but the island of Reil and the convolution of Broca were unaltered. The kidneys were fatty.

Chronic simple Ulcer of the Stomach.—Dr. T. E. LITTLE presented an example of chronic simple ulcer of the stomach and duodenum, in a woman aged between 50 and 60 years. There was no general peritonitis, but the stomach was slightly adherent at the pyloric extremity to neighbouring parts. In the posterior portion of the lesser curvature was an ulcer, the size of a shilling. Its edges were punched out and perpendicular, its base was formed by the pancreas. There was hypertrophy of the submucous (oblique) muscular fibres of the stomach. Here and there cicatrised superficial ulcers of the mucous membrane existed. A second ulcer, similar to that above described, was found in the first stage of the duodenum. As regards the etiology of these curious ulcers Dr. Little pointed out a singular coincidence in their occurrence at two places of attachment of the lesser or gastro-hepatic omentum.

Traumatic Dislocation of one Hip: True Ankylosis of the other.—Dr. E. H. BENNETT showed a curious specimen, taken from the body of a man over 50 years of age, described this session in the School of Physic. No life history could be obtained. Great deformity of both hips was observed, on the left side the features of a dislocation on the dorsum ilii were evident before dissection; on the right a true ankylosis of the hip, with marked erosion and abduction of the limb. Careful dissection of both limbs, the details of which were preserved and exhibited in casts presented to the Society, justified the following conclusions as to the exact nature of the causes which had produced the abnormal condition, and also the probable relation in time. The dislocation of the left hip was evidently of the traumatic variety, the characters of the displaced head of the bone, its position posterior to the shaft, the marked inversion of the latter, and the absence of any arrest of development of the pelvic bone excluded the diagnosis of congenital dislocation, while the absence of inflammatory changes in the capsule, and the characters of th esocket formed for the bone in its re-exposition, excluded that of pathological dislocation. The size of the femur and its shape suggested that the dislocation had occurred before growth was completed. On the opposite side, the joint exhibited an osseous ankylosis which had evidently occurred in adult life, and probably as the result of some acute synovial disease.

SATURDAY, FEBRUARY 4TH, 1882.

WILLIAM STOKES, M.D., President, in the Chair.

Spontaneous Laryngeal Fistula.—Dr. E. H. BENNETT introduced a woman, aged about thirty-five years, who had suffered for more than a year from laryngeal distress. When admitted to Sir P. Dun's Hospital, about Christmas of 1881, she was the subject of an unhealthy-looking ulceration of the front of the neck, over the crico-thyroid cartilage. It appeared that a swelling had first appeared in this situation, which at last broke, causing a laryngeal fistula. The ulceration had yielded readily to treatment—compound tincture of benzoin acting beneficially at once. There was nothing to warrant a suspicion of necrosis of an ossified cricoid cartilage; and the question arose, whether the ulceration was tubercular or of the nature of lupus.

Diseased Aortic Valves, with Hypertrophy of the Left Ventricle of the Heart.—Dr. A. W. FOOT showed a heart, weighing twenty-four and a half ounces, free of clots, from a man aged forty-five years, who had suffered from acute rheumatism twenty-five years previously. An attack of bronchitis proved fatal in a few days. During life, a double-bellows murmur had with difficulty been heard at the base of the heart, owing to the noisy character of the breath-sounds. The aortic valves were fringed with fibrinous deposits. Very considerable hypertrophy of the left ventricle existed. The mitral opening was normal.

Pleural Effusion: Collateral Hyperæmia of Lung.—Dr. J. W. MOORE presented the lungs and heart of a woman, aged about fifty years, who had died rather suddenly at the end of the third week of an attack of right pleurisy, with effusion. The physical signs of a collateral hyperæmia of the left lung were well-marked on the day of her death, which occurred ten hours after she came under treatment in the Meath Hospital. Arrangements were made for performing thoracentesis the morning after her admission to hospital, but she died on the evening before the operation. Eighty ounces of clear straw-coloured serum escaped from the right pleural cavity. There was much recent

lymph over the lung, which was completely collapsed and airless, except at the extreme apex, where some cheesy deposits were discovered. The left lung was largely hyperæmic. Blood was present in all the chambers of the heart, as well as in the pulmonary artery and the aorta. The cause of death was not very plain. It may have been a systolism of the heart, due to extreme obstruction to the pulmonary circulation; or a twisting of the inferior vena cava from pressure of so great an effusion in the right pleura.

REVIEWS AND NOTICES.

MONACO, THE BEAUTY SPOT OF THE RIVIERA. By T. H. PICKERING, M.K.Q.C.P., etc. Illustrated by M. Trautschold. London: Fleet Street Printing Works. Dublin: W. McGee. Monaco: A. Sinet. 1882.

IN about one hundred and fifty pages of pleasant reading, Dr. PICKERING has given an interesting account of this last and sweetest addition to the many attractive health and pleasure resorts of the Riviera. It must be admitted that Dr. Pickering is well qualified to form and state his opinion of the advantages and merits of the various places scattered about the coasts of France to which our invalids resort; for he has passed fifteen years—ten of them abroad—in studying different winter-stations. He sums up the advantages and drawbacks of Pau, Arcachon, Hyères, Cannes, Nice, and San Remo; and very fairly and finally fixes upon the principality of Monaco as possessing the highest attributes of a health-station. It is placed well above the sea-level; the air is dry, fresh, and never stagnant; the average temperature is as high as or higher than in any other spot; it is also more equable, because, as there are no rifts in the great rock barrier behind it, so the cold north wind cannot rush down any ravine or river-course to catch the unwary invalid, as at Nice and Cannes. The grand limestone rocks which wall it in reflect the sun's rays; and the luxuriance of its vegetation and the gorgeousness of its flower-gardens are remarkable, and are not exceeded by those of Dr. Bennet and Mr. Hanbury at Mentone. Monaco, so far as visitors are concerned, is comprehended in its lovely suburb of Monte Carlo—a spot than which no fairer can be found in Europe, and none fitter for an invalid, no matter whether it be his respiratory or his nervous system which is defective; he is invigorated, amused, and probably restored. It is objected to Monte Carlo, that its moral atmosphere is bad; that it is a paradise inhabited by devils. But devils should not be allowed to have all the lovely places to themselves; and Dr. Pickering is right when he says, in reply to the remark that, what with the casino and the rush of elegant and fashionable society, invalids would be exposed to dangerous temptation: "As a matter of fact, however, these so-called elements of danger are in reality a great advantage to the patient. No one can have wintered at stations solely devoted to the reception of invalids, such as Mentone and Hyères, or even at Cannes, and in a less degree at Nice, without being impressed by the baneful moral effect of the close proximity of fellow-sufferers. In these winter towns, the invalid is the only companion of the invalid; and hotels degenerate into infirmaries, *minus* the sanitary advantages and medical supervision of such establishments. Under these circumstances, the conversation even at meal-times turns naturally to the question uppermost in everybody's mind—the complaints from which they are suffering. Society, instead of diverting the thoughts of the patient, helps, on the contrary, to restrict them; and he is ever lamenting over his ailments, comparing his symptoms with those of his neighbour, or listening with bated breath to the doleful story of vain efforts, of intense suffering, and of fatal collapse." At Monte Carlo, on the other hand, the number of invalids, even should they greatly increase, will always be a minority as compared with the mere pleasure-seekers, and the patient will be insensibly drawn to think and talk of other things than his own malady. He can avoid the gaming tables, as he can avoid the gambling clubs of other towns; he can stroll along the broad sunny terraces, or sit under the shade of palm-trees in the exquisite gardens; and, if his health permit, he can enjoy in the afternoon daily a concert of the best kind, and this without fatigue or exertion. In short, nature and art here combine in fullest abundance to invigorate the strength and raise the drooping spirits of the careworn sufferer.

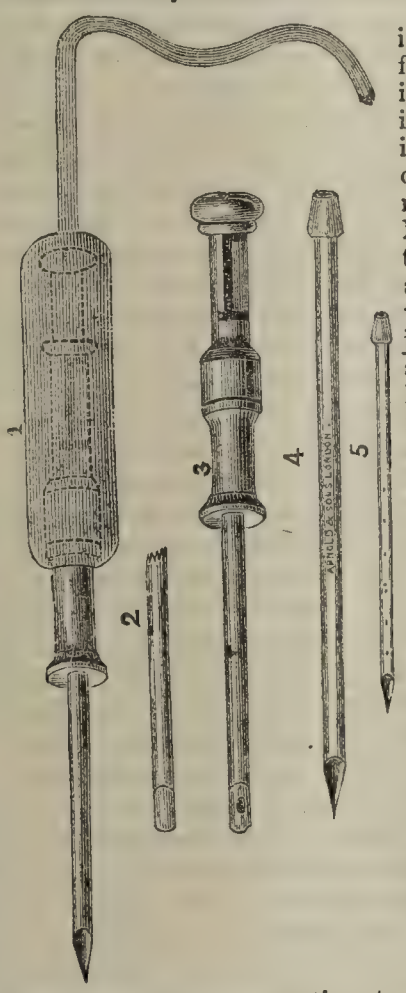
Dr. Pickering has included in his little volume a brief account of Monaco, the history of its reigning house, of its industries, and of the district around it. He is enthusiastic in his subject, and he may well be so; for it would be difficult to find a country without taxes, without pauperism as we know it, without a public debt, a chancellor of the exchequer, or a budget, and without a prison, and in which the children of the poor are educated without charge. Yet such is the happy condition of this miniature principality

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

TAPPING, AND A NEW ANTISEPTIC TROCAR.

IT was an old-established rule in surgery, long before the introduction of antiseptic treatment, that every precaution ought to be taken in all tapping and exploring operations to prevent atmospheric contact with the interior of the cyst or cavity. The old-fashioned trocar is not well adapted for this purpose. Some years ago, I used a flexible tube attached to the cannula, and through its side I introduced the trocar, so that, on its withdrawal, the perforation was closed by the elasticity of the tube. This, however, was a very clumsy proceeding.

The siphon-trocar, invented by Mr. Charles R. Thompson of Westerham, has been very generally employed of late years, and a modification of it has been introduced by Mr. Spencer Wells for the purposes of ovariotomy. The protection against the admission of air depends wholly upon the action of the piston, which must fit the cannula accurately, and also be well greased, so that its action may be easy and secure. Sometimes this instrument is furnished with a stopcock which can be turned upon the retreating trocar; and this certainly affords additional protection. In my experience, however, piston-trocars are very liable to derangement.



The new trocar which I desire to introduce to the notice of the profession is a very simple and handy instrument. The special feature in its construction consists in this: that it is perfectly air-tight, and can be opened and shut within an India-rubber case (see Figs. 1, 2, and 3). It is composed of two metal tubes; the outer carries a pen-shaped lance, and the inner is round at the point, with a lateral opening. By a bayonet-joint, the trocar is opened and shut, at the same time the point of the lance is protected from injuring any internal part. The orifice and joints are introduced into the enlarged end of the India-rubber tube, which is slipped over a metal block, and then secured by a ring, and this serves for a handle to the instrument. It is adapted for all kinds of tapping; it can be used also for exploring or injecting purposes; or it can be very readily attached to the exhausting-apparatus of the aspirator. The trocar is manufactured by Messrs. Arnold and Sons of West Smithfield, in three convenient sizes. I have now employed it in every variety of operation, and with special advantage in cases of paracentesis thoracis. The opening and closing action within the India-rubber case is very readily accomplished, and the necessary movement can be easily performed by any one after a little attention to the construction of the instrument. Fig. 4 represents a simple form of exploring-tube, to which an India-rubber bag can be adjusted. The capillary drainage-tube (Fig. 5) is intended for the treatment of anasarca; and it can be left in the subcutaneous tissue without any risk of injury to the deeper parts; and its position can be altered without another puncture of the skin.

JOHN WARD COUSINS, M.D.Lond., F.R.C.S.,
Surgeon to the Royal Portsmouth Hospital.

ALLEGED MEDICAL NEGLECT.—An inquest has recently been held at Lidford, Devonshire, on the body of a woman, whom it was alleged that Dr. Pullin had neglected to attend, though summoned. The evidence showed great discrepancies in statement. We fail to see that blame attaches to Dr. Pullin—an opinion which coincides with that of the jury, who did not attribute any blame to the medical man.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1882.

SUBSCRIPTIONS to the Association for 1882 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, FEBRUARY 25TH, 1882.

MEDICAL ENDOWMENTS AT OXFORD.

THE recent appointment of Mr. Moseley as Linacre Professor of Physiology and Anatomy at Oxford, the vacancy in the office of Lichfield Clinical Professor of Medicine, and the announced intention to create a new special professorship of human physiology in the University, are elements in the restoration of the medical faculty at Oxford for which we have earnestly pleaded, and in favour of which the medical profession has pronounced itself, when appealed to, with unmistakable vigour. Such a work of restoration must, it is to be feared, be necessarily slow; and probably, but for the brilliant example to which we have been able to point in the progressive development of the medical faculty at Cambridge, neither argument nor protest would easily have availed to produce an immediate impression, even in the imperfect degree in which we may fondly believe that they have prevailed. Among the more hopeful signs has been the progress made at the Radcliffe Infirmary in developing clinical teaching. We have before us a paper headed "Radcliffe Infirmary, Hilary Term, 1882". It sets forth the days and hours of attendance for students. It announces for two days of the week an important clinic, with the physician of the week; and also a corresponding arrangement of out-patient clinic, with the surgeon of the week. On two days, surgical operations are set down; a practical course of "Minor Surgery" is given by Mr. Symonds; special instruction is given on "Methods of Medical Diagnosis" on Friday afternoons, by Dr. Darbishire; and on two days of the week Dr. Darbishire gives an out-patient clinic. In addition to the above, the attendance of students, it is noted, will be required at all *post mortem* examinations, due notice of which will be given. The vacant clinical professorship has not, we believe, been filled up; but it is interesting to see clinical teaching once more reinstated in Oxford from which, while the Lichfield Professor (who was also a Regius Professor of Medicine) had his way, it was wholly abolished, and clinical students were seriously warned off. The obvious and immediate need at Oxford is some systematic organisation of the existing resources of the University, in such a manner as shall make those resources available in the form and at the times prescribed by the General Medical Council for the purpose of medical education. When this elementary piece of organisation has been obtained, it will still be necessary to add certain professorial chairs and demonstrations, in order to complete the curriculum—for the first two years, at least. Oxford may then once more begin to resume its place amongst universities in which medical teaching is something more than a derisive pretence, and cease to hold the exceptionally painful position of being almost the only university in the kingdom from which the teaching of medicine is exiled.

It is well, perhaps, to recall the state of the facts as to the medical endowment of Oxford, and to recapitulate what has been before stated in these columns on this head.

I. The Regius Professorship of Medicine, as at present constituted, is worth about £500 a year. The items are: (1) from the Queen's Exchequer, £35; (2) as Master of Ewelme Almshouse, £250; (3) as Aldrichian Professor of Medicine, £126; (4) examination and graduation fees, £70 to £100. II. Lord Lichfield's Clinical Professorship, which is not united with the Regius Professorship, is worth £200 a year. No instruction has been given from either of these chairs for some time, a circumstance from which the University, at the present moment, is suffering great disadvantage. III. The Linacre Professorship of Physiology and Anatomy has absorbed the old foundations for the encouragement of human anatomy, namely, the Tomlinsian Prælectorship, and the Aldrichian Professorship. It is worth £800 a year, the sum which Merton College pays in place of the original endowment entrusted to it by Thomas Linacre, founder of the College of Physicians, and once a lecturer on medicine in Oxford. The Linacre Professor is engaged in teaching Comparative Anatomy to candidates for the B.A. degree. IV. A separate Demonstratorship of Anatomy, worth £200 a year, also still exists, and was intended by the Commissioners of 1852 to provide for the teaching of Human Anatomy, as designed by Tomlins and Aldrich. The gentleman who holds this post is Curator of the Museum of Comparative Anatomy, and does not teach Human Anatomy. V. The beautiful old Physic Garden, founded by Earl Danby in 1622, is another heirloom of the medical faculty of Oxford. The chair of Botany was endowed by Dr. Sherard, and the College of Physicians of London elect the professor. By special provision, the clergy were excluded from this professorship, and preference was to be given to a medical graduate. The chair is now worth, with later additions, about £400 a year. VI. Lastly, a very important trust fund is administered by the governing body of Christ Church, a great part of which was left by Dr. Matthew Lee, in 1755, to provide for anatomical teaching in relation to medicine exclusively. Dr. Lee's expression of his intentions is very clear and precise. He assigns, in his will, £100 a year as the salary of a reader in anatomy; £50 for expenses of two bodies and dissection; £30 to a reader in mathematics and physics; £50 a year to the Dean and Chapter for management; and the remainder to scholars from Westminster School. The trust is now worth £3,400 annually. It is spoken of in the return made by Christ Church to the Commissioners of 1874 as "Dr. Lee's Benefaction for Senior Students in Natural Science". This is not quite accurate: firstly, because Dr. Lee designed the major portion of his benefaction for students in anatomy as bearing on medicine, and not for natural science generally; and, secondly, because Christ Church uses nearly half of Dr. Lee's trust-money to pay classical scholars from Westminster School; whilst the remainder is used to support a most efficient chemical laboratory, and to pay, in part, the salaries of the accomplished chemist, zoologist, and physicist, who are styled "Lee's Readers". No part of Dr. Lee's bequest is now assigned to medical studies, though it should be stated that the present application of Dr. Lee's fund has obtained Parliamentary sanction.

The following was a correct statement of students in, and expenditure on, medicine and natural science in the University of Oxford at that time (1878). Average annual number of medical graduates, 4; ditto of persons taking the B.A. degree through the Natural Science School, 24. Fees to examiners in medicine and natural science, annually, £360; salaries and fees to professors and to their assistants, and annual expenditure on buildings, apparatus, etc., £6,500; salaries to College lecturers in natural science, and annual expenditure on laboratories, £4,000; total, £10,860.

The petition to the University of Oxford was signed in 1878 by a number of professors and teachers of medicine and the allied sciences, professors, tutors, and lecturers in the University of Oxford, or graduates of Oxford, who submitted to the Oxford Commissioners a statement respecting the relations between the University and the medical profession. The petitioners set forth that they could not but see that the contributions made by the University to the science of medicine, and its influence on the profession, were so slight as to be practically insignificant; and they believed that the small numbers of the Oxford graduates who entered the medical profession were mainly due to the absence in the University of any adequate working organisation for medical education or the promotion of medical science. They were of opinion that a

more intimate connection of the University with the medical profession would be of advantage in many ways: to the University itself, as giving it wider interests and stronger claims on national sympathy; to the profession, as raising its standard of general culture; to the progress of medical science generally; and also to the progress of those sciences which were usually regarded as ancillary to medicine, more particularly of biology. On all these grounds, they regarded the question as one of national importance. They believed that other European universities, with scarcely an exception, recognised the preparation of young men for the medical profession and the advancement of medical science as among the most important of their academical functions; and they expressed their regret at the present imperfect condition of the medical faculty at Oxford, and thought it highly desirable that this imperfection should be remedied, unless it should be found to depend upon unavoidable causes. This petition was signed by a great number of eminent persons, the names of whom we append in a note.*

In a letter written at the time by Mr. Ernest Hart, on the subject of the capacity of the Radcliffe Infirmary for clinical teaching, and which was put in evidence before the Commissioners, he pointed out that, in looking through the reports of the Radcliffe Infirmary for 1875 and 1876, there was an excellent list of general cases for clinical instruction; the medical cases were remarkably good as a clinical field, including, in one year, thirty-five cases of enteric fever; and a good supply of diseases of the nervous system and digestive system, with a department of skin cases and aural cases, obviously capable of considerable development. The surgical in-patients also afforded a large field of instruction. The surgical service did not include any large number of accidents, but a very good and instructive series of general surgical cases; and there could not be the least doubt that such a field as this would afford an excellent basis of clinical instruction. Of course, if the hospital became a clinical school, and if, as would certainly be the case before long, satisfactory arrangements were made at Oxford, and high class clinical and operative teaching were instituted, a more important series of cases would be attracted to the hospital. In the London hospitals, as well as all the German hospitals, for example, irrespectively of accidents, the character of the cases admitted was very largely determined by the brilliancy of their reputation. University College and King's College Hospitals, when officered by Liston and Fergusson, had probably a larger number of important operations than any of the great hospitals, although the number of surgical beds in each did not exceed fifty. Stokes and Graves each taught from thirty beds, he had been told, at the Meath Hospital; Skoda wrote his great book from twenty-five beds; Collis, of Dublin, never had more than from thirty to forty beds; and Volkmann, at Halle, had revolutionised the surgical practice of Germany in a small hospital situated in a town a little larger than Oxford. The Sir James Simpson of the Continent was Baron Scanzoni, whose clinical teaching had been seated at the little town of Würzburg, with fewer inhabitants than Oxford. Mr. Lister, Dr. Robert McDonnell, Professor Billroth, Dr. Bristowe, who wrote open letters which were published at the same time, each treated the objection that good clinical teaching could not be carried on at the Radcliffe Infirmary, with about two hundred beds, as "puerile", to use the words of Dr. McDonnell. Dr. Wilks urged especially that the University of Oxford should regard it as one of its functions to afford a thorough training in medicine; that the opportunities of its doing so existed; and that it was in the interest of the profession that as many young men as possible should pass through the University portals.

The new Linacre Professor of Anatomy and Physiology is, we believe, sincerely anxious to organise and develope the preliminary medical instruction of the University of Oxford, and to assist in so arranging the curriculum as to make clinical teaching available for the earlier years of medical studentship under the conditions and in the order of study prescribed by the General Medical Council for subsequent graduation; he finds, however, many difficulties in the way, both in the examination regulations of the University, and in the time-honoured perversion of medical endowments.

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MEDICAL ADMINISTRATION IN INDIA.

One of the most pressing, and at the same time important, questions of the day in medical politics is that of the provision to be made for the medical requirements of our Indian empire. This question does not concern merely the administrative and professional arrangements for satisfying the wants, large as they are, of the army in India, European and native; but includes also the direction and management of a vast number of civil medical establishments. The civil establishments under the Indian Government comprehend those for the medical superintendence and charge of the gaols, dispensaries, civil stations, and of the police, of India; the professorships and minor appointments, with the educational arrangements of the great medical colleges in the several presidencies; and, lastly, the sanitary and public vaccination departments—in short, all the departments for the regulation of those matters which in this country are embraced in the several Public Health Acts, and administered under the directions and supervision of the Local Government Board. The organisation in India for the execution of these numerous and important civil medical duties has been hitherto quite peculiar, in no way having any analogy with the system in force in England. All the civil duties above mentioned, and all the civil appointments connected with them, have been placed in the hands of the medical officers of the Indian Army. The Indian Government has not engaged in its service a staff for civil medical purposes; and as there is not in the country any body of European general practitioners, the Government has necessarily had to go to the army medical staff for carrying on the civil, medical, and sanitary work of the empire. The medical officers transferred from the military medical service for these purposes to the civil governors, have ceased to be in any way under military control, or to have military duties to perform, though they have been liable to be removed from their civil employment, and sent back to their military positions, if the civil governing authorities might so determine. But even while holding their civil appointments, the Indian army medical officers have always clung to their connection with the military service; and very naturally, too, since on their grade and position in the army ranks has depended their rate of pension on retiring from active service. Thus, an Indian army medical officer may have been acting in civil medical employment for nearly the whole of his career in India, yet may retire with a title indicative of a certain military rank, and a pension regulated by the terms belonging to the rank attained. Moreover, in many instances, the Indian medical officers have been employed on duties altogether foreign to their medical calling. They have held appointments as political agents, opium agents, conservators of forests, postmasters, mint and assay masters, directors of telegraphs, and other equally non-medical charges. Under the rule of the East India Company, instances of the kind were very numerous; and no wonder, since the superior scientific attainments of the medical officers were most valuable to the Company in opening up the mineral, botanical, and other resources of the country. Since the transfer of India to the Crown, the examples of medical officers being employed in such capacities have been less frequent, but appointments of the kind have been, and still are, occasionally met with. On the other hand, the

surgeons of the British Army Medical Department, whether serving in India or elsewhere, are throughout their career in the public service constantly employed in military medical practice. They are never employed in other than medical duties, and these duties are almost without exception directly connected with the military service. The difference between the two medical departments has thus been very marked; while the Indian Medical Department has partaken largely of a civil character, the British has been restricted to a sphere which is purely military. With such a divergency between them, it may be readily understood how it has happened that the efforts which have been repeatedly and strenuously made to amalgamate the medical branches of the British and Indian services, in the same way as has been done with other portions of the British and Indian armies—with the Engineers and Artillery, for example—have signally failed. With regard to the Engineers and Artillery, and the European regiments of the Indian service, the difficulties in the way of amalgamating them with the corresponding arms of the British service were comparatively slight, inasmuch as the exercises and duties in which they were constantly occupied were alike in both. We still see proposals put forth for the assimilation of the British and Indian medical services; but where there exists such dissimilarity, all such schemes will certainly prove abortive. The impediments to assimilation which have been already named are potent enough, but there are still others which militate against success in any undertaking of the kind. By the terms of the Queen's proclamation on the transfer of India to the Crown, every native, irrespective of caste or creed, had conferred on him a right to enter the lists for all Indian appointments which are open to public competition. Many natives of India have competed for appointments, and some have been successful and are still holding appointments, in the Indian Army Medical Service. But, as one of the preliminary qualifications for obtaining a commission in the British Army Medical Department, every candidate has to sign a declaration upon honour that his parents are of unmixed European blood. It is obviously impracticable to reconcile such discrepancies as these, or to assimilate or amalgamate the two medical departments, so long as the regulations by which they are governed contain provisions at such complete variance with each other.

There is only one possible solution of the difficulties which result from the constitution of the Indian Medical Service, and the complex duties in which its officers are engaged; and this solution is one which has been advocated by various able administrators in both services. The first step must be a complete separation between the civil and military medical services of India. This has been partially effected by the appointment of sanitary commissioners and medical officers to advise the civil governors and chief commissioners on sanitary and medical subjects; but, to be effective, the separation must be as entire as it is in England and in every State of Europe. The medical and sanitary requirements of the teeming populations of India are vast in amount, of a most intricate nature, and demand distinct administrative and executive establishments. The diffusion of knowledge on sanitary subjects by the suitable education of natives selected for the purpose, the instruction of native medical practitioners, the preservation of the public health under all the difficulties inseparable from an Indian climate, are concerns of the deepest import to the local government of the country. A distinct organisation for regulating and carrying on these serious concerns is surely as necessary in India as it can be in any country of Europe. India itself, as a country, is fast losing many of the special features which distinguished it in former days from the leading countries of Europe. The rapid communication between Europe and India, through the constant succession of steam-vessels by the Suez Canal, has brought India into closer proximity with the countries of Europe; while the spread of education and commerce, and the influence of the increasing network of railways and telegraph lines, are still further helping to break up the differences which formerly existed between the conditions of Indian and European life and habits. These, and man other circumstances which might be mentioned, are all tending to render the system of sanitary organisation and administration which has been found suitable in Europe equally applicable in its general features to the wants of India.

Whenever a separate medical organisation for the civil medical duties of the various provinces of India becomes an accomplished fact, all real difficulties in the way of the Indian Military Medical Department coalescing with the British Army Medical Department will have disappeared. In time of war, the native army joins with the European troops, and without any distinction between them—all equally act under the orders of the officer in chief command. No good reason can be advanced for not placing the medical concerns of the whole of the military forces of India under the same administrative medical officers, and thus getting rid entirely of the double administration, which has been such a source of friction and unnecessary cost. The details of the administration and the arrangements for the performance of the duties of native hospitals must continue to differ in certain respects from those of European hospitals, as they do at present; many matters will have to be considered and regulated, so that the interests of the present incumbents of appointments in the Indian Army Medical Service may not be interfered with; but, if once the entire separation of the civil and military medical services of India, and the junction of the latter with the general army medical services, be decreed, there will not be wanting well informed and competent men to whom the task may be safely committed of framing the necessary regulations for all such matters. After all, the Indian empire is now part of the British empire; and the armies by which the British rule is maintained, and the safety and order of the territory preserved, though divided into native and European, are as much British forces as those in any other part of the British dominions. They are equally under the supreme rule and direction of the British Government. If this applies to the military forces of the country as a whole, it should equally apply to all the parts, the medical included, of which these forces are composed. Unity of system, and unity of control and direction, are as essential for the smooth working and efficiency of the medical body, as of any other corps or department of an army.

GALVANISM AND HYPNOTISM.

M. CHARCOT has made a series of interesting communications to the Biological Society of Paris, concerning the phenomena resulting from the application of a galvanic current to the cranium during the lethargic period of hypnotism observed in hysterical patients. During the period of hypnotic sleep of hysterical patients, which M. Charcot calls "provoked hypnotic lethargy", there exists a state of neurotic superexcitability, characterised by an aptitude of the nerves and muscles to act under the influence of a mechanical stimulus. M. Charcot's most recent experiments show that this superexcitability resides, not only in the muscles and nerves, but in the motor regions of the cerebral centre. Thus the galvanic current acting on one side of the cranium produces sudden muscular starts in the face and limbs of the opposite side; while the same current does not give rise to any contraction when the patient is awake. An hysterical patient, thrown into a state of lethargy by the usual means, falls into a state of neuro-muscular superexcitability. If one of the poles (the positive) be placed on the frontal protuberance, or two centimètres above the pinna of the ear, and the other pole being placed on the median line of the sternum, when the current is interrupted, a violent start is observed on the opposite side to that on which the pole is applied. The commissure of the lips is drawn outwards, the arm and leg are suddenly raised upwards. These movements take place in a single region, or in all three at once, on whatever side of the cranium the current is applied. As the movements of the face might be attributed to the direct influence of the current on the facial muscles, the experiment was modified in the following manner. The poles were both placed on the same side of the cranium; one a little above the pinna of the ear, or four or five centimètres behind and above the mastoid process; the other on the apex, three centimètres from the median line, at the

extremity of a vertical line passing by the meatus auditorius externus; this region corresponds to the upper part of the cerebral motor region. The results were similar to those yielded by the preceding experiment.

Negative results attend these experiments repeated when the patient is awake. It may be presumed that, during the hypnotic lethargy, there is a special excitability of certain regions of the brain. How the current passes through the bones of the cranium, is a question which M. Charcot does not attempt to solve at present. The important fact is that the motor cerebral regions, during hysterical lethargy, are sensible to the influence of a galvanic current.

At a more recent meeting, M. Charcot communicated fresh details and modified conclusions, which he had previously suggested rather than arrived at. M. Charcot insists on the impossibility of adopting for the moment other than temporary conclusions.

Up to the present time, M. Charcot has studied ten cases of hysterical affections; these he divides into three groups. The first group consists of four patients. Galvanising the half of the cranium, as previously described, when these patients were in a state of lethargy, accompanied by neuro-muscular excitability, always provoked localised movements on the opposite side of the body—face, arm, and leg. These movements were less sudden than they generally are when the current is interrupted. The same experiment repeated when the patients were awake gave negative results. Wishing to determine whether the galvanic stimulus is transmitted through the integuments, the cranial bones, and the dura mater, finally reaching the brain, M. Charcot repeated, with some modifications, Professor Erb's experiment, which proved the affirmative. Two metallic rods being placed in communication with the cerebral matter, and a telephone, a slight crackling noise is heard when the galvanic current is interrupted. If the electrodes be applied to the shoulder, the telephone is silent when the current is interrupted. In these researches, the galvanoscopic frog's foot gives the same results. M. Charcot considered that these experiments support the opinion that currents of a certain intensity can reach the brain; but he would not adopt any conclusion, and left the question open to discussion by his colleagues.

M. Charcot repeated his experiments on four other patients, constituting the second group. In this group of patients, the same patients did not always yield the same result when an identical experiment was repeated. Invariably, however, the movements of the limbs and face occurred when the current applied to one side of the cranium was interrupted, and with a marked predominance on the same side of the body. Three of this group, when awake, had sudden movements when under galvanic cerebral excitation; the remaining patient presented these symptoms only when hypnotised.

In the third group, two patients remained perfectly quiet during the cerebral galvanisation. One of these was exempt from neuromuscular excitability, and another presented it to a limited extent.

M. Charcot communicates these details without drawing any conclusion. He offers them to the criticism of his colleagues; suggesting only that the excitability of the dura mater may perhaps give some clue to a solution. His suggestion is based on the results of the well known experiments of Marshall Hall, Brown-Séquard, Bochefontaine, and Duret.

MEDICAL FEES FROM SCHOOL BOARDS.

SINCE compulsory public elementary education was established in England and Wales in 1870, an enormous number of children are instructed in the schools provided for this purpose, and a very important proportion of them fail to attend from illness. If, therefore, the authorities of School Boards require medical certificates of this sickness before they will allow it to be pleaded as an excuse for non-attendance at school, this action would not only engage a great deal of additional services by medical men, but the annual amount of the fees to which they would be entitled would be a large sum in excess of that which they now obtain.

We have no doubt, if the members of our profession had to entirely depend upon the parents and guardians of the sick children for the payment of these fees, not only would many of them become bad debts, as a great number of the persons who were responsible to pay them could not afford to do so, but much annoyance, risk, and loss of time would be occasioned in obtaining the fees from several others who could afford to pay them; while it is probable that a large amount of such would be lost. None of these grievances, however, would be likely to be felt if the medical certificates in question were legally ordered and paid for by the School Boards.

At Southwark Police Court, on the 18th instant, Mr. Bridge was occupied for a long time in hearing a case which was argued on both sides, as to whether the School Board was liable to pay the fee for a medical certificate respecting the illness of a boy who attended school under the provisions of the before mentioned Elementary Education Act, when the certificate was required by an officer of the Board. On behalf of the medical man under whose care the child had been, it was maintained that, if the officers of the Board were not satisfied with his statement, and required a medical certificate, they were bound to pay for the same. Documentary evidence was also produced to show that a communication had been made by him to the Education Department respecting such payments, and their consent to them. The assistant to the medical man told the School Board officer that the boy was not fit to go to school, when the latter asked the assistant for a certificate to submit to the Committee; and he said that his master declined to give it, unless he was paid for such by the School Board. The officer had, according to his own admission, no authority to pay for medical certificates in cases of this kind. The magistrate, we believe, rightly stated that he was of opinion that, when a medical certificate was demanded by this officer after the doctor had stated that the child, from illness, was unable to attend school, the School Board was bound to pay for it; and he consequently made an order for the Board to pay £1 5s. for costs, and discharged the case against the child's father.

We may add that we have reason to think that, if the Education Department had not consented to the payment for such certificates, the officer might have been held to be liable to pay for them; as there is a decision in the case of Watling *v.* Walters, tried before Mr. Justice Park at the Hereford Autumn Assizes in 1823, and which does not appear to have been overruled, that, if a deputy-overseer instruct a surgeon to attend a poor man professionally, he is liable to pay the surgeon's fee for so doing.

THE National Council of Zürich has decided on making vaccination compulsory.

HERR WICKERSHEIMER, the inventor of the fluid for preserving anatomical and pathological preparations, is reported to have discovered means of preserving bread, meat, and beer, for a long time.

A NEW street, in the neighbourhood of the General Hospital in Vienna, is to bear the name of "Skoda Street" (*Skodagasse*), in honour of the celebrated physician and clinical professor.

THE Municipal Council of Villefranche, in the department of the Rhine, has voted the erection of a statue to the illustrious physiologist Claude Bernard. It is to be placed in the square which already bears his name.

A SUMMONS issued against a grocer at Birkenhead for selling coffee which Mr. Vacher, public analyst, pronounced to contain a large percentage of chicory, has been dismissed with costs against the corporation; one of them, an official at Somerset House, having certified that the coffee was pure and unadulterated.

AN epidemic of scarlet fever is feared at Oldham, where, we understand, there is no accommodation for such cases in the hospital at the disposal of the sanitary authority. The cases have already increased from fourteen to twenty-one.

DR. WILLIAM MURRELL, Lecturer of the Westminster Hospital School, has been appointed the additional Examiner in Materia Medica in the University of Edinburgh, in place of Dr. Lauder Brunton, who has resigned.

AMONGST the Parliamentary Bills which have been read a first time are, a Bill by Mr. Peter Taylor "to repeal the compulsory clauses of the Vaccination Acts", to be read a second time on Wednesday, June 21st; and a Bill for the Total Abolition of Vivisection, to be read a second time on Wednesday, June 28th.

DURING the fortnight ended the 4th of February last, the mortality recorded for the parish of Newington was, with one exception, the highest ever reported—viz., 160 deaths. Exactly two years ago, it reached 213; the cause both now and then being the prevalence of foggy weather and an excess of whooping-cough, the latter causing 26 deaths. No fewer than 35 deaths happened in the infirmary, 10 being parishioners.

DR. BECKER, assistant-surgeon to the hospital at Görlitz, was assaulted on the 2nd of this month by a male attendant, who had been discharged the previous day for transgression of duty. The man, who was armed with a dagger and pistol, waylaid Dr. Becker in the street, and wounded him on the thigh. He was at once arrested. The wound is reported to have been not dangerous, though likely to cause disability for several weeks.

PROFESSOR FLOWER, LL.D., F.R.S., will commence his course of nine lectures on the Anatomy, Physiology, and Zoology of the Edentata, in the Theatre of the Royal College of Surgeons, on Monday next. The following is his programme. General Characters of the Order. Family *Bradypodidæ:* the Sloths. *Megatherium* and other great extinct Ground Sloths of America. Family *Myrmecophagidæ:* the true Anteaters. Family *Dasypodidæ:* the Armadillos. *Glyptodon* and other extinct Armadillo-like animals. Family *Manidæ:* the Pangolins or Scaly Anteaters. Family *Orycteropodidæ:* the African Anteaters or Aard-varks. The extinct Edentata of the Old World. Classification of Edentata and relation to other groups.

THE LATE CAPTAIN SELBY.

WE have received a special telegram to-day (Thursday) from Constantinople, which gives the particulars of the injuries and progress of this gallant seaman. Dr. Sarell reports that the chief injury consisted in a longitudinal cut over the vertex, fracturing the bones of the skull severely, and greatly depressing the fragments. The larger fragment of the left parietal bone was four inches long by three broad; a smaller fragment was found to have penetrated the brain and membranes, and was removed by operation. Hæmorrhage occurred within the cranium, and secondary inflammation followed, the abscess reaching the left ventricle. The patient became aphasic, paralysis of the right arm occurred, with convulsions, coma, and death on the eighth day. In such a case, trephining afforded the only forlorn hope; but the violence exercised, and the severe nature of the injuries inflicted on the brain and the membranes, frustrated all efforts to save the patient.

THE NAPPER TESTIMONIAL.

A CIRCULAR has just been addressed by the honorary secretaries of the Napper Testimonial Fund to the medical officers of cottage hospitals and others interested in their management and progress, together with a list of those who have already subscribed towards the fund. All who have watched the inception and growth, at first gradual, but latterly rapid and contagious, of cottage hospitals, will be interested in the success of the testimonial which it is proposed to offer to Mr. Napper, as the originator, and in the best sense of the word the founder, of the cottage hospital system. The list of subscriptions already received contains names that are representative of every branch of the profession; and in a cause in which not only medical men, but peers, members of Parliament, clergymen, and members of other professions, have already interested themselves, there should be an earnest effort by everyone in any way connected with cottage hospitals to take a share. It would be a graceful recognition of the debt which the system as a whole owes to Mr. Napper if the officials connected with each hospital were to join their subscriptions, and send them to the fund as the contributions of particular cottage hospitals, instead of individuals. There must be now in actual working in the United Kingdom at least two hundred and fifty or three hundred such hospitals. If the officials of each of these were to contribute amongst them only £5, a handsome sum would be raised towards the giving of a testimonial worthy of him who has done so much for the good cause. We commend the fund very sincerely and earnestly to the profession at large.

THE NOTIFICATION OF INFECTIOUS DISEASES.

THIS subject has recently been under discussion in two of the Branches of the Association. At a special meeting of the Lancashire and Cheshire Branch, held on February 8th, it was resolved, after discussion:

"That, in the opinion of the meeting, the compulsory notification of infectious diseases is of great public and national importance. In carrying out this object, the meeting believes that the responsibility of notifying disease should rest with the householders, and that the medical attendant should possess the voluntary power of notifying cases of infectious disease."

A discussion on the subject was also introduced by Mr. Nelson Hardy at a meeting of the South London District of the Metropolitan Counties Branch, held on the 17th inst., when it was resolved:

"That it be suggested to the Chairman of the Parliamentary Bills Committee as desirable, that the opinion of the profession in the Metropolis should be ascertained in a similar manner to that adopted by the Dublin Colleges, as to the proposals brought forward by the Dublin Branch of the Association, with regard to the notification of infectious disease."

A report of the proceedings of the two meetings will appear next week.

HOSPITALS FOR INFECTIOUS DISEASES.

THE Local Government Board have recently had representations made to them as to the desirability of establishing joint infectious hospitals for several adjoining districts, on the ground chiefly of avoiding long and sometimes fatal journeys to distant hospitals, and also of having only one instead of several district hospitals. The Board, in reply, thinks that hospital accommodation can be more efficiently and more economically provided for several adjacent districts of moderate extent, by one body acting for all the districts, than by the authority of each district providing a separate hospital.

CAMBRIDGE LOCAL EXAMINATIONS.

A CORRESPONDENCE has lately been going on between the Executive Committee of the General Medical Council and the Local Examinations Syndicate of the University of Cambridge; the Committee being anxious that the Syndicate should institute an examination in the month of September, for the convenience of intending medical students who desire to pass one of the preliminary examinations recognised by the Council. This has become the more desirable, forasmuch as the College of Surgeons has now relinquished its preliminary examination, which has hitherto been held in September. The Syndicate were at first reluctant to make the experiment, but have at length decided to propose to the Senate of the University a plan for holding an examination in September, in certain centres of which, no doubt, due notice will be given. The same examination will afford to students who intend to enter the University in October an opportunity of passing in such subjects as will excuse them from the previous examination of the University. The advantage of this to students of medicine and

natural science is obvious, as pointed out by the teachers of those sciences in a memorial to the Syndicate, inasmuch as the students who succeed in doing this will be able, immediately on commencing their residence in the University in October, to commence their attendance on the lectures of the professors at the beginning of the several courses, instead of being obliged, as is now usually the case, to wait till after the "Previous Examination" in December, or till a still later period. The proposal of the Syndicate has thus far been favourably received in the University, and a grace for the confirmation of it will soon be presented to the Senate.

THE CONVICT WESTBY.

IMMEDIATELY after the publication of our remarks on the case of the convict Westby, a special inquiry into his mental condition was ordered by the Home Secretary. That inquiry was entrusted to Dr. Orange, Medical Superintendent of the State Criminal Asylum at Broadmoor, and Dr. Gover, Inspector of Prisons; and these gentlemen had a long interview with the convict in the prison at Nottingham. Their report was, of course, a private document for the information and guidance of Sir William Harcourt; but there can be little doubt about its purport, as its presentation was at one followed by a respite. Westby will probably be removed to Broadmoor, as soon as the necessary arrangements have been made. This result is both satisfactory and unsatisfactory. It is satisfactory, because it prevents the execution of an unfortunate lunatic; and it is unsatisfactory, because it reflects discreditably on the working of our judicial system in criminal cases in which the defence of insanity is set up. Ample and conclusive evidence of insanity was adduced at the trial of Westby; and it is difficult to understand why this evidence was disregarded, and sentence of death passed on a youth whose only crime is that he is labouring under hopeless disease of the brain, which has embittered his existence for some years past, and cast a deep shadow on all his remaining days. His condemnation must be pronounced a deplorable incident in contemporary judicial history; but such deplorable incidents will recur from time to time until our judges have the benefit of some scientific training, or are aided by medical assessors in cases in which pathological questions are involved.

UNITED HOSPITALS RIFLE ASSOCIATION.

THE annual general meeting of the above association took place at King's College Hospital on Tuesday, February 14th. The secretary, having read his report, was able to congratulate the association on its growth, five hospitals having now joined it. The treasurer, in his report stated that the finances of the association were in a very satisfactory state, considering that a challenge cup of the value of fifty guineas had been purchased, and that a prize meeting for members had taken place. The proceedings terminated with a cordial vote of thanks to the President, General Sir R. Wilbraham, K.C.B.

EPIDEMICS AND THE MILK-SUPPLY.

THE revelations made from time to time by medical officers of health, when their attention is turned to this subject, describe so much ignorance and neglect, and such fatal sources of disease, that it is not surprising that "milk-epidemics" are so numerous, but rather that they should not be more often recorded. Dr. Goldie has been investigating the probability of the spread of a certain epidemic which has just been visiting Leeds through the medium of the milk-supply. He has come to the conclusion that the way in which some of the milk-supplies are stored in dirty houses, where all the usual operations of a whole household are being carried out, with, in many cases, gallons of milk standing in open vessels, is simply a ready method of spreading disease of such a character as typhoid or other infectious disease. Dr. Goldie strongly recommends that the Health Committee of the city should make by-laws to prevent the sale of milk for public use by any person who has no better accommodation for keeping milk than a single living-room. He states that he lately examined some milk in such a so-called milk-shop; the surface of the milk being simply blackened with the accumulation of dust which, to use Dr. Goldie's graphic expression, had been licked up by the milk. There was no history of disease in the house where the delectable specimen of "pure milk" was found; but the notion of a fluid which is, as it were, typical of health-giving and dainty qualities as an article of food, being in such a condition, is in itself as repulsive as it is dangerous to the health of the community, more especially to the juvenile portion of it.

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY.

AT a meeting of the Association, held on Wednesday, the 15th inst., the following list of office-bearers were duly elected. *President:* *Samuel Cartwright. *Vice-Presidents:* J. A. Baker, *Thomas Edgelow, Francis Brodie Imlach, S. J. A. Salter, F.R.S., John Smith, M.D., F.R.S.(Ed.). *Treasurer:* S. Hamilton Cartwright. *Honorary Secretary:* J. Hamilton Craigie. *Council:* Edward Bartlett, *T. W. W. Fay (Liverpool), F. Fox, *Peter Orphoot, M.D.(Edinburgh), W. G. Ranger, Augustus Winterbottom. An asterisk is prefixed to the names of those who did not hold a similar office in the preceding year.

THE HUNTERIAN SOCIETY.

AT the annual general meeting of this Society, which took place in the London Institution on Wednesday, the 8th instant, the following officers were elected for the ensuing year. *President:* J. Hughlings Jackson, M.D., F.R.S. *Vice-Presidents:* J. E. Adams, Esq.; F. Gordon Brown, Esq.; Waren Tay, Esq.; M. Brownfield, Esq. *Librarian:* P. L. Burchell, M.B. *Orator:* George Roper, M.D. *Honorary Secretaries:* R. Clement Lucas, B.S.; G. E. Herman, M.B. *Council:* J. E. Bowkett, Esq.; C. Davidson, Esq.; W. J. Dickson, M.D.; E. Dukes, Esq.; Alex. Grant, M.A., M.D.; E. G. Gilbert, Esq.; W. T. King, Esq.; Stephen Mackenzie, M.D.; H. Port, M.D.; W. Rivington, M.S.; G. J. B. Stevens, Esq.; R. M. Talbot, Esq.

ZOOLOGICAL PATHOLOGY AT THE PATHOLOGICAL SOCIETY.

HUMAN anatomy, as a science, has gained indefinite benefit from the labours of comparative anatomists. In a truly scientific spirit, the Pathological Society has recently, as our readers are aware, given fresh encouragement to what must be termed comparative or zoological pathology. As the principle of pathology is wholly scientific, it is rather singular that the diseases of animals have been so little studied by pathologists. We say singular intentionally, and for this reason: that, in working at the allied science of histology, preparations illustrating the simple tissues of the human body, and even sections of the viscera, are constantly demonstrated to students in our best medical schools, the specimens being taken without any scruple from corresponding tissues and organs in dogs, cats, guinea-pigs, "and such small deer". This is done because it is more convenient to make use of the lower animals for such a purpose, as histological structures should be prepared when quite fresh, and animals can be slain to order. Still, error has arisen from attempting to glean a minute knowledge of some of the human viscera from the same organs in other mammalia. In the case of zoological pathology, we have to expect what is of still purer satisfaction to us than the avoidance of error, namely, extension of knowledge. Until such knowledge is gained, it cannot be applied to the elucidation of disease in man, a fact that must ever check the pathologist from smiling at the exhibition of a diseased plover, or a specimen of skin-affection in a pig. As to specimens actually exhibited at the Society during this session, we may draw attention to Dr. Creighton's examples of bovine tuberculosis in a ruminant allied to the genus *Bos*. A description of these specimens will be found in our report of a meeting of the Pathological Society at page 14 of this volume of the JOURNAL. The upper surface of the diaphragm was covered with tubercle of the bovine type; the lower bore patches of tubercle of the form which affects our own species. This suggests interesting questions about the relation of variety in disease to differences of genera,

families, and orders. The nature and causes of the remarkable bone and joint diseases simulating osteo-arthritis, gout, rheumatism, and syphilis, in animals, offer a wide field for research. Equally remarkable is the subject of parturition in animals. The female tapir, in giving birth to her offspring, at the Zoological Gardens last week, appears to have had an almost painless labour; the agonies suffered by the hippopotamus, and the laceration of her perinæum when her first calf was born at the Gardens, are well known to British zoologists; as is the fact that pure blood exudes in large drops from her skin under such circumstances, and even during paroxysms of what appear to be ill temper. Remarkable facts of this kind might well be applied to scientific purposes and considerations, and not left merely to adorn the pages of sporting journals.

ICE-WATER.

THE prevalent dyspepsia from which Americans suffer so much, and which is so apt to undermine the strength of the men and the bloom of the women of America, is in a large measure due, we believe, to the universal habit of drinking large quantities of ice-water. This essentially transatlantic habit has long been a speciality of which our American friends and travellers seem to be proud, complaining that they find the purest water in England undrinkable, from the difficulty of getting water to drink with lumps of ice floating about in it. Nothing can be more destructive to the utility of the process of digestion than this habit. There is, however, another danger inherent in this mode of introducing ice, to which attention has more than once been called by sanitary authorities in this country, and which, we note with interest, is now also attracting notice in America. It hardly needed the scientific experiments of Professor Pumpelly—an authority whose name is singularly appropriate to the investigation—to prove again that the freezing of organic impurities and diseased germs does not deprive them of vitality, but only suspends their activity; and that frozen water is apt to entangle a large proportion of the floating impurities, which may be suspended in it; and that it is probably quite as easy to contract typhoid fever from impure ice, as from impure water. The habit of drinking ice-water is altogether a bad one, and may readily become a source of serious or fatal illness if the ice be impure.

A PERVERSE JURY.

AN inquiry which has recently taken place at Church Chipping, near Crewe, well illustrates the absurdity of the present system of holding coroners' inquests. The wife of a publican complained of pains, which were attributed to neuralgia. Her husband was under treatment by Dr. Vaughan for another complaint, for which he was ordered a mixture containing morphia and chloral-hydrate, "half to be taken at bedtime". Without any medical authority, the husband administered two doses of this mixture in succession to his wife; and, in a few minutes after the second dose was taken, she lapsed into a sleep, from which she never awoke. It might have been imagined that, at all events, some blame would have been attributed to the husband—but no; both coroner and jury turned upon the doctor, and heartily censured him for what they termed his "indiscretion". We fail to see how blame could be attributed to Dr. Vaughan; and a more monstrously unfair censure was perhaps never administered by a coroner and jury.

UNIVERSITY COLLEGE HOSPITAL.

THE annual festival dinner in aid of the funds of the above hospital was held at the Langham Hotel on the 16th instant. The Duke of Cambridge, who presided, in the course of an amusing speech, touched lightly upon the unfortunate financial position of the charity, which, during the past year, rendered necessary the sale of over £4,000 worth of stock. Commenting upon this and kindred facts, Lord Kimberley said that he believed the time would come when hospitals, which he regarded as really public institutions, would, like those connected with popular education, have to rely upon something more than voluntary aid. The Duke of Cambridge agreed with Lord Kimberley that something would have to be done to place hospitals on a more substantial basis than the present hand-to-mouth system afforded. The Colonial Secretary observed, however, that "the very mention of taxation was unpopular in these times". Even though recently enlarged to a slight extent, the building is by no means adequate to the demands made upon its space by the great number of patients applying. During the past year, 2,771 patients have been inmates of the hospital, giving an average of 13.6 patients to each available bed. With all this, we are happy to congratulate the authorities on being able to show a decrease in the death-rate, even though this improvement be but fractional.

GUY'S HOSPITAL.

AN inquest has been held on the body of a man who, being knocked down by a cab, was conveyed to Guy's Hospital at midnight; and who, after having had his head dressed by one of the dressers (a qualified surgeon), was sent away. He was taken to the police-station, and seen by the divisional surgeon, who ordered him to be at once taken back to the hospital, where he afterwards died. Death is said to have resulted from hæmorrhage on the brain, caused by a fracture which it would have been impossible to detect before death. One of the jurymen expressed the opinion that the man was not in a fit condition to be sent away from the hospital in the middle of the night. The coroner was, however, of opinion that no blame whatever could be applied to the medical staff, and a verdict of "Accidental death" was returned.

LONDON AMBULANCE SERVICE.

A MEETING has been held at the Charing Cross Hotel to consider suitable positions in which to establish ambulance carriages, and also the nature of the aid that should be given to the sick and wounded. The following were elected to form an Executive Committee: Mr. Crossman (chairman), Mr. T. Holmes, Mr. J. H. Buxton, Sir E. Hall Currie, Dr. Howard, Mr. Walker, Mr. Barrington Kennett, Mr. W. A. Burdett-Coutts, and Sir Edmund Henderson, K.C.B.

THE VALUE OF A LEG.

A CASE lately came before the Under-Sheriff of Middlesex, in which the plaintiff, a working man, twenty-one years of age, and earning from 40s. to 50s. a week, sought damages from the London Road Car Company for the loss of his leg, which, through the carelessness of the driver, had been smashed against a column, and had to be taken off at the hip. Damages were awarded at £950. A rule was subsequently sought for a new trial, on the ground that the damages were excessive, but discharged with costs.

THE NOTIFICATION OF INFECTIOUS DISEASES AT NOTTINGHAM.

THE Town Council of Nottingham have resolved to put in force the clause in their local Act passed in 1878, requiring the compulsory notification of cases of infectious disease. Dr. Seaton, the energetic health officer for the borough, has again and again urged the necessity of compulsory notification in his reports; but it has needed the imminent outbreak of an epidemic of small-pox to induce the Town Council to move. Dr. Seaton has reported that, despite the energy and watchfulness of his staff, a number of cases of small-pox have been occurring in the borough concerning which he has had no information. The necessary precautionary measures have not been adopted in many of these cases, though the circumstances of the sufferers were such as to make such measures urgently necessary; and Dr. Seaton has properly represented the futility of his action if such cases are not reported to him. He has forcibly pointed out to the Council the many dangers to the public health that arise from the want of knowledge as to cases of all descriptions of infectious disease; and he has expressed his hope that some understanding will now be arrived at by which compulsory notification, which is so very essential for the control of infectious diseases, may be carried out. The Town Council have resolved to put the clause in their local Act in force for a limited period, and as regards small-pox and scarlet fever only. Should the advantages of the system become apparent in the restricted sphere of operations at present allowed to it, the Town Council will probably extend it eventually.

all the diseases mentioned in their local Act. The success of the scheme depends largely upon the attitude of the profession; and their cordial co-operation with the health authorities, in their endeavours to stamp out the threatened epidemic, will be of inestimable importance.

HOSPITAL SATURDAY.

ACCORDING to the opinion of Mr. H. Burdett, based on actual experience, and many years' study of the subject, Hospital Saturday has practically proved a failure everywhere. In London, after several years' labour, begging for alms in the public streets, the institution of numerous benefit performances, and other means which the working men justly regard as illegitimate, the sum subscribed by the whole of the working men in London for upwards of one hundred hospitals and other institutions amounted to a less sum than the workmen on the Clyde have frequently subscribed for one of the hospitals at Glasgow. The proposal to establish a Convalescent Institution, which should be founded and supported by the working classes in the metropolis, he admits to be worthy of commendation. He hopes that it will result in the abandonment of the Hospital Saturday movement, in favour of a working men's Provident Convalescent Home. Such a result would relieve the London hospitals from much anxiety, and would get rid of a movement which does the hospitals far more harm than good, and which has never proved, and is never likely to prove, a substantial financial success.

LONDON HOUSES.

THE report of the engineer of the London Sanitary Protection Association shows that out of the whole number of houses inspected during the year (numbering 192), in 6 per cent. the drains were entirely stopped up, and all the sewage soaked into the ground under the basement of the house, there being no connection whatever with the sewer: that in about one-third the soil-pipes were leaky, allowing sewer-gas to escape through the leaks into the house; that in about one-third the overflow pipes from the cisterns discharged into a soil-pipe or drain. No water, as a general rule, goes down these overflow pipes from one year's end to another, but sewer-gas comes up them from the drains, and contaminates the water in the cisterns. The reports also show that more than half the houses inspected had waste-pipes from baths or sinks connected directly with soil-pipes or drains, generally, it is true, through syphon-traps; but, if any of the appliances should be disused for a time, and the water in the trap dry up, these waste-pipes would provide a direct channel for the entrance of sewer-gas into the house. These are not vague statements, depending upon the memory of the engineer, but are the result of an elaborate analysis of the reports prepared by order of the Council.

THE GENEVA CONVENTION.

THE United States of America have hitherto alone, out of all the civilised countries of the world, abstained from officially joining in the international treaty for the neutralisation of the wounded and of the hospital equipment necessary for their protection and care in time of war, commonly known as the Geneva Convention. It has never been fully understood why the Government at Washington declined to accede to this convention. At the time of the diplomatic conferences at Geneva, in August 1864, which led to the Convention, the United States were represented by the American minister at Berne, Mr. Fogg, and by Mr. C. Bowles, the agent in Europe for the American Sanitary Commission; and these representatives took part in the discussions on the treaty. But, although the American Government accredited them officially to the Congress, it refused to confer on them power to sign the protocol. Various efforts have been since made to induce the United States' Government to accede to the Convention, but without success. Latterly, however, there has been a change in ideas on the subject. This change was indicated in a passage of the speech of President Arthur, at the opening of the present session of Congress. The President remarked, in the course of his message, as follows: "The Senate, in its last session, made a demand for the text of the Convention of Geneva for aid to wounded in time of war. I hope that this fact is a proof of the interest which the Senate takes in the question, and that the adhesion of the United States to this humane and praiseworthy treaty will be its result." This change in views seems to be due almost entirely to the indefatigable exertions of a lady, Miss Barton—the Miss Nightingale of the United States during the great Civil War. Ever since that prolonged struggle, and more especially since the Franco-German War, in which she also acted as a hospital nurse, Miss Barton has pressed the question of her country joining the convention, both by publications and by personal appeals. The late President Garfield and Mr. Secretary Blaine were led by her efforts to give attention to the subject, and they finally became warm advocates for the United States joining in the treaty. President Arthur has adopted the same views on the subject as his predecessor; and it is now understood that the official adhesion of the United States' Government to the Convention will shortly become an accomplished fact.

PANPHULA.

TOWARDS the close of 1879, a disease known to the natives as *panphula*, and characterised by anæmia and more or less marked fever, swelling of the extremities, and great prostration, prevailed to a considerable extent in Calcutta, and especially in some of the suburban villages. Dr. McLeod, the health-officer of the city, states that the disease was first observed in 1877. It disappeared with the cold and hot seasons of 1878, but broke out again in the eastern and southern suburbs over a more extended area with the close of the rainy season of that year. Again subsiding, it reappeared in November and December of 1879. The malady did not attract much attention until the close of the year, when it was carefully investigated with a view to ascertain whether it was identical with the beri-beri of Madras and Ceylon, to which disease it appears to bear a strong resemblance, though some observers, acquainted with both diseases, maintain that they are quite distinct. The prevailing opinion seems to have been that the diseases are identical, and Dr. McLeod is inclined to favour this view; but the point has not yet been definitely settled. Efforts were made to trace the disease to some local cause, and to connect it with some personal peculiarity in the sufferer, and his surroundings, but without success. Although the disease was more prevalent among the poorer classes, it was by no means confined to these, for all classes of the community were prone to attack. From the statistical data collected regarding its extent and fatality, it appears that the town death-rate equalled 20 per cent. of cases, and that of the suburbs about 40 per cent. The figures are not, however, entitled to more reliance than to indicate that the mortality is considerable in relation to cases, though slight in relation to population.

IMPORTANT CHANGES IN THE FRENCH NAVAL MEDICAL SERVICE.

A VERY important change has recently occurred in the position and functions of the medical officers in the hospitals of the naval service in France. By a presidential decree, dated Paris, January 25th, 1882, it is ordered that, in future, in all naval hospital establishments, the direction and police control is to be vested in the medical department. These functions are to be exercised by the director of the medical service, or, in his absence, by the officer of the corps holding the highest grade. The second article of the decree, which in its nature resembles a royal warrant in this country, declares that the chief of the medical service has under his orders all the medical officers, dispensers, hospital sisters, orderlies, guards, gardeners, and all the subordinates concerned in maintaining the cleanliness and sanitary condition of the hospital and its vicinity. The third article lays down the functions of the hospital commissary. These functions are limited to the charge of the hospital furniture, to the registration of the admissions and departures of patients, and to keeping accounts of all expenses and disbursements. It will be understood how great this change is when it is mentioned that, up to the date of this decree, the commissariat officers *(les commissaires des hôpitaux)* have had command and direc-

tion in the naval hospitals, and that the medical officers have been entirely subordinate to them. The medical officers had no other function than that of visiting the sick, and suggesting for the consideration of the commissariat department any matters they might think advisable in respect to hygienic interests. The medical officers could not give an order to a hospital nurse, to a servant working in the garden, or even to the custodians of the scientific collections. The decree relating to the above mentioned changes in the French naval hospital service, which has been recently signed by President Grévy, has been brought about by an official report from the Minister of Marine to the President of the Republic, showing the difficulties to which the previous system had led, and its ill results, both as regarded the sick and the administrative economy. The decree really revolutionises the position of the medical officers in the naval hospitals.

HYPNOTIC EXPERIMENTS.

THE Hypnotic Commission appointed by the Paris Académie des Sciences to inquire into the experiments made by M. Dumontpallier on hysterical women, will not pursue any investigations on the subject. M. Vulpian, one of the members, asks to be excused. M. Beilard, another member, hesitates. M. Milne-Edwards, the President, read to the Academy a paper characterising hypnotic experiments as dangerous to a condition of health already weakened by disease. Professor Harting of Utrecht has communicated to M. Milne-Edwards the physiological results observed in rabbits, fowls, guinea-pigs, pigeons, and frogs, which he had hypnotised. Six fowls which he had frequently subjected to this influence are all dead with paralysis. M. Milne-Edwards intends to make a series of analogous experiments on the animals in the Jardin des Plantes. He is of opinion that experiments of this nature, capable of producing serious lesions of the nervous centres, ought not to be made on the human subject without the greatest caution.

ILLEGITIMACY IN SALFORD.

OF the total births registered in Salford during the year 1880, 332, or 4.7 per cent. were illegitimate. The proportion of illegitimate births has considerably increased in Salford during the past four years. It was equal to 3.9 and 3.8 per cent. in the years 1877 and 1878 respectively, whilst it rose to 4.2 in the year 1879 and 4.7 in the year 1880. In addition to the above, sixty births of illegitimate children occurred in the workhouse. It would be interesting to learn to what causes this increase of illegitimacy is to be ascribed; and Dr. Tatham might well devote some special attention to the subject in his next annual report.

ADVANCES IN METEOROLOGY.

IT is somewhat singular, considering how much our comfort and good health depend on varying conditions of the atmosphere, that it is only in comparatively recent years that any systematic attempt has been made to determine the causes of these variations. Public attention has, however, been awakened of late; and the societies cultivating this branch of knowledge have greatly increased their number of members. The numerous articles and diagrams published in the daily papers also indicate the same. As regards new stations, many have been established in places which entail much labour and self-denial on the part of those superintending them. We may instance the one equipped by Mr. Wragge on the top of Ben Nevis, where observations were taken every day up to a late period of last year, and will be soon commenced again under the auspices of the Scottish Meteorological Society. Several new stations are also about to be started in the interior of Africa; and the Meteorological Society (English) has, within a few years, organised above eighty stations, furnished with compared, and therefore accurate, instruments, and publishes the observations in its journal. A new observatory is, by the liberality of a few merchants, about to be started at Durban, Natal, where meteorological as well as astronomical observations will doubtless be taken. The cost of the observatory will be about £1,000. It is not sufficient, however, that the observations taken should be forwarded to a society, and that they should, when published, remain unused in the pages of a journal; they should be grouped and discussed in such a manner as to lead to some practical results. Perhaps the time has scarcely arrived, but it will arrive soon, when an effort should be made to look behind the observations, and endeavour to ascertain something new concerning the laws which govern atmospheric phenomena, so as to assist, amongst other things, in placing forecasts on a more satisfactory basis.

SCOTLAND.

WE believe that Dr. D. J. Hamilton, Pathologist to the Royal Infirmary, Edinburgh, is a candidate for the Sir Erasmus Wilson's Chair of Pathological Anatomy in the University of Aberdeen.

SCIENCE DEGREES IN ABERDEEN UNIVERSITY.

THE Senatus of this University has resolved to institute a degree of Bachelor of Science in certain departments, including physical, mathematical, natural, and mental science. The scheme which has been drawn up has still to receive the sanction of the University Court and the Privy Council.

NEW BURSARY FOR ABERDEEN UNIVERSITY.

SOON after the death of Dr. A. F. Greig, Fyvie, Aberdeenshire, in 1880, a committee was formed for the purpose of commemorating his personal and professional worth by some permanent memorial. The committee, in conjunction with a committee of Dr. Greig's medical friends, has succeeded in raising by subscriptions a sum of £300, whereby to found a bursary of about £12 annual value, for students of medicine at the University of Aberdeen (his Alma Mater); besides providing a sum sufficient to erect a small memorial in Fyvie, which may bear an enduring tribute to the esteem in which he was held by his neighbours and patients during his long and arduous practice of forty-two years. The foundation of the bursary has been gratefully accepted by the Senatus of the University on conditions which provide that the bursary be known as the "Dr. Greig, Fyvie, Bursary", and be tenable for three years; that it shall be competed for by students commencing the second winter session of their medical studies, the subjects of competition being fixed from time to time by the Medical Faculty, and announced beforehand in the University *Calendar*. It is also stipulated that, in cases of equality, a preference shall be given to natives of the district in which Dr. Greig practised his profession. The first competition is to take place at the beginning of next winter's session.

COMBE LECTURES IN ABERDEEN.

THE heart was the subject of Dr. Stirling's lecture on Saturday evening, when the large hall was completely filled. The lecturer gave an account of the heart from the point of view of the physiologist, and made its mechanism obvious by means of very large models, and by numerous experiments. A large number of experiments were shown to illustrate the action of the various valves of the heart. In discussing the relation of the heart to the nervous system, experiments on a frog's heart were shown to illustrate how a heart may beat when taken out of the body, and how such a heart may be influenced by a variety of conditions, such as heat, etc., the results being made visible by placing very long, but carefully balanced, levers upon the heart, so as to amplify the excursion, and render the movements of the lever visible to the whole audience. A special feature of the lecture was the projection of an image of a heart still beating on to a screen, by means of an oxyhydrogen lamp, which was so arranged as to give an image o the heart about nine feet in diameter, so that the audience could easil observe the beating—the systole and diastole. The lecture was brough to a close with a description of the action of the vagus nerve on the heart pointed reference being made to such conditions as fainting, "broke heart", the so-called "cramp", which sometimes causes death whils a person is swimming, and nightmare. It was also suggested tha policemen ought to receive instruction in the elementary principles o

physiology and surgery, such instruction as is given by the St. John's Ambulance Society being what is required. Shakespeare's plays, especially *Macbeth* and *Julius Cæsar*, were laid under contribution to enforce some of the remarks regarding the relation of the heart to the nervous system.

EDINBURGH UNIVERSITY.

SOME time ago, the University Court of Edinburgh University reported in favour of an alteration of Ordinance No. 8, Edinburgh No. 3, for making it compulsory on graduates in medicine to take the degree of Master of Surgery as well as that of Bachelor of Medicine in the future. At a meeting of the Court held on Monday, an order of Her Majesty in Council, dated December 19th, approving of the Court's report, was received. There was also received an order from Her Majesty in Council of the same date, approving of the report of the University Court in favour of Professor Sir Wyville Thomson's retiring from the chair of Natural History in the University on a retiring allowance. At the same meeting, the Court appointed various additional examiners for degrees in medicine and surgery, in place of those whose appointments have expired. To the examinership in Clinical Medicine, Dr. Byrom Bramwell, F.R.C.P.E., Edinburgh, was appointed; to that in Pathology, Dr. Sidney Coupland, F.R.C.P., London, was appointed; to that in Surgery, Dr. J. D. Gillespie, F.R.C.S.E., Edinburgh, was appointed; to that in Materia Medica, Dr. William Murrell, M.R.C.P., London, was appointed; and to that in Physiology, Dr. Richard Caton, M.R.C.P., Liverpool, was appointed. The appointments are each for one year, but are renewable annually for five years. The examiners in the other subjects had their appointments renewed.

HADDINGTON LUNATIC ASYLUM.

As the Commissioner in Lunacy, Dr. Arthur Mitchell, has reported that, at his visit, the number of inmates, 101, is over the number that can be accommodated in an asylum in which there is no resident medical officer, it has been decided to endeavour to reduce the number of inmates rather than incur the additional expense of having a resident; and, as there are some private patients not connected with the district, it is expected that their removal will attain the desired object.

THE SANITARY CONDITION OF RUTHERGLEN.

THERE has just been made public a report, by Mr. McLeod, sanitary inspector in Glasgow, as to the sanitary condition of Rutherglen. It is evident from this report that serious sanitary defects exist in the burgh, and the health authorities should not delay in carrying out the improvements advised. These consist in attention to the sewage system, the removal of dilapidated tenements, the erection of a public slaughter-house, and the building of a hospital with at least ten beds.

THE ALLEGED IRREGULARITY AT GREENOCK INFIRMARY.

THE unfortunate occurrence which recently took place at the above institution, and to which reference was made in the JOURNAL of February 11th, has found its way into the courts of law. The relatives of the deceased patient sought to obtain from the authorities permission to have the common grave in the cemetery opened for the exhumation and identification of the body. This request the judge very properly declined to grant, after hearing medical evidence on the subject, and after visiting the cemetery and inspecting the common grave. He pointed out that the very natural desire of the relatives of the deceased, to have the body exhumed from the spot where it had been accidentally buried, could not weigh against the very grave objections which existed against such a course. To say nothing of the risk to the public health, and public decency, which the necessary exhumation of so many bodies would involve, the procedure would tend to inflict on the feelings of the relatives of other persons buried there an injury precisely similar to that from which the petitioners were suffering. On these grounds, while he had no doubt the deceased was buried in the common burying ground, as alleged, he could not grant the petition. This decision must recommend itself to all as most reasonable.

GLASGOW ROYAL INFIRMARY.

AT the above institution, on the 14th instant, there was a very pleasing ceremony took place in connection with the nursing department of the hospital. An address was presented to Mr. W. McEwen, one of the directors, by the nurses of the infirmary, as a mark of their appreciation of his services in their behalf. Of late years, great changes and improvements have been made in the nursing of the hospital; and, though these have always been carried out, as ought always to be the case, with the sanction and co-operation of the medical staff, yet it is very generally felt that Mr. McEwen has been mainly instrumental in seeing the changes carried out. It must be very gratifying to Mr. McEwen to feel that his labours are appreciated, and not least by those in whose behalf he has worked.

IRELAND.

DR. HUGH MORELAND died on last Sunday, at his residence, Corporation Street, Belfast, aged 63. Deceased commenced practice in Kirkcubbin, but afterwards removed to Belfast, where he has been located for the past thirty-five years. Dr. Moreland was a graduate in medicine of the University of Glasgow, and was generally esteemed and respected.

THE ROYAL UNIVERSITY OF IRELAND.

AT a meeting of the Senate of the University held on the 16th instant, it was decided that an election of Fellows be held on Tuesday, April 18th next, and that applications should be sent in to the secretaries by Tuesday, March 14th next. It was resolved that in the selection of Fellows of the University, regard should be had to the qualifications of the candidates in the following subjects:—(*a*) classics; (*b*) English language, literature, general modern history, Irish history and antiquities; (*c*) modern languages; (*d*) mental and moral philosophy, political economy, and political philosophy; (*e*) mathematics; (*f*) natural philosophy; (*g*) chemistry; (*h*) natural sciences, medicine, surgery, and physiology. The Senate fixed that the examinations for Scholarships in classics, modern languages, and mathematics should begin on Tuesday, May 9th, and that the general pass medical examinations should commence on Tuesday, June 20th.

CORK WORKHOUSE.

DR. BRODIE, Local Government Board Inspector, in a recent report, states that there is no overcrowding in the workhouse, with the exception of the female lunatic wards, which continue full. Although twenty-five patients have been transferred to the District Lunatic Asylum within the past eight months, there were, on the last day of his inspection, ninety-nine harmless lunatics, idiots, or epileptics, in this department. To this may be added eleven assistants, which makes it necessary to lay beds on the floor. Additional accommodation will be required, Dr. Brodie believes; and a recommendation to that effect has been referred to a committee of the guardians.

CORK FEVER HOSPITAL.

A DEPUTATION from the trustees and others interested in this hospital waited on the Cork Board of Guardians last week for the purpose of obtaining from that body a capitation grant for the support and treatment in the hospital of such patients as are received there on the recommendation of dispensary physicians and relieving officers. The Corporation make considerable grants half-yearly towards its support; but they were of opinion that the guardians should help, as the majority of the patients were sent upon the tickets of the officers of the board; and that they (the Corporation) should not be required to contribute in so large an amount out of the city rates—a sum that ought partly to be levied out of the poor-rates. It was argued that the guardians supported a fever hospital of their own; but, on the other hand, it was urged that a large number of patients had a great objection to the union hospital, and preferred being treated in the Cork Fever Hos-

pital. The subject has been adjourned until next week, when a special meeting of the guardians will be held to consider the matter; but most probably it will be found to be illegal for the guardians to contribute as requested. As Dr. Brodie put it, the guardians having sufficient accommodation in their own hospital, would it be fair to the rate-payers to put them to the increased expense of contributing to the Cork Fever Hospital, the guardians having a similar hospital attached to the workhouse, in which the cost of treatment would be much less? These are questions which will have to be determined by the Local Government Board when the matter comes under their notice.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

A DEPUTATION, consisting of the President and Vice-President of the College, with Drs. Kidd, Robert McDonnell, and Jacob, waited on the Home Secretary last week, with the view of obtaining his official sanction to the proposed changes in the curriculum of candidates for the licence of the College, that have been adopted by it. A counter deputation, comprising Drs. Mapother and Ormsby, who are opposed to the change, also had an audience of the Minister. It is expected that Sir W. Harcourt's decision will be shortly communicated to the College. The newly elected Professor of Anatomy in the College, Dr. Cunningham, delivered his first lecture in its medical school last Monday. The lecturer was enthusiastically received; and he dealt with his subject—the peritoneum—in a masterly manner. Several of the professors and members of the Council of the College were present on the occasion.

SMALL-POX IN ARMAGH.

DR. RIGGS, medical officer to the workhouse, reported last week to the Armagh Guardians, that there were twenty-eight cases of small-pox in the union hospital. One of the guardians considered that, as there was great difficulty in providing accommodation for these cases, it would be advisable to have an hospital independent of the work-house hospital; and instanced the case of a respectable young man who took small-pox, and had to come in and be treated in the shed with pau-pers. One of the patients, whilst convalescing, recently went out of the hospital contrary to the wish of the medical officer; and, in con-sequence, the guardians were desirous of knowing from the Local Government Board whether he could quit the house when liable to propagate the infection. We believe any patient can quit the work-house on giving notice; but, should he be liable to infect others, he can be prosecuted and punished for so doing.

BELFAST WORKHOUSE.

UNTIL recently, the accommodation for imbecile and epileptic inmates was quite inadequate; and, about two years since, plans were pre-pared for the construction of new buildings for imbeciles, and a year afterwards the works were commenced. The infirmary buildings hitherto accommodated imbecile and epileptic patients, but now they will be reserved entirely for the treatment of medical cases. The lunatics number nearly four hundred; but the new buildings supply ample accommodation for their comfort, being well ventilated, commodious, and suitably furnished. There are also new nursery and male infirm buildings; and the total outlay will be close on £15,000.

HEALTH OF DUBLIN: QUARTERLY REPORT.

THE births for the December quarter numbered 2,352, being equal to 27.0 per 1,000; and the deaths 2,310, or 26.5 per 1000. Zymotic diseases caused 329 deaths, being 139, or 30 per cent., below the average for the December quarter of the past ten years. There was an increase in the deaths from phthisis and diseases of the respiratory organs, and a decrease in the mortality from fever. During the middle of December, a sudden outbreak of measles took place, which caused 133 deaths, as compared with 28 in the corresponding quarter of 1880. There were only three cases of measles in the principal Dublin hos-pitals at the close of the September quarter, but, during last quarter, 150 new cases were admitted; 89 were discharged, and 55 remained under treatment on the 31st December last.

MALAGASIAN REMEDIES.

AT the February meeting of the Pharmaceutical Society, Dr. Parker, physician to the Queen of Madagascar, exhibited one of the most in-teresting collections of specimens of drugs which has been for some time seen in London, including an extensive collection of specimens of the materia medica of Madagascar. Dr. Parker has classified these drugs according to what the Malagasy consider to be their uses. He has done a great amount of work in investigating the fauna and flora of Madagascar, an island which is, as Mr. Baker of the Royal Herbarium, Kew, reminds us, the third largest island in the world, the two that are larger being Australia and Borneo. Out of 220 natural orders known to botanists, about 120, or rather more than one-half, were found in Madagascar. There is a variety of climate, and an extremely rich flora; and Dr. Parker and Mr. Baron have sent home no fewer than from 1,000 to 1,500 species of plants, of which specimens are to be seen at Kew. About 60 or 70 per cent. of the species found in Madagascar are altogether peculiar to that island. Thus, we have here a part of the world where there are 3,000 plants not found anywhere else, and the properties of which have to be opened up—a rich field for our physiologists and pharmacists to investigate. Dr. Parker and his colleague have sent home large parcels of plants, about 100 of which turned out to be entirely new species which had never been described previously. These gentlemen have since sent home other parcels, which are yet to be examined. Among the most interesting specimens shown and described by Dr. Parker were the following.

First, there were some which were supposed to be beneficial in bronchitic and catarrhal affections. Of these, perhaps the most curious was the large fungus, *Hòla-tàfa;* but the Malagasy made most of their medicines as infusions and decoctions, not being expert enough to make tinctures; partly, perhaps, because they preferred to take the spirits raw without the medicinal ingredient in them. There were no fewer than five medicines, including these, for bronchial and pulmonary affec-tions. The next class contained those which were used as medicines for urinary and renal diseases, and these were somewhat largely patronised by the Malagasy, since about one man out of every three was troubled with some degree of stricture; which arose partly through their being more or less affected with venereal disease, and partly in consequence of their drinking habits and neglect. The third class consisted of drugs used for intestinal worms. The *Taimbórontsil'oza*, as the Malagasy called it (or *Chenopodium ambrosioides*), was used for that purpose. Dr. Parker's medical pupils commonly used it as an anthelmintic in place of santonin, and they assured him of its efficacy for that purpose. They certainly could not afford to use santonin, as they would have to wait twelve months between the time of ordering it from Europe and the time of getting it. This was used for round-worms. For tape-worm, they used a fruit which was called *Tantèrakàla*, but the botanical name of which had not yet been decided. There was another drug, which was really efficacious for flat worms of different kinds. This was called the "*Vòantamênaka*." These were called male and female, for if the Malagasy found one kind of plant, and then another plant of the same family, they called the second the "wife" of the first. The Malagasy suffered constantly from dyspeptic disease; and for that they had, perhaps, the largest number of medicines, there being no fewer than ten, one or two of which were, he believed, botanically local. As to the specimen of cantharides, it had been used by the native doctors or students, and they found it quite as efficacious as a vesicant as the European cantharides. With regard to its specific action on the bladder, he could not speak from personal observation. He himself believed in its efficacy as a vesicant. As to the native castor-oil, he could speak upon the authority of his own students that it was efficacious as a purgative, but its action was not to be relied upon, because, in consequence of its being prepared by boiling, its strength was very uncertain. The preparation was rather an extract than a genuine oil. He had published a paper in Madagascar with regard to the utilisation of Malagasy remedies in place of European remedies, and in that paper he had recommended European castor oil in preference to the native oil in consequence of the uncertain character of the latter. The oil was prepared from the seeds of the *Ricinus communis*. This native oil was certainly not very clear, but the Malagasy people did not mind what kind of dirty stuff they drank. Amongst the hæmostatic and astringent remedies, there was one which they called the *Fàn-jandnandrà*, or *Vèlona-ambònitum vàto*, the native name signifying "stopper of blood," or "living upon stones." The botanical name had been ascertained to be *Anthrospermum enerve*. It was one of the *Rubiaceæ*. His students were his authority for saying that it was efficacious. The next class of remedies consisted of medicines for the kidneys and fainting. The Malagasy were rather apt to be troubled in this

direction in consequence of their stomachs being often out of order, but he believed that these remedies were more in the nature of charms than of actual medicines. The next one was a remedy used for headache, which they called *Fisàva*, *i.e.*, "the disperser", being under the idea that their ailment was due to a sort of fog in the brain. But this, too, was more of a charm than a medicine. Its botanical name had not been ascertained. The next class of remedies consisted of those for rheumatism and periostitis: these also were used more in the way of charms than from any belief in their practical utility. Certain seeds, which he shewed, were called *Vàto-làlaka* seeds by the natives. They scraped the inside of a seed and mixed it with water, and drank the mixture in order to expel the placenta. He had had no opportunity of testing whether it was efficacious. At the same time, it was used as an emetic. Possibly its emetic effect might have a reflex action on the uterus, and so make it serviceable. He had on his list two or three drugs, including tobacco, Malagasy aloes, and *Tanghinia venenifera*, which might be serviceable in medicine. As far as his knowledge went, the aloes were serviceable, and they had taken the place of English aloes in the Queen's Hospital, the London Missionary Society's Hospital, and the Norwegian Hospital. The Malagasy aloes could be bought cheaply in the market. He believed that there were two species. The *Tangena* beans were the ordeal beans in Madagascar, the possession of which had lately been made illegal by the Government. Not long ago there was a considerable disturbance made in the central province, where the capital was situated, because a man from the coast dared to bring up a quantity of these beans. There was an epidemic of malarial fever raging at the time and decimating the people, and this man pursuaded a stupid woman in one of the villages to give an infusion of the beans to a person whom he regarded as a witch, and suspected of causing the epidemic. That person and several others died in consequence, and when the news of this reached the Queen, she ordered the whole village, containing over five hundred adults, to be brought up, and they were put upon their trial in order to ascertain how many persons had been involved in the breach of the law. They were kept for three months between two high walls, and without any other shelter. At the trial, the only person found guilty was the woman who had administered the infusion of beans at the instigation of the man who brought them into the village. Owing to the mismanagement of the judges, it required three months before it could be ascertained that there were no fewer than thirty persons involved in the matter. As the result of the trial, the giving of the Tangena beans in any shape, except medicinally under the orders of a doctor, was declared to be a question of life and death. The village was fined heavily, to the extent of £6,000 or £7,000, and even a female under his (Dr. Parker's) care, who was in the hospital at the time these events happened, and could not possibly have had anything to do with the affair, had to pay her share of the fine, and she sold her ancestral land in order to enable her to do so. This showed how severe the Malagasy Government was against the use of the Tangena beans; and the severity was not without reason. Mr. Holmes had made an inquiry about the efficacy of *Famàmo* in its stupefying action upon fish. All he knew of its efficacy was upon the authority of his own students, and they had seen it used; but it was not now necessary to use an intoxicant for catching fish, for the people had become more expert in making and using their nets. It would be advisable to try the effect of this plant upon some fish contained in a globe of water, in order to ascertain whether in the leaves, or in the bark, or in any other part of the plant, there resided active principles which might be serviceable in medicine. Then there was a plant which, in its action and taste, was somewhat similar to aconite. He, however, believed that it did not belong to the same natural order. It was the *Raingi-raingy* root. There was also a species of gum-resin, the *Ramy*. This was not used as a medicine by the Malagasy, but they used it for rubbing the strings of their native harps. He believed that the substance might be useful in medicine. The *Landemo* (or *Anthocleista Madagascariensis*) was used as a tonic, but he could not speak from personal knowledge with regard to its antimalarial properties. In the Queen's Hospital, however, it was used instead of quinine as a tonic. As to the globular fruit, the *Vdavdtaka* (*Brehmia spinosa*), he should very much like to know whether it contained strychnia, or some similar principle; because there was a suspicion that it might be useful in replacing nux vomica, which had not yet been found in Madagascar. This fruit, when ripe, was very agreeable for eating in the hot region along the coast. The pulp was sucked, and the seeds were rejected; but it was not advisable to eat more than two or three of these fruits in the course of about as many hours. Among the specimens there were about ten kinds of beans. The remaining seeds had been brought for the purpose of being planted, in order that it might be ascertained from what plants they came, as most of them were used as articles of diet, and some might possibly be useful in medicine. Some of them were simply used as charms. Among the specimens were also some fresh-water shrimps from the interior of the island; these were used as an article of diet.

MEDICAL REFORM.

THE Royal Commission on the Medical Acts Amendment Bill have, it is reported, found considerable difficulty in arriving at the conclusions of the evidence laid before them; and the result of all their investigations has, it is to be feared, failed to convince those who entertained preliminary opinions of a decided character before entering the Commission, and has not been much more successful in respect to those members of the Commission who may be presumed to have entered upon the inquiry with open minds. On neither of the two great questions at issue—viz., the question of conjoint boards, with a minimum standard of examination for practice; and the question of the constitution of the Medical Council—does there appear to be any general agreement in the Commission. If we were to venture to predict concerning a document which is not yet in a perfect state of existence, it would be that the report will decide by a narrow majority in favour of a conjoint board, and of an enlarged form of representation of the profession in the General Medical Council; but that there will probably be a strong minority report against the conjoint board in respect to Scotland.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL:

NOTICE OF QUARTERLY MEETINGS FOR 1882: ELECTION OF MEMBERS.

MEETINGS of the Committee of Council will be held on Wednesday, April 12th, July 12th, and October 18th. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary not later than 21 days before each meeting, viz., March 22nd, June 22nd, September 27th, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

November 4th, 1881. FRANCIS FOWKE, *General Secretary*.

COMMITTEE ON THE STUDY OF AURAL SURGERY.

THE next meeting of the above Committee will be held at 3, George Street, Hanover Square, London, on Wednesday next, March 1st, at 4 P.M., when the draft-report drawn up by the subcommittee will be considered. Any member who has not received a copy of the subcommittee's report is requested to apply to the Hononary Secretary, Cresswell Baber, Esq., M.B., 4, Preston Street, Brighton.

BRANCH MEETINGS TO BE HELD.

SOUTH OF IRELAND BRANCH.—The usual quarterly meeting of this Branch will be held in the Royal Cork Institution, on Saturday, February 25th, at 4 P.M. Members wishing to read papers, make communications, or exhibit pathological specimens, are requested to communicate immediately with the Honorary Secretary. The quarterly dinner will be held the same evening, at Lloyd's Hotel, at seven o'clock.—T. GELSTON ATKINS, B.A., M.D., Honorary Secretary, Cork.—February 13th, 1882.

SOUTH-EASTERN BRANCH: EAST AND WEST SUSSEX DISTRICTS.—A conjoint meeting of the above districts will be held at Brighton on March 29th, 1882. Dr. Ewart of Brighton will preside. Members desirous of making communications to the meeting are requested to give notice thereof to the Honorary Secretary, West Sussex District, 5, The Steyne, Worthing.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.—The next meeting of the above District will take place at the Cottage Hospital, Ashford, on Thursday, March 2nd, at 3 P.M.; W. H. Coke, Esq., in the chair. The chairman kindly invites members to luncheon at his residence, "Whitfeld House," from 1 to 2.30 P.M. The dinner will take place at the Saracen's Head, at 5 P.M. The following communications have been promised. 1. Mr. Whitehead Reid: A Colotomy Case. 2. Dr. Eastes: On Intussusception. 3. Mr. Treves: Six Cases of Amputation of the Thigh treated Antiseptically. 4. Dr. Tyson: On the Difficulty of Diagnosing between a Syphilitic and an Epitheliomatous Ulceration.—T. WHITEHEAD REID, Honorary District Secretary, 34, St. George's Place, Canterbury.—Feb. 23rd, 1882.

SOUTH-EASTERN BRANCH: EAST AND WEST SURREY DISTRICTS.—A conjoint meeting of the above Districts will be held at the Red Lion Hotel, Dorking, on Thursday, March 9th, at 3 P.M.; C. W. Chaldecott, Esq., of Dorking, in the chair. The following communications have already been promised. Dr. James F. Goodhart: Notes of Cases of Lunacy from Lead-Poisoning. Mr. Malcolm Morris: Ringworm. Mr. Thomas Hopcroft: Case of Complete Inversion of Uterus after Parturition. Dinner will be served at 6 P.M. precisely; charge, seven shillings (exclusive of wine). Members desiring to read communications will oblige by informing the Honorary Secretaries as soon as possible.—A. ARTHUR NAPPER, Cranleigh, Surrey, Honorary Secretary of the West Surrey District; J. HERBERT STOWERS, M.D., 23, Finsbury Circus, E.C., Honorary Secretary of the East Surrey District.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.

THE fourth meeting of the above district was held, in the Library of the London Hospital Medical College, on Thursday evening, January 19th; Dr. BRIDGWATER, President-elect of the Branch, in the chair.

Medical Attendance on the Poor.—Dr. SANSOM read a paper on the Best Means of Providing for the Medical wants of the Poor, who are above the ranks of Pauperism. Having called attention to the necessity of something being done for the class of people in question, the author criticised their present means of obtaining medical relief, viz.: 1. Counter-prescribing druggists; 2. Cheap dispensaries; 3. Clubs, which applied only to a section of the class in question; 4. The out-patient department of the hospitals; 5. Provident self-supporting dispensaries. Having enumerated the evils of the first two means, the author discussed the question of the attendance at the out-patient department of the hospitals. On examining the figures obtained from the *Medical Directory* for 1882, he found that the annual return of out-patients in nine London hospitals, to which medical schools were attached, amounted to 364,163. In this list were included the casualty patients of St. Bartholomew's and Guy's Hospitals. In addition, the out-patients in eighty-three hospitals and dispensaries, not conducted on the provident principle, within the London postal district, amounted to 614,079. There were, besides, 60,090 in institutions, in which the numbers were returned, not as out-patients, but as attendances. In order to make an estimate of the total, it would be necessary to add to the list of London hospital out-patients an approximate return for Middlesex, St. George's, and University College Hospitals—say 20,000 each. A rough calculation gave the total of out-patients treated in all the hospitals (general and special), and the dispensaries within the London postal district, institutions in nearly all of which treatment was absolutely gratuitous, as over a million (1,044,250). This total, however, included casualty patients (145,000), who, returning again and again, could not fairly be reckoned as out-patients. Probably the same out-patient figured several times, not only at the same, but at different institutions—so that a large deduction must be made to get anything like an estimate of the proper number of individual patients. The objections urged against this system were: 1. That people were attracted who were able to pay; and 2. With regard to the efficiency and mode of working these departments. As to the first objection, the author considered that the abuse of the out-patient department was very much less than was usually imagined. There could be no doubt that the casualty department needed very serious reform, and that the out-patient department also needed reform; but it could not be abolished, as some had suggested: for it was most useful in teaching students the knowledge of ordinary ailments, and, in fact, was almost the only means of doing so since the system of apprenticeship had been done away; also, for supplying the wards of the hospital. The author reviewed the different systems of admitting patients to the out-patient department; and mentioned that the governors of the London Hospital had generously given up in-patient letters, and made the admission of a patient into the wards to depend upon the opinion of the medical or surgical officer in charge. With regard to provident dispensaries on the principle of assurance, by means of small payments during health, of medical aid during sickness, the author considered this a most excellent plan. Theoretically, it was incontrovertible; practically, its application was attended with many difficulties. The *Medical Directory* for the present year gave the total number of patients, at fourteen of these institutions, as 93,878, which showed that the movement was recognised by a fair proportion of the class for whom it was intended. The author criticised the rules of the Metropolitan Provident Dispensary Association, especially with regard to the absorption of clubs, the no wages limit, the insufficient representation of the medical staff on the managing committee, and the heavy sum (ten shillings) which must be paid by any one joining a dispensary in ill-health, and which would act as a complete bar to the hospital authorities sending their patients to provident dispensaries. He called attention to the report of the Subcommittee on the Manchester and Salford Provident Dispensaries, which said there was distinct evidence of improper cases being admitted. The author wound up his paper with the following suggestions. 1. Dispensaries should be established on the provident principle in various districts of the metropolitan area. 2. Whenever possible, one of the existing medical institutions for the treatment of the poor should be affiliated to, or be placed in relation with, such dispensary. 3. The foundation and the management of such dispensaries should be undertaken by the duly qualified medical practitioners resident in any given district. To this end, the practitioners in residence should combine to form the board of management of the dispensary.—Mr. TIMOTHY HOLMES agreed with a great portion of Dr. Sansom's remarks; and regretted that Dr. Sansom did not see his way to join in any proposal to try the scheme of the Metropolitan Provident Dispensaries Association, his objections to that scheme being only two: 1. That the scheme did not provide a sufficient safeguard against the deception of persons who can pay ordinary fees; 2. That the fine on admission of persons applying during illness was too high. The first objection, if it existed at all, would do so only to a very small extent; and the failure at Manchester was due to other causes than the admission of improper cases. Dr. Sansom's proposal, that all the medical men in the neighbourhood should combine and form a dispensary of their own, and admit and reject whomsoever they liked, he considered as most impracticable, being simply a trades'-union of doctors, which would perish from public disapprobation. The medical men would have to be their own collectors; and such a proposal would directly encourage underselling, and would immensely stimulate and exasperate professional differences.—Mr. GREENWOOD did not see much difference between the two schemes, either of which would be a means to assist in ridding a neighbourhood of unqualified practitioners and cheap so-called provident dispensaries, which, in poorer neighbourhoods, undoubtedly damaged the legitimate private practitioner.—Dr. WALTER SMITH preferred Dr. Sansom's plan, as the scheme of the Metropolitan Provident Dispensaries Association admitted anybody, and the medical staff was not sufficiently represented. The clubs would be left alone, the interfering with which was a great blot in Mr. Holmes's scheme.—Dr. FARQUHARSON, M.P., considered that no wages test could be imposed. The out-patient department should not be abolished, because it was necessary for teaching students, though in Edinburgh there was no such department, students obtaining their knowledge of ordinary illness at the dispensaries.—Mr. FREDERICK WALLACE despaired of ever getting the medical men of a neighbourhood to combine, as suggested by Dr. Sansom. It would be useless unless all did so; otherwise, underselling must arise; and, again, there was still the difficulty about the preliminary expenses.—The CHAIRMAN (Dr. Bridgwater) narrated the benefit that had accrued in his district (Harrow), since the establishment of a provident dispensary, both to the poorer classes and to the medical men.—Dr. SANSOM replied to the various criticisms; after which a vote of thanks was accorded him for his paper.

SOUTHERN BRANCH: ISLE OF WIGHT DISTRICT.

THE quarterly meeting of this District was held at the rooms of the Young Men's Literary Society, Newport, Isle of Wight, on Thursday, January 26th, 1882. Fifteen gentlemen were present. Dr. J. G. SINCLAIR COGHILL, the President of the District, occupied the chair.

President's Address.—The President delivered an address on the "Pathology of the Blood", for which a vote of thanks was passed.

Papers.—The following communications were read.

1. Mr. W. E. Green: The Use of Nitro-Glycerine in Heart-Disease.

2. Dr. J. M. Williamson opened a discussion on the Treatment of the Hæmoptysis of Phthisis, specially alluding to the value of ergot as a hæmostatic. Drs. Coghill, Groves, Harvey, Beckingsale, and Green spoke in the discussion, after which Dr. Williamson replied.

3. Mr. W. E. Green: Puerperal Convulsions treated with Nitro-Glycerine.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: ORDINARY MEETING.

THE fifth meeting of the session was held, at the Medical Institute, Birmingham, on the 9th instant, under the presidency of Mr. T. H. BARTLEET. There were present sixty-nine members and visitors.

New Members.—Mr. Kenneth Millican and Mr. F. L. Roe were elected members of the Branch.

The Office of Secretary.—A letter was read from Dr. Malins, resigning the secretaryship of the Branch after five years' service. It was proposed and carried: "That the letter be received and entered upon the minutes, and that it be an instruction to the President and Council to draw up a resolution of thanks, indicative of the manner in which Dr. Malins had discharged the important duties of the office."

Admission of Visitors.—Some discussion having arisen as to the interpretation of the laws respecting the admission to the meeting of others than members, ultimately those present were asked by the President to remain.

Vivisection in Surgery.—Mr. SAMPSON GAMGEE read a paper on the Benefits Conferred by Vivisection on Human Surgery.—Mr. H. C. BURDETT and Mr. LAWSON TAIT made some remarks.—It was resolved that the discussion be adjourned until the next meeting.

CORRESPONDENCE.

CHLOROFORM OR ETHER.

SIR,—The recent deaths during the administration of chloroform should remind all of us who are in the habit of administering anæsthetics of the grave responsibility incurred in the procedure, because as yet we know of no safe anæsthetic; and this fact cannot be denied. Comparatively recently, great efforts have been made to bring ether into more general use as an anæsthetic, it having become the fashion to consider it safer. Can it be said that ether has been proved to be so safe as its advocates would have us believe? In the BRITISH MEDICAL JOURNAL of September 3rd, 1881, we were told "three deaths have recently occurred which are attributed directly or indirectly to the effects of ether given as an anæsthetic". Had chloroform been used, I imagine, no doubt would have been expressed as to the direct or indirect cause of death; but when a fatality occurs from ether, every species of ingenuity appears to be devised to ascribe the death to causes other than the anæsthetic.

The first of these deaths occurred at the Cambridge Hospital. The patient, a woman aged 50, was given ether for the removal of a tumour of the lower jaw. After the cessation of its administration, we are told, the breathing became embarrassed; the patient did not rally, and died in a short time. Death was, however, attributed to asphyxia, not ether.

The second death occurred at Guy's Hospital; the patient a man aged 43. The heart was examined, and, I have no doubt, every precaution taken. Ether was given in order that an abscess might be incised. Before he was thoroughly under the influence of the ether, the respiration suddenly ceased; and an immediate examination of the heart showed that its action had also been arrested. A *post mortem* examination was made; but we were told "that until a microscopical examination of the organs had been made, it would be difficult to fully account for the death".

The third death occurred at the London Hospital; the patient a young healthy lad aged 14. In this case, ether—which its advocates say seldom produces sickness—caused the boy to vomit, and death was produced by asphyxia.

A fourth death was reported in the BRITISH MEDICAL JOURNAL for August 20th, 1881, as having occurred at the Seamen's Hospital. The patient was a negro, aged 45, anæsthetised in order to reduce a hernia. The administration was kept up for about ten minutes whilst the hernia was being reduced, during which time the apparatus was replenished with ether once only. About two minutes after the inhaler had been removed, both pulse and respiration suddenly ceased; and notwithstanding prompt and active attempts to restore animation, there was no return of vitality.

My own experience of ether is very unsatisfactory; for though I have frequently administered it with success, yet I have met with patients who could not take it owing to the intense bronchial irritation it produced. I have found that, in elderly people, it often produces faintness, vomiting, and sometimes leaving intense headache or a tendency to prolonged stupor. In two of my cases, it nearly proved fatal. One, a fine healthy young man, was placed under its influence for excision of the eye; his condition on the completion of the operation gave rise to the greatest anxiety. His face suddenly became pale, his respiration slow and shallow, and his pulse extremely feeble and irregular; and notwithstanding prompt and active measures to restore him, he remained for quite half an hour in a most dangerous state. The other, a woman aged 45, placed under its influence for excision of the wrist. The operation was somewhat prolonged; and before its completion, and some minutes after the inhaler had been withdrawn, precisely the same train of symptoms manifested themselves; but in her case, it was fully an hour before I could consider her out of danger.

Now, with facts such as these, how can ether be regarded as a safe anæsthetic? That a certain percentage of deaths will continue to occur from whatever anæsthetic is used, there can be little doubt. If any substitute for chloroform is to be found, it must be one as the Glasgow Committee recently reported, which may with safety be given in exceptionally full doses. Can this be said of ether? This Committee told us that the danger of death from stoppage of the respiratory functions must be borne in mind in every case in which anæsthetics are given; that ether produces the same changes in the lungs as chloroform, the only difference being in the rapidity of their occurrence; that the danger with ether approaches from the pulmonary rather than the cardiac side; and on this ground its superior safety is augured, for by establishing artificial respiration, we are told, we have the means of warding off death. This is very pretty in theory; but how is the fact to be overcome that, in the JOURNALS to which I have referred, two deaths from ether are recorded, where, without the slightest warning, the heart and respiration suddenly ceased, all efforts at resuscitation proving useless? A *post mortem* examination was made in each case, but what was found? Not even the old story of fatty degeneration of heart, but only pathological conditions which, had their existence been diagnosed, should not, in my opinion, have contraindicated the exhibition of chloroform.

After ten years' experience in the administration of chloroform, I am of opinion that, if carefully and properly administered, it is as safe an anæsthetic as we possess. I have given it to men, women, and children of all ages, from an infant five weeks old to persons over eighty years of age. I have never met with any who could not take it, nor do I recognise any disease that should contraindicate its exhibition to a patient in a condition to undergo a surgical operation. Chloroform is, however, far too potent an agent to be intrusted to those who are ignorant of its power, because, if given in too concentrated a form, will, as the Glasgow Committee has demonstrated, produce most alarming symptoms, and even death. I hope the day will come when instruction in anæsthetics will be made compulsory at the various medical schools. Students will then be made practically acquainted with the necessary details of anæsthetising patients, and deaths from anæsthetics consequently more rare.

In conclusion, I think it will be generally assumed, from a perusal of the above facts, that whilst the relative merits of chloroform and ether are still *sub judice*, it would be better to suspend our judgment for a time, instead of hastily characterising the use of chloroform "as criminal, and justifying the stern interference of the law", so prominently quoted by your correspondent Dr. Ormsby in your JOURNAL of February 18th.—I am, sir, yours, etc.,

ELPHINSTONE HOLLIS, M.D.(Edin.), C.M., Resident Surgeon,
February 20th, 1882. East Suffolk Hospital.

SIR,—Dr. Ormsby, in his letter on this subject, speaks strongly in favour of ether, and quotes figures to prove his opinion; but, as they are only one-sided, can be of no use. He says: "When we learn that only one death from ether occurred in 23,204 administrations, it is quite reasonable for those interested in the subject to urge and recommend its employment." Dr. Jacob of Leeds, in his letter on "Deaths from Anæsthetics", would also seem to be in favour of ether. He states that, in the British isles, nine deaths from chloroform, four from ether, one from a mixture of ether and chloroform, and one from ethidene, occurred from January 1881 to February 1882. To arrive at any just conclusion from these figures, we would require to know the number of times that chloroform, ether, ether and chloroform, and ethidene have been used in the British isles during the past year. As this is a most important subject to all practical surgeons, I would suggest that a record, for this year, of all cases in which anæsthetics are used, be kept by all members of the British Medical Association; and that, in cases of death, most careful *post mortem* examinations be made.—Yours truly,

C. MASON SCOTT, F.R.C.S.Eng.
Rockingham, Kingstown, February 20th, 1882.

WHICH IS THE SAFEST ANÆSTHETIC?

SIR,—In the JOURNAL of the 18th instant, Dr. Ormsby writes as if this question were settled, and that ether was the only justifiable anæsthetic to use. He says: "It is probable a time will come when operators will not be allowed merely to explain a death from chloroform 'as an unfortunate thing', and a piece of bad luck;" and then goes on to say that chloroform should be seldom, if ever, used.

In the same issue, there is also a letter from Dr. Ernest Jacob of Leeds, with a list of the deaths recorded in the JOURNAL for 1881 from anæsthetics, from which I find they were as follows: From chloroform, 9; from ether, 4; from chloroform and ether (mixed), 1; from ethidene, 1; total, 15. To make these statistics of any value, we should also have the proportion in which each anæsthetic has been administered. For instance: if (as is probable) chloroform has been given twice as often as ether, the death-rate is very nearly equal. But I did not write merely to call your attention to this; but to ask you (on behalf of a large number of the profession, who are very anxious to have the matter thoroughly gone into and decided, if possible) to use your influence with the Committee of Council of the British Medical Association, that they may appoint a subcommittee to inquire into the matter, by getting statistics of the anæsthetics used for some time back in all the hospitals in England, with the mortality of each, etc. Such a report, giving the dangers of each anæsthetic, with the cases in which (if any) any one would be preferable to others, would be of the greatest value to the profession at large. That something of this sort is needed, I think

you will allow, as, only a year ago, many writers spoke of ether as if it was perfectly safe; whereas now we have a report of four deaths from it in 1881.

Trusting that the importance of the subject will be sufficient apology for taking up your valuable time,—I am, sir, yours, etc.,

JOHN WOODMAN, F.R.C.S. (by Exam.), Consulting Surgeon to the Exeter Dispensary, etc.

2, Chichester Place, Exeter, February 20th, 1882.

DEATHS FROM CHLOROFORM.

SIR,—I protest most strongly against what appears to me to be the unscientific manner in which this question is from time to time dealt with, both editorially and by some of your correspondents. The tendency is to put down all deaths occurring during or shortly after the administration of chloroform, as deaths from chloroform, and even to stigmatize those who administer this agent nowadays with a fatal result, as almost guilty of manslaughter. Is this fair? Is it scientific? I am not prejudiced in favour of either agent; I use both, ether perhaps more frequently than chloroform; but before the chloroformists are so utterly condemned, let us have it clearly proved that ether is safe, or practically so. Dr. Jacob's letter in last week's JOURNAL is instructive on this point. He gives a list of nine cases, headed "deaths from chloroform." In three there are no particulars, another died a quarter of an hour after recovering sensibility, and No. 3 was a removal of an uterine tumour. I think it is quite as fair to put down the death as resulting from the shock of the operation as from chloroform. Dr. Jacob then gives four "deaths from ether." What is the relative frequency of administration of these agents in this country? I should not think nine to four represented it by any means.

Then again, was not the administration of ether at one time given up in favour of chloroform?—Yours, etc., ALFRED SHEEN.

Cardiff, February 21st, 1882.

DEATH FROM ANÆSTHETICS.

SIR,—In your last week's JOURNAL was published a list of deaths from the action of chloroform and ether, by Dr. E. H. Jacob, of Leeds.

Among the deaths attributed to the action of the latter anæsthetic, is quoted one that occurred at this hospital. I think it right to state that here the death could not be traced to the direct action of ether. No distinct medical account of this case has been published, but I may now shortly state that the patient was suffering from a vascular malignant tumour of the upper jaw, which necessitated the partial removal of that bone. Any person accustomed to these operations must know that the difficulty of preventing blood from flowing down the trachea, in a patient rendered fully insensible, is very great. So vascular was the tumour in this case, and so profuse the bleeding from the necessary incisions, that I fully believe no other anæsthetic would have prevented the untoward result. At the *post mortem* examination the bronchi were filled with clotted blood, and no doubt this was the direct cause of fatal asphyxia. The mediastinal deposits were not sufficiently extensive to seriously hamper the respiratory movements.

The inhalation of ether indeed favoured venous congestion of the parts, so increasing the hæmorrhage, and possibly this might have been obviated by the selection of another agent. It seems to me quite fair that this case should be excluded from the list of deaths from ether; and my sole object in writing, is to prevent it from swelling any statistical table of the future without explanatory details, and so breeding mistrust in what is certainly the most safe and valuable anæsthetic now known.

A. MARMADUKE SHEILD, M.R.C.S., L.R.C.P., House-Surgeon, Addenbrooke's Hospital.

Cambridge, February 21st, 1882.

RETREAT FOR DIPSOMANIACS.

SIR,—Permit me to draw attention to the claims of the Spelthorne Sanatorium for Female Inebriates at Feltham, Middlesex. This institution which, from standing in four acres of ground, is peculiarly adapted for its purposes, has done not a little good in reclaiming female drunkards. No intoxicating stimulants are administered to the patients. The management has sustained a severe loss by the death of Miss Antrobus, the late hon. sec., and I regret to say that there are many vacancies for lack of funds. From personal inspection, I can cordially recommend this institution to the liberality of the benevolent. The Honorary Secretary, Miss Rotch, 47, St. George's Road, Eccleston Square, S.W., will be happy to receive donations and subscriptions.

—I am, etc., NORMAN KERR, M.D.

42, Grove Road, Regent's Park, N.W., 21st February, 1882.

MILITARY AND NAVAL MEDICAL SERVICES.

SURGEON-GENERAL J. S. FURLONG, M.D., who served throughout the Crimea and the Indian Mutiny, and who has been recently serving as principal medical officer in Canada, has been appointed by the War Office to be principal medical officer to the forces in Ireland.

DEPUTY SURGEON-GENERAL FRANCIS HOLTON, M.B., has been appointed principal medical officer to the forces in the West Indies, in succession to Deputy Surgeon-General H. T. Reade, V.C., resigned through ill-health.

SURGEON-GENERAL J. M. SCOTT FOGO succeeds Deputy Surgeon-General F. Holton as principal medical officer of the Woolwich and Home districts. The appointment, however, will be one of short duration, as in May next Surgeon-General Fogo attains his sixtieth birthday, and will consequently retire.

THE death of Surgeon-Major James Jopp, Deputy Inspector-General of Hospitals, is announced to have occurred at Edinburgh on the 3rd instant. The deceased gentleman had seen some amount of foreign service, and was present at the capture of the forts of Monohur and Mûnsuntosh.

IT is reported that typhoid fever has been very prevalent amongst the troops in Natal, and that, though it is now decreasing, the mortality has been relatively high. As a sanitary measure, some regiments had been removed from Newcastle, where the incidence of the disease was severe, to healthier quarters, with good results in regard to the diminution of sickness and mortality.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

EQUITABLE SUPERANNUATION FOR IRISH POOR-LAW MEDICAL OFFICERS.

SIR,—The Irish Medical Association expects to have a Bill soon brought into Parliament, having for its object the equitable superannuation of the Irish Poor-law medical officers. As a dispensary medical officer, I wish to put the nature of our claims before our English *confrères*, in order to secure their moral support in the coming struggle. Our position in this country as dispensary doctors is very different from that of English Poor-law surgeons. Our districts average fifty square miles in extent; many of them are intersected by bogs, impassable except on foot, by mountains, or by arms of the sea; and it is often a matter of extreme difficulty to reach the wretched abodes in which many of our patients live. As a general rule, we have to attend, on medical relief tickets, a large proportion of the well-to-do population of our districts; and our salaries and other emoluments attached to our office are, in most cases, the chief part of our incomes, and in many cases the whole, private fees being few and far between, Our incomes from these sources vary from about £100 to £200 a year in all, out of which must be deducted about 25 per cent. for the expense of travelling through our extensive districts. It is therefore manifest that our receipts are, as a rule, very much below those of most general practitioners in England, and that we are to a far greater extent dependent on our salaries.

In 1869, an Act was passed empowering boards of guardians, if they saw fit, to give to medical officers incapacitated by age or infirmity retiring allowances to the extent of two-thirds of their salary and emoluments, irrespective of length of service. This power has, however, been much misused. Popular men have got large pensions, though in the prime of life and after short service; while others, who have not had the tact or means to influence the guardians in their favour, yet have been for many years hard-working officers, have either resigned and got little or no pension, or are working on, afraid to resign, as they have no means of support, and would be given no pension, though utterly unfit for their duties. To such an extent has this gone, that the Local Government Board has addressed a circular to boards of guardians, in which they make the following statements. "The Board have found that in some instances allowances have been proposed which were quite disproportionate to the length of service of the retiring officer, and equal, or very nearly equal, to two-thirds of his salary and

emoluments, even though his period of service may have been comparatively short. The Board take this opportunity to state that they have observed with regret that in some unions the guardians have refused to grant superannuation allowances to old and deserving officers whose services have fully entitled them to consideration in this respect; and this course has not only afforded just cause for complaint, but has also induced officers who have become inefficient by reason of age and infirmity to struggle on in their situations while physically unable to discharge their duties with activity and with advantage to the public service."

The Local Government Board have put the case very mildly on behalf of old and infirm officers. I shall now give a few instances of hardship which fully bear out their statement.

1. Sixty-six years of age. Over thirty years' service. Certificates signed by four leading Dublin physicians that he is suffering from valvular disease of the heart, and that his discharging his dispensary duties is dangerous to his life. Yet he dare not resign.

2. Seventy-two years of age. Over forty years' service. Dare not resign.

3. An old man. Over twenty years' service; got paraplegia. With great difficulty, the guardians were induced to give him £20 a year. He died after a few months.

4. Seventy years of age. Forty years' service. Subject to cystitis. When absolutely unable to perform his duties, the guardians oblige him to pay one-third of the salary of his substitute. He has no prospect of a pension.

5. Eighty-eight years of age. Dare not resign, as his son is Boycotted by the Land League, and the vice-chairman of his board is a "suspect" recently released from gaol.

6. An old man. Twenty-five years' service. Resigned through age and infirmity, and fully expected a pension, as the clerk of the union had been superannuated a short time before with pension; but none was given, and he would have had to go into the workhouse, if he had not died about four months after his resignation.

7. Old man. Forty-five years' service. Suffering from chronic rheumatic gout. The guardians refused him any pension, or even to pay a substitute, and for the last five years of his life he was dependent on his son, who held a neighbouring dispensary, doing his duty, so as to allow him to retain the salary; but for this, he would have been left destitute.

8. An old man. Rheumatic and gouty. Would gladly resign, but dare not.

9. Seventy-nine years of age. Fifty years' service in mountainous district. Has had fever four times; broken leg once; twenty-two falls from horses. Has varicose ulcers, hernia, winter-cough, impaired sight and hearing. Guardians positively refuse any retiring allowance.

10. Broken health. Over twenty-three years' service. Must soon resign, but has very little prospect of pension.

11. Old man. Forty years' service. His guardians unanimously passed a vote of high approbation of his long and excellent service, and gave him *no pension*.

12 and 13. Advanced in life. Thirty-eight years' service; but have no prospect of pensions, as their politics and religion are not those of the majority.

14. Aged seventy. Long service. Often suffers from bronchitis. No prospect of pension.

15. Advanced in life. Twenty-five years' service. Often ill; but no prospect of pension.

16. Advanced in life. Thirty years' service. Received £52 retiring allowance, or considerably less than half the salary.

These are a few specimens of the cases in which we rest our claim to Government putting our superannuation on an equitable footing. The Local Government Board, in the circular already quoted, says: "That, in giving their consent to superannuation allowances proposed to be granted to union officers, they will be governed, as far as circumstances may permit, by the rules applicable to the superannuation of civil servants of the Crown under the Superannuation Act of 1859." All we ask is, that what the Local Government Board recognise as equitable principle of superannuation shall be made the invariable law. The only possible objection which can be brought against this proposal is, that local taxes ought to be distributed by local authorities. But this principle, good in itself, is constantly limited and controlled by both the Local Government Board and Parliament. The former have, from time to time, fixed by sealed order higher amounts of salaries than guardians were willing to give; and the latter has imposed a rate of one farthing in the pound of valuation on all Irish unions for the expense of working the Contagious Diseases (Animals) Act. The whole amount of salaries paid to the Poor-law medical officers in Ireland is only three halfpence in the pound on the valuation, half of which is repaid by the Crown; so that, if even ten per cent. of the medical officers were superannuated at two-thirds of their salary, the charge would only be one-tenth of a penny in the pound, if distributed equally over all the unions in Ireland. It seems hard if we are refused a boon which will cost so little, and yet will save so much anxiety and suffering.—I am, etc., A DISPENSARY DOCTOR.

P.S.—Since the above was written, the Chief Secretary for Ireland has promised that the Irish Government will bring in a Bill placing in the hands of the Local Government Board the discretionary power in reference to superannuation, at present vested in the boards of guardians; the retiring allowances to be paid out of a fund raised by a small general rate all over Ireland. The scale of the Civil Service to be adopted in reference to age, etc. This is a move in the right direction; but we must exert ourselves vigorously to have the measure improved, so that medical officers who have devoted the best years of their lives to the service shall be entitled to receive superannuation allowances upon retirement after long periods of service—say fifteen or twenty years—even though they may not have reached sixty years of age, or be incapable of doing any more work. Again, under the present permissive system, a medical officer, after any period of service, no matter how short, may be granted the maximum pension if permanently disabled. The Government Bill would give him but one-sixtieth of salary and emoluments for each year served, *plus* ten. There is, therefore, room for improvement here also.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

MID-WARWICKSHIRE.—Dr. Wilson, the energetic health-officer of this important combination, presents, as usual, an excellent report; indeed, the Local Government Board include in their last volume one of Dr. Wilson's reports as a model of construction. In the Mid-Warwickshire district, which covers an area of no less than 455 square miles, and which contains a population of about 96,604 souls, there were, in 1880, a total of 2,771 births and 1,759 deaths, equal to ratios of 28.6 and 18.5 per 1,000 respectively. The number of deaths attributed to the seven principal zymotics, including diarrhœa, amounted to 203, representing a total zymotic death-rate of 2.1 per 1,000; but, inasmuch as 22 of these deaths occurred amongst persons not belonging to the district, the actual zymotic rate would be more accurately represented by 1.8 per 1,000, being 1.5 below the average zymotic death-rate of England and Wales. Of these 203 deaths, 107, or more than half, were due to diarrhœa, and the great majority of them occurred amongst infants under one year of age. The excessive mortality from infantile mortality during the third quarter of the year was, Dr. Wilson thinks, consequent upon the high temperature which prevailed during August and the first week of September. The increase in the fatality of infantile diarrhœa accounts for the increase in the general infantile death-rate, which amounted to 124 per 1,000 deaths, compared with 102 per 1,000 in 1879. The total deaths attributed to scarlatina amounted to 41; but seven of these, which occurred in the infectious hospital at Warwick, belonged to Leamington, which is not in the combination. In some districts the prevalence of this disease led Dr. Wilson to cause the elementary schools to be closed; but, although this procedure was of some use in checking the spread of the fever, the absence of any prompt information of fresh cases must be held responsible, to a considerable extent, for its prevalence. Diphtheria was fatal in five cases, mostly traceable to impure water, and not to be connected with any special outbreak. There was, however, a serious outbreak of sore-throat at Rugby, which was found to be due to a contaminated milk supply. Whooping-cough caused thirteen deaths, and eleven were caused by fever (chiefly typhoid). Alluding to the low mortality from fever, Dr. Wilson remarks that, "considering that cases of typhoid fever were common enough in both towns (Warwick and Rugby) a few years ago, the recent immunity from this disease is a gratifying testimony to the steady sanitary improvement which has taken place in both localities, and especially in respect to drainage, water-supply, and scavenging." One hundred and thirty deaths were registered from phthisis, and 293 from bronchitis, pneumonia, and pleurisy; while heart-disease terminated fatally in 111 cases. Numerous improvements have been made in the various districts of the combination, in providing good water, improving drainage-works, and by increased flushing and ventilation of sewers. Results consequent upon these improvements may take some considerable time to declare themselves, but already the total death-rate has been slightly lowered, the zymotic death-rate has become lowered, filth-diseases have become much rarer, and the pauper sick-rate has been considerably lessened—results which are in themselves just cause for congratulation.

TAUNTON (URBAN AND RURAL).—In the compass of a brief, but excellent report, Dr. Alford contrives to give a great deal of information

as to the health statistics and sanitary condition of these two districts. In both he reports favourably low death-rates. In the urban district the rate was 19.0 per 1,000, which is much below the average of the ten preceding years. Of the total deaths (311), 74 were of infants under one year of age, and 18 of children between one and five years of age. The deaths from zymotic diseases were much below the average; last year these numbered 26, or at the rate of 1.6 per 1,000. Alluding to the high death-rate from phthisis, Dr. Alford observes that: "Until the dwellings of the artisan class are more airy, drier, and lighter, this will continue to be the case. Much of the disease, moreover, owes its origin to the unsanitary condition of factories and workshops," a more stringent inspection of which is recommended. Diseases of the respiratory organs caused 50 deaths, 29 of which were from bronchitis; and heart disease was fatal in 25 cases. In the rural district, amongst a population of 20,565, there were 280 deaths, giving a rate of 14.0 per 1,000. Referring to the low death-rate, which was 41 below the average of the seven preceding years. Dr. Alford states, "this is attributable, not merely to the generally improved sanitary condition of the district, but, to a great extent, to the existence of the sanitary hospital, by which many severe and dangerous outbreaks of infectious diseases were stopped." From zymotic diseases there were 28 deaths, or at the rate of 1.4 per 1,000. An outbreak of small-pox was traced to a large paper factory, where all the sufferers had been employed. Of the other deaths, 27 were from phthisis, 18 from heart disease, and 40 from diseases of the respiratory organs. Sanitary improvement is progressing in both districts, though much remains to be done. In the urban district there is promise of an almost unlimited supply of good water, but there seems need of additional filtration. In the same district, the sewers have been considerably extended, but further ventilation is advised. In the rural district, the improvement is reported as "slow but marked".

MEDICAL ATTENDANCE OF WORKHOUSE OFFICERS.

SIR,—Will you kindly state in your next what is the custom of Poor-law surgeons, who attend the workhouse, with regard to master, matron, governess, etc.: Is he considered to attend them gratis, or how? also in confinements?—I am, etc.,
JUNIOR.

*** The medical officer of a workhouse is not required, nor is it any part of his duty, to attend other than the pauper inmates of the same. Indeed, so accurately is his position and that of the paid officers defined by the Local Government Board, that even in the metropolis the paid officials are interdicted from receiving medicines from the workhouse dispensary. As, however, it is in every way desirable that the medical officer should work in harmony with his fellow officers, we advise that our correspondent should not be too particular, save and except in midwifery, when he should at all times demand his customary fee.

SIR,—In the report of the Parliamentary Bills Committee published in the JOURNAL of February 11th, 1882, it is said that the Liverpool corporation desires to make provision for the closing of schools in neighbourhoods threatened with, or infected by, certain diseases; for the compulsory removal of individuals to hospital; and for the registration of cases of infectious disease. All the clauses relating to the above and some other matters were struck out of the proposed amended Act, and do not appear in it as printed.—I am, sir, yours faithfully, WILLIAM CARTER.
74, Rodney Street, Liverpool, February 18th, 1882.

HOSPITAL AND DISPENSARY MANAGEMENT.

PERTH CITY AND COUNTY INFIRMARY.

DURING the year 1881, a fewer number of cases were treated in Perth Infirmary than during the preceding year; the respective numbers being, in 1881, 1,104, and, in 1880, 1,262. At the annual meeting of the subscribers, held last week, the report submitted showed that, unfortunately, the expenditure was greater than the income.

LONGMORE HOSPITAL FOR INCURABLES.

THE number of patients received in the Longmore Hospital for Incurables, Edinburgh, is being increased in proportion as the directors find it in their power to do so. At the end of last year, there were 36 inmates, 30 being in ordinary wards, 3 in special wards, and 3 in private rooms. During the year, 133 applications were received; of these, 42 were admitted. Of course, in such an institution, the mortality must be great; and 10 males and 8 females had died. It is very satisfactory to note that the subscriptions have increased considerably, and that over £600 has been paid in the form of legacies.

WOODILEE ASYLUM.

THE annual report on the above asylum by the Commissioners in Lunacy has been made public, and is of a very satisfactory nature. There are at present in the asylum 492 patients; and, during the past year, there have been 16 deaths, of which 5 were due to general paralysis, 2 to epilepsy, 5 to phthisis pulmonalis, 2 to other chest-affections, 1 to cirrhosis of liver, and 1 to puerperal mania. Notwithstanding that the number of patients suffering from the graver forms of cerebral disease is considerable, and that many of this class of cases are the most violent and difficult to manage, it is satisfactory to find from the report that, at the time of the commissioner's visit, the patients were found almost universally tranquil and orderly in behaviour, although the discipline was not enforced by the use of locks and other expedients. This combined maintenance of order and absence of restriction is largely due to the complete way in which the industrial system of the asylum is organised, and the energy with which it is kept in action. At the same time, the report shows that the specially medical treatment of disease is duly provided for, while the evidence of the efficiency and success of the general management were never more distinctly manifested than during the recent inspection. Such a report must be specially encouraging to the officials of the asylum.

OBITUARY.

GEORGE DUPLEX, L.R.C.P.ED.

WE deeply regret to hear of the death of Dr. Duplex of Torrington Square. Dr. Duplex belonged to the class of practitioners who live an honoured life in general practice, well known in society, distinguished by superior culture and intelligence, and holding a position of trust, respect, and esteem, due to their personal character and to the honourable manner in which they practise their profession. Dr. Duplex had filled the office of Surgeon to Millbank Prison, and had acted as staff-surgeon in the Greek and Spanish service befores settling down into general practice in London. He had reached the advanced age of seventy-eight; but none the less his death comes as a real grief to the many friends who in the course of his long life had learned to regard him with admiration for his intelligence and culture, and with affection for his amiable qualities, his sterling capacity for friendship, and his uniformly trustworthy and upright judgments.

GEORGE SAMUEL JENKS, M.D., F.R.C.P., BATH,
VICE-PRESIDENT OF THE BRITISH MEDICAL ASSOCIATION.

DR. JENKS died at his residence, 18, Circus, Bath, on February 7th, in his ninety-third year. By his death, the medical profession has lost one of the oldest of its members, and the country one of its fast-disappearing Waterloo veterans. Dr. Jenks served as assistant-surgeon in the 18th Hussars (Prince of Wales's regiment) throughout the Peninsular war, and at the battles of Toulouse and Waterloo. At the conclusion of the treaty which followed the surrender of Napoleon, he commenced practice in Rome, but afterwards settled at Brighton, where he long enjoyed an extensive practice as a physician. Twenty-two years ago, he retired to Bath.

Dr. Jenks was President of the British Medical Association in 1857, on the occasion of the annual meeting being held at Brighton; and had long been the oldest Vice-President.

A LADY doctor in Russia, Mme. Dmitrijewa of Borissoglebsk, in the government of Tamboff, has lately died of diphtheria contracted during attendance on patients.

THE CENSUS OF IRELAND: COUNTY KILDARE.—IN 1881, the population of this county was 75,804, being a decrease of 9.3 per cent. as compared with the return for 1871. There has been a great increase in pauperism: for example, in 1871, the number of persons receiving relief under the Poor-law was 1,892 (525 indoor, and 1,067 outdoor); while, in 1881, the number was 2,630 (969 indoor, and 1,661 outdoor); the proportion being as 1 in 44 to 1 in 29. The death-rate for the ten years was 18.0 per 1,000 of the population.

AN official inquiry has been held, by the Local Government Board, into the circumstances which have given rise to the scandal at the Sheffield Workhouse. It had been stated that a coffin, on being opened at the workhouse, was found to contain the remains of an old man instead of that of a young man, whose body had been sent to the Medical School by mistake for dissection. The Local Government Board inspector's report attributes the unfortunate occurrence to the habitual neglect of the master of the workhouse to exercise a proper supervision over the removal of unclaimed bodies to the anatomical school, and to the very objectionable practice which has prevailed of entrusting these arrangements to pauper inmates, without the supervision of the master or any responsible officer. The master of the workhouse is also blamed for not complying with the regulations of the guardians, requiring him to keep a record of the applications for bodies made by the licensed teacher of anatomy, and to obtain and lay before the committee a certificate of the proper interment of each body sent to the school.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, February 16th, 1882.

Groom, William, North Brink, Wisbeach.
Hewkley, Frank, 33, Philips Road, Dalston, E.
Modi, Hormasji Restourji, Bombay.
Sinclair, John, Kingsclere, near Newbury.
Treadwell, Oliver F. N., 22, Lorn Road, Brixton.
Trevor, Edward Tull, Queen's Gardens, Hyde Park.
Walker, Francis John, Spilsby, Lincolnshire.

The following gentlemen also on the same day passed their Primary Professional Examination.

Ryan, Thomas, Dublin Hospital.
Banerjee, Mahendra Nath, King's College, and Calcutta.
Griffin, John Hubert, St. Bartholomew's Hospital.
Martin, Henry Joseph W., University College Hospital.
Willcocks, Arthur D., University College Hospital.
Parsons, William Charles, London Hospital.

MEDICAL VACANCIES.

The following vacancies are announced :—

ABERYSTWITH INFIRMARY AND CARDIGANSHIRE GENERAL HOSPITAL—House-Surgeon. Salary, £175 per annum. Applications to Evan Evans, Solicitor, Aberystwith, by 28th instant.

ANDERSON'S COLLEGE DISPENSARY—Physician. Applications to David Wilson, Honorary Secretary, 42, Bath Street, Glasgow.

BELMULLET UNION.—Medical Officer for Bangor Dispensary District. Salary, £100 per annum, with £10 yearly as Medical Officer of Health, registration, and vaccination fees. Election on the 3rd proximo.

BELMULLET UNION—Medical Officer for Workhouse at a salary of £50 per annum, together with £5 per annum as Superintendent Medical Officer of Health. Election on the 9th proximo.

BUSHEY HYDROTHERAPEUTIC SANATORIUM.—Physician. Applications to J. McDonald, Esq., the Hall, Bushey, Herts.

CARNARVONSHIRE AND ANGLESEY INFIRMARY.—House-Surgeon. Salary, £100 per annum. Applications by March 7th.

CASTLEBAR UNION—Medical Officer for Castlebar Dispensary District. (North Division No 2). Salary, £110 per annum, with £15 yearly as Medical Officer of Health, registration, and vaccination fees. Election on the 25th instant.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Assistant Honorary Surgeon. Applications by March 4th.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C Assistant Surgeon. Applications by the 8th March.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Administrator of Anæsthetics. Applications by March 13th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Assistant Dental Surgeon. Applications by March 13th.

ESSEX AND COLCHESTER GENERAL HOSPITAL.—Member for Surgical Staff. Applications by the 29th March.

ESSEX AND COLCHESTER GENERAL HOSPITAL.—Physician. Applications by the 29th March.

GENERAL INFIRMARY, NORTHAMPTON.—Assistant House-Surgeon. Salary, £80 per annum. Applications by the 13th March.

MONTROSE ROYAL LUNATIC ASYLUM—Assistant Medical Officer. Salary, £120 per annum. Applications to Dr. Howden.

NATIONAL DENTAL HOSPITAL, 149, Great Portland Street, W.—House-Surgeon. Salary £50 per annum. Applications by February 24th.

PAISLEY INFIRMARY.—House-Surgeon. Salary, £80 per annum. Applications to Francis Martin, County Buildings, Paisley, by the 4th March.

ROTHERHAM HOSPITAL—Resident House-Surgeon. Salary, £100 per annum Applications by February 28th.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road.—House-Physician. Salary, £80 per annum, in lieu of Board. Applications by the 9th March.

ST. GERMAN'S UNION RURAL SANITARY AUTHORITY—Medical Officer of Health. Salary, £100 per annum. Applications, marked "Appointment Medical Officer of Health", by March 9th.

TIVERTON INFIRMARY—House-Surgeon and Dispenser. Applications to E. F. C. Clarke, Honorary Secretary, Tidcombe Villas, Tiverton, Devon.

TRINITY COLLEGE, GLENALMOND, N.B.—Medical Man. Salary, £180 per annum. Applications to the Rev. the Warden.

WESTERN GENERAL DISPENSARY—Marylebone Road—Honorary Physician. Applications by March 6th.

WEST LONDON HOSPITAL, Hammersmith, W.—Assistant Physician. Applications by 1st March.

WESTERN OPHTHALMIC HOSPITAL, 155, Marylebone Road—Surgeon. Applications by the 28th February.

MEDICAL APPOINTMENTS.

BARTON, J., M.D., appointed Medical Officer to the South City Dispensary, Dublin.

BRYDEN, R. J., M.R.C.S.Eng., L.S.A.Lond., appointed House-Surgeon to the Gravesend Infirmary, *vice* R. A. Birdwood, M.B., M.R.C.S.Eng., resigned.

BUTLER-SMYTHE, Albert C., M.R.C.S.Eng., appointed Surgeon to the Farringdon General Dispensary and Lying-in Charity.

DUCKWORTH, R. H., A.B., M.B., appointed Medical Officer to Rathdowney Dispensary District and Workhouse.

HAYES, M., L.R.C.S.I., appointed Assistant Medical Officer and Dispenser to the Bradford Friendly Societies' Medical Aid Association, *vice* J. McCutcheon, L.F.P.S., resigned.

HUTCHINSON, S. J., L.D.S., M.R.C.S.Eng., appointed Dental Surgeon to the Dental Hospital of London, Leicester Square, *vice* A. Coleman, L.D.S., F.R.C.S.Eng., resigned.

HUTTON, H. R., M.B., appointed Physician to the General Hospital and Dispensary for Sick Children, Pendlebury.

JESSOP, W. H., F.R.C.S., appointed Assistant-Surgeon to the Central London Ophthalmic Hospital, *vice* W. Lang, F.R.C.S., resigned.

KINANE, M. K., L.K.Q.C.P.I., appointed Medical Officer for Templemore Dispensary District to the Thurles Union, *vice* E. P. Meagher, L.K.Q.C.P.I.

MACLEOD, M. D., M.B., appointed Medical Superintendent of the East Riding Asylum at Beverley.

MITCHELL, Adam, B.A., L.K.Q.C.P., appointed Medical Officer to Borris-in-Ossory Dispensary District.

MORRIS, W. C., M.B., appointed Medical Officer to the Chester-le-Street District and Workhouse, *vice* R. Linton, deceased.

MOULLIN, C. W. Mansell, M.D.Oxon., F.R.C.S.Eng., appointed Lecturer on Comparative Anatomy at the London Hospital Medical College.

NICOLL, T. V., L.R.C.S., appointed Honorary Medical Officer to the British Asylum for Deaf and Dumb Females at Clapton, *vice* A. Boswell, M.B., resigned.

NORMAN, Conolly, M.K.Q.C.P.I., appointed Medical Superintendent of Castlebar Lunatic Asylum.

ROY, William, M.D.Edin., appointed Surgeon to the North Cambridgeshire Cottage Hospital, Wisbech, *vice* D. C. Nicholl, L.R.C.P.Edin. and M.R.C.S.Eng., deceased.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., *which should be forwarded in stamps with the announcements.*

BIRTHS.

FLEMING.—At 155, Bath Street, Glasgow, on the 20th inst., the wife of William James Fleming, M.D., of a son.

HEWLETT.—On February 1st, the wife of John C. Hewlett, Esq., of Elmhurst, Beckenham, Kent, and Charlotte Street, London, E.C., of a son.

RICHARDSON.—February 11th, at Lynstead, Torquay, the wife of J. B. Richardson, M.B., of a daughter.

MARRIAGES.

BEEVOR—LEADAM.—On the 7th, at the Parish Church, St. Marylebone, by the Rector, the Rev. C. J. Phipps Eyre, Charles Edward Beevor, M.D.Lond., M.R.C.P., eldest son of the late Charles Beevor, F.R.C.S., of 129, Harley Street, to Blanche Adine, third daughter of the late Thomas Robinson Leadam, M.D., of Stratfield House, Mortimer, Berks.

DUNBAR—SAUNDERS.—On the 21st inst., at St. Paul's Church, Bayswater, by the Revd. W. Morrison, D.D., James John Macwhirter Dunbar, M.D.London Univ., eldest son of Surgeon-General J. A. Dunbar, M.D., Indian Army (retired), to Mary, daughter of George Saunders, Esq., M.D., C.B.

TOLL—MORTLOCK.—On the 29th December, 1881, at St. Peter's Cathedral, Adelaide, S.A., by the Rev. Dr. Dewdy, D.D., John Tressilian Toll, M.R.C.S.E., L.R.C.S. L.M.Edin., of Port Adelaide, South Australia, to Florence Margaret, youngest daughter of W. R. Mortlock, Esq., M.P., Avenel Medindie, S.A.

WYLIE—STEPHENSON.—On January 9th, at Blundellsands, Liverpool, by the Rev. C. de B. Winslow, Henry Wylie, L.R.C.P.Ed., L.R.C.S.Ed., of Mersey Road, Blundellsands, to Emma, daughter of W. Stanley Stephenson, Esq., of Nicholas Road, Blundellsands.

PRESENTATION.—The students of Mercer's Hospital have presented the late resident medical officer, Mr. C. Burke Gaffney, with a handsome clock, on his retirement from office.

DR. JUNOD, who was well known in medical circles in London some years ago as the inventor of a boot by which a species of dry cupping was performed, has lately died in Paris.

THE seventy-sixth annual meeting of the Medical Society of the State of New York was held in Albany on February 7th, 8th, and 9th, under the presidency of Dr. Abraham H. Jacobi.

A Bill to provide for the Sanitary Inspection and Regulations of Schools in Ohio has been introduced into the Legislature of that State.

UNIVERSITY OF ATHENS.—According to the report of the late rector, Professor Aretieus, there were in this university during the academical year 1879-1880 2,030 students, of whom 728 belonged to the faculty of Medicine.

ST. THOMAS'S HOSPITAL.—The following appointments have been made:—*House-Physicians:* A. B. Carpenter, L.R.C.P., M.R.C.S.; S. W. Sutton, M.B., L.R.C.P., M.R.C.S. *House-Surgeons:* M. P. M. Collier, F.R.C.S,, M.B., M.S.; C. F. White, M.R.C.S., L.S.A. *Resident-Accoucheur:* T. D. Acland, M.B., L.R.C.P., M.R.C.S. *Assistant House-Physicians: Senior,* F. W. Marlow, M.R.C.S., L.S.A.; *Junior,* R. Heelis, M.R.C.S., L.S.A. *Assistant House-Surgeon:* C. W. Haig Brown, M.R.C.S., L.S.A.

THE municipal council of Neuss, the birthplace of the late Professor Schwann, have decided to place a memorial tablet on the house in which he was born.

VACCINATION.—Dr. E. J. Latham Blacker, of Thrapston, has been awarded a Government grant of £9 13s., for proficiency in vaccination in his district.

THE AMBULANCE MOVEMENT.—Great success is said to be attending the classes in connection with the St. John's Ambulance Association at Malta. The Governor, General Sir A. Borton, C.C.M.G., has been elected President; and Sir Victor Houlton and the Bishop of Gibraltar Vice-Presidents of this centre. His Serene Highness the Duke of Teck has accepted the presidency of the Richmond centre.

A PROPOSAL to exhibit the body of Guiteau after his execution is said, according to the *Echo*, to have received the consent of Mr. Scoville, conditionally that a *post mortem* examination of the brain should first be made, to determine beyond doubt the disputed question whether or not he has any disease of the brain. The firm that proposes to exhibit the body would be required to give positive assurance to the relatives that no indignities shall be offered to the remains. The proceeds of such exhibition would be used by the family, first, in paying off Guiteau's debts; and the remainder, if any, would be devoted, under the control of trustees, to the amelioration of the condition of the insane, or to the advancement of the anti-capital punishment theory.

SANITARY INSTITUTE OF GREAT BRITAIN.—At the ordinary meeting held at 9, Conduit Street on Wednesday, February 16th—Professor F. S. B. F. De Chaumont, M.D., F.R.S., in the chair—a paper was read by Henry C. Burdett, F.S.S., on the Administration and Hygiene of British Hospitals. A short discussion followed, in which Mr. E. C. Robins, Dr. Braxton Hicks of Guy's Hospital, Mr. C. Macnamara of Westminster Hospital, and Mr. Pearson Hill, took part.

SMALL-POX IN NEW SOUTH WALES.—It is satisfactory to learn that the Board of Health reports that there has not been a case of small-pox in Sydney since January 26th, and that there is not now a house in quarantine; in fact, so far as is known, New South Wales is free from disease, with the exception of cases at the quarantine station and sanatorium, where all are said to be progressing satisfactorily.

HEALTH OF FOREIGN CITIES.—A table in the Registrar-General's last weekly return supplies the following trustworthy indications of the recent health and sanitary condition of various foreign and colonial cities. According to recent weekly returns, the annual death-rate in the three principal Indian cities averaged 37.7 per 1000, and was equal to 42.1 in Madras, 32.5 in Bombay, and 30.9 in Calcutta; cholera caused 19 deaths in Madras, 11 in Bombay, and 32 in Calcutta. The usual excess of "fever" mortality was recorded in each of these Indian cities. The death-rate in Alexandria declined to 29.8, but 6 of the 121 deaths were referred to typhoid fever. In twenty-one European cities, the death-rate averaged 33.0, and exceeded by 6.6 the average rate prevailing last week in twenty-eight of the largest English towns. The death-rate in St. Petersburg was equal to 52.2, and all but corresponded with the high rate in the previous week; 46 deaths resulted from typhus and typhoid fevers, and 19 from diphtheria. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate did not average more than 25.3; measles, however, caused 12 deaths in Copenhagen and 8 in Christiania. In Paris, the death-rate further rose to 33.1; 51 deaths were referred to diphtheria and croup, 35 to typhoid fever, and 21 to small-pox. The death-rates in Brussels and Geneva were equal to 27.5 and 34.6 respectively; small-pox caused 2 deaths in Brussels. In the three principal Dutch cities, the death-rate averaged 30.1, and was equal to 22.9 in Amsterdam, 31.6 in the Hague, and 39.6 in Rotterdam. Small-pox caused 2 deaths in Rotterdam, and the 75 deaths in the Hague included 4 from whooping-cough and 2 from scarlet fever. The Registrar-General's table includes returns from nine German and Austrian cities, in which the death-rate averaged 29.8; it ranged from 23.0 and 23.8 in Berlin and Dresden, to 40.5 in Buda-Pesth and 41.9 in Trieste. Small-pox caused 14 deaths in Buda-Pesth, 9 in Vienna, and 6 in Prague; diphtheria was more or less fatally prevalent in most of these German cities. The death-rate was equal to 30.5 in Turin, and 30.8 in Venice; typhoid fever caused 6 deaths in Turin and 2 in Venice. No return appears to have been received either from Rome or Naples. The average death-rate in four of the principal American cities was equal to 28.6; the rates in these four cities ranged from 22.3 in Philadelphia to 35.3 in New York. Small-pox caused 18 deaths in Philadelphia and 7 in New York. Scarlet fever showed fatal prevalence in New York and Brooklyn, diphtheria in Baltimore, and typhoid fever in Philadelphia.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S. 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S. 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2 o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p. Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu F., 1.30; Eye, M. Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30 Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30 Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Dr. D. W. Charles Hood: Notes of a case of Enteric Disease, followed by Phlebitis and Pulmonary Thrombosis. Mr. Kenneth W. Millican (of Kineton): Some Suggestions for Modification of the Germ-Theory of Disease. Dr. B. W. Richardson: Bichromate Disease.—Royal College of Surgeons of England, 4 P.M. Professor W. H. Flower: On the Anatomy, Physiology, and Zoology of the Edentata.

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Dr. Champneys: On Artificial Respiration in Stillborn Children: Mediastinal Emphysema and Pneumothorax in connection with Tracheotomy. Dr. A. Money: On the great frequency of Cardiac Murmurs in the Puerperal State.

WEDNESDAY.—Obstetrical Society of London, 8 P.M. Specimens will be shown. Dr. W. S. Playfair: Notes on Trachelo-raphé or Emmet's Operation. Dr. W. A. Popow (of Pensa): On the Corpus Luteum.—Royal College of Surgeons of England, 4 P.M. Professor W. H. Flower: On the Anatomy, Physiology, and Zoology of the Edentata.—Royal Medical and Chirurgical Society, 5.30 P.M. Annual Meeting. Report; President's Address; etc.

THURSDAY.—Harveian Society of London, 8 P.M. Dr. Edis: Cases of Menorrhagia, with Remarks. Dr. Cleveland: On Primary and Secondary Vaccination.—Abernethian Society, St. Bartholomew's Hospital, 8 P.M. House-Surgeons' Evening. The House-Surgeons will introduce a Discussion on Head-Injuries.

FRIDAY.—Royal College of Surgeons of England, 4 P.M. Professor W. H. Flower: On the Anatomy, Physiology, and Zoology of the Edentata.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE BRITISH MEDICAL BENEVOLENT FUND.

THE Treasurer of the British Medical Benevolent Fund desires to acknowledge, with sincere thanks, the following donations: Dr. Habershon, £10 10s.; Dr. Siordet (Mentone), £5; Dr. D. Chalmers (Malton, formerly Everton), £5.

JACKSONIAN PRIZE.—The result is not yet known. There were five essays sent in.

LECTURES ON PUERPERAL FEVER.

SIR,—Will you kindly allow me to express my regret that all the copies of the lectures on Puerperal Fever have been distributed, in answer to numerous applications for them.—Yours truly, R. J. LEE.

6, Savile Row, W., February 23rd, 1882.

PITYRIASIS.—Would any member kindly give their most successful treatment for chronic pityriasis capitis? My patient is a gentleman aged 24, who has resisted the ordinary methods of treatment for six months past.

UNQUALIFIED PRACTITIONERS AND UNCERTIFIED DEATHS.

SIR,—I beg to draw attention to the lax way in which death-registration is carried on in this locality. The number of uncertified deaths equals, if not exceeds, the certified, and unqualified practitioners are as numerous as qualified, having got practices through acting as unqualified assistants. One would fancy the Government or some local representative body would be chary of the lives of the inhabitants, and make it compulsory that a person with some qualification should at least see the sick persons once, so as to testify as to the cause of death. As the law is now administered, a coroner's duty is confined to cases of violent death.—I am, sir, yours truly, GERALD H. FITZGERALD, M.D., Medical Officer,

Ponteland, Northumberland, February 13th, 1882. Ponteland.

A MEMBER.—1. The best underclothing for your patient is Benger's normal wool-clothing, to be had of Messrs. Newberger and Co., 53, Wood Street, E.C. 2. New milk can be had in Paris, sent out in sealed bottles from the Ferme d'Arcy. We do not know anything of the supply in other continental cities.

PEMPHIGUS.

SIR,—I have seen many instances of pemphigus, both specific and non-specific, local and general, and it is my experience, as I believe of most medical practitioners, that the non specific cases are invariably benefited by judicious administration of arsenic. At the same time, a cause must generally be sought for, and it is mostly present, either as an internal or external irritant, and, if possible, must be got rid of: be the trouble uterine, worms in the bowels, scabies on the surface, or syphilis in the constitution; and my observations invariably show there is a cause for acute pemphigus in all instances. I remember a case in which a man was attacked with acute local pemphigus in the hands and feet (back and front), from taking Donovan's solution in repeated doses, this acting as an internal irritant. On stopping the medicine, the pemphigus ceased. Another case, in which a woman was affected with scabies over her whole body, broke out afterwards with a severe attack of acute general pemphigus, with blebs as large as grapes. When the scabies was relieved, the pemphigus vanished. I think, therefore, we should rely not so much on the value of one special drug, such as arsenic, but rather seek out the cause and remove that.—I am, your obedient servant,

JAMES STARTIN, Surgeon and Lecturer St. John's Hospital for Diseases of the Skin.

SIR,—I should feel obliged to any of your readers who would inform me whether they make any charge for examining, and giving certificates to, candidates for clubs. I should also be much obliged for your own opinion on the point.—I am, etc., A MEMBER.

THE ISLE OF MAN.

SIR,—1. What prospects are there in the Isle of Man for a "physician" and general practitioner possessed of moderate private means? Are there any appointments there with salary? and, if so, how obtainable? 2. What is the cost of living there, as compared with a small country town in either Great Britain or Ireland? 3. Is the climate suitable for an individual with a delicate chest and constantly suffering from bronchitic asthma? Any other information on the subject will be most gratefully received. Is the licence of the Irish College of Physicians, or that of Edinburgh, held in the most general estimation? and, for one about to practise out of Ireland, which of the licences is it most advisable to have?—Your obedient servant,

A MEMBER BRIT. MED. ASSOCIATION.

NERVE-STRETCHING IN TRAUMATIC TETANUS.

SIR,—I have delayed noticing Messrs. Wheeler and Clark's annotations regarding the above mode of treatment in traumatic tetanus, thinking others would do so. Had either of those gentlemen referred to me, at Section 1329: 4, they would have seen that Mr. Callender read a paper upon the subject, and referred to a case by M. Verneuil that had perfectly recovered after stretching of the median nerve (*Lancet*, April, 1876, p. 596). The following successful and unsuccessful cases have been recorded since that date. BRITISH MEDICAL JOURNAL, vol. i, 1879, pp. 490, 933, and Mr. Wheeler's case, vol. ii, 1881, p. 984; *Lancet*, March, 1878, p. 311, October, 1879, pp. 892, 963; the *Medical Times and Gazette*, vol. i, 1879, p. 618, vol. i, 1880, p. 202, vol. ii, 1880, p. 216.—Yours obediently, MEDICAL DIGEST.

DOES THE PRESENT SYSTEM OF MEDICAL EDUCATION FULFIL ITS REQUIREMENTS?

SIR,—In the JOURNAL of February 11th is a note referring to a lecture by Dr. Edis at the Middlesex Hospital on this question. I desire to record a recent experience I have had in reference to this point. In December last I invited fifteen medical men to the infirmary of which I am the house-surgeon, my object being to promote social fellowship, and at the same time to favour mutual improvement by the observation of and subsequent discussion upon, certain interesting cases which I happened to have in the wards. Among my cases were two illustrating the retinal changes in Bright's disease; one of pigmented retinitis, and one showing optical changes in progressing pernicious anæmia. Of my guests, only three were able to handle and use the ophthalmoscope sufficiently to observe the objects I wished to demonstrate. Of the others, no fewer than nine candidly admitted they never had seen an optic disc, nor were they aware of the ophthalmoscopic appearance of a normal eye. The others knew something about ophthalmoscopy. These facts point to a screw loose somewhere in our great medical schools. Some of these gentlemen were in practice, and three were resident officials in neighbouring infirmaries Can it be that the profession, as turned out from the centres of medical education, is not instructed in keeping with the times? Judging by this, I fear it is so, and some great change should be made in our system of medical education.—Yours faithfully, LONDINENSIS.

INQUIRENS asks from what book or books he can obtain the most satisfactory information on the following points regarding the mercantile marine: 1. Regulations regarding appointments; 2. General routine of duties; 3. Treatment of sea-sickness; 4. Addresses of some of the leading lines.

THE DEAD AMONG THE LIVING.

SIR,—Writers who have treated on the nuisances and dangers to the public health induced by dead bodies concur that the dead should be buried in places remote from centres of population, in soils calculated to allow of the passage of gases and fluids in every direction, and at such a depth, that there can be no contamination of the surrounding atmosphere. The neglect of these observances is sure to bring disease and death in its train. The poisonous volatile organic matter diffused in large volumes in the neighbourhoods of our London burial-grounds is even painfully perceptible to the senses; and not only so, but it exercises a more or less serious influence on health, frequently producing typhoid and diseases of a kindred type, but more frequently disagreeable ailments, such as troubles of the digestive organs, and intestinal fluxes, arising from the inhalation of putrefying animal matter, and its reception into the circulation, which affections sometimes prove fatal. Dr. Roger C. Tracey, the eminent sanitary official of New York, in his essay on *Public Nuisances*, referring to the proper treatment of the dead, observes: "Singularly enough, whilst the utilisation of the remains of animals in such a manner as to render them innocuous has been for some time an accomplished fact, the proper disposal of human dead is still an open question."

Although Dr. Tracey is an advocate of cremation, because of its prompt and complete destruction of the body, nevertheless, he accepts Mr. Seymour Haden's principle of earth-to-earth burial most favourably. Of course, from the time of Aristotle, the antiseptic qualities of fresh earth in hastening, or rather in arresting, decomposition, has been no secret to men of science. The proposition to bury the dead in perishable coffins, Dr. Tracy regards as "a very sensible one". Nay, he goes further, and assests that "there seems to be no valid objection to the plan unless it be a sentimental one". This sentiment, which causes the public to allow the departed to be preserved in varied stages of putridity for an indefinite number of years, cannot be too strongly opposed. Such a disposition, amounting to actual desecration of "poor mortality", Mr. Haden pertinently characterises as "an unreasoning sentiment"; one, moreover, which he considered should be stigmatised, without extravagance or impropriety, as an offence not alone against the dead, but against society. When will the public mind see mural matters in the same light?—I am, etc., SANITAS.

SIR,—Can you, or any of your readers, kindly give me the names of any reputable lunatic asylums—for preference, in the neighbourhood of London—where I can place a young man, who has been a lunatic for many years, for a less sum than 20s. a week? He has been, and is, an inmate of an asylum at a higher rate; but, by the death of his father, the sum procurable for his maintenance will not allow a higher weekly amount than that I have mentioned. Any information on this point will be thankfully received by, yours very truly,

Bridgwater, February 7th, 1882. W. L. WINTERBOTHAM, M.B.

LIFE ASSURANCE COMPANIES AND PAYMENTS FOR CERTIFICATES.

SIR,—Allow me to call attention to the following. Some time ago, I attended a woman whose life was insured; she died. Her husband, on applying for the ordinary death-certificate, said that the insurance secretary asked him to obtain from me a certificate of the cause of death for the use of his company. I told him the insurance company must apply to me direct, and declined to give the certificate to him. I heard nothing more of the matter for some months, when I happened to meet the husband of the deceased, who informed me that the insurance secretary applied to the registrar of deaths of the district, who supplied him with a copy of my certificate for 1s. or 2s. 6d. The injustice of the case is evident.—I am, sir, yours truly, A MEMBER.

SIR,—In last Saturday's JOURNAL are two letters, complaining of the action of the London Life Association with regard to medical fees. Being convinced that this society is the best adapted to the needs of a medical man, or any professional man, I have taken two policies in it. I therefore now defend its conduct with regard to medical examinations. Mr. Docker's letter explains the reason why the Association has not to advertise or employ agents; but he does not state this, nor the important fact that only about two and a half per cent. of the gross income is expended in management; whereas some companies spend twenty-five or thirty per cent. in this way. Nor does he state that a person insuring in the London Life Association may reasonably expect, after paying seven annual premiums, to have a reduction of sixty per cent. in the amount payable yearly, and a further reduction seven years later.

These are the good points. On the other hand, the fact that the insurer must present himself at a time appointed before the medical officer and Board of Directors, or submit to a fine of £5 or £10; and the very sad fact that the insurer must pay his medical man a guinea, instead of leaving the insurance company to pay half the sum, as several of them do.

I think that the fact itself, that an insurance society can afford to take such an independent position, might suggest to a thoughtful mind that such a society must be a substantial one.—Believe me to be, sir, yours truly,

Castle Cary, Somerset, January 31st, 1882. C. P. COOMBS, M.D.Lond.

ERRATUM.—On page 233, second column, line 2, *for* "Hastings" *read* "Michael."

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

PUBLIC DOCTORS FOR NIGHT EMERGENCIES.

SIR,—In connection with the above proposal, the profession, I think, should not lose the opportunity to right itself with the public. No other faculty is ever charged with inhumanity and uncharitableness; but of doctors it is too often hinted at, even by officials. The "registered" practitioner is little enough protected by laws specially affecting the profession; and on the principle that every labourer is worthy of his hire, I think the public should be reminded that the medical profession, as a body of bread-earners, volunteer a vast amount of gratuitous advice. I am decidedly one of those who think that, if the service had to be paid for, it would be a good deal more appreciated by the recipient than it is now.—Your obedient servant, EN RETRAITE.

M.A.CANTAB.—Your application should be addressed to the Registrar of the General Medical Council, 299, Oxford Street, as the preliminary examinations at the Royal College of Surgeons are now discontinued.

H. W.—Half-a-crown is an absurdly small sum to offer for filling up such a paper as the one you inclose. Medical men are glad to encourage life-assurance; but they must be paid a reasonable fee for furnishing the skilled opinion upon which the actuary bases his calculation.

ABSORPTION OF THE NECK OF THE FEMUR.

SIR,—In last week's JOURNAL, Mr. Jones of Manchester gives an interesting description of a case which he terms "Interstitial absorption of the neck of the femur". With your permission, sir, I would venture to mention difficulties which seem to me to lie in the way of an unreserved acceptation of Mr. Jones's diagnosis. As the patient did not die, the diagnosis rests upon clinical evidence alone. The limb was shortened to the extent of an inch and three-quarters; but could such shortening have been caused by a slight approximation of the head of the femur to the great trochanter by loss of substance in the neck? I must confess my inability to conceive an interstitial absorption of such an extent as to give rise to shortening. In specimens in the London museums in which this condition is said to have occurred, it can be clearly perceived that what has occurred is loss of substance, not in the neck, but of the head, and the moulding of a new head upon the neck. This new head is generally flattened from above downwards, and so would caure shortening of the extremity, especially as there is in such cases always expansion of the acetabulum upwards, allowing the thigh-bone to be drawn upwards. And this, I would submit, is what took place in Mr. Jones's case; and I would suggest that the fibrous adhesions which were broken down existed between carious articular surfaces, and not external to the joint.—I am, etc.,

S. D. CLIPPINGDALE, M.D., F.R.C.S.

Kensington, February 19th, 1882.

MARYLEBONE should call on any practitioners in the neighbourhood to whom he has letters of introduction. Beyond this, he should follow the ordinary rule of society.

INQUIRER.—Mr. Himes's essays on *Parting Words to Boys Leaving School* is published by Simpkin, Marshall, and Co., London.

THE FUTURE OF INOCULATION.

THE following we quote from a contemporary. Customer:—"My nephew is just starting for Sierra Leone, and I thought I could not make him a more useful present than a dose of your best yellow fever. Would you tell me the price, please?"—Chemist: "Well, ma'am, the germs are so difficult to cultivate in Europe, that I would advise your waiting for the next West Indian mail, when I am expecting a nice fresh consignment from St. Thomas. Meanwhile we would recommend our half-guinea traveller's assortment of the six commonest zymotics, and could add most of the tropical diseases from stock at 5s. each. We have some nice Asiatic cholera, just ripe, but they are more expensive."

THE BRUSSELS M.D.—Mr. J. B. Baker should apply by letter to Dr. F. E. Pocock, The Limes, St. Mark's Road, Notting Hill, W.

SIR,—In the article on Notification of Infectious Diseases in your JOURNAL of February 18th, 1882 (page 233), the plan of registration you approve of is by Dr. G. Purcell Atkins, not of Cork, but of Cork Street Hospital, Dublin.—Yours very faithfully, G. PURCELL ATKINS.

Cork Street Hospital, Dublin, February 21st, 1882.

SPLINTS ON HORSES' LEGS.

SIR,—I should be much obliged by any practical information on the subject of operative measures for the above. I am acquainted with most of the book knowledge concerning it; but can anyone give me the result of cutting down and removing the sharp bony points that interfere with the movement of the tendon, and so cause lameness and pain?—I am, etc., J. L. J.

L. M. G. will find the information which he requires in the JOURNAL for November 12th, 1881.

MR. ALFRED GODRICH, one of the medical officers for South Kensington, in a letter which appeared in the *Globe* of February 9th, again attacks the Asylums Board. He states that Sir Edmund Currie remarked, we suppose at the previous meeting of the board, that, out of 100 patients admitted into the Deptford Hospital, 84 were inhabitants of the district immediately contiguous to the hospital. This statement is doubtless taken from a newspaper report, and we doubt if Sir Edmund Currie said anything of the sort. However this may be, we have ascertained that, at the meeting of the Asylums Board on February 4th, the fortnightly return of patients admitted into the Deptford Hospital showed a total of 105 patients. Of these, 84 came from the parishes of Camberwell, Greenwich, St. Saviour's, and St. Olave's, parishes which, as Mr. Godrich is no doubt aware, embrace a very large part of South London, and not all by any means in the immediate neighbourhood of the hospital. Mr. Godrich's statements that the Asylum Boards hospitals are badly situated and badly ventilated, etc., needs no comment. He believes that the shortest way to stamp out small-pox in London is to shut up the Asylums Board hospitals, and make each district provide accommodation for its small-pox cases. The whole question of small-pox accommodation for London may now, we think, be safely left in the hands of the Royal Commission; and medical men who have the cause of public health at heart would do well to avoid writing alarming letters to the newspapers.

DR. DIAMOND.—The argument introduced in respect to sport has, we think, been sufficiently elaborated. After all, strong as the argument is, in some respects it is always open to the retort that two wrongs do not make one right. We doubt the advantage of using this not very strong form of argument, when others so much more direct and positive can be properly adduced, showing the practical utility and importance of experiments upon animals for the purpose of advancing medical knowledge, and increasing success in the treatment of disease.

M.D., MEMBER, should apply to the Secretary of the Royal University of Ireland, Dublin.

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Mr. R. Gravely, Chailey; Dr. J. W. Langmore, London; Dr. Aveling, London; Dr. Maclagan, Edinburgh; Mr. R. Clement Lucas, London; Dr. C. E. Glascott, Manchester; Dr. F. Simms, London; Mr. Balmanno Squire, London; Mr. G. S. Parker, Stafford; Dr. T. E. Atkins, Cork; Mr. G. Longbotham, Middlesboro; Mr. Cadge, Norwich; Mr. Hugh Thomas, Birmingham; Mr. W. A. Thomson, Ampthill; Dr. F. J. Wright, London; Dr. Robert Gray, Armagh; Mr. J. Crouch, London; Mr. M. D. Makuna, London; Mr. Ash, Holsworthy; Mr. H. T. Butlin, London; Mr. Butler-Smythe, London; Mr. H. Ralph Gatley, Edinburgh; Dr. Cassells, Glasgow; Mr. J. R. Lunn, London; Dr. Diamond, Huddersfield; Dr. J. Whitson, Glasgow; Mr. J. A. Tyman, Edgeworthstown; Dr. Joël, Lausanne; Dr. Crichton Browne, London; Dr. G. H. Fitzgerald, Ponteland; Dr. Murrell, London; Mr. J. Mason, London; Mr. G. H. Fosbroke, Bidford; Mr. T. W. Reid, Canterbury; Mr. E. B. Stephens, Doddington; Dr. J. S. Cameron, Huddersfield; Our Glasgow Correspondent; Dr. J. Rogers, London; Our Dublin Correspondent; Mr. J. Waters Harrison, Sheffield; Dr. Ewart, Aberdeen; Mr. S. J. Hutchinson, London; Dr. J. Haddon, Hawick; Dr. Tripe, Hackney; Mr. Malcolm Morris, London; Mr. H. Lewis Jones, London; Mr. Nelson Hardy, London; Mr. H. B. Walker, Lowestoft; Dr. Larkin, Bilston; Dr. O. C. Shaw, Moseley; Dr. Briggs, Burnley; Dr. L. H. Ormsby, Dublin; Mr. J. W. Gill, St. Germans; Mr. H. P. Keatinge, London; Mr. C. G. Westropp, Derrylin; Mr. C. A. Hughes, Llanfairfechan; Mr. L. P. Mark, Richmond; Dr. Bedford Fenwick, London; Dr. J. W. Crastie, Middlesborough; Mr. E. White Wallis, London; Mr. W. L. Winterbotham, Bridgwater; Dr. J. C. M. Maynard, Bishop Auckland; Dr. Atthill, Dublin; Mr. Munro Scott, London; Mr. Alfred Baker, Birmingham; Mr. S. Gilder, Bury St. Edmunds; Dr. E. Landolt, Paris; Mr. E. Cresswell Baber, Brighton; Mr. E. Ward, Wolverhampton; Mr. A. M. Sheild, Cambridge; Buchu; Dr. C. H. Allfrey, St. Mary Cray; Mr. P. H. Emerson, Cambridge; Mr. W. E. Vaughan, Crewe; Mr. J. Henderson, Sunderland; Dr. Norman Kerr, London; Dr. J. O. Affleck, Edinburgh; Mr. C. Mason Scott, Kingstown; Mr. Anstruther Davidson, Glasgow; Dr. P. O'Connell, Sioux City, Iowa; Mr. John Bishop, Edinburgh; Dr. Brailey, London; Mr. R. Perkins, Fairley; Dr. Ewart, London; Dr. Hollis, Ipswich; Mr. J. Woodman, Exeter; Mr. Hamilton Craigie, London; Dr. E. T. Thompson, Wolston; Dr. Clippingdale, London; Mr. J. C. Smith, Great Yarmouth; Dr. E. Haughton, London; Mr. R. Worthington, Dublin; Mr. R. S. Fowler, Bath; Mr. Charles Steele, Clifton; Dr. McCombie, Deptford; Dr. Humphry, Cambridge; Our Aberdeen Correspondent; Mr. R. W. Parker, London; Dr. M. D. Macleod, Beverley; Mr. James Aitchison, Wallsend-on-Tyne; Dr. W. N. Thursfield, Shrewsbury Our Birmingham Correspondent; Dr. A. Davidson, Liverpool; Dr. R. J. Lee, London; Mr. A. Cooper Key, London; Mr. Bernard Barker, Hornsey; Dr. J. W. Moore, Dublin; Dr. Blacker, Thrapstone; Mr. W. Chessall, Horley; Mr. W. Hammond, Nuneaton; Mr. M. H. Judge, London; Dr. Stevenson, London; Mr. G. P. Atkins, Dublin; Dr. W. Roy, Wisbeach; Mr. R. H. Wood, Rugby; Mr. J. Lee Jardine, Dorking; Dr. Masterman, Stourport; Mr. W. P. Warren, Sydney; Dr. S. Rees-Philipps, Exeter; Mr. A. H. Young, Manchester; etc.

BOOKS, ETC., RECEIVED.

Second Annual Report of the State Board of Health, Lunacy, and Charity. Boston: Band, Avery, and Co. 1881.
Practical Exercises in Physiology. By J. Burdon Sanderson, M.D., F.R.S. London: H. K. Lewis. 1882.
St. Bartholomew's Hospital Reports. Edited by W. S. Church, M.D., and John Langton, F.R.C.S. London: Smith, Elder, and Co. 1881.
History of Medicine in Massachusetts. By Samuel A. Green, M.D. Boston: Williams and Co. 1881.
The Sun. By C. A. Young. London: Kegan Paul and Co. 1882.

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A LECTURE
ON THE
VARIOUS FORMS OF RENAL TUBE-CASTS AND THEIR DIAGNOSTIC SIGNIFICANCE.

By GEORGE JOHNSON, M.D., F.R.S.,
Professor of Clinical Medicine; Senior Physician to King's College Hospital; etc.

GENTLEMEN,—The microscopic examination of the urine secreted during the different stages of the various forms of renal degeneration, which are usually included under the generic term "Bright's disease", affords evidence which, rightly interpreted, is of great value as to the morbid changes which are in progress within the kidney. This evidence is of a peculiarly interesting character, and is based upon the following facts: 1. That the glandular structure of the kidney is tubular; 2. That, while some structural changes are interstitial and intertubular, the most constant and important of the morbid processes are intratubular; 3. That portions of the various morbid products, after being moulded within the tubes, become loosened, and then, being detached and carried on by the secreted current of liquid, appear in the urine in the form of cylindrical casts of the tubes. 4. These tube-casts vary much in size and form, and in the materials of which they are composed; and they throw much light upon the condition of the tubes from which they have escaped.

Before proceeding to describe and interpret the various forms of tube-casts, let me give you one or two hints as to the best mode of finding and preserving them. If the casts be very numerous, they may be found at once by placing a drop of the urine under a power of 200 or 250 diameters; but, as a rule, it is desirable to put about four ounces of the urine into a conical glass, and allow it to stand for from twelve to twenty-four hours. At the end of that time, a sediment has usually formed; it may be only a slight or scanty cloud, or a more or less copious and dense deposit. If no sediment be visible, few or no tube-casts will be found even after the most careful and prolonged examination. A few drops of the sediment, taken up with a pipette, are then placed in a shallow cell made by cementing a thin ring of glass or metal on a glass slide; or a cell may be made of a ring of cement, such as Hollis's glue or Brunswick black. The cellful of liquid being covered by thin glass, and the excess of liquid removed by a cloth or blotting-paper, is now ready for examination. The examination is much facilitated by the use of the shallow cell. When the sediment is scanty, it is a waste of time to be searching for tube-casts in a fraction of a drop of the urine which alone can be retained between two flat pieces of glass.

And here let me say that the various forms of tube-casts may, with a little care, be preserved for an indefinite time. Some of the specimens which I shall presently show you were mounted more than a quarter of a century ago. I shall direct your attention especially to some specimens from which were made drawings to illustrate a paper of mine on the Forms and Stages of Bright's Disease, which was published in the forty-second volume of the *Medico-Chirurgical Transactions*. At page 161 of that volume you will see microscopic drawings of the various forms of tube-casts which were found at different stages of a prolonged case of Bright's disease. The specimens were mounted at different periods of the year 1856; and, if you compare them with the woodcuts, you will see that to this day they retain their characteristic appearance. These specimens of tube-casts, like most of those that I possess, have been preserved in pyroxylic spirit—one part of spirit to nine of water. The mixture of spirit and water becomes milky; but, after standing for some days, with an occasional shaking, it may be cleared by filtering through paper. I have lately been using a saturated solution of salicylic acid for the same purpose; and, so far as I can judge from a comparatively brief experience, it appears to answer well. It preserves the casts with little or no change of appearance.

In order to understand the significance of tube-casts, you have to bear in mind the structure of the kidney, with which I must assume that you are quite familiar. To suppose the contrary would be an insult to men studying in the school where, forty years ago, Bowman first demonstrated the structure of the Malpighian bodies. The basis of all tube-casts is an albumino-fibrous material derived from the blood, which, when it exists alone, forms a transparent structureless so-called "hyaline cast". "Hyaline casts" may be "small" or "large"; the latter being about twice the diameter of the former, and having a more sharply defined outline. (Fig. 1.) What is the explanation of this

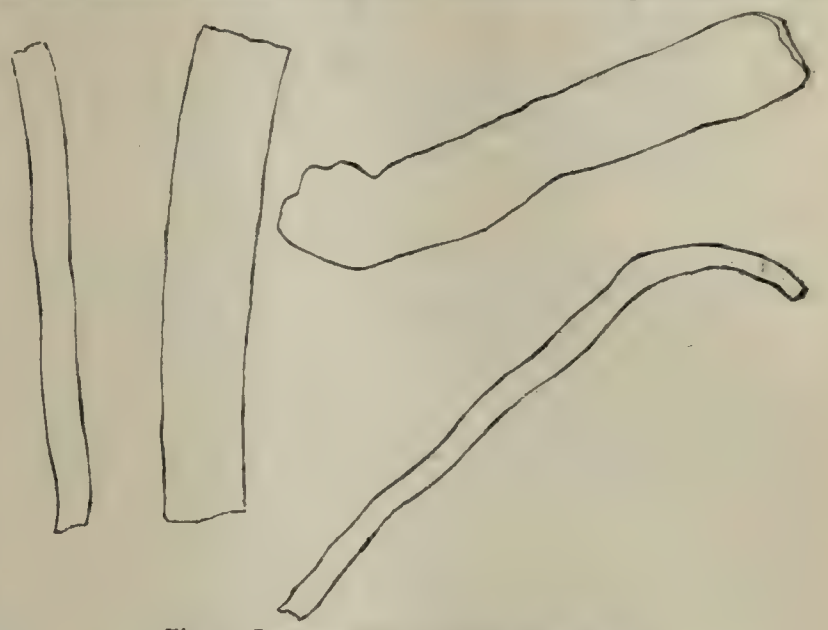


Fig. 1.—Large and Small Hyaline Casts × 200.

difference of diameter? Not, as is sometimes carelessly asserted, the difference in the size of the tubes in which they have been moulded. The vast majority of the casts, both large and small, have been formed within the convoluted secreting tubes of the cortex, which are remarkable for their uniform size. The different diameter of the casts is explained by the fact that the small casts have been moulded within the lumen—the clear central canal—of convoluted tubes which retain their lining of glandular epithelium; while, on the other hand, the "large hyaline cast" has been formed within the basement-membrane of a tube the epithelial lining of which has been destroyed and displaced by the hyaline material of the cast. The large casts, therefore, point to a greater structural change within the tubes than is indicated by the small casts.

In some of the specimens which I have placed under the microscope, you may see a granular cylinder, composed of more or less altered epithelium, enclosed in a casing of the hyaline material, which, apparently having passed through the basement-membrane, has displaced and surrounded the epithelial lining of the tube. (Fig. 2.)

Fig. 2.—Granular Cast: enclosed within a Hyaline Cast × 200.

Another interesting fact is, that many of the hyaline casts retain more or less of the convoluted form, which proves that, although in their exit from the kidney they have passed through the straight collecting tubes of the medullary cones, they were moulded in the tortuous secreting tubes of the cortex. (Fig. 3.)

Fig. 3.—Convoluted Hyaline Cast × 200.

No doubt many of the long convoluted casts which, in sections of the cortex, may be seen filling the uriniferous tubes, become broken into short fragments during their passage through the straight tubes of the cones; and an indication of this process is often afforded by a fissure extending more or less deeply from the concave side of a curved

hyaline cast. The explanation of this is, that a convoluted cast, in passing through a straight collecting tube, has been partially torn asunder during the straightening process to which it has been subjected. I have hitherto spoken only of large and small hyaline casts. When, as frequently happens, in cases of acute congestion of the kidney, blood escapes from ruptured Malpighian capillaries into the uriniferous tubes, some of the blood coagulates within the lumen of the tubes, and afterwards appears in the urine in the form of "blood-casts". These casts have the same diameter as the "small hyaline casts".

But the most constant and characteristic structural change resulting from the acute renal disease, which is excited by scarlet fever, by exposure to cold and wet, or other well known exciting causes, consists in a rapid new formation and desquamation of the glandular epithelium of the convoluted tubes. This is the essential feature of the disease, which I originally designated "acute desquamative nephritis". The desquamated gland-cells become entangled in the tube-casts, which we know as "epithelial casts."

All the forms of tube-cast which I have mentioned—namely, the "small and large hyaline casts," "blood-casts," and "epithelial casts" may be seen in varying proportions in every typical case of acute desquamative nephritis.

During the progress of acute nephritis, it not unfrequently happens that some of the exudation-products undergo an oily transformation, and oil accumulates in the gland-cells. This change is indicated by the appearance of "oily casts" and "oily cells" in the urine (Fig. 4).

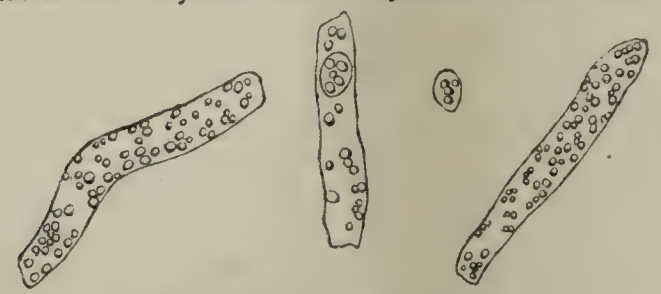


Fig. 4.—Oily Casts and Cells × 200.

A few oily casts and cells mingled with the other casts which I have described have no specially unfavourable significance; but when, after albuminuria has continued for several weeks or months, the oily casts and cells preponderate, or even entirely replace the other forms, there will be reason to fear that the kidney is undergoing an incurable fatty degeneration; and, if death occur at this stage, the kidney will be found enlarged and pale, while, through its cortical portion, yellow granules of fatty degeneration will be found scattered. This constitutes the large, white, granular, fat kidney.

When acute desquamative nephritis has passed into a chronic state, there may, for a number of years, be little or no disorder of the general health; but the urine is persistently more or less albuminous. Tube-casts may be entirely absent, or there may be a light cloudy deposit containing small hyaline casts with an occasional oily cast, or oil-containing cell. As the disease makes progress, the urine gradually loses its normal sherry tint, and at length becomes more or less colourless. If, at the same time, the deposit become more dense and copious, and contain large granular and large hyaline casts, indicating extensive destruction of the uriniferous gland-cells, we have, in these appearances, evidence that a process of granular contraction has begun in the cortical portion of the kidney; and the gravity of the prognosis is greater in proportion to the amount of this microscopic sediment in the urine.

Glomerulo-Nephritis.—The acute renal disease which results from scarlet fever has not always the character of desquamative tubular nephritis. There is a form of nephritis to which attention was first directed by Dr. Klebs, under the name of "glomerulo-nephritis". In this form of disease, the chief anatomical change consists in an accumulation of leucocytes within the Malpighian capsules. Long before the publication of Klebs's observations, I had noticed the occasional appearance in the urine of small casts entangling leucocytes (Fig. 5). I have here a specimen of such casts, mounted in 1856. The case was fatal, and I have preserved a section of the kidney; in which may be seen the Malpighian capsules rendered opaque by the accumulated leucocytes. I confess, however, that, until I became acquainted with the observations of Klebs, I did not appreciate the full significance of these appearances.

In my *Lectures on Bright's Disease*, published in 1873, I have suggested (p. 35) what I have no doubt is the true explanation of the sources of the "white cell casts", or, as I then called them, "exudation-cell casts"—namely, that the leucocytes or white blood-cells, having migrated through the walls of the Malpighian capillaries, subsequently became moulded into small cylindrical casts within the central canals of the convoluted tubes. The white cell-casts are the diagnostic indications of the existence of glomerulo-nephritis, and they are the complement and counterpart of the anatomical changes within the Malpighian capsules.

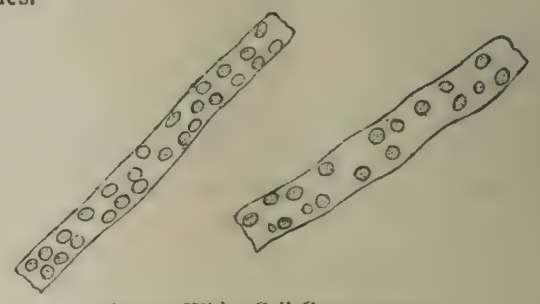


Fig. 5.—White Cell-Casts × 200.

Although the two forms of disease here referred to—namely, tubular desquamative nephritis and glomerulo-nephritis—may exist apart, yet I am convinced, from clinical observation, and in particular from microscopical examination of the urine, that they are often combined in various degrees in the same subject. The epithelial and other forms of tube-cast which I have described as diagnostic of desquamative tubular nephritis being frequently associated, in varying proportions, with the white cell casts of glomerulo-nephritis.

The Small Red Granular Kidney.—The urine secreted by the small red granular, or, as it is sometimes called, the gouty kidney, is usually copious, of low specific gravity, and more or less albuminous, though the albumen is not rarely scanty, and at some periods of the disease even entirely absent. The absence of albumen, however, in undoubted cases of granular kidney, is rare, and there is no evidence to show that any case of the disease has passed through all its stages to a fatal termination without the more or less frequent and copious appearance of albumen in the urine. The microscopic evidence of the existence of the small red kidney consists in the appearance of "granular casts", containing epithelial cells from the uriniferous tubes in various stages of disintegration. All so-called granular casts, however, are not composed of disintegrated epithelium. Blood may become disintegrated within the tubes, and appear in the urine as granular blood-casts, distinguished from granular epithelial casts by their reddish-brown colour, and often by their containing some entire blood-corpuscles. So, again, a disintegrated hyaline cast may assume a granular appearance; but, by a comparison with other casts associated with them, and noting the various grades of change, we trace them to their true source.

The presence of granular epithelial casts and scattered epithelial *débris* is evidence that a process of epithelial degeneration and disintegration is going on in the kidney. In the earlier stages of the disease, the granular casts may be occasionally absent, but as the disease makes progress, they may always be found, if carefully looked for; and in the later stages, the granular casts are often found associated with large hyaline casts in variable proportions. Not only is the contracting form of renal disease indicated by the microscopic appearances of the sediment, but the number of granular and large hyaline casts, and the amount of epithelial *débris* indicate the rate at which the disease is progressing. The more copious this sediment, the more rapid is the destruction of the gland-cells and the consequent atrophy and disorganisation of the kidney.

Lardaceous Degeneration of the Kidney.—There are no forms of tube-cast which are specially significant of lardaceous degeneration of the kidney. The diagnosis of this disease has to be based upon a consideration of the general history of the case rather than upon the microscopic appearances in the urine. The urine may be copious and clear, and deposit no sediment; and in the earlier stages of the disease tube-casts are never numerous. In most cases, however, a light cloud is deposited, and in this may be found some small hyaline casts, some casts finely granular, and occasionally some oily casts and cells. In the advanced stage of the disease, when atrophy and contraction of the kidney are in progress, the urinary sediment may be copious and dense, containing numerous dark granular and large hyaline casts, similar to those which I have described as occurring when a large white or a granular fat kidney has reached an advanced stage, and is undergoing atrophy and granular contraction.

You may probably have heard or read that more than one recent writer on renal pathology has asserted that no tube-casts can escape from the convoluted tubes of the cortex of the kidney. This assertion is based upon the assumption that all the convoluted tubes pass into the so-called Henle's loops, which are supposed to be too narrow to permit the passage of tube-casts. This anatomical assumption I believe to be erroneous.

It is at any rate quite certain that the great majority of tube-casts which appear in the urine have been moulded within the convoluted tubes of the cortex. The casts which evidently have this origin are: 1. The oily casts, the fatty infiltration being as a rule confined to the glandular epithelium of the convoluted tubes; 2. The small white-cell casts, containing the leucocytes, which can have no other source than that of migration through the walls of the Malpighian capillaries; 3. Blood-casts, the result of hæmorrhage from the Malpighian capillaries into the commencement of the convoluted tubes; 4. Those large hyaline casts which after their escape with the urine, retain the convoluted form, clearly indicating their source in the tortuous tubes of the cortex. 5. The epithelial casts, which contain numerous cells, having all the characters of the glandular epithelium of the convoluted tubes. These unquestionable facts are clearly inconsistent with the theoretical assumption that no casts from the cortical portion of the kidney can escape, and appear in the urine.

I trust that I have succeeded in convincing you that the structure of the various forms of tube-cast which appear in the urine is both interesting and of high practical value. And now I must remind you that, in order to obtain trustworthy data from a microscopical examination of the urine, your observations of the phenomena must be exact, and your interpretation cautious and rational. You must accurately discriminate between one form of tube-cast and another, and you must avoid the not very unusual error of mistaking for tube-casts appearances somewhat resembling them, which are due to the presence of foreign bodies in the urine. I have here a specimen which was given to me by an enthusiastic but inexperienced microscopist, to illustrate his supposed discovery of brightly and variously coloured tube-casts, some being red, others yellow, and others again green. These supposed tube-casts, as you will see, are in reality coloured fibres of wool, no doubt having their source in floating dust from a carpet. An unpractised observer often mistakes a fibre of cotton or a hair for a tube-cast.

I was once invited to confirm the diagnosis of cancer of the kidney which had been very confidently inferred by two experienced practitioners from the microscopical appearances in the urine. On looking at the specimen which had been prepared for my inspection, I found that the supposed cancerous products from the kidney were obviously grains of starch, which, on inquiry, were traced to their source in the application of violet powder to the external genitals of a female patient. The patient's recovery afforded the crowning proof of the absence of cancer.

A very moderate amount of care and study will enable you to avoid such gross errors of observation and interpretation as those to which I have referred.

In conclusion, let me impress upon you the importance of avoiding the not uncommon error of basing your diagnosis, your prognosis, or your indications for treatment, too exclusively upon one kind of evidence. After all that I have said and written upon this subject, I shall not be suspected of attaching too little importance to the information to be derived from a careful microscopical and chemical examination of the urine. The importance of this inquiry, in all cases of renal disease, can scarcely be overestimated. On the other hand, information of the highest practical value, with regard to the form and the stage, and the gravity of the renal disease, is to be derived from various other sources —such as, for example, the presence or absence of dropsy; the colour and expression of the face; the state of the vision and the ophthalmoscopic appearances of the fundus of the eye; the odour of the breath; the presence of such nervous phenomena as headache, giddiness, twitching or painful cramp of certain muscles; the condition of the skin, which, in the advanced stages of the various forms of Bright's disease, is almost invariably dry and harsh, and with difficulty forced into a state of active secretion; and last, but not least, the condition of the circulation, as indicated by the degree of arterial tension, and the impulse and sounds of the heart.

The practice of medicine, like the art of war, is, in a greater or less degree, a succession of mistakes—the best generals and practitioners being those who make the fewest mistakes; and the surest way to avoid error, whether in war or in medicine, or in any other art, is by a diligent endeavour to base every scientific or theoretical opinion, and every practical doctrine, upon the widest and most exact observation of all the facts which have relation to the subject in hand.

The unscientific absurdity and the practical evils of a narrow and exclusive specialism, can scarcely be better shown than by the study of the various forms of renal degeneration, whose influence upon the general system is so wide and far reaching, that, during their progress, almost every tissue and organ and function of the body may suffer more or less perversion and derangement; and so typical and characteristic are some of these secondary results of renal disease, that, in one case, the ophthalmoscope; in another, the finger on the full and tense radial artery; and in another, the hand or the stethoscope over the strongly heaving hypertrophied heart, has alone sufficed for the diagnosis of advanced degeneration of the kidney.

SELECTIONS FROM

CLINICAL LECTURES,

Delivered at the London Hospital.

BY JONATHAN HUTCHINSON, F.R.C.S.,
Senior Surgeon to the Hospital; Consulting-Surgeon to Moorfields Ophthalmic Hospital; and Professor of Surgery and Pathology in the Royal College of Surgeons.

PAPILLARY GROWTHS IN THE LEG PRECEDING CANCER.

WE had, some time ago, through the kindness of Dr. Stephen Mackenzie, several opportunities of seeing a man who has some very peculiar growths on the lower part of one leg. There are several patches of a papillary growth close together, and almost confluent, a quarter of an inch or more in height. On their surface, the papillary outgrowths are covered by a dirty scab; but it we detach or break this, you can easily separate the wart-like growths from each other, and put them apart in long rows, like standing corn. They do not readily bleed, and the skin from which they grow is somewhat thickened. The main patch is over the shin, in front of the lower third of the leg, and is nearly as large as the palm of the hand; but near it are several much smaller ones. The first stage of the condition is a thickened and rough papule, not unlike a spot of psoriaris, but with more evidence of growth. Our patient is a man of near 50, and he has had the condition for two or three years. It gives him no trouble. He has no enlarged glands.

I do not think that there can be much hesitation in considering that the disease as a variety of papilloma which, if not actually cancerous at present, is in a fair way to become so. At any time we might find the glands enlarged, or that the patch had begun to ulcerate. It is mainly in the absence of any ulceration that the picture of epithelioma is as yet incomplete. There is no telling how long or how short may be the period during which its appearance will be delayed. I have urged the man to at once submit to radical treatment, that is, to have the growths freely destroyed by chloride of zinc paste.

Dr. Mackenzie's patient shows an extreme condition of what, in lesser forms, I have often seen before. An old man, aged 74, came to us at the Hospital for Skin-Diseases, last week, who had exactly the same thing, but in smaller areas and with less elevation. They had been present two years, and, excepting that they itched excessively, gave him no trouble. In him, one of the patches was at the back of the leg; most of them, however, being in the usual position—over the shin. I will ask you to note, in connection with this fact, that the patches are almost always multiple—a chief one and several smaller near to it. Although I ask you to believe that this disease is really a close ally of cancer, yet I do not know that I can quote any complete case in which I have watched patches which began as I have described, and progressed to an undoubtedly cancerous termination. But I have seen several which were cancerous, in which there was good reason to believe that the beginning had been like them. It is only in the legs of aged people that we see such growths; and the liability to them seems to begin at the cancerous time of life. Often some local irritation, eczema, etc., precedes their formation. Not unfrequently, during periods of some years, the patches remain without warty or papillary outgrowth, simply hard rough patches, well circumscribed, and showing on the surface the little points or buds from which future growth is to take place. In this stage they resemble condylomata, excepting in their hardness and roughness. Often, however, they are not round, but in long streaks and very irregular. Probably they are, for the skin of the leg, what the rodent cancer is for the upper part of the face—the form of malignant action which it is most prone to take on. I have not often seen them on other parts of the body.

ON THE PECULIAR CONDITIONS ASSUMED BY MALIGNANT DISEASE OF THE SKIN IN DIFFERENT REGIONS.

You are aware that it is a doctrine upon which I often insist, that certain differences in the clinical characters of malignant disease of the skin are to be observed in relation with the different surface regions of the body. The upper part of the face grows rodent cancer; the lips, ears,

prepuce, and vulva, a form of common epithelial cancer, which rapidly causes gland-disease; the scrotum, the soot-wart, which, after perhaps a long duration, becomes epithelial cancer of the common type; on the legs, as we have just seen, a hard dry papillary growth often precedes cancerous action, and the latter is usually slow and for long, without gland-mischief. I wish now to ask your attention to certain peculiarities of malignant ulceration of the skin of the abdomen. I have at present in my recollection four or five cases, in which cancer of the skin of the middle of the trunk showed conditions of which I have never seen the exact parallel elsewhere. In all, the ulceration progressed slowly during many years, caused but little pain, and produced no gland-disease. In these features, you will say that it resembles rodent ulcer of the face; but the sores produced did not look exactly like rodent ulcer. The amount of induration in the borders and base was far greater, the destruction as a rule deeper, and, above all, at no part nor in any case was the well known sinuous roll of superficial induration simulated. It would appear that the subcutaneous cellular tissue is involved much sooner and more extensively than in rodent ulcer. There is little or no tendency to healing, which in the superficial form of rodent ulcer we so often see; nor, I believe, is the earliest stage of the disease like that of rodent. Although, however, I insist on these minor differences, it is to be admitted that the disease is, after all, the same, modified only by difference of place. This, indeed, is my assertion. I do not recollect to have ever seen the common type of epithelial cancer (wart-growing, and causing gland-disease early) on the skin of the chest or abdomen. I exempt the umbilicus from this remark, for here the ordinary type may occur. Well marked rodent ulcer, as denoted by its curled, semi-transparent, hard edge, may now and then occur on the middle of the chest, but I have never seen it on other parts of the trunk. The disease of which I speak is most intractable, and, as far as I have observed, recurs immediately after removal. I treated, twenty years ago, a woman aged 50, with a sore of this kind in the middle of her back. I was sanguine, and she was patient, and I think it was freely cut out twice, and three or four times most liberally destroyed with chloride of zinc paste, but without the slightest benefit. As soon as the sore was nearly healed, it recurred. Almost at the same time, I had under care an elderly gentleman who had an enormous malignant ulcer on the side of his chest, which had been gradually spreading for ten years or more. He was cachectic from discharge and bleeding, but had no gland-disease; more recently, I saw a gentleman from Birmingham, a patient of Mr. Horatio Wood's, who had an ulcer a foot long, and so deep that a fist might have been put into it at any part, and which yet did not prevent him from attending to his professional duties. It had existed for many years, and was supposed to have begun in a mole or nævus near the navel. He was fifty-seven years of age, and in fair health, although the discharge was profuse, and there were frequent hæmorrhages.

At present, I have under observation an old gentleman, aged 70, in whom, a little above the cleft of the nates, there is on one side a patch of the size of a halfpenny, which might at first sight be mistaken for psoriasis. When you touch it, however, it is found to be exceedingly hard, much more so than psoriasis ever becomes. It is not ulcerated as yet, but it has attained its present size in less than six months, and already near to it are some smaller patches, which look as if they might develop in the same way. I much fear that the disease is malignant, and this suspicion had been entertained by high authorities before I saw the patient.

On Fracture of the Patella: the Cause of Displacement of the Fragments, and the Means of Remedying it.

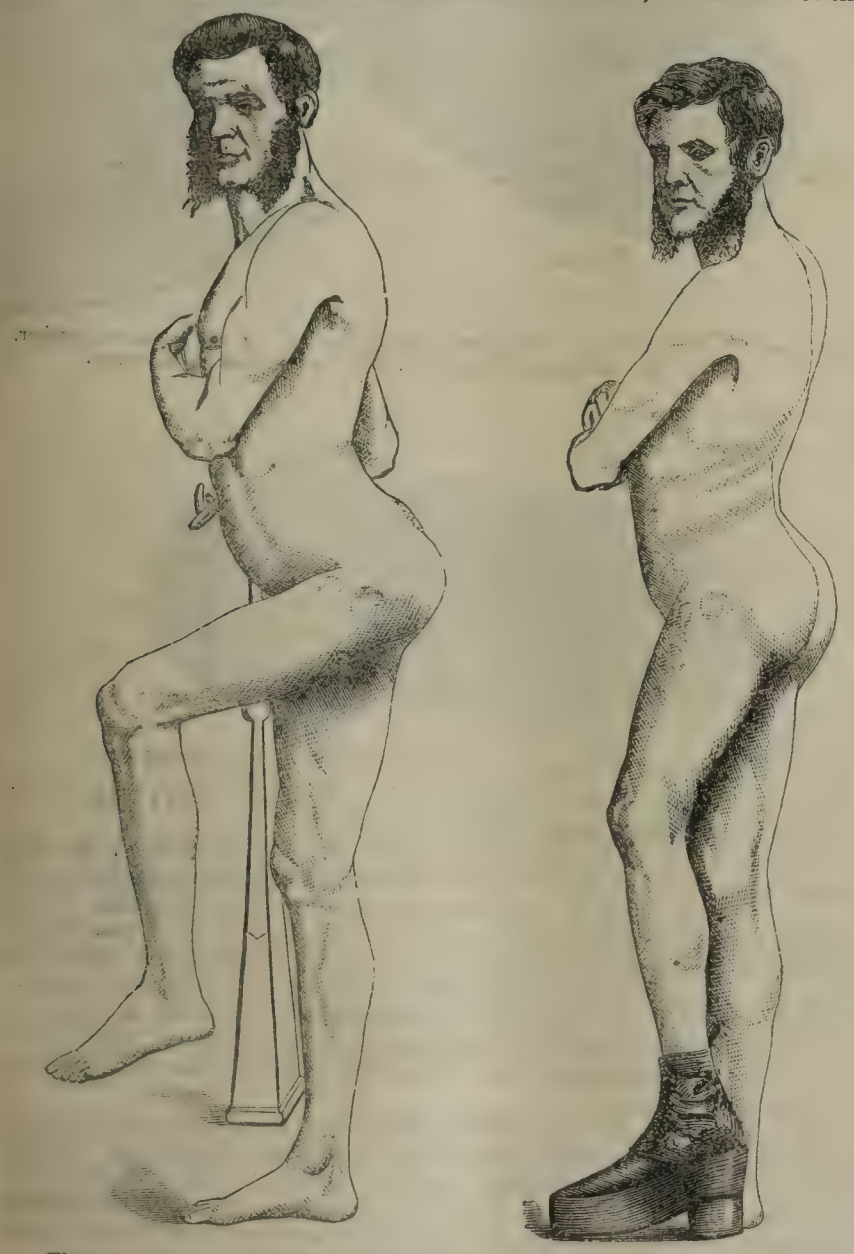
Most of you are, I doubt not, aware that I hold definitely, respecting fracture of the patella, that the separation of the fragments is not caused by the muscles. Repeated observations have convinced me that it is always caused by, and in proportion with, the effusion into the joint. If there be no effusion, there is no separation. The muscle is not a piece of India-rubber to contract, and remain contracted, as soon as one end is loosened. It is as easily capable of relaxation as it is of contraction, and, when the limb is at rest, it is always relaxed. When relaxed, there is no reason why the upper fragment of the broken bone should not come easily down to the other; and, in point of fact, in cases where there is no effusion, it does do so. I have demonstrated this repeatedly. You may then clear your minds of all misconceptions as to spasm of the muscle being the cause of persisting separation. Such spasm may, of course, cause separation at the moment of the accident; but, as soon as the limb is at rest in bed, its agency ends. I repeat, you will always find the difficulty of approximation in proportion to the amount of swelling. This fact kept in mind, the means of treatment will be evident. Get rid of the effusion as quickly as possible. The effusion may be of blood, or it may be of synovia, or perhaps, most commonly, of a mixture of the two. If it occur immediately after the injury, then it is probably blood; and these cases are the most difficult to treat, for blood is more slow of absorption than synovia. The treatment is, however, the same for both, and consists in the vigorous use of cold. The ice-bag sedulously applied, or a spirit lotion so freely used, that evaporation is constantly going on, are the best measures. You must not be content, unless the skin over the whole part of the knee be kept quite cold. It is of great importance that absorption should be rapid and complete. If you can get rid of the swelling in a week or ten days, you will have a good chance of bony union, or of union so close that it is equivalent to bony. I believe that we get bony union in nearly half our cases. Our measures are, then, ice for a week or ten days; then oblique strips of plaster, which fix the fragments, and catch in notches in the splint. We avoid all complicated forms of apparatus; and hold, respecting Malgaigne's hooks and some similar contrivances, that they are barbarous and dangerous. The limb is, of course, always extended, from first to last, on a long and broad back splint, with a thick cushion and side notches. The limb is kept a little elevated—not with any design of relaxing muscle, but because the knee-joint permits slight overextension, which is attained by elevating the leg. By this means, the lower fragment passes a little higher up than it would otherwise do. When, at the end of ten days, you have brought the fragments together, cover the whole joint with bandages, and never touch the bone again until six weeks are accomplished. If you leave it uncovered, some zealous and inquiring dresser is almost sure to examine the bone to see if it be uniting, and, by such examination, he prevents the progress of union. You must leave it in faith, and even at the end of the six weeks must still be very careful, and on no account make lateral movements. The union is still weak, and will easily break down. Be content if you find the fragments close. At the end of six weeks or two months, we usually allow the patient to get up, but he is always provided with a patellar apparatus before doing so. Note that the object of this apparatus is not to hold the fragments together, which it could not do, but to prevent flexion of the knee, which would drag away the lower fragment. It also serves a secondary purpose, of giving lateral support to the joint. If an apparatus be not at hand, a gum-and-chalk or plaster-of-Paris case will serve the purpose quite as well. I usually advise our patients to wear the apparatus for six months; and then, if the knee feel strong, to throw it aside. Although we aim at bony union, and, I believe, often obtain it, yet I am by no means an enthusiast as to its advantages. It curiously happens that those who have fibrous, or even ligamentous union, not unfrequently walk better than those in whom it is close. This I have proved by examination of many patients, at long intervals after the accident; and it is a very strong reason for declining to resort to any mode of treatment involving risk. A curious and unexpected result, to which I often ask your attention, is, that the quadriceps muscle usually undergoes, during the six weeks' rest, very decided atrophy, sometimes attended by a certain degree of contraction. This, in cases in which the bone is closely united, much limits the movements of the joint. I well recollect one man, whom we treated with great care, and in whose bone ossific union occurred. Two years later, he fell and broke the same bone again. His surgeon, on the second occasion, was not so successful as I had been; and when, a year later, I had an opportunity of examining the joint, I found considerable separation, the union being only by ligament. To my chagrin, however, the man stated that the second accident had enabled him to walk much more easily, for, during the interval between the two accidents, his knee had always felt stiff and awkward.

Ankylosis of Hip in Flexed Position: Extreme Deformity: Adams's Operation, with good Result.

The patient whom we have to-day admitted (January 4th, 1882) is a man upon whom I did Adams's operation of division of the neck of the thigh-bone, six years ago. He carries with him a photograph of his former condition, and you see what it is at present. He now stands erect, although there is still some tilting of the pelvis, and the bone has again ankylosed, whereas, before the operation, he was obliged to walk in a crouching attidude, or, if he stood upright, to project the left knee straight before him without the slightest hope of touching the ground with his foot. Although the deformity was so great, it did not, however, disqualify him from labour. He was in good health, and gained his living as a ship's carpenter. The disease which had produced the ankylosis had occurred in early life, and had been attended by suppuration in the joint, of which large scars remained. The femur was fixed as firmly as possible to the pelvis, and at considerably less than a right angle. The man was very desirous that some operation should be performed—though being, as he said, the only support of his mother, he was anxious not to run much risk. His prospects in this respect having

been duly explained it was agreed that the operation should be done. I cut through the neck of the femur with Adams's saw, encountering some little delay on account of the hardness of the bone, and possibly from having got too close to the shaft, that is, not sufficiently across the neck. The operation was done under Lister's precautions. When the section of the bone was complete, I divided the tendon of the adductor longus, and those of the sartorius and tensor vaginæ femoris. We were able at once to put the limb in much better position; and, subsequently, when the wound was healed, this was still further improved. No inflammation occurred about the wound, and he made an uninterrupted recovery. We did not succeed in preventing union of the bone at the site of section, and you now see the ultimate condition obtained. The man has since been able to walk erect; and he has now, for six years, been engaged in his former occupation with greatly increased comfort.

One drawback I must mention; and it is, indeed, on account of this



These woodcuts are copied from photographs to show the condition before and after operation.

that we now have him again under care. He had, two years ago, an acute abscess in his buttock. This was four years after the operation, and not apparently in any direct connection with it. The abscess did not lead to bare bone, and, after it was opened, sound healing occurred; but he now, two years later, comes to us again, complaining of pain in the same position, and fearing that another abscess is imminent. I may state that I have under observation, in private, a very similar case, in which one hip has been ankylosed for many years. The patient is in robust health, and yet occasionally—that is, once in three or four years—deep-seated abscesses occur, after the evacuation of which sound healing again takes place. I do not know of any cause for these abscesses, excepting that they occur in the proximity of bone which has formerly been diseased. In both cases, the abscesses develop with much pain and constitutional disturbance; but the rapidity and perfectness of the healing is remarkable. I do not think that, in the case before us, we ought to blame the operation for the liability to abscess. It might have happened, as the other case shows, if nothing whatever had been done. On the whole, the man considers himself a great gainer by it.

CLINICAL LECTURE

ON A

CASE OF TUBERCLE OF THE IRIS AND CILIARY BODY.

By J. R. WOLFE, M.D., F.R.C.S.Ed.,
Lecturer on Ophthalmic Medicine and Surgery in Anderson's College, Senior Surgeon Glasgow Ophthalmic Institution.

Gentlemen,—I wish to direct your attention to the case of tubercle of the iris and ciliary body, on which we operated some time ago. The case is interesting, not only to ophthalmologists, on account of its rare occurrence—this being the only one on record in this country—but also in this respect, that it may throw some light on a much debated question in pathology and clinical medicine. You are aware that, whenever the subject of tubercle and tuberculosis comes to be discussed in medical societies, difference of opinion at once becomes manifest. Indeed, it seems that we have not yet arrived at a common definition of tubercle. What is considered as tubercle by one school of pathologists, is not admitted to be such by others. This was shown even so lately as at the last meeting of the International Congress in London, in a discussion in which Virchow had taken part (see British Medical Journal, October 1st, 1881). So long as the doctrine of Laënnec was generally adopted, we used to regard tubercle as either small, grey, semitransparent, hard bodies, deposited as a mere infiltration into the tissue. These bodies might then become yellow, opaque, and soft, and a caseous substance formed in their interior. When isolated, they were called miliary tubercles; and, when of caseous consistence, they were designated yellow or crude tubercles.

Virchow, the founder of modern pathology, defines tubercle as a neoplasm, which takes its origin from the connective tissue in the form of nodules, consisting of closely packed cells. The life of the neoplasm is of short duration, for very soon its elements begin to degenerate, the degeneration always commencing in the middle of the nodules, and in most cases giving rise to caseous consistence. Besides the local malignity, this neoplasm possesses a pronounced tendency to diffuse itself over the whole organism, and this brings it into the category of malignant growths. (*Die Krankhaften Geschwülste*, 1865.)

Langhans then demonstrated that the nodules invariably possess giant-cells of a peculiar organic formation. And Virchow, in the discussion already referred to, told us that these giant-cells are of a finely granular structure, to which they owed their peculiar appearance. They developed by a regular gradation from simple cells, and are thus shown to be organic formations. He regards them as a special form of cell-formation.

This precise histological determination of tubercle enabled Köster to point out its existence in the granulations of the fungous joints; and Schüppel discovered it in scrofulous lymphatic glands, and Friedländer has shown that it is also found in scrofulous abscesses and in caries. Our knowledge has thus become more precise as to the nature of tubercle, and its domain also greatly enlarged.

Villemin made the discovery that tubercles can be inoculated upon animals, especially upon rabbits (*Etude sur la Tuberculose*, 1868). This discovery has been confirmed by the experiments of Cohnheim, who inoculated tuberculous matter into the anterior chamber of rabbits. The inoculated matter gradually absorbed; but, in about four weeks after inoculation, grey nodules made their appearance upon the iris, and multiplied until thirty or forty could be counted. The iris became tumified, and then purulent infiltration set in. Baumgarten has more recently carried this experiment still further. He injected blood taken from a freshly killed tubercular-inoculated animal into the aqueous chamber of rabbits; and he invariably found that, in three or four weeks, there was an eruption of tubercle, first in the lower segment of the iris, where the blood had lodged.

Rokitansky, from personal observation of 14,000 cases, has given us a list of the tissues which are subject to tubercular eruptions, viz., the lungs, intestinal canal, lymphatic glands, larynx, brain, spleen, liver, etc. The ocular tissues find no place in the list, for the eye was con-

sidered to enjoy immunity from tubercular affections. Although Jäger had called attention to its occurrence in the form of miliary tubercle which he found in the dead body; and Manz, von Gräfe, and Leber, had also discovered it during life in the interior of the eye, this excited little attention. For when the whole organism is impregnated with the disease, its existence in the eye is regarded as of secondary importance.

The first case of miliary tubercle of the iris on record is that published by Gradenigo in 1869 (*Annales d'Oculistique*, 1870, and *Arch. für Ophth.*). The second is that of Perls. In these two cases there was general tuberculosis — lung-affection. The third case was reported by Salteni in 1875, in a girl 16 years of age; the affection was confined to the iris, and there was no symptom of constitutional taint. In 1877, Weiss published an observation of the case of a working man aged 51, in which the tubercles first broke out in the iris; and, five months later, a tumour was found to have developed in the lower jaw on the same side, and, on its removal, was seen to consist of caseous tubercle.

A most interesting case was brought up for discussion by M. Auger at a meeting of the Société de Chirurgie of Paris, July 9th, 1879. It had been observed by M. Parinaud. A child of 12 years of age, of phthisical parents, had already suffered from discharge from the ear. Then the cornea was affected, and a small tubercle became visible upon the iris, which involved the whole eye. This case is particularly interesting, as the discussion which has taken place with regard to its pathology and treatment shows how little the subject of local tubercle is still understood. The sixth case is that by Samelsohn, December 1878; and the last on record is that reported by Rütter, June 1880, from Hirschberg's *clinique* (Knapp and Hirschberg's *Arch.*, 1881).

The case which I am about to bring before your notice is that of Joseph L., eight years of age, with fair hair and blue irides, and of healthy complexion, had always enjoyed good health, and had no cough or glandular affection. He is the tenth of a family of eleven, of whom five are living. Five of them died at the age of 5, 4, 3, 1 year, 10 weeks, and another was still-born. The causes of death were teething, bronchitis and hydrocephalus.

The patient received a stroke on the left eye in March 1881, when the eye became swollen. The swelling gradually subsided, and, by the end of April, a white swelling became visible in the anterior chamber, at the upper margin of the iris. He was brought to the Ophthalmic Institution in the beginning of May, when the eye appeared quite healthy; but a small tumour, the size of half a pea, could be seen situated upon the upper segment of the iris. It took its apparent origin from the junction of the cornea with the sclerotic, and was attached to the anterior surface of the iris. The tumour was of a yellowish-white tinge, and divided into two lobules, with very fine vessels permeating its surface. The pupil was dilatable, with the exception of the upper border. There was no change of colour of the iris, vision was normal, and tension normal. In short, with the exception of the ciliary injection, which was limited to the upper segment, there was no sign of disease in the ocular tissues.

The patient was kept under observation for a whole month, and we found the tumour gradually, though very slowly, enlarging. Our diagnosis was tubercle in the iris, which probably extended to the ciliary body. We recommended an operation, to attempt the removal of the iris along with the tubercle; but, at the same time, we warned the mother that the disease was probably more deeply seated, and that the operation would not effect a cure. I made an incision under the conjunctiva, at the extreme corneal periphery, and succeeded only in removing a part of the tumour; the rest of it was found to lie deeper, whilst a very small bit, the size of a pin-head, became detached, and dropped down, and lodged in the lower part of the aqueous chamber. The wound healed tolerably well, but the part became tumified; and, after the lapse of a fortnight, there were seen small lines or greyish threads proceeding from the detached part, and shooting upwards towards the other portion of the iris, which also became studded over with little nodules, until by-and-by the whole iris was swollen, and the pupil completely closed. I then removed the eyeball, and sent it to Professor Hirschberg, who examined it, along with Dr. F. Krause, and reports as follows:

1. Cornea and sclerotic, normal.

2. Conjunctiva, especially the upper part, infiltrated with round cells.

3. Iris: anterior surface covered with an exudation of round cells, and thickened by the infiltration of round cells. Its pigment-epithelium is glued to the lens-capsule by means of a thin exudation.

4. Ciliary body is very much thickened, as well as its adjacent iris-segment on the same side. The thickening is composed essentially of round cells. When this mass is treated with hæmatoxylin, it is intensely coloured, while other round bodies lodged in the interior remain pale. These latter are true tubercles, and show, in their centre, giant-cells, with many nuclei. No caseous matter is anywhere to be seen. The thickening passes into the choroid only to a limited extent, and the deep structures of the eye are normal.

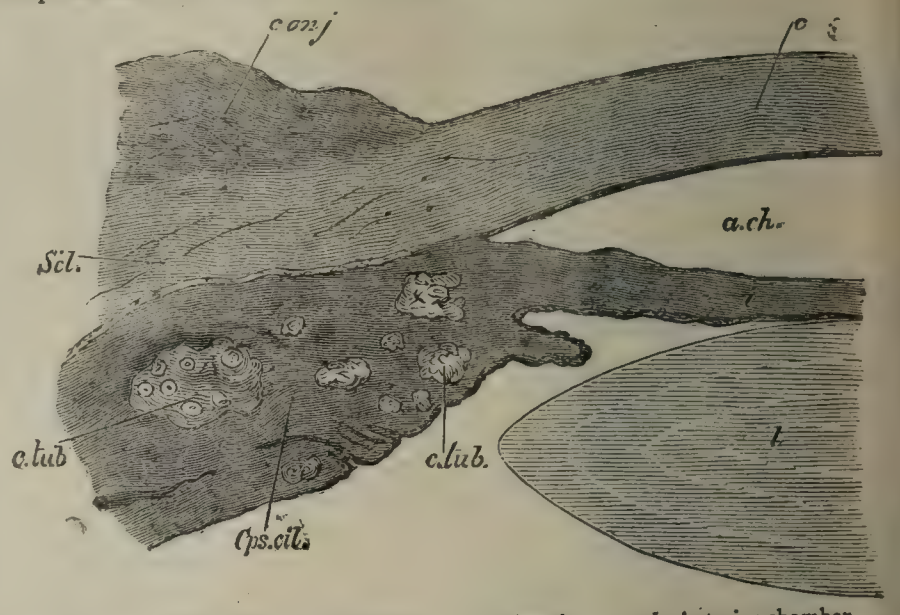


Fig. 1.—*conj.* Conjunctiva. *c.* Cornea. *Scl.* Sclerotic. *a. ch.* Anterior chamber. *l.* Lens. *Cps. cil.* Corpus ciliare. *c. tub.* Conglomerated tubercles.

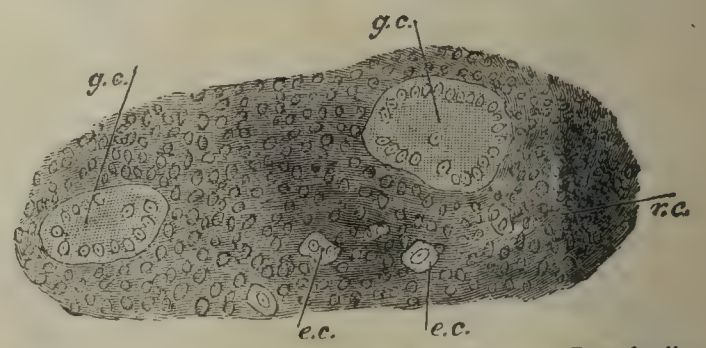


Fig. 2.—*g. c.* Giant-cells. *e. c.* Epithelial cells. *r. c.* Round cells.

Fig. 1 represents the condition of the different parts; Fig. 2 the ciliary body under a magnifying power of 200.

We therefore took this to be a case of true tubercle of the iris and ciliary body, limited to these structures, without manifestation of disease in any part of the organism, although it is true that it was brought on by an injury in a constitution predisposed to that affection, as shown in the family history. But the most remarkable feature of the case is that, on November 29th, the patient returned with ulceration of both legs. Large sores, with running ichorous and caseous discharge, were situated at the front part of the legs. There is an induration at the margin of both tibiæ. This had broken out about the beginning of September.

We have thus established that tubercle, in its highest development, consists of simple nodules containing giant-cells, without any caseous matter; and that the eruption may be confined to one spot, and that may be in any of the ocular tissues; and, further, that it is inoculable, although in this case the inoculation took place only in a different segment of the iris, and not in a different animal.

CRIMINAL LUNATICS.—In a remarkable address delivered at the Salpêtrière Hospital in Paris, M. August Voisin, the well known alienist physician, suggested that the following changes should be made in the law of 1838. 1. Every individual who, having committed an offence or crime, shall be found to be insane, can only leave the public or private asylum (*maison de santé*) after a medico-legal inquiry ordered by the judicial authority. In all cases, he will be detained in the public or private asylum for a time at least equal to the penal detention to which he was condemned. 2. Every individual already confined one or more times in a lunatic establishment may, in case of relapse, be received into the same establishment on the simple certificate of a physician, endorsed by the mayor or the commissary of the district.

ABSTRACT OF LECTURES
ON THE
MORPHOLOGY OF THE MAMMALIAN SKULL.

Delivered at the Royal College of Surgeons of England.

By W. K. PARKER, F.R.S.,
Hunterian Professor of Anatomy in the College.

Lecture II.—On the Development of the Endoskeleton, and a Comparison of its Cranial and Spinal Regions.

At the time when the mesoblast is becoming distinct, a ridge of cells is separated off from the hypoblast along the middle line, directly beneath the neural axis as a distinct rod—the notochord. Its extent is the same as that of the hypoblast. At first, it is composed of more or less flattened cells, each of which soon acquires one or more vacuoles, by the enlargement of which the notochord becomes a delicate structure full of cavities separated by very thin septa. The nuclei and protoplasm of the cells accumulate at the periphery, giving rise to a *cuticular sheath*. Outside this, a membrane—the *membrana elastica externa*—is formed; and between the two a cartilaginous sheath is often developed, which may be persistent, and indeed, in some forms represents, together with the notochord, the whole of the spinal column.

The part of each mesoblastic somite to the inner side of the developing muscular fibres becomes converted into embryonic cartilage; but the segmentation of this tract on each side of the notochord is at first coincident with that of the muscle-plates. As this tract of tissue, out of which the vertebral arches will be made, becomes more solid, it loses its primary segmentation, and becomes segmented alternately with the muscular segments. The consequence of this is, that the developing longitudinal muscles have now both origin and insertion along the middle of the secondary intercalary segments. The embryo is thus able to perform a certain amount of vermicular movement.

These segments pass into hyaline cartilage; and cartilaginous neural and hæmal processes are developed respectively above and below them. These give rise to the neural and hæmal arches of the adult. Either the hæmal arches themselves or else small processes at their proximal ends give rise to the transverse processes, which may grow out to form the ribs, or have the ribs attached to them. The latter pass over the permanent body-cavity, and form the skeleton of the external body-wall or somatapleure.

As the cartilaginous bases of these upper and lower tracts develop more and more, they press in upon the enclosed notochord, which in this way becomes very thin or altogether aborted, sometimes vertebrally, and sometimes intervertebrally, according to the type of creature. In the lower forms, such as the suctorial fishes, Ceratodus, etc., the notochord does not become constricted, but remains in a primitive condition throughout life.

In many of the Selachians, the number of neural arches is greater than that of the centra; and the cartilage which forms the arches of the anterior part of the spinal column is not subdivided into separate vertebræ, and is at first continuous with the base of the skull, the occipito-atlantal articulation taking place later. These are evidently low generalised conditions. In the sturgeon, there is no joint between the skull and spine even in the adult.

The costal arches are but feebly developed in the Ichthyopsida; in no case is there a perfect thoracic hoop. In the Amphibia, however, there is a plate of cartilage which may become slightly ossified, and possibly corresponds to the sternum of higher forms.

Amongst the Sauropsida, all the costal cartilages are unfinished below in the snakes and tortoises, there being neither sternum nor sternal ribs; and in the lizards the ribs are very imperfectly separated from the sternal plate. This shows a low condition. In lizards and all the higher forms where the sternal ribs and sternum are well developed, these ventral parts are formed from a continuous cartilaginous plate on each side, in which the ribs terminate. The fusion of these two plates in the middle line, and the segmentation of the ribs from the sternum, and of the sternum into a series of segments, all take place afterwards; and these changes are very variable in degree.

In the formation of bony vertebræ, the ossification is mostly centripetal, beginning in the perichondrium and working inwards. In this the cartilaginous sheath of the notochord takes some part, and the other cartilages have their own osseous centres. There is usually much less ossification in the sternum and sternal ribs than in the vertebral ribs.

The limbs and their girdles are developed externally to the costal arches, and will therefore be treated with the superficial part of the skeleton.

Until about a century ago, the skull was studied quite separately from the spinal column and trunk generally, apparently without any suspicion of its being the continuation of the axis and arches of the body. This new conception we owe to Goethe. The assumptions based on this truly philosophical discovery soon, however, misled the anatomists of the next epoch, as they had no embryological knowledge by which to check their discoveries.

The notochord passes along under the hind-brain, and in some degree into the fold of the mid-brain; as a rule, however, only reaching as far as the edge of the postclinoid wall, behind the pituitary body. It becomes bent ventral-wards terminally; and in the turtle, at any rate, the cartilaginous sheath is developed considerably further forwards and downwards than the apex of the notochord.

From the manner in which the head of the embryo is bent upon itself, the postero-inferior part of the fore-brain may be said to be the termination of the neural axis; from this part the infundibulum buds out. This region of the skull sends up on each side a continuous cartilaginous lamina, which is comparable to the separated neural arches of the body, but it is considerably aborted by the intrusions of the auditory capsules. Nevertheless, all things considered, the post-pituitary part of the skull differs but little in essentials from the contiguous parts of the spine. The main difference is its want of segmentation, but this, as already mentioned, may be seen in the forepart of the spine of some cartilaginous fishes. In low types, the skull chondrifies long before the spine.

The rest of the skull in front of the postclinoid wall must be considered as so much superadded to the proper axial growth of the vertebrate skeleton. The basal plates, or *trabeculæ cranii*, extend forwards in front of the apex of the notochord around and beyond the pituitary space, and, by growing upwards, form cartilaginous laminæ similar to those in the hind-skull. As the latter parts grow over the brain, forming a roof behind, so these give rise to the anterior part of the tegmen cranii. The azygous cartilage surrounding the notochord which terminates behind the pituitary body, has a representative—the *inter-trabecula*—in front of that body, which grows forwards, and has much to do with finishing the skull in front.

The visceral arches—the foremost pair of which gives rise to both upper and lower jaw of the proper endoskeleton—are all developed in the region which corresponds to the splanchnopleure of the body, the clefts between them having no counterpart in the postcephalic region.

The cartilage on each side of the cranial notochord is in relation with all the cranial nerves except the first and second, and there may be as many as ten or more pairs of such nerves (considering the vagus as several)—homologous with spinal nerves—in relation with this part of the skull. The ossification of this cartilage forms the core of the basi-occipital bone, which was considered by the transcendentalists as the fourth or hindermost of the cranial vertebræ; but it will now be seen to correspond, not to one, but to a whole chain of undivided vertebræ.

The visceral arches, as they are formed in the splanchnopleure, cannot correspond with ribs, which are somatopleuric in origin. Moreover, the skull differs very largely from the spine in the fact that, in the latter, the notochord—a hypoblastic structure—is continued to the very end, while in the head it stops short behind the pituitary involution.

According to the statistics collected by M. Legoyt, suicide steadily increases in France. The last decennial period shows an increase of 17 per 1,000.

Presentation to Mr. St. George Ashe.—The students of the City of Dublin Hospital have presented a testimonial to Mr. Ashe, the late house-surgeon, on the completion of his term of office. The presentation consisted of a complete case of surgical instruments.

Sanitary Institute of Great Britain.—At the ordinary meeting, to be held at 9, Conduit Street, Wednesday, March 8th, at 7.45 P.M., the prize of £200 for an essay on the "Range of Hereditary Tendencies, in Health and Disease," will be presented by the Rev. E. Wyatt Edgell, B.A.; and a paper on the subject will be read by Mr. George Gaskoin, the author of the prize essay. The paper will be followed by a discussion. Tickets for the admission of visitors may be had on application to the Secretary.

REMARKS
ON
THE TREATMENT OF GUNSHOT-WOUNDS OF THE ABDOMEN IN RELATION TO MODERN PERITONEAL SURGERY.

By J. MARION SIMS, M.D., LL.D., etc.

[*Concluded from page 262 of last number.*]

Gastrorrhaphy.—There have been a few recoveries following suture of incised and lacerated wounds of the stomach; but never a successful gastrorrhaphy after shot-wound of this viscus.

Enterorrhaphy.—Otis says: "There are thirty-two American instances of enterorrhaphy of the small intestines, of which twenty-five were successful." In all of them the wounded bowel had prolapsed through punctured or incised wounds, and was sutured, and returned to the peritoneal cavity. They occurred between 1807 and 1869. If the bowel had not prolapsed in all these cases, there would have been no enterorrhaphy; fæcal effusion would therefore have followed, and produced certain death in a few days. This proves the importance of enlarging the external wound in all cases, whether shot or punctured, and searching for the injured bowel, and entering the lesions. Many cases are recorded where the prolapsed wounded bowel had been neatly sutured and returned, and yet the patients died in a few days, just as if there had been no sutures applied. In these, necropsies revealed the fact that there were other lesions which were not prolapsed, and therefore were not sutured. In all cases, then, it would be wise to enlarge the wound so as to examine all viscera lying in its range. For penetrating wounds of the intestinal canal, whether by shot or puncture, are often multiple. The war records contain numerous cases where the same missile made two, three, and even five lesions. Deputy-Inspector Alexander reported a case at the Crimea, in which the ball entered near the umbilicus, and passed out near the sacrum, wounding the small intestines not less than sixteen times in its passage. These multiple lesions show the importance, the absolute necessity, of enlarging external wounds sufficiently for thorough exploration. The records of our civil war teem with reports of shot-wounds of intestines where patients have lived and suffered, not only for days, but in some cases for very many days, and even for weeks, eventually dying of exhaustion and blood-poisoning. With the knowledge of to-day, it would have been as easy to save them as to let them die. I may be permitted to give an example of the do-nothing surgery of former days.

X. was accidentally wounded by a Remington revolver; the ball entered to the right of the lower lumbar vertebra, and was removed by incision about an inch above the right internal abdominal ring an hour afterwards. Opium was given; simple dressings were applied. Forty-eight hours afterwards, fæcal matter was discharging freely from the wound in front. The patient died four weeks after the accident.

At the necropsy, three hours after death: "Rigor mortis was well marked; there was great emaciation; the abdomen was much contracted; the intestines were bound together by strong adhesions; upon separating these adhesions, numerous small collections of clear pus were disclosed, none of them exceeding in quantities a teaspoonful. The small intestine was found completely divided about ten feet below the duodenum. The portion of the small intestine below the division was contracted almost to the size of a goose-quill. This portion of the gut communicated with the wound in the groin, and also with that in the loin. Surrounding the right psoas muscle was a cavity of sufficient size to hold a quart, separated by adhesions from the remainder of the abdominal cavity. The upper portion of the intestine opened into this cavity, which was half full of fæcal matter." How the poor fellow lived a whole month in such a condition is marvellous. And how easy it would be now to enlarge the inguinal wound in such a case, excise the injured portion of bowel, and unite the divided ends, and save life.

I do not reproach my brethren for the treatment of that day and time. They did all that was justifiable; all that the greatest military surgeons of the day would have advised or dared to do. But the man who would now stand by and do nothing in perforating shot or other wounds of the abdomen, would fall far short of his duty to himself and to his patient.

Otis says (p. 73): "So far, the annals of military surgery seem to be barren of instances of successful suture of the small intestines after shot-injuries, though recoveries have ensued with temporary fæcal fistulæ when sutures were employed."

We have already seen that of thirty-two punctured and incised wounds of the small intestines, twenty-five were cured by suture. There is no reason why the same success should not attend the suturing of shot-wounds of the small intestine, if we would only convert the latter into the same favourable condition for suture that exists in the former, simply by exsecting the bruised edges of the shot-wound. But Otis, speaking of shot-wounds, says: "I regard the refreshing of the bruised edges in gastrorrhaphy and enterorrhaphy as unnecessary. In the modern methods of applying sutures to the alimentary canal, inversion and approximation of the serous surfaces is universally sought. Now, in all shot-wounds of the digestive tube that I have examined, the loss of substance is mainly confined to the muscular, connective, and mucous tissues, the serous membrane remaining sufficiently organised to hold stitches. It will be sufficient to unite these surfaces; and what sloughing of the inner tunics there may be can discharge into the digestive cavity."

The directions here given may answer if the sutures be passed far enough from the bruised edges of the perforation to insure their firm co-aptation. If there should be the least doubt about the course to pursue, then it would be better to excise the wounded part of the intestine, and bring together its smoothly divided ends. For we are sure of perfect union of neatly adjusted clean cuts in this canal. A great deal of useless and ingenious mechanism has been devised for suturing wounds of the intestines; but they must all give way to simpler means, those based on common sense, and of easy and universal application.

The question of the best method of repairing lesions of the intestines was settled definitely, forty years ago, by Professor Gross, by a series of beautiful philosophical experiments on the lower animals. (*An Experimental and Critical Inquiry into the Nature and Treatment of Wounds of the Intestines.* By Samuel D. Gross, M.D., etc. 1843. Louisville, Kentucky.) His experiments are so satisfactory and conclusive that there will never be any need of repeating them; they must be accepted as final. Dr. Gross advocates the continued suture in all intestinal wounds, no matter what may be their situation, direction, or extent. He used a straight round needle (a Kirby's No. 7 or 8 answers admirably), armed with a single fine silk thread. Interrupted or continued sutures, when the threads are cut short, always pass into the intestinal canal, and are evacuated with its contents twelve or fifteen days after their application. This is the rule; there is no exception to it when the sutures are cut close. Professor Gross's experiments fully confirmed those previously made by Smith, Thomson, Travers, and Sir Astley Cooper. Benjamin Bell had suggested this as the probable disposition of the sutures; but it was reserved for Thomson and Travers to prove it by experiment on inferior animals. If the ends of the sutures should be left long, and brought out at the external wound, they escape by the external wound. The stitches should be passed about a quarter of an inch from the edges of the wound, including only peritoneal and muscular coats; and when drawn closely they invert the edges, and thus bring the serous surfaces into apposition. This is Lembert's method. He used interrupted sutures thus applied; but, as every suture requires a separate tying, of course it takes a little longer. The continued suture is easier and quicker in application.

When the intestinal wound is extensive, that is, more than two inches long, whether longitudinal or oblique, Dr. Gross advises to "excise the wounded part entirely, and then to unite the divided ends." He further says: "My conviction is that there are but two sutures which should ever be thought of in the management of this class of injuries, namely, the continued and the interrupted, with the modification of the latter proposed by Lembert;" that is, the inversion of the edges of the wound so as to bring its serous surfaces into contact. The mode of reparation is the same, whatever the form of suture, viz., effusion of lymph and adhesion of the injured part to the neighbouring structures. Sometimes the part throughout the line of suture is coated with a layer of plastic exudation, which conceals the threads from view; and, in a great majority of cases, there is attachment of omentum to the surface and edges of the wound, which gives support and assists the process of restoration.

Baron Larrey records but one recovery from a shot-wound of the small intestine, and that one was treated by Palfyn's method. Palfyn's method consists simply in passing a ligature through the edge of the intestinal lesion, and pulling it to the level of the external wound, and there securing it to make an artificial anus. Otis expresses surprise that this was never done during our war; but how could it have been done, when it is well known that wounded intestine seldom prolapses through a simple bullet perforation; and when no surgeon was ex-

pected, at that time, to enlarge the external wound to search for intestinal lesions?

Bandens practised enterorrhaphy in two cases of shot-wounds of the intestine during the Algerian war, and one of them was completely successful. Pirogoff advocated the suture in the Caucasus, but had no time to put it in practice. Lohmeyer, in the Danish war, boldly advocated enterorrhaphy, but had not performed the operation. Legouest proclaimed similar doctrines in the Crimean war. And in our own country, since the experience of our civil war has proved how utterly futile our efforts were in this direction, many leading surgeons have given free utterance to sentiments that presage an inevitable revolution in the treatment of shot and other wounds of the abdominal cavity.

The latest expression of opinion on this subject comes from Surgeon-General Longmore, who says: "As to gun-shot wounds of the abdomen, I have little doubt that it will be found, whenever another great war gives the opportunity, that the revolution which has taken place in abdominal surgery in civil practice, especially with the additional advantages of the antiseptic mode of treatment, will equally show itself in military practice in penetrating gun-shot wounds of the same bodily region. In any such war as occurred in France in 1870-71, where in numerous instances there were opportunities of speedily treating the wounded in regular hospitals or permanent buildings in towns or villages, I feel assured that lives will be occasionally saved after complicated penetrating abdominal wounds, including cases of wounds of intestines, of lodgement of projectiles in the peritoneal cavity, and of hæmorrhage from mesenteric or other vessels, which hitherto have been left to die unaided by operative proceedings." (Letter to Sir William Mac Cormac, January 15th, 1882.)

Otis says of shot-wounds of the small intestines: "I have shown that in wounds of the small intestines of any magnitude, the pathological evidence of recoveries achieved by the unaided effort of nature, even through the establishment of a preternatural anus, is limited to a very few instances, of which none are absolutely unequivocal. Therefore, in wounds of this viscus, unattended by protrusion, when there is danger of extravasation, the external wound should be enlarged, and the wound in the intestine closed by suture."

Dr. J. S. Billings says, in a letter to Otis: "In regard to penetrating wounds of the abdomen, where there is reason to suspect intestinal injury, it appears to me to be proper to enlarge the opening, if necessary to ascertain the nature and amount of injury, to remove foreign bodies and extravasated matter, to employ sutures or ligatures where needed, and to cut these short and return the injured viscera. Especial care should be taken to prevent even the smallest particle of fæcal matter from escaping into the peritoneal cavity, and to remove such as may escape. Ordinary fæcal matter contains immense numbers of microzymes, or minute organisms known as bacteria, monads, micrococci, etc., which, if not the direct cause of putrefaction, as seems probable, are at all events closely connected with that process."

Professor Hunter McGuire expresses himself thus: "Penetrating wounds of the belly are nearly all fatal, and we must look for some other means of saving life than we now have. If the shock, thermometer, etc., indicate wound of the bowel, cut down and sew it up. You say this is desperate. I answer, the cases justify it. We must do something more than give opium and use ice-poultices."

Dr. H. S. Hewitt says: "It is next to an impossibility, when a soldier is wounded in the abdomen, with lesion of the intestines, that their contents should not escape into the peritoneal cavity. I think it admits of question, whether greater effort should not be made to seek out the wound, to close it by silver wire, and to endeavour to obtain primary union, while peritonitis and constitutional disturbance are treated on general principles."

Professor N. S. Lincoln declares that, "in punctured and incised wounds, when there is adequately strong presumptive evidence of intestinal lesion, though there may be no protrusion, it is the surgeon's duty to enlarge the parietal wound to seek for the wounded intestine, and to close the orifice, if it exceeds three lines, by suture. That, in shot-wounds of the intestine, unattended by protrusion, unless the perforation may be in the iliac region, with a reasonable likelihood of implicating the part of the large intestine uncovered by peritoneum, and thereby avoiding the risk of intraperitoneal extravasation, it is the safest course to enlarge the track of the ball, and to close the intestinal wound by suture."

[These letters from Drs. Billings, McGuire, Hewitt, and Lincoln, were written to Otis ten or twelve years ago, and are to be found in the *Medical and Surgical History of the Civil War.*]

Professor Samuel D. Gross, the highest surgical authority in our country, says, in the last edition of his *System of Surgery* (1872, vol. iii, p. 667): "It is still a mooted question as to what should be done when the wounded bowel does not protrude at the opening in the wall of the abdomen. When we reflect on the fact, that in all lesions of this kind the great danger is from fæcal effusion, and that such effusion is almost inevitable, even when the opening of the intestine is of very small extent, the duty of the surgeon, I think, plainly is *to enlarge the abdominal orifice, to seek for the wounded tube, and to sew up the cut in the usual manner.*" Our great master in surgery, Professor Gross, here in a few words lays down the rule which should invariably guide our action hereafter in all wounds of the alimentary canal however made.

Thus we see that there were mutterings of discontent amongst surgeons long before our great war, which, since the war, have become more out-spoken and positive in demands for reform in the treatment of intestinal wounds. Look at the history of military surgery from its earliest days to the present moment; and what has it ever done for lesions of the abdominal viscera? Absolutely nothing, if we except a few cases of punctured and incised knuckles of intestine, which, having protruded through the outer wound, were sutured and returned to the cavity of the abdomen. But if we profit by the teachings of ovariotomy and ovariotomists, we shall soon wipe out this reproach. Heretofore, when a man was shot or stabbed in the abdomen, we laid him down, gave opium to arrest pain and peristalsis, and applied "simple dressings", waiting and hoping for it to result in a fæcal fistula. And how rarely did nature gratify our wishes, except when the lower ends of the colon and rectum were wounded! But all this must be changed. In the treatment of perforating shot and other wounds of the abdomen, we should strictly observe the following rules.

1. The external wound or wounds should be enlarged as soon as possible, and sufficiently to ascertain the whole extent of the injuries inflicted.

2. These should be remedied by suturing wounded intestines and ligaturing bleeding vessels.

3. Diligent search should be made for extravasated matter, and the peritoneal cavity should be thoroughly cleared of all foreign substances, whether fæcal or bloody, before closing the external opening.

4. The surgeon must judge whether the case requires drainage or not. Generally it will not, if these rules be strictly carried out. We must not forget that fæcal effusion has taken place after intestinal wounds have been sutured, simply because the surgeon failed to find and suture all the lesions. And we must not forget that fatal results have followed enterorrhaphy when thoroughly done, simply because fæcal effusion had taken place before the intestine was sutured, and had been left in the peritoneal cavity, producing death as speedily and as certainly as if the lesion had not been found and closed. Therefore, it is essential not only to find all lesions and remedy them, but to be sure that we leave the whole cavity of the peritoneum perfectly clean.

These principles are the foundation of success in all other operations involving the peritoneum, and they must be equally successful when applied to shot and other wounds of the intestinal canal.

Dr. N. S. Lincoln advises to enlarge the external wound and search for the injured bowel, and suture it, "unless the perforation may be in the iliac region", where it may possibly be followed by fæcal fistula, and spontaneous cure. But it would be unwise to make exceptions of this sort. We should trust nothing to chance. For we must remember that, of eighty-nine shot-wounds of the large intestines, thirty, or 33 per cent., died; of one hundred and eighty-three of the bladder, ninety-six, or 52.5 per cent., died; and of one hundred and three of the rectum, forty-four, or 42.7 per cent., died. Now, if we should not interfere with pelvic and iliac wounds, the above figures prove conclusively that we would jeopardise from 33 to 52 per cent. of all lives with such wounds. I would therefore insist on leaving nothing to luck, but to explore and suture all intestinal and bladder wounds alike, under all circumstances.

There is a time for all things; and a fitness of time for all new departures from old customs. From preceding quotations, it is seen that there has been a latent, but growing, sentiment amongst surgeons for many years, that, sooner or later, a new system would be adopted in the treatment of intestinal wounds. But there has never been a time, till now, when such a course could be wholly justified; and now it can be done alone by showing the positive success that invariably attends all operations in peritoneal surgery. Besides this, there has never been a more opportune moment for pressing this question on the attention of the profession. For we have all suddenly become intensely interested in the subject of gun-shot wounds. The death of the beloved President Garfield by the assassin's bullet sent a thrill of horror through the whole country and throughout the civilised world, and excited such sympathy in every grade of life, as to make us all of one family and one feeling. Soon after the shooting, I was often called on in Paris for an opinion as to the probabilities of the President's recovery; and as he did not die in three days, I knew that the ball had not penetrated the peritoneal cavity, and I gave my friends assurances of his ultimate

recovery. In the early days, when despair pervaded all minds, I was interviewed, and my statements were telegraphed home. A few weeks afterwards, I was informed that they produced amongst medical men great surprise, and severely adverse criticism. When I heard of this, I determined at once to lay the subject broadly before the whole profession, leaving them to decide the question at issue.

Feeling that I have now done my duty, I seize this occasion to repeat what I said in Paris to the friend who sent the telegram to New York. I said: "If the President had recovered from shock, and if there was undoubted evidence that the ball had traversed the peritoneal cavity, his only safety was in opening the abdomen, clearing out the peritoneal cavity, tying bleeding vessels, suturing wounded intestines, and treating case as we would after ovariotomy, using drainage or not, as circumstances required." This is what I said then; this is what I say now, and what I am able to defend on the broad principles already so well established in peritoneal surgery.

Do we not now every day, fearlessly and with the utmost safety, open the peritoneal cavity, and remove ovarian tumours and uterine fibroids, cut out kidneys and spleens, attack the liver in its fastnesses, unroll the convoluted obstructed intestine, exsect the pylorus, incise the stomach for foreign bodies and for nutrition, search out and evacuate hidden receptacles of pus, and remove Fallopian pregnancies, bringing back to life individuals who, but for these brilliant and successful achievements, would all have found early graves? And shall we stand idly by, and see any man, whether he be president or peasant, certainly die with a shot through his intestines, without an effort to save life, when it is so certain and so easy to do it on the principles now well understood and successfully practised every day? Fortunately for the President, the ball did not traverse the peritoneal cavity, and hence his escape from a rapid death, and hence the uselessness of my telegram.

Finally, I have the deepest conviction that there is no more danger of a man's dying of a gun-shot or other wound of the peritoneal cavity, properly treated, than there is of a woman's dying of an ovariotomy properly performed. Ovarian tumours were invariably fatal till McDowell demonstrated the manner of cure, which has now reached such perfection that we cure from 90 to 97 per cent. of all cases. And by the application of the same principles that guide us in ovariotomy to the treatment of shot-wounds penetrating the abdominal cavity, there is every certainty of attaining the same success in these that we boast of in ovariotomy.

If the facts now presented to you on this question be accepted as such, then I think we may logically draw the following conclusions.

1. Wounds of the peritoneal cavity, however made, have a common course to run.
2. They have a common termination, that is, in death by septicæmia.
3. This is the general law in death from ovariotomy.
4. It is the general law in death from gun-shot and other wounds of the peritoneal cavity.
5. Septicæmia in these cases is the result of the absorption of a bloody serum and other effusions found in the peritoneal cavity after wounds or operations.
6. Gun-shot wounds of the pelvic cavity recover, because of natural drainage by the track of the ball carrying off poisonous effusions and bloody serum.
7. Gun-shot wounds of the abdominal cavity die, because there is no natural drainage, and the poisonous effusions and bloody fluid fall into the pelvic cavity, and are there absorbed, producing septicæmia and death.
8. To evacuate this bloody fluid and other foreign effusions, it is necessary to enlarge the abdominal wound, to clear out the peritoneal cavity, to suture wounded intestines, and tie bleeding vessels, using drainage or not, according to circumstances.
9. If this operation be well done, there will hardly be need of drainage.

TOXICOLOGICAL MEMORANDA.

CASE OF POISONING BY NITRATE OF POTASH: RECOVERY.

I WAS called to see G. S., a farm-labourer, about 1.30 P.M. on the 8th of January last. I found him walking about the room in evident distress. He complained of intense pain in the stomach. It was constant, and of a burning character. The eructations were like "flame". On inquiry, he told me that, not feeling well the last few days, he had taken an ounce (avoirdupois) of salts about 7 A.M. that morning. He had often taken as much before. The salts did not taste quite the same as usual, but they were not "sour". He had nothing in the house for which he could have mistaken them. They were bought at the village grocer's, and his little girl had previously taken half-a-teaspoonful, with the usual effect. As soon as he had taken the salts, he felt the intense pain in his stomach. The perspiration "poured" out of him. He felt sick, but did not vomit till 11 A.M. (fours hours afterwards), in the meantime having taken his breakfast and a glass of brandy and water. He vomited very freely, and described it as being "black, like coffee", and tasting very "bitter". It was not preserved, but a little that had remained on the pavement at his door had the appearance of hæmatemesis.

On examination, I found his pulse 56, regular, full, and strong. His pupils were normal. His tongue was moist, with a white fur down the centre, and was tremulous. There were no excoriations about the lips or pharynx, or other signs of an irritant. As it was six and a half hours since taking the "salts", and he had vomited freely, I merely gave him an opiate to be taken every hour, and ordered hot applications to the epigastrium. At 5 P.M., he sent again for me, still complaining of the severe pain. The first two doses of the opiate had relieved the pain somewhat, but he had vomited after taking the third dose. The vomit had all the characters of hæmatemesis. He now told me that he thought it was "saltpetre" and not "salts" that he had taken. On inquiry, I learned that he had had calls to micturate every half-hour for the first three hours after taking the salts. I procured some "salts", and also some powdered "saltpetre", from the shopman, and the patient at once selected the saltpetre as what he had taken, as also did his daughter. The vomit also gave distinct evidence of the presence of a nitrate.

My principal, Dr. Adams, now saw the case with me; and it was determined to give him a free emetic and a copious warm water enema; to let him drink freely of thin milk-gruel; and to give a fourth of a grain of morphia in a pill every three hours.

At 11 P.M., he had taken freely of his gruel, and had not been sick since the action of the emetic ceased. The pain was a trifle easier. His pulse was 88, regular, and full. He was slightly under the influence of the morphia.

At 9 A.M., on the 9th, the patient felt easier. The pain was not quite so severe nor so constant. He had slept about an hour during the night, and had passed about half a pint of urine. It was dark orange in colour, of specific gravity 1020, very acid in reaction, and did not contain albumen. At 3 P.M., the patient had had the free use of his bowels after taking a full dose of castor-oil, and felt much better. The stool was liquid, tarry in appearance, and very offensive. The pain in the stomach was less, and the patient had had three hours' sleep; and from this time made a gradual recovery.

R. HANSON WOLSTENHOLME, M.R.C.S.Eng., L.R.C.P.Ed.,
Martock, Somerset.

CLINICAL MEMORANDA.

CASE OF DIFFUSED SUPERPIGMENTED MOLE OF ABDOMEN, SIDE AND BACK.

L. C. was born on August 4th, 1880. Her parents are both strong, robust, and healthy-looking people, with good family history. The husband, twenty-four years of age, is employed as a mechanic in some large works. The mother, twenty-one years of age, had been married three years, and had one male child perfectly developed. While pregnant two months and a half with this, her second child, the mother states that she was frightened by a large black dog, which lay on the road while a cart passed by; and she, thinking it was a child about to be run over, screamed out, when the dog rose suddenly. There is no other history of a fright. The mother is reported to have always been passionately fond of dogs, and would nurse them for hours on her lap.

On August 4th, 1880, she was attended by a midwife; and, after an ordinary labour, was delivered of this female child. The case was brought to me at the hospital when a fortnight old. I found the greater part of the skin of the abdomen, right side, and the whole of the back, from a line drawn between the axilla above down to the anus below, and extending down the right thigh, as far as the junction of the upper with the middle third, hypertrophied, superpigmented, and covered with hair one inch in length. The right labium was greatly enlarged, forming quite a flap, which almost completely covered the vaginal orifice. On every part of the body, from the crown of the head to the soles of the feet, there were a number of minute patches of pigment, varying in size from the point of a pin to a very small split-pea. The skin over these parts was perfectly smooth, and free from hairs. In all other respects, the child was well-developed.

In August 1881, with the exception of a little stomachic and intestinal irritation at times, the child had enjoyed perfect health. Several more minute spots of pigment had appeared in different parts of the body, and some of the original ones had increased somewhat in size. The hypertrophy of the thigh had extended downwards three-fourths of an inch; but the abdomen, side and back, remained unaltered.

A case of this kind becomes one of surgical curiosity, rather than of surgical importance; and calls for but few remarks. I have been unable to find any case on record exactly similar to this; but specimens of less severity, and more limited in extent, have been reported. Such cases open out a wide field for discussion upon the important subject of "maternal impressions".

WILLIAM H. BULL, L.R.C.P.Lond., M.R.C.S.Eng.,
Surgeon to the Stony Stratford Hospital.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

CHILDREN'S HOSPITAL, BIRMINGHAM.

TWO CASES OF FOREIGN BODIES IN THE ŒSOPHAGUS.

[From notes by A. R. MARSTON, L.&L.M.K.Q.C.P.I., Assistant Resident Medical Officer.]

CASE I. *Dyspnœa: Convulsions: Death: Necropsy.* (Under the care of Dr. Welch.)—John F., aged 3 years and 9 months, swallowed a halfpenny about Christmas time 1880. According to his mother's account, he screamed at the time, and struggled. Shortly afterwards, he complained of pain in the chest. For three days, he could not swallow anything, and was very sick, retching a great deal, and vomiting a little colourless liquid. After this, he again took food, but generally had pain immediately afterwards, which was soon followed by vomiting, the pain being then relieved.

He was first seen as an out-patient about the middle of June 1881, when the above-named symptoms were those chiefly complained of. Shortly after commencing attendance at the out-patient's department, his breathing became at times loud and rattling in character, without, however, much lividity or distress. In other respects, the child's condition improved, the pain and vomiting after food being much less severe.

On July 22nd, he was admitted into the hospital, and an œsophageal bougie was introduced; it met with no obstruction, although it was passed the entire length of the œsophagus.

On admission, he was breathing noisily, and had a harsh cough. He was fairly well nourished, and seemed to have no difficulty in taking food, the act not being followed by pain or vomiting. On examining the chest, there was found to be no dulness on percussion, but dry and moist *râles* were heard over the back. He continued in much the same condition until August 1st, at 2 A.M., when he became slightly convulsed, and his breathing much embarrassed; he struggled for breath, and seemed to be choking, expectorating with difficulty a little greenish mucus; his lips were livid, and there were some convulsive twitchings of the face. The paroxysm only lasted a few moments, after which the child became quiet, and fell asleep.

A severe attack of convulsions came on at eleven the same morning, affecting the right side of the face and the right arm, and continuing a quarter of an hour. Another attack commenced half an hour afterwards, this time affecting the opposite side, and continuing for two hours. Chloroform was then administered, and the convulsions ceased altogether.

The following day (August 2nd), there was a well marked purpuric-looking eruption, chiefly on the face and thighs. The child was unconscious, and very restlesss. His left arm was drawn up from time to time, flexed at the elbow and wrist, and quite stiff. He died at 2 P.M. The temperature shortly before death was 104°.

At the necropsy, the halfpenny was found to have lodged in the œsophagus, the lower edge being immediately above the level of the bifurcation of the trachea. It was flattened up against the anterior wall of the œsophagus, the inner surface of which was stained of a green colour, and worn into a sac-like depression at each side. The lower lobe of the right lung was congested and œdematous, and the lower half of the middle lobe collapsed. There was also collapse of the tongue-like portion of the upper lobe of the left lung. The brain was congested, and there was some deposit of lymph to the right of the longitudinal fissure. There was no fluid in the lateral ventricles, but about half an ounce at the base of the brain. The eruption visible before death was seen as slightly raised livid spots after death.

CASE II. *Foreign Body withdrawn by Coin-catcher: Recovery.* (Under the care of Mr. Elkington.)—Thomas W., aged 5½, was admitted on August 4th. He had swallowed a whistle a fortnight before admission, the whistle being a disc about the size of a halfpenny, and raised in the middle. Immediately on swallowing it, the child became livid, and seemed on the point of choking. He was taken to a doctor, who pushed the whistle down with his finger. After this, the child was somewhat relieved, but from that time he complained of pain in swallowing, and at times breathed noisily; he also had pain at the upper part of the chest. After taking food, he retched a good deal, but did not vomit.

On admission, he was fairly well nourished, but his face was rather pale and thin. He had great difficulty in swallowing, and would only take a mouthful or two of milk at a time. His breathing was rather rattling in character, and he had a short hard cough. On examining the chest, percussion was found to be dull at both posterior bases, but this was more marked on the left side. There was some weakness of breath-sounds at both bases, and loud crackling *râles* were heard below the left axilla. There were some sonorous rhonchi over the upper part of the chest.

On August the 5th, chloroform was administered, and the whistle was withdrawn by means of a coin-catcher; this consisted of a piece of whalebone, to the end of which were affixed about six inches of flexile metal, connected at its extremity with a double metallic loop, by which the whistle was caught and withdrawn.

Immediately on recovering from the effects of the chloroform, the child took a draught of milk, swallowing easily and without pain. No further symptoms appeared, and the child's health and spirits rapidly improved. The physical signs about the chest also gradually disappeared, the dulness diminishing, and the breath-sounds becoming distinct and free from rhonchus.

WESTERN DISPENSARY, EDINBURGH.

CASES IN THE THROAT DEPARTMENT.

(Under the care of Dr. HUNTER MACKENZIE.)

CASE I. *Case of Strumous Pharyngitis, with Dysphagia, simulating Malignant Disease.*—A. P., domestic servant, aged 48, applied on April 2nd, 1881, complaining of a difficulty in swallowing, and a sensation as if solid food stuck about the lower level of the thyroid cartilage. The complaint came on suddenly about a week or ten days previously. The patient was of the strumous diathesis, but had hitherto enjoyed good health. She had a constant tendency to swallow, had been unable to take solid food from the commencement of her illness, and now presented a somewhat emaciated appearance. There never had been any respiratory impediment, and nasal regurgitation of food was absent. Externally, there was no swelling, pain, or tenderness. On the left side, there was slight chronic enlargement of one cervical gland. Internally, the pharynx was dry, with streaks of stringy mucus on its posterior wall, extending upwards to the posterior nares. The interior of the larynx seemed healthy and free from swelling. The case was diagnosed as one of perverted secretion of the naso-pharynx and pharynx, the result of chronic inflammation in a strumous subject, leading to an absence of proper lubrication of the upper portion of the alimentary canal, and consequently to dysphagia. The treatment adopted was thorough cleansing of the nose and pharynx by an alkaline spray two or three times daily, and the internal administration of a pill of iodoform and iron. On April 9th, the patient reported herself as having derived great benefit from the use of the spray, especially when applied through the nose; and as now being able to swallow solid food. In a few days, she discontinued the use of the spray, but renewed it about the end of May, on the occurrence of a slight relapse, with the same result as before. She was last heard of six months afterwards; there was then no renewal of the complaint.

CASE II. *Case of Laryngitis Sicca, with Aphonia, simulating Hysteria.*—J. C., domestic servant, aged 22, applied on May 9th, 1881. She complained of complete loss of voice. She had been subject to sore-throat for several years, but it had never been so severe as on this occasion. The patient was in good general health, but appeared to be somewhat hysterically inclined. Her pulse and temperature were normal. She had no pain, but the throat felt a little dry. On laryngoscopic examination, the interior of the larynx was seen to be more or less coated with dark grey stringy mucus, of a dry, tenacious nature. This was especially abundant on and about the vocal cords, and undoubtedly acted as the main cause of the aphonia. The interior of the larynx was thoroughly cleansed by means of the laryngeal spray;

the mucous membrane was then found to be somewhat swollen, and the vocal cords reddened, but not thickened. The patient was now able to speak, though in a rough and broken manner. The application of the spray was repeated on several occasions, supplemented by inhalations of pine-oil night and morning; and complete recovery ensued.

REMARKS BY DR. MACKENZIE.—In Case I, there were some points which, at first sight, made it have certain resemblances to malignant disease, such as the age and debilitated appearance of the patient, and the persistent obstruction to solid food. Malignant obstruction, though usually gradual in its onset, is occasionally of sudden occurrence, as in the case now under notice. Against this idea there militated the absence of pain, of glandular implication, and of nasal regurgitation of food. In malignant disease of the pharyngo-larynx, with impairment of the constrictor muscles of the pharynx, Dr. Mackenzie has recently had occasion to note that not only is dysphagia present, but concurrently there is occasional regurgitation of food into the nose. The patient intuitively endeavours to avoid this by "taking care" during the process of deglutition; but, if this act be performed carelessly and in a hurry, the symptom will frequently be observed. As Dr. Mackenzie has not found it present in cases such as that now recorded, he is inclined to attribute some value to this symptom as assisting to distinguish these cases from the malignant variety, which, in some points, they very closely imitate.

Case II illustrates the value of a laryngoscopic examination in all affections of the vocal apparatus, and the benefit which frequently ensues from local treatment. Without a laryngoscopic examination, the case would most probably have been included in the hazy hysterical class, and the local mechanical causes of the aphonia would have remained undetected and untreated.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, FEBRUARY 28TH, 1882.

A. W. BARCLAY, M.D., President, in the Chair.

Third Communication on Artificial Respiration in Still-born Children. Mediastinal Emphysema and Pneumothorax in connection with Tracheotomy: An Experimental Inquiry. By FRANCIS HENRY CHAMPNEYS, M.A., M.B. The observations were made on twenty-six still-born children who had never breathed, the subjects of experiments with regard to artificial respiration (*Med.-Chir. Trans.*, vol. lxiv, 1881). The method of experiment consisted in connecting a tube filled with water, by means of a flexible tube, to a cannula tied into the trachea, and using the various manipulative methods of artificial respiration. In one case, the tube was filled with mercury. A table was given showing the methods employed, the maximum inspiratory effect produced (in inches of water measured in the V-tube), and the necropsy. The subjects available for the inquiry were twenty-one in number. Mediastinal emphysema occurred in seven, or one-third of the whole number. Pneumothorax occurred in five out of these seven cases, but in no other. In three cases, it was found in the right pleural sac, in one in the left, in one in both. In no case did the rupture occur into the better expanded side of the chest. Coloured injection was found to be drawn from the region of the wound down to the trachea (left unopened) into the anterior mediastinum. The explanation offered was that, in case of obstruction of the air-passages (as by the weight of a column of fluid), the air followed the route of least resistance. If rupture occurred from the mediastinum into the pleural sac, the less expanded side was the side usually chosen. It was, however, pointed out that a thickened pleura overlying a less expanded lung might determine rupture into the other or better expanded pleura. Mediastinal emphysema was shown to have specially followed Schultze's method of artificial respiration, which was sudden in its action. Reference was made to necropsies after tracheotomy at St. Bartholomew's and the Children's Hospitals. Pneumothorax was shown to be a secondary consequence of mediastinal emphysema. Emphysema of the neck was shown to be due to opposite conditions, but these observations probably explained its occurrence during labour. The following practical conclusions were drawn. 1. Emphysema of the anterior mediastinum occurs in a certain number of tracheotomies. 2. It is often associated with pneumothorax, to which it stands in a causal relation, and pneumothorax may be the cause of death after tracheotomy. 3. The air is most likely to burst into that pleura of which the lung is the less expanded. On the other hand, pneumothorax of course helps to collapse the lung. 4. The route selected by the air is the space beneath the deep cervical fascia. 5. Emphysema of the anterior mediastinum may or may not be associated with emphysema of the neck; but their causes are different, and the conditions of their production are opposite. 6. The conditions favouring the production of mediastinal emphysema are, division of the deep cervical fascia, obstruction to the air-passages, and inspiratory efforts. 7. The dangerous period during tracheotomy is the interval between the division of the deep cervical fascia and the efficient introduction of the tube. 8. The deep cervical fascia should on no account be raised from the trachea; the incision in it should not be longer than necessary in the direction of the sternum, and this should be particularly remembered during inspiratory efforts. 9. It will probably be found that the frequency of occurrence of emphysema of the anterior mediastinum depends much on the skill of the operator, especially in inserting the tube. 10. If artificial respiration should prove necessary, the tissues should be kept in apposition with the trachea, and any manipulations performed steadily and without jerks. 11. Schultze's method (which is otherwise unsuitable for the above purpose) is especially prone to produce emphysema of the anterior mediastinum. 12. These observations illustrate the fact that, apart from the question of tracheotomy, the inspiratory force of the thorax should be remembered in all operations near the root of the neck, and in the case of all collections of pus beneath the deep cervical fascia. In these cases, quiet respiration is essential for the safety of the patient; and vomiting, which begins with a sudden inspiration, is dangerous. 13. These observations may serve to illustrate the production of emphysema of the neck, etc., during labour.—Dr. MATTHEWS DUNCAN said that the paper was one of great value. It was an example of the evolution of practical surgical facts from investigations made for a different purpose. It had thrown light on the occurrence of emphysema of the neck in parturient women. He hoped that Dr. Champneys would at some time be able to explain the formation of emphysema at the groin, in cases of difficult labour.—Mr. WARRINGTON HAWARD regarded the author's observations as valuable to surgeons. It was, no doubt, necessary to take care to prevent emphysema from occurring in operations about the neck. He had met with a case of emphysema at the root of the neck. The filling and fixing of the chest in parturient women was, perhaps, comparable to the action of men employed in ramming stones in the streets; the latter, however, allowed a portion of the air to escape at each effort; while probably the parturient woman retained the air. He had tried to produce emphysema by forcing air into the lungs; but there was difficulty in preventing air from escaping through the wound in the trachea; and the explanation of the emphysema was still obscure.—Dr. REGINALD THOMPSON said that, when Dr. Champneys read his first paper on the subject, he had mentioned a case in which one lung was much diseased; pneumothorax occurred on the sound side, and the patient soon died. An opening was found in the anterior margin of the lung, which was adherent along the mediastinum. Air had probably passed across the mediastinum, and produced pneumothorax.—The PRESIDENT asked how Dr. Champneys associated the emphysema in parturient women with that which followed tracheotomy.—Dr. CHAMPNEYS replied to the remarks of the several speakers.

On the great Frequency of Cardiac Murmurs in the Puerperal State: being the Result of Work at the General Lying-in Hospital.—By ANGEL MONEY, M.D. (Communicated by DR. JOHN WILLIAMS.) The observations were made last year (February to end of July), on 111 consecutive cases. Murmurs were heard in 84 cases, or about 75 per cent. The great majority of the murmurs were situate over the right heart. There were two cases of undoubted structural disease. The patients who had a murmur, for the most part, did not suffer from symptoms referable to the heart. The time of the murmurs was invariably systolic. The murmurs were divided into three sorts. The first (resembling an ordinary endocardial murmur) was most numerous; was of blowing character, soft, usually low or medium pitched, fairly long, and heard with almost every cardiac beat; it presented but little variation during the course of its existence. The number of these was 51; 36 were loudest over the tricuspid area; 8 over the mitral area; 6 over the pulmonary; 1 over the aortic. By tricuspid area, was meant the fourth left space just a little to the left of the left edge of the sternum. The murmur was conducted to a variable extent. The duration of the murmur was variable. Most commonly, the murmur was first heard a day or so after delivery. The mechanism of the murmur was discussed. The most novel and interesting, the "tricuspid" murmur, was believed not to be due to tricuspid regurgitation. No definite conclusion was come to as to the mode of production. The second kind (friction-like) was almost absolutely non-conducted, was heard over a very small area just above and to left of the ensiform cartilage. The murmur seemed superficial, was high

pitched and stiff in quality; and was not audible with every cardiac beat. This sort was heard 29 times. The mechanism was probably endocardial friction. Its site would about correspond to the "white patch" which might be seen on the front of the right ventricle. The third kind of murmur, the least numerous, the most "capricious", was remarkable for its loudness, was very inconstant, *i.e.*, not heard with every cardiac beat, and was very transitory. Its area of audition was remarkably limited; it was most frequently heard over one or other base of the heart; it commonly went with an excited action of the heart associated with pyrexia or mental emotion. Besides pyrexia, excitement, and anæmia, this murmur was sometimes associated with *râles* in the chest and with a cough, but no sputa. The quality of the sound varied. In many cases it resembled the sound evolved when a piece of silk tightly stretched was scratched with the nail; or like the sound heard when pressure was made on the carotid in anæmic cases. Sometimes the sibilant *râle* was almost exactly imitated. The murmur was in all cases heard when the breathing was stopped. The mechanism of this murmur was discussed. The murmur was heard 16 times. The mode of generation of murmurs was regarded as very puzzling. All the murmurs of the second and third kinds, and the majority of the first kind, were temporary phenomena. Murmurs in the puerperal state were (for the most part) not indicative of the appearance of serious cardiac lesions. It came out as the result of observations: that the first cardiac sound was relatively loud over the right heart; that the pulmonary second sound was markedly accentuated; that the sensation communicated to the stethescope was stronger than natural over the right heart. It was inferred that the right heart acted robustly during the puerperal state; and that the tension in the pulmonary artery was increased. Which of these factors preceded the other, or whether they appear simultaneously was not answered. Attention was directed in every case to the occurrence of rheumatism in any shape; also to the quality of the blood; to the urine, body-heat, age, civil state, number of pregnancies. As a broad statement, it could be said that such observations were of negative value in the question of the mechanism of the murmurs. The murmurs explained or were to be explained by the normal cardiac and circulatory conditions which were believed to exist during the puerperal state.—Dr. JOHN WILLIAMS had had many opportunities of witnessing Dr. Money's observations at the Lying-in Hospital. They were made with great care, and all doubtful cases were excluded. When the investigation was begun, no one supposed that murmurs would be found to such an extent as had been discovered. The explanation of their production was difficult. Some were very probably produced in the cavity of the right ventricle.—Dr. MATTHEWS DUNCAN said that Jacquemier had described cardiac murmurs as being frequent in puerperal women; and they had been investigated by Rayer, Larcher, and Fritsch; but little was known of them beyond the fact of their occurrence and their disappearance soon after delivery. Dr. Money's account of them was by far the best, so far as he knew. As regarded their practical value with respect to endocarditis in lying-in women, the presence of this disease was sufficiently indicated by other signs, independently of the murmur; and the murmurs described by Dr. Money did not distress the patients.—Dr. FINLAY asked whether the character of the murmurs was affected by change of position.—Dr. MATTHEWS DUNCAN said that the old authors considered that murmurs might be changed or produced by position.—Dr. REGINALD THOMPSON suggested that Dr. Money should supplement his paper by an examination of the pulse of pregnant women.—Dr. CHAMPNEYS had witnessed the care with which the observations had been conducted. He thought it possible that perhaps change of the shape of the thorax in pregnancy might affect the position of the contained organs; but he could not say whether this had any effect on the production of murmurs.—The PRESIDENT asked whether any murmur was found in the carotid artery. Probably a change in the condition of the blood was the cause of the murmurs.—Dr. MONEY thanked Dr. Duncan for calling his attention to earlier writers. He did not place much reliance on the murmur, which could be produced in the carotid artery by pressure with the stethoscope, unless it were very loud.

HARVEIAN SOCIETY.

FEBRUARY 2ND, 1882.

WILLIAM HICKMAN, M.B., President, in the chair.

Headaches in Children.—Dr. DAY read a paper on this subject. He alluded to the two great factors of headache from a pathological point of view, viz., cerebral anæmia and cerebral hyperæmia. Attention was directed to the fact that the amount of blood in the brain was influenced by the fulness of the ventricles, the subarachnoid spaces, and the lymphatic spaces or sheaths surrounding the cerebral blood-vessels. Dr. Day said that habitual headaches in children indicated an irritable and exhausted brain; and if intellectual exertion were carried too far in such cases, mischief was likely to ensue. It seemed extraordinary that educated men who had the care of young persons should not see this danger in the anæmia produced by overstudy, the irritability and excitability of manner, and the impossibility of concentration necessary to the accomplishment of any undertaking. If intellectual exertion were carried beyond a certain point, the brain became anæmic, fatigued, and the nutrition in the ganglion-cells of the cortex became impaired, diseased, or in some way altered from health. The author referred to neuralgic or one-sided headache, which he said was more common in children than was generally supposed; it was not unfrequent in those of the neurosal temperament, whose nervous system was easily exhausted, and in those reduced by long and exhausting illness, bad food, and other causes. He had known headache in connection with chorea and dental caries. He next spoke of congestive, toxæmic, and organic headaches.—Dr. CHEADLE considered that foul air and gas were the chief causes of study headaches. He had noticed headache from this cause, especially in choristers. He referred to headaches in rickety children; this occurred just after the skull closed, was continuous, but gradually subsided.—Dr. STEPHEN MACKENZIE wished particularly to insist on the importance of careful examination of the eyes in cases of headache in children. Muscular asthenopia was a cause of headache which sometimes was mistaken for serious organic disease. He mentioned the case of a schoolboy brought to him under this supposition, but myopia was found and corrected, and the headache disappeared. The same thing occasionally occurred with hypermetropia. He next pointed out that ear-disease was sometimes the cause of headache, which was of importance as significant of commencing meningeal or cerebral inflammation. In all cases, therefore, of headache in children, it was very important to examine the ear and the eye, using the ophthalmoscope, which was of great value in detecting organic disease. He remarked that pain in the head—a valuable sign of tumour of the brain—was no certain indication of the localisation of the tumour, unless there was corresponding pain on percussion.—Mr. CRIPPS LAWRENCE asked if the urine was altered in these cases, especially as to its specific gravity.—Mr. MALCOLM MORRIS considered that headache, in some cases, might be a distinct disease, and not merely a symptom, as when an attack occurred and passed off suddenly in a person all whose functions were normal at the time.—The PRESIDENT said that headache, though not a common symptom in children, was one of import, and frequently indicated advanced disease.—Dr. DAY, in reply, remarked that the urine was usually healthy, the specific gravity being high.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: PATHOLOGICAL SECTION.

JANUARY 27TH, 1882.

J. F. WEST, F.R.C.S.Eng., in the Chair.

Amputation of Arm for Sarcoma.—Dr. BARLING introduced a boy, aged 11 years, whose arm had been amputated at the shoulder about fifteen months previously by Mr. Baker at the General Hospital. The growth was a small spindle-celled sarcoma, and appeared to have originated in the periosteum, near the lower end of the humerus. The tumour was as large as the boy's body in circumference, and was wearing him out by its cumbrousness, and the severity of the pain. There had been no recurrence, and the lad enjoyed perfect health.

Tumour of Brain.—Dr. BARLING also showed a tumour occupying the præfrontal lobe of the brain on the left side. The main symptoms during life were chronic epileptoid convulsions, mental dulness, slowness of speech, and some weakness in walking.

Acute Membranous Bronchitis.—Dr. BARLING (for Dr. WADE) also exhibited casts of the larger bronchi expelled by coughing from a case of acute membranous inflammation of the air-tubes. There was no evidence to show that it was an ordinary case of diphtheria.

Embolism of Superior Mesenteric Artery.—Mr. J. W. TAYLOR exhibited a portion of small intestine with mesentery infiltrated with blood, probably due to embolism of the superior mesenteric artery. The chief symptoms during life were: great abdominal pain and tenderness, mainly to the left of the median line, tympanites, constipation, and almost constant vomiting. Death occurred at the close of the sixth day from the commencement of symptoms.

Removal of a Piece of Egg-shell by Tracheotomy.—Mr. JORDAN LLOYD showed a piece of egg-shell, three-eighths of an inch in diameter, removed from the trachea of a baby ten months old by means of tracheotomy, after impaction for nine days, during which the child had been thought to be suffering from croup. The true diagnosis was based on

the sudden onset of symptoms after a meal, the absence of fever, and the peculiarity of the stridor and cough. The child was *in extremis* at the time of operation; the fragment escaped immediately on opening the trachea; a tube was worn for twenty-four hours; and complete recovery was made in a fortnight.

Suppurative Arthritis of Left Elbow.—Mr. JORDAN LLOYD exhibited a specimen of central necrosis of the olecranon, which had set up suppurative inflammation of the elbow-joint. The patient had previously suffered from a similar affection of the os calcis, which had been excised. The specimen was obtained by excision of the elbow. Complete recovery had not as yet occurred.

Fracture of Base of Skull from Direct Violence.—Mr. WEST showed a specimen of fracture of the roof of the right orbit, caused by a blow on the face from a piece of wood. The nasal bones were broken, but neither eye was injured.

MIDLAND MEDICAL SOCIETY.

BIRMINGHAM, WEDNESDAY, FEBRUARY 1ST, 1882.

J. BASSETT, M.D., in the Chair.

Disease of Knee.—Mr. BENNETT MAY showed two specimens of disease of the knee-joint, which had originated in acute necrosis of the head of the tibia.

Disease of Ear and Abscess of Brain.—Mr. A. O. HOLBECKE showed the left hemisphere of the brain of a child aged eight years, exhibiting a large abscess cavity, from which about half a pint of most offensive pus had escaped. On making the *post mortem* examination, a small round perforation in the petrous portion of the temporal bone was found, which communicated with the ear on the one hand, and the abscess cavity on the other. The dura mater was healthy. Thirteen weeks before death, the child received a blow on the ear, and complained of much pain at the time. Subsequently, her health became impaired, and a discharge of pus from the left ear appeared, the pain in the head becoming relieved. Several times the discharge disappeared, the pain in the head being always simultaneously increased. There was no paralysis. Convulsions had occasionally occurred. She was rational, and answered questions intelligently. Twelve hours before death, the discharge from the ear ceased, and she at once became comatose and died.

Specimens from a Subject aged Sixty.—Mr. A. O. HOLBECKE also showed the following specimens, all taken from the same patient, aged sixty: 1. An ununited fracture of the humerus; 2. Two fractures of the femur, united firmly but irregularly, and causing much shortening; 3. Two large deposits in the liver (together with microscopic specimens of the same, prepared by Dr. Barling), which presented the character of carcinoma; 4. A calculus, removed from the gall-bladder; 5. The right kidney, studded throughout with calculi; the left kidney presenting well-marked granular degeneration. The fractures had occurred last June. The left mamma had been removed nineteen years previously for scirrhus. Her father died of cancer.

Necrosis of a Finger.—Mr. JORDAN LLOYD showed a specimen of central necrosis of the first phalanx of the index-finger, without suppuration, attended by the expansion of the whole bone into a cyst, with very thin walls. The cartilage was healthy. In another case, Mr. J. Lloyd would try to save the member, by removing elliptical pieces from the bony shell before proceeding to amputation.

Calcareous Degeneration of Placenta.—Mr. HUGH THOMAS showed a placenta studded with deposits of calcareous degeneration, and having an abnormally short cord (only eight inches long), taken from a primipara aged twenty-two, in whom *ante partum* hæmorrhage (followed in eight days by premature labour) occurred about the seventh month of pregnancy. The child was still-born, the cuticle peeling off.

Scirrhus of the Rectum.—Mr. H. THOMAS showed a specimen of scirrhus of the rectum, taken from a man aged fifty-seven, in whom, after prolonged constipation, death occurred from peritonitis, set up by a perforation of the gut having occurred just above the stricture, which was about one and a half inches from the anus.

Uterine Fibroid.—Mr. H. THOMAS showed an uterine fibroid, expelled by a woman aged forty, the mother of several children, immediately after parturition.

Death after Ovariotomy, due to previous Tapping.—Mr. LAWSON TAIT read a paper on this subject. The author drew attention to the fact, that, amongst the last hundred ovariotomies (for cystoma) which he had performed, there had been only three deaths. In all, the deaths had been due to the formation of a firm white clot, which started from the point of ligature of the pedicle, and slowly traversed the venous system till it reached the heart, death ensuing in from thirty to forty hours after operation. The symptoms which preceded death were: swelling in the legs; rapid rise of pulse, and its disappearance from the extremities some time before death; breathlessness, ending in suffocation; and slight delirium. He had seen several such deaths, but not one in a patient who had not been previously tapped. His explanation was, that repeated tappings deprived the blood of some element, or elements, included in the infinite variety of albuminous substances found in ovarian cysts, the deficiency of which predisposed to coagulation of the blood. The author thought that no case of ovarian tumour should be tapped till previous abdominal section had shown that it could not be removed. He believed, if this rule were followed, the mortality might be reduced to less than one per cent., if cases were operated on early. As long as the clamp gave a mortality of twenty-five per cent., it was right to stave off, by all possible means, so fatal an operation as ovariotomy.

Hydatids of the Peritoneum.—Mr. LAWSON TAIT read a paper on two cases of hydatids of the peritoneum, successfully treated by abdominal section. In the first, the operation was incomplete, because the hydatid had so matted the intestines together, that the larger number could not be removed. All the cysts which could be reached were broken down, and a drainage-tube was inserted in the pelvis from above. The patient's symptoms previous to the operation were very severe, but they rapidly disappeared; the patient completely recovered, and the hydatid masses had entirely gone when she left the hospital, on the twenty-fourth day after the operation. The second case was of a more simple kind; for the parasites were contained in a cyst in the lower abdomen, which was completely emptied, and drained through the wound. The patient made a very rapid and complete recovery.—A discussion followed, in which Dr. Bassett, Mr. Jordan Lloyd, Dr. Carter, and Mr. Bennett May took part; and Mr. Tait replied.

Treatment of Eczema.—Dr. SIMON read a paper on the treatment of eczema.—A discussion followed, in which Dr. Bassett, Mr. Greene, Mr. Lawson Tait, Mr. Bennett May, Mr. Taylor, and Dr. Johnstone took part; and Dr. Simon replied.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.

MONDAY, FEBRUARY 6TH, 1882.

S. LEE RYMER, L.D.S.R.C.S.Eng., President, in the Chair.

Alveolar Periostitis and Diabetes.—Mr. HENRY SEWILL called attention to a communication recently made by Dr. Magitot to the French Académie de Médecine, in which he stated that alveolar periostitis was always met with in the mouths of patients suffering from diabetes mellitus, and was therefore of great assistance in forming a diagnosis of that disease. He (Mr. Sewill) had himself met with two cases which appeared to bear out the correctness of this observation, and he should be glad to hear if others had met with the same experience.

Cases of Interest were brought forward by Messrs. HUTCHINSON, MOORE, BROWNE-MASON, and Dr. CAMPBELL.

President's Address.—After thanking the Society for the honour it had conferred upon him by electing him to his present distinguished position, Mr. RYMER referred to the recent alteration in the by-laws which enabled the Society occasionally to elect a President from among the provincial members—a change of which he had been the first to reap the advantage. Mr. Rymer then went on to speak of the part taken by the old College of Dentists in the reform movement of 1856 and following years. This institution—in the management of which he had, as Secretary, taken a very active part—had been established for the purpose of carrying on the education and licensing of dentists on an independent basis, it being thought that too strong a feeling existed in the medical profession to allow the institution of examinations and the issue of diplomas in a speciality of any kind by any of the medical corporations. When, however, it was announced that the Royal College of Surgeons, after long deliberation, had come to the conclusion that it would tend to the public advantage to grant diplomas in dental surgery, the duty of those who had the direction of the affairs of the College of Dentists at once became clear. To have continued the College on an independent basis, would have been unwarrantable under the circumstances. Instead of helping on a good cause, it could only have carried on an embarrassing opposition, and postponed indefinitely the attainment of fraternal concord. Communications were accordingly opened with the Council of the Odontological Society, which had throughout favoured the establishment of the dental as a branch of the medical profession, with the view of arranging an amalgamation. This was soon consummated with entire cordiality on both sides, and he had no hesitation in saying that it had never for a moment been regretted. Had the profession continued to be racked with widespread dissensions, the Dentists' Act of 1878 would never have been secured; as it was, the opposition to the measure, arising from a small section of men with impracticable views, was successfully overcome. This

was unquestionably the most important event which had happened during the twenty years that had elapsed since the amalgamation. Its healthy action had already become apparent, but it would require some time yet before all its latent powers for good could be fully developed. Its elevating influence would increase with each succeeding year. Mr. Rymer then spoke of other signs of progress in the profession; of the growth of the British Dental Association, the establishment of new schools in the provinces, the flourishing condition of the dental societies and the progress of dental literature and journalism; and concluded by referring to some of the unsolved problems still before the profession, the most important being a clearer knowledge of the conditions which would favour longevity in the dental organs.

REVIEWS AND NOTICES.

SUR LES LESIONS HISTOLOGIQUES DE LA SYPHILIS. Par L. MALASSEZ et P. RECLUS (Travail du Laboratoire du Collége de France). Paris: G. Masson. 1881.

M. MALASSEZ and M. RECLUS having, to quote their own words, "the rare good fortune to collect eight pathological specimens of syphilitic testicle", publish the result of their histological examination of them, with the view of furnishing some data concerning the pathological histology of this affection, which up to the present time, as the authors justly remark, is but imperfectly known. The following is a *résumé* of the conclusions at which MM. Malassez and Reclus arrive.

Syphilis appears to attack the testicle here and there, and in paroxysms. The interstitial tissue is a favourite point of attack. Little nodules appear, which are small centres of inflammation similar to what is induced by injections of small solid particles. There are two kinds of nodules: 1. Lymphoid nodules, which are the more numerous, and are composed of a mass of round cells; 2. Epithelioid nodules, formed of large granular cells. The lymphoid nodules seem to correspond to acute states; contiguous epithelioid nodules sometimes join one with the other, still retaining their individual features. When the lymphoid nodules unite, their fusion is so complete, that the constituent nodules of the mass are no longer recognisable. The nodulating process acts on the surrounding parenchyma, and determines considerable and extensive alterations. The interstitial tissue is the first attacked. Hypertrophic progressive sclerosis appears. Consecutively, the tubuli seminiferi are compressed and irritated, and become atrophied; their walls of connective tissue are hypertrophied; and their central cavity becomes less and less. The epithelium degenerates, the gland loses its function, and sometimes is reduced to a simple fibrous cord. The capillaries, arteries, and veins take on a covering of connective tissue, and their calibre is lessened. Hence nutrition is carried on with more difficulty. In the large vessels near the nodules, there is a new formation of connective tissue in the middle and internal coats, reducing still more the calibre of the vessels, and increasing the disorder of the circulation. Disordered nutrition follows, resulting in a necrosis of the parenchyma, already sclerotic; and especially so in the parts where the nodular development is considerable. This necrosis resembles syphilitic necrosis of bone-tissue. The necrosed parts are not encysted until later on, when the caseous masses, a cause of irritation to the parenchyma, determine the development of layers which encyst them. These layers, from outwards inwards, are: 1. *Fibrous Zone.* The contiguity of the caseous masses irritate the parenchyma, which thus, more sclerosed than the rest of the testicle, forms the fibrous zone. 2. *Opaque Band.* The most internal portion of this zone is the most irritated, and constitutes a layer of fleshy granulations, which invades, little by little, the cheesy centre, leaving behind it in its progress a cicatricial tissue, which joins the fibrous zone; it is the layer of repair, or opaque band. 3. *Clear Band.* Between the caseous centre and the layer of repair, or opaque band, is a layer, principally composed of large granular cells, similar to those seen round foreign substances which become absorbed. This layer seems to eat away, little by little, the caseous centre; it is the layer of absorption, or clear band. The peripheral parts of the caseous centre are invaded by migrating cells, which appear to prepare the work of absorption.

MM. Malassez and Reclus here remark that they differ from Virchow and others, and that they interpret differently the pathological conditions described. Virchow believes that the affection acts on the testicle in the same way as it does on all other parenchymata, inducing a chronic interstitial diffused inflammation—a simple syphilitic orchitis; or a more intense and more limited inflammation, of which the products undergo fatty degeneration — a gumma-like syphilitic orchitis. The authors do not consider the interstitial inflammation as the immediate and direct product of syphilis but as caused by the presence of the small nodules which Virchow has either not observed, or has omitted to mention. What Virchow considers to be a gumma, is, according to MM. Malassez and Reclus, a necrosis—a secondary lesion. The primitive lesion, the true gumma, according to these gentlemen, is what they have described as syphilitic nodule. The difference between the histological lesions of syphilis and those of tuberculosis of the testicle is generally sufficiently marked to enable the diagnosis to be made by a microscopical examination.

Tuberculosis and syphilis both determine in the testicle the formation of small centres of irritation, generally spherical in form (elementary tuberculous granulation, syphilitic nodule). These centres are composed of masses of small round cells (tuberculous granulations and syphilitic lymphatic nodules) or sometimes of large cells, principally granular (tuberculous granulations, syphilitic epithelioid nodules). These centres or foci are generally isolated; but if here and there the eruption is more markedly confluent, they fuse together. Sometimes they fuse together, and form large homogeneous masses, purulent granulations, conglomerated gummata.

These different products act on the parenchyma of the testicle, and induce the development of an interstitial chronic orchitis; disordered nutrition follows as a consequence, resulting in hyaline degeneration, and the necrosed parts become encysted. These lesions, according to their place of origin, have a special aspect. The tuberculous granulations almost always have their starting-point in the tubuli seminiferi. Syphilitic nodules, on the contrary, have their birthplace in the interstitial tissue. In tuberculosis, the tubuli seminiferi, surrounded by granulation, present characteristic lesions. The epithelium proliferates, enlarges, and remains enlarged, when degeneration ensues. In microscopical preparations, the tubuli seminiferi primarily attacked are very much dilated in the centre of the tuberculous product, and contrast in a marked manner with those of the subjacent regions, which, on the contrary, are atrophied, and their walls are thickened.

When the syphilitic nodule is small, there is never a seminal tubule in the centre. If the syphilitic product be sufficiently considerable to include several, not one is dilated. These tubuli may be rather larger than those that have no connection with the products; but, like them, they are atrophied, with thickened walls. Like the rest of the testicle, they are affected by the interstitial lesions.

The authors conclude by warning their readers that possibly there are cases more difficult to diagnose than those studied by them, but such have not fallen under their notice, owing to the relatively small number of pathological specimens at their command. They also protest against generalising the results of their observation, and applying them to other tissues, unless authorised by the most careful observation. In support of their propositions, they instance the tuberculous granulations of the mediastinum testis, which, as they do not invariably develop round the ducts of this region, do not present any traces of an anterior central cavity. These granulations sometimes appear as little elevations on the parenchyma, and may be mistaken for actual granulations of the testicle.

A PLEA FOR EARLY OVARIOTOMY. By G. GRANVILLE BANTOCK, M.D., F.R.C S.Ed., Surgeon to the Samaritan Free Hospital for Women and Children. London: H. K. Lewis. 1882.

NOT many years ago, ovariotomy was considered almost as a last resource, to be performed when a patient had endured months of misery through the presence of a bulky ovarian tumour. At the present day, surgeons, for the most part, act after the doctrines of two great and successful authorities—Mr. Spencer Wells and the late Dr. Peaslee—who have both taught that, important though it is to operate before the patient is exhausted, or brought near to death by complications, ovariotomy should not be performed until the ovarian cyst has become large enough fo cause discomfort, and to impair the general health. All other modern authorities teach similar doctrines; Drs. West and Duncan being particularly cautious against operating too soon, and interfering with cases where sundry complications, in their opinion, render ovariotomy specially dangerous. Dr. BANTOCK, with good reason, shows that, accurate diagnosis being granted, the earlier an ovarian cyst is removed the better it is for the patient, and the easier will the operation be for the surgeon. He deems it highly unsurgical to wait till the patient's health has become impaired, for the whole tendency of modern surgery is to anticipate impairment of general health. The presence of a large cyst is the cause of structural disease of several organs. The liver and kidneys often become seriously affected; ascites and, above all, pleural effusions, are very serious complications that may come on very unexpectedly in patients when operation is delayed; nor is tapping, to relieve the cause of these secondary disorders, either a satisfactory, or even a safe palliative measure. Ovarian tumours are themselves subject to disease, and to accidents—

such as inflammation, hæmorrhage into their interior through degeneration of their vessels, and rupture, or twisting of the pedicle, followed by gangrene. After these complications, the chance of a successful operation is very much diminished. Lastly: the simpler the operation and the better the patient's health, the greater must be the chance of recovery. When the surgeon diagnoses a small multilocular ovarian cyst in a healthy woman, he knows that the risk of death, after opening her abdomen and removing the growth, is very slight. He also feels sure that the cyst cannot cure itself, and must get larger, and involve complications which increase the hazards of ovariotomy to an indefinite extent. Such are Dr. Bantock's arguments in favour of early ovariotomy; and they appear to be very sound, both scientifically and practically. If ovariotomy were done, then "'t were well it were done quickly"—especially as, contrary to the crime of Macbeth, it can, as the author of this work has proved, trammel up the consequence and catch, with its surcease, success.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

SCHERING'S CHINOLINE.

We have received from Messrs. Zimmerman (21, Mincing Lane, E.C.) some further specimens of Schering's chinoline, the new artificial quinine. This specimen of chinoline is a great improvement on the former ones which have been hitherto submitted to us. The obnoxious odour has been, so far as possible, removed; and, although the taste of the chinoline can hardly be said to be altogether free from disagreeable character, we have found patients—both children and adults—take it without difficulty. The taste may be to some extent covered by the addition of a little spirits of chloroform and syrup of orange, and also it is a good deal covered by using milk as a vehicle. If Messrs. Schering and Son continue to issue chinoline equal to this last sample, we can see no reason why it should not come into general use; and the future which lies before this form of artificial quinine substitute is brilliant indeed. There can be no question of the importance of this last chemical addition to the *Pharmacopœia;* and the importance of making quinine from a tarry product is as obvious in collateral directions as in its direct pharmaceutical value. The saving in cost to hospitals and public institutions will be very considerable, and the supply of chinoline will be practically as illimitable as its uses are extensive.

THE ZANDER MEDICO-GYMNASTIC MACHINES.

The treatment of disease by active and passive exercises alone, or in combination with other remedies, has, from the time of Hippocrates to the present day, found advocates more or less ardent among the members of the medical profession. In the early part of the present century, Ling (in Sweden) introduced his system of "movement cure", which may be considered an elaboration of pre-existing gymnastics, in which passive movements, manual frictions, etc., formed essential features. Ling's system, when employed with discretion, and kept within its legitimate bounds, has doubtless effected much good; but in England it has not met with a great deal of favour, because its pretensions have been considered to simulate very closely those of empiricism.

Dr. Zander, of Stockholm, has introduced a modification of Ling's system, which is more likely to be approved by the medical profession in this country. It consists in the application of machinery to effect the movements which were otherwise carried out manually, and Dr. Zander has evinced considerable mechanical ingenuity in the construction of the apparatus which he employs.

In Sweden, Zander's medico-gymnastics are thoroughly appreciated by all classes of society, and his institution at Stockholm has been in active work for more than ten years. A medical gymnasium furnished with Dr. Zander's machines, and to be conducted upon his principles, is now opened in London, at 32, Soho Square, and we will describe some of the more important of the various apparatus, the working of which we have examined.

The greater number of the machines are, of course, intended to be applied to the muscles, although, as we shall see later on, many are employed for acting upon the viscera. One machine exercises the biceps, and another the triceps. The flexors and extensors of the forearm have also their special appliances. One particularly good apparatus was to be used for wrist drop, and would doubtless, prove a valuable aid to other treatment in this disease.

An excellent machine is one by which the flexors and extensors of the legs and thighs are worked, the body being alternately raised and depressed at different distances from the treadles. Another somewhat similar one is intended for bringing out specially the powers of the psoas and iliacus; and an apparatus is used for exercising the pronators and supinators of the arms. Another set bring into play all the respiratory muscles, in such a manner that even the scaleni and small muscles of the neck, and the platysma, can be felt distinctly contracting under their use. It is said that this set affords a valuable agent in phthisis, when, of course, combined with other modes of treatment.

Smaller machines, some worked by the patient, and others by motive power from a gas-engine, rotate the feet or hands, extending and flexing them, and bringing all or nearly all the muscles of the part into play. Another more formidable machine, shaped like a horse, upon which the patient sits astride, has a forward and backward as well as a bilateral motion, which requires a firm grip by the thighs of the patient in order to prevent his being thrown from his seat. The strength of this machine can be varied at will. We should imagine it would be of infinite service to cavalry officers if produced with a more varied form of movement, in the same style as the "mechanical horse," which was exhibited in London some years ago. This same machine acts most powerfully upon the abdominal muscles, and also upon the liver and other abdominal viscera, and would doubtless be a valuable adjunct in the treatment of chronic constipation.

Several machines are used for the various forms of spinal curvature, acting for the most part by drawing the trunk to the side required; but we rather doubt the efficiency of this plan of treatment as at present applied. Another different arrangement is planned for treating inflammation of the spinal cord. In this the patient lies on a comfortable velvet couch, and two rollers pass backwards and forwards on each side of the spine, the object being one of counter-irritation, to draw the blood laterally from the affected cord to the muscles; we think this a very questionable theory, and one not likely to be generally adopted in this country. There is also a couch upon which the patient lies in a prone position. It is divided transversely from side to side into two parts. The patient rests his arms upon the front part, and the back half is raised, elevating the centre of the body below the stomach. It is believed that in this manner the blood is drawn from the anus down to the front of the body, and that by such means hæmorrhoids, etc., are benefited.

Some of the apparatus for rubbing are very complete. The rubbers can be applied to the arms or legs, and, by a motion of a handle, can be made to attack the limb in any part of its length. We believe that these are really the most valuable of all; and their movement is so natural that, if the patient shut his eyes, he can almost imagine he is being shampooed by an experienced attendant at a Turkish bath. They will doubtless become of value in the treatment of cases of chronic rheumatism.

Some of the machines are for rapping or gently knocking different parts of the body. They certainly produce a decided effect in a very short time. One is for the liver, another for the colon, causing an immediate desire to defæcate. A third attacks the bladder, making the patient at once desire to micturate. These are intended for dyspepsia, constipation, and atony of the bladder. Other machines are intended for shaking the head and spine; another for rubbing the forehead with an India-rubber ball, in cases of neuralgia; another is to be applied to the larynx, to which it imparts gentle oscillation, intended for atony of the laryngeal muscles and vocal cords.

There are also machines for gently striking the patient on the back, arm, or any part of the body, producing a somewhat similar sensation to that of the rubbing machines. There are also revolving wheels, covered with flannel or leather. By applying the hands or feet to them, an agreeable sensation of warmth is produced, which is intended to rectify feebleness or other irregularities of the general circulation.

This gymnasium is especially intended for invalids—for those who, either from extreme debility or from heart-disease, are unable to bear the fatigue of ordinary exercise. Many of the exercises for which the machines are constructed can be effected by the more simple methods employed at ordinary gymnasiums; but the advantages claimed for the elaborately constructed apparatus of the medico-gymnasium are, that separate sets of muscles can be exercised by them, with a minimum of exertion to other parts of the body; and that the degree of force used by the patient can be regulated with exactitude. The apparatus for effecting passive movements have no counterpart in other gymnasia in this country; and we anticipate some very good results from the employment of these machines, if they be used in suitable cases only, and with discretion.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1882.

SUBSCRIPTIONS to the Association for 1882 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, MARCH 4TH, 1882.

INFECTIVE FORMS OF NEPHRITIS.

DR. DREYFUS-BRISSAC, in the *Gazette Hebdomadaire* of Janunry 13th, 1882, analyses a memoir by Professor Bouchard on infective nephritis, which was communicated to the International Congress held here last year, and is reproduced in full in the *Revue de Médecine*, 1881, p. 671. This work, of which the conclusions are based on fifty clinical observations, may be taken as the most distinct application hitherto attempted of the doctrine of parasitism to nosology. That infectious diseases have a reflex influence on the kidneys, is a fact which has long been recognised. No one ignores the production, in the course of these diseases, of albuminuria, generally transitory, but sometimes lasting, which may even be accompanied by uræmic phenomena, and which must often be referred to inflammatory or degenerative changes of the kidneys. But the pathogenesis of these various functional or organic disturbances has remained obscure in many cases. The only hypothesis which has been put forward is the very plausible one that attributes the albuminuria to the dyscrasia engendered by the disease as a whole. In this manner should be comprehended the genesis of so-called febrile forms of albuminuria which are frequently observed in the course of general diseases. But, in proportion as contemporary researches have demonstrated the considerable pathogenetic part played by the inferior organisms, it has become a question whether, concurrently with the principal foci of germination of microphytes, secondary foci might not establish themselves, and the complications of infectious diseases might not be considered as the result of the accumulation of microphytes in various regions of the body. If, for instance, the bacteria of typhoid fever migrate from the intestine towards the kidneys, and there find a favourable soil for development, infective nephritis, in the true sense of the word, will be set up.

Microscopical observations and experimentation, in the hands of numerous investigators, such as Birsch-Hirschfeld, Grawitz, and Cohnheim, have furnished proof that, in various infective processes, microphytes may, on the one hand, accumulate in the vascular system of the kidney, and, on the other hand, become eliminated by the urine. It is especially the extensive researches of Klebs and Letzerich (*Arch. für Exper. Path.*, Band viii, ix, xii, xiii) which have brought this fact into full prominence. In the same order of ideas, may be noted Kannenberg's article on albuminuria in typhoid fever, published in the *Gazette Hebdomadaire* for 1881. No one, however, besides Kannenberg, has endeavoured to construct from these somewhat scattered data, devoid of all clinical indications, the pathological history of infective nephritis. M. Bouchard has been the first to show that it may be recognised during life, and that it furnishes valuable information of the prognosis of the diseases whence it originates. Although M. Bouchard has noted processes of this kind in a large number of infectious diseases, such as measles, erysipelas, puerperal fever, typhoid fever, and tuberculosis, it is principally in the specially infective pyrexia, typhoid fever, that he has studied them; and it is typhoid nephritis which he has especially described. In his article above mentioned, M. Bouchard attaches great importance to certain physical characteristics of the albumen of the urine. When albuminous urine is treated with picric acid, the liquid sometimes remains uniformly turbid or opalescent. "Sometimes, on the contrary, the albumen thus precipitated contracts in a single mass or in their particles at the same time as the liquid clears itself. Whilst the first variety of albuminuria—that of the known retractile albumen—belongs to the dyscrasic conditions, retractile albumen shows the existence of nephritis; and experience shows that typhoid nephritis is an infectious nephritis; for, so long as the albuminuria lasts, the urine contains bacteria identical with those found in the blood or in various pathological fluids, and with those which are met with in the original foci of infection amongst Peyer's patches.

The other urinary changes are the same as those of all forms of acute nephritis: the presence of casts in varying quantity, and sometimes an accumulation of blood-corpuscles more or less malformed, and hæmaturia in variable amount. In some cases the renal complication shows itself by other symptoms, such as lumbar pain, œdema, or even eclamptic symptoms, as in Renau's case (*Arch. de Phys.*, 1881); sometimes this train of symptoms is sufficiently intense to justify the denomination of "renal dothienteneria" (Gubler), but in most cases nothing of the kind occurs. It is by the examination of the urine alone that infectious nephritis is discovered. This investigation should never be neglected, for the facts brought forward by M. Bouchard, prove that infectious nephritis has a considerable prognostic value in typhoid fever. Out of his twenty-one typhoid patients in whom the kidneys were thus affected nine died. M. Dreyfus-Brissac found that, in three similar cases, two ended fatally; and in the patient who recovered, the albuminuria became chronic. According to M. Bouchard, the nephritis generally shows itself during the infection period of the disease, as it is discovered in a very short period of time—from three days to a week.

M. Bouchard describes the pathological characteristics of this nephritis as follows. Examination with the naked eye shows increase in the size and weight of the kidneys. The cortical substance is either greyish or congested, while the medullary substance is perfect. The microscope shows the integrity of Henle's tubes, catarrhal change in the collecting tubes, and especially in the tubuli contorti, in which the epithelial cells are swollen and adhere, showing a very marked granular degeneration.

From the pathogenetic point of view, a very important fact is noticed, that, in the examination of the kidney in the fresh condition, it is extremely difficult to find the presence of very numerous bacteria. In sections prepared after hardening, and made transparent by carbonate of soda, the bacteria appear in a very manifest way in the interstitial tissue and in the lumen of the tubules. These data are conformable with those resulting from Letzerich's researches. Thus infectious nephritis does not only show itself by retractile albumen; it is not only in the urine, it is also in the kidneys, that the offending matter is found, under the form, not of common micrococci, which might be attributed to a process of decomposition or putrefaction, but of specific bacillary bacteria.

It seems established that in infectious diseases, besides the generally recognised functional disorders, a renal complication of a much more serious character, the sole cause of which is the presence of the characteristic bacteria of the disease, may be produced. It must not here be imagined that this is a question of exceptional facts or of pure pathological curiosity. Taking only typhoid fever, it may be said that the infectious agent of that disorder has a preference for the kidneys; for, out of sixty-five typhoid patients in his hospital practice, M. Bouchard discovered infectious nephritis in twenty-one cases. The micro-organisms of other infectious diseases doubtless have not an equal affinity for the kidneys; if renal complication be exceptional with certain of them, it is, on the contrary, more frequently observed than in typhoid fever in the course of other febrile diseases, such as scarlatina and diphtheria. It is likewise to be remarked that no other morbid process is known in which the renal complication is the first in order, or may be considered as forming part of the ordinary train of symptoms of the disease; in other terms, it is always in the secondary

condition that infectious foci seem to be produced in the kidneys; whilst in other organs, such as the lymphatic apparatus of the intestine, the lungs, and the tonsils, are often the seat of primary contamination.

M. Bouchard inquires into the probable termination of an infectious nephritis. It may be questioned if the cure of infectious nephritis is definite, and if certain forms may not be considered as the origin of obscure types of chronic nephrites. Infectious nephritis may, in fact, pass to the chronic condition, as proved by the four cases quoted by M. Bouchard.

To sum up: from the study of M. Bouchard's work two facts of great importance, from prophylactic and therapeutic points of view, may be gathered with regard to infectious nephritis. We must henceforward reckon the urine as a means of contamination, and not recognise the fæces as the only means of diffusion and propagation of certain morbid germs—a conclusion which is of great importance from a hygienic point of view. On the other hand, as soon as it is established that true bacterial discharges may be made by the urine, the old aphorism —*quo natura vergit, eo tentandum*—finds a fruitful application in therapeutics. The indication imposes upon us the necessity of favouring by all proper means the crisis by abundant discharge of urine. We should endeavour to eliminate the poison by all the methods of excretion; and the evacuant method, always in favour with the lay public by a sort of instinct throughout all revolutions in medicine, seems to have found new support in the contemporary conception of infectious diseases.

PAY-HOSPITALS.

TEN years ago, such a thing as a pay-hospital was unknown in this country; and yet, within the last few weeks, the first annual report of three such institutions, all standing within the metropolitan area, have been presented to the public. As a nation, we may be said to be now feeling our way in respect to medical institutions at which a regular payment is made, and great care is necessary to avoid abuses. Mr. Henry Burdett has shown, in his excellent work on the subject, how far behind England is in this matter, when compared with some European countries and with America. At present, the term "pay-hospital" must be allowed a very wide significance. It is taken to include institutions of very various kinds. Perhaps, by-and-bye, when experience has been gained, and when the managers of these different institutions have had opportunities of conferring with one another, they may be brought into something like an uniform system; but at present great diversity exists among them. The three institutions to which we have alluded, though they all aim at supplying the same want and remedying the same defect, yet differ from one another in several important particulars.

The first, Fitzroy House—the institution which has been opened by the Home Hospital Association—is a medical boarding-house rather than a hospital, in the ordinary sense of the term. The charges range from £3 3s. to £6 6s. a week. If a medical man wish a suitable lodging to which he can refer a patient, and follow the patient, continuing his treatment as if in lodgings, he will find that Fitzroy House supplies all that he could desire. During its first year, the total number of applicants for admission was 446. Of these, 114 were received. Thus it is evident that Fitzroy House meets the wants of a limited class of the community. Many are seeking to avail themselves of the advantages which it offers; and its success is stated to be certain, since a regular supply of suitable applicants is the life-blood of such an enterprise.

At St. Thomas's Home, there is a resident medical superintendent; so that, in this respect, it approaches more nearly to the ordinary arrangements of a hospital. Here the usual charge is 8s. a day. During the year, the number of patients steadily increased. The daily average was 22. The total number of available beds is 41. The financial result was a profit of more than £400 on the working expenses; and it is obvious that, in future years, a much larger profit may be expected. In comparing this experiment with others of a somewhat similar nature, it must be remembered that, at St. Thomas's Home, no expense is incurred for rent.

At Bolingbroke Hospital, Wandsworth Common, an effort is being made to develope an institution which is more truly a pay-hospital. There is a resident medical officer, and both an in-patient and an out-patient department. The out-patient department is conducted as a provident dispensary. The in-patient department is prepared to receive all such cases as are usually admitted to the general hospitals (including cases of accident and of emergency), provided only that the friends of the patient are prepared to guarantee what may be considered a reasonable payment in each case. This payment, we believe, ranges from 10s. to £3 per week, according to the social position of the applicant and the accommodation required. The out-patient department, which has been in existence since 1879, is in a flourishing condition; and during the year which has elapsed since Bolingbroke Hospital was opened, thirty-four patients have been received into its wards.

Such institutions as these should be closely watched, as they nearly affect medical as well as public interests; and they seem likely to be imitated in various parts of the country. Fitzroy House is already about to increase the accommodation which it offers; the success of St. Thomas's Home seems to be assured; while the Bolingbroke Hospital promises when known to become self-supporting; for the experience of the first year proves that, if its wards be reasonably filled, and the weekly average payments be maintained, the working expenses will be fully met.

MEDICAL INFLUENCE IN HOSPITAL GOVERNMENT.

AT the recent annual meeting of the Greenock Infirmary, an important discussion arose with regard to the share which the medical officers should have in the management of the infirmary. It would appear that, prior to the year 1856, the medical men gave their services gratuitously, and were members of the board of directors. But, in that year, a change was made. An honorarium was assigned to the staff, and they vacated their seats at the board; but it was understood that they should be consulted on all important matters affecting the management of the infirmary. Such has been the arrangement ever since; and the medical men have taken no direct part in managing the affairs of the institution. As may easily be supposed, differences have, from time to time, arisen between the board and the staff. The medical men have felt themselves slighted; and now it is proposed to admit them, in one way or another, to a share in the government of the infirmary.

The case of the medical men was well and forcibly stated by Sheriff Smith, who had taken the trouble to make himself acquainted with the usage at several of the leading hospitals in Scotland. After citing these examples, he said:

He did not think that it was unreasonable to ask what was the peculiar ground upon which it was thought wise to make Greenock different in this matter from every other place. Was it reasonable that a whole profession should be practically tabooed? He should consider it certainly a strange thing if none of the lawyers, or none of the clergymen, or none of the ship-builders of Greenock, were considered eligible as suitable persons for the directorate in this institution. He should say that, if they excluded such classes as these, they would certainly weaken the infirmary by narrowing the field of their choice of eligible men. But he was quite certain that an institution of this kind, for the practice of the healing art, might get on fairly well without any lawyers, or divines, or ship-builders upon the staff; but it was another thing altogether when they came to exclude medical men, who, in his opinion, were the men who were presumably the best fitted of all citizens to administer the affairs of an institution of this kind. They were excluding from the management those gentlemen who had given their lives to the study of diseases and of the best means of healing disease; and that seemed to him to be very like excluding the High Priest from the Temple. It seemed to involve, unless a good cause could be shown to the contrary, a *primâ facie* absurdity. They had heard, in these days, a great deal of the doctrine of natural selection and the survival of the fittest; but it seemed to him that the policy of

excluding medical men from the staff of this institution was a policy of unnatural exclusion and extermination of the fittest.

The question thus raised by Sheriff Smith is not likely to be allowed to drop, until some other system has been introduced into the Greenock Infirmary.

The subject is of importance to many similar institutions. In the abstract, it will scarcely be denied that medical men should have a large share in the management of hospitals; and yet, as a matter of fact, such is seldom the case. In some hospitals, they are rigorously excluded from the governing body, and in few have they that share in the administration to which their special knowledge and their services to the hospital entitle them. Events which have recently occurred in the metropolis, and which must be fresh in the minds of our readers, show how important it is that the medical staff should be able to make its voice heard in an authoritative manner. We hope that the movement at Greenock may be a step towards this desirable result.

THE Duke of Connaught will preside at the anniversary festival of the Hospital for Sick Children on the 8th of March.

THE celebration of the three hundredth anniversary of the University of Würzburg will take place from the 1st to the 3rd of August.

PRINCE LEOPOLD will preside at a festival dinner on March 14th in aid of the funds of the National Hospital for the Paralysed and Epileptic.

TWO distinguished German anatomists, Professor Henle in Göttingen, and Professor Bischoff in Munich, are about to celebrate their jubilees, having held their degree as doctor for fifty years.

AMONGST the specimens exhibited at the Obstetrical Society on Wednesday last was a tubal cyst containing a small fœtus, with the placenta, removed on Tuesday from a young woman, by Mr. J. Knowsley Thornton, at the Samaritan Free Hospital. The patient was doing well on Thursday morning.

THERE are many candidates for the seat which the death of M. Bouillaud leaves vacant in the medical section of the Académie des Sciences, comprising MM. Paul Bert, Charcot, Davaine, Sappey, and Brown-Séquard. Owing to the absence of M. Marey, the election is delayed.

M. TISSART, Dispenser at the Hospital of the Val-de-Grâce, has made a communication to the Medical Section of the Academy of Sciences, alleging that a series of experiments demonstrate that the blue, green, and yellow on the linen of dressings is owing to the action of a microphyte which acts on nitrogenous substances.

APROPOS of the copyright question, we read, in the *Athenæum* of the 25th ultimo, that two separate editions of Dr. Matthews Duncan's lectures have appeared in the United States at a price of ten cents; the cost of the lectures as published in England being about as many shillings.

APPLICATION has been made in the Wimbledon poisoning case to postpone the trial of Dr. Lamson until the next session, on the ground that Dr. Tidy, who was engaged in making the necessary analyses of the contents of the stomach of the deceased, had not had time to complete the examination. Mr. Justice Hawkins consented to the trial being postponed until Monday next.

AT the monthly meeting of the Committee of the British Medical Benevolent Fund, on Tuesday, February 28th, there were seventeen applications for aid. Relief was granted in every case, the amount voted being £225. Among the applicants were a medical man aged 78, two widows over the age of 70, and a lady recently widowed under most distressing circumstances.

THE recently made census in Paris shows an increase in five years of 237,104 inhabitants. In 1876, the population was 1,988,806; it is now 2,225,902. The annual increase has been at the rate of 47,420 *per annum*, or of about 124 *per diem*.

M. DE QUATREFAGES affirms that M. de Lacerda, a Brazilian, has an antidote against the bite of serpents. Several members of the Medical Section of the Académie des Sciences propose that the discovery should be communicated to the Minister of Agriculture. As a preliminary step, a commission of inquiry is named—MM. Pasteur, Frémy, Quatrefages, Vulpian, Gosselin, Bouley. The remedy is hypodermic injections of permanganate of potash on the seat of the bite, and wherever there is œdema.

THE Municipal Council of Paris has revived the question opened by M. Bourneville last year, as to cremating the remains of bodies used for anatomical purposes at Clamart, and the practical school of anatomy. This is a question of some importance, as, during the year 1870, 3,675 bodies were sent to these two establishments. The then Minister for Home Affairs replied to the appeal made to him, that the existing state of the law did not allow him to authorise cremation. The new Prefect of the Seine will, it is stated, make a fresh representation to the minister on the subject.

M. BROWN-SÉQUARD, Professor at the Collège de France, has communicated a paper to the Académie des Sciences, entitled "Arrêt des Échanges entre le Sang et les Tissus." M. Brown-Séquard believes that a nervo-dynamic influence is the cause of this arrest; secretions are suspended, animal heat is lessened, serious and rapid modifications take place in the respiratory and circulatory apparatuses. The principal causes are: lesions of the central nervous system, either by direct influence or by reflex action; crises in different affections, such as angina pectoris, peritonitis, injuries which influence nerves and ganglia; submersion; strangulation; and puncture of the diaphragm. The effects are various. 1. Venous blood may become red; 2. The quantity of carbonic acid present in the blood is lessened; 3. The final convulsions which precede death in ordinary cases of asphyxia are not present; 4. A general frigidity appears during life, and increases after death; 5. Contraction of the blood-vessels is constant; 6. The physiological vitality of the spinal cord persists some time after death; rigidity supervenes slowly, and lasts a long time.

HOSPITAL AMBULANCE SERVICE.

WE have received a communication from Dr. Allfrey of St. Mary Cray, with reference to his letter in the JOURNAL of February 11th, and our remarks thereon in the same number. He assures us that he made no claim to be considered the originator of any system of ambulance service. His only object was, to advise that the whole of the metropolitan police district should be placed in electric communication for ambulance purposes; for he feared that, unless attention were called to the subject, the interests of the outer portions of the district would be overlooked in the arrangements now under consideration. Dr. Allfrey's explanation makes it clear that the question of priority in regard to devising an ambulance system, or to placing the hospitals in electric or telephonic communication, is one which does not in any way concern him. The suggestion which he does make is one calculated to extend the utility of already existing schemes; and the thanks of all who are interested in the provision of an ambulance service for London are due to him for having made so useful a proposal.

POISONING BY COAL-GAS.

A RARE instance of fatal poisoning from the inhalation of coal-gas has just occurred in Birmingham. A servant girl, aged 17, retired to bed in her usual health on the night of Saturday, the 18th ult. The following morning, she could not be roused. Mr. Hunt, surgeon, was summoned; and he found the girl lying insensible, and presenting the usual signs of poisoning by coal-gas—namely, besides coma, dilated pupils, flushed face, vomiting, and frequent pulse. In the room, about

twelve feet square, there was an overpowering smell of gas, which was found to be issuing freely from a hole in a pipe in the wall. The window and door of the room had been closed all the night, and a small chimney was tightly stopped. Dr. Sawyer saw the patient with Mr. Hunt. In spite of energetic treatment, by free exposure to fresh air, affusion of cold water, and diffusible stimulants, the girl never rallied.

THE DUCHESS OF CONNAUGHT.

THE condition which has delayed the convalescence of H.R.H. the Duchess of Connaught was obstruction of the veins of the lower limb, giving rise to the well known œdematous swelling known as "white leg". This condition was traceable, as has been previously stated, to a form of blood-poisoning arising from the depressing influence of sewer-gas. Since the removal of Her Royal Highness to Windsor, her condition, which had at one time given rise to much anxiety on the part of Dr. Playfair, has yielded to treatment in the most satisfactory manner. Her Royal Highness is now able to take short daily walks, and is in process of recovering her usual strength. She will shortly leave Windsor for Biarritz, where, no doubt, the warm southern sun and the sea-breezes will complete the convalescence now happily progressing.

A SUCCESSFUL CÆSAREAN SECTION.

THE patient, suffering from epithelioma of the cervix uteri complicating pregnancy, whose case Dr. Edis brought under the notice of the Fellows of the Obstetrical Society at the December meeting, was taken in labour at term on Saturday evening last, in the Middlesex Hospital. On Sunday morning, Mr. Henry Morris performed Cæsarean section. The operation was performed in the interests of both mother and child. We are glad to learn that, on Wednesday, both mother and child were progressing favourably.

ST. BARTHOLOMEW'S HOSPITAL.

ON Thursday, March 2nd, Mr. Morrant Baker was duly elected surgeon to the hospital. The appointment of assistant-surgeon was conferred on Mr. W. H. Cripps, F.R.C.S., Surgeon to the Great Northern Hospital. Mr. Cripps, who was unopposed in his candidature, has held the appointment of assistant demonstrator of anatomy, and is still surgical registrar to St. Bartholomew's Hospital. He won the Jacksonian Prize of the Royal College of Surgeons in 1876 for an essay on Cancer of the Rectum—a subject which he has investigated very minutely since that date, the result of his most recent researches being published as an elaborate and well-illustrated special communication to the new volume of the *Transactions of the Pathological Society of London*. The vacancy for a fifth assistant-surgeon will, as we have before announced, be most vigorously contested. The election will take place on March 23rd.

THE SELECT COMMITTEE ON THE CONTAGIOUS DISEASES ACTS.

THE Select Committee on the Contagious Diseases Acts met on Thursday to elect a chairman, in place of the late lamented Mr. Massey, who for many years presided over their investigation with strict impartiality and courtesy. He had served on all the numerous committees appointed to consider this question, as well as on the Royal Commission, and he had acquired a thorough knowledge of the subject in all its bearings. The committee will meet on Monday next, the 6th instant, to resume business.

GENERAL GARFIELD'S SURGEONS.

THE Committee of Congress which is auditing the expenses connected with General Garfield's illness, has determined to allow the physicians and nurses the following amounts: Dr. Bliss, 25,000 dollars; Dr. Agnew, 15,000 dollars; Dr. Hamilton, 15,000 dollars; Dr. Reyburn, 10,000 dollars; Dr. Boynton, 10,000 dollars; Mrs. Edson, 5,000 dollars. Mr. Crump, steward of the White House, is allowed 3,000 dollars; and the other persons employed at the White House are to receive two months' extra pay. Surgeon-General Barnes is to be promoted to be Major-General on the retired list. Surgeon Woodward is to be promoted to the rank of Lieutenant-Colonel. The Committee also grant Mrs. Garfield the remainder of the President's salary for the current year.

CAMBRIDGE LOCAL EXAMINATIONS.

THE grace for holding one of these examinations in September or the end of August has passed the Senate of the University; but it is not yet determined in which towns the examination will be held; London, Liverpool, and a few other large towns, will probably be selected—Cambridge, perhaps, being one of them. The new examination, as stated in our last number, is intended to accommodate students who desire to pass, in September, a preliminary examination recognised by the Medical Council; and also students who desire, before entering at the University of Cambridge, to obtain the certificates which exempt them from the necessity of going in for the "Previous Examination" of the University. Students, especially medical students, are recommended to take this course; because those who do so are enabled, immediately on commencing residence in October, to commence attendance on the professors' lectures, and to pass their medical examinations at an earlier period than they could otherwise do.

QUARANTINE AND COMMERCE.

THAT British shipowners have long had great cause to complain of the vexatious way in which quarantine regulations are introduced and acted upon, has more than once been pointed out by us, and especially the absurdity which imposes quarantine upon vessels which have been long at sea from London, notwithstanding their freedom from infection, whilst it allows coasting vessels from port to port in native bottoms to pass free. A good deal of these irregularities of the quarantine regulations may be due to medical superstition, which, on the subject of quarantine, still pervades the somewhat antiquated continental schools of hygiene; and somewhat also to interested influences. We are not surprised, therefore, to read that Earl Granville has received at the Foreign Office a large and influential deputation, representing the principal steamship companies trading to and from the East, to lay before him the grievances under which British shipping suffered by reason of quarantine orders issued by the sanitary authority in Port Said, which caused a delay of from five to fifteen days to each vessel arriving from India, whereby much inconvenience was caused to passengers, and loss to owners on freights. The deputation prayed the Foreign Office to bring pressure to bear upon the Egyptian Government to get the obnoxious orders removed. They made the further important statement, that there had not been known a single ship coming from India that had any infectious disease on board; and therefore the quarantine orders were only imposed for private gain and to vex and annoy British trade. Earl Granville stated, in reply, that he did not think he could give the deputation any satisfactory assurances as to what the Foreign Office would be able to accomplish; but whatever he did was strengthened by what had fallen from them on that occasion; and no effort on his part and that of his department should be wanting to remove a state of things which, he admitted, was intolerable.

ADULTERATION OF WINE.

A WINE-MERCHANT named Herbster, of Salzburg, was recently charged before the police-court at Freiburg with adulterating wine. It appeared that he had purchased 3,000 hectolitres of wine, which, before again selling it, he had increased to 52,000 hectolitres, by means of potato-sugar, water, alcohol, wine-dregs, and salt in large quantity. This mixture he sold at a price from three to five times the real value. He was condemned to two months' imprisonment and a fine of 500 marks (£25).

THE GENERAL LYING-IN HOSPITAL.

THE number of women delivered in the General Lying-in Hospital in 1881 was one hundred and seventy-two: the maternal mortality was *nil*. There were nine still-born children, and six died in the hospital

after birth. Of the one hundred and seventy-two women delivered in the hospital, eight were instrumental cases. There was one case of puerperal mania, which recovered before leaving the hospital. There were six hundred and ten women delivered outside the hospital without a death. It is not stated, however, whether any of these were delivered with instruments or not. Antiseptic treatment is adopted in the hospital in all cases.

THE MEDICAL STATISTICS OF GERMANY.

In the year 1881, there were in the German Empire, according to Dr. Börner's *Reichs-Medicinal Kalendar*, 17,591 physicians, and 4,457 apothecaries. Of hospitals, there existed 2,576, with 127,062 beds. In the whole German Empire, there were 3.26 physicians, on an average, in every 30 square miles of country; and to every 10,000 inhabitants, there was an average of 3.89 physicians. In the 20 medical faculties of Germany, 198 ordinary and 136 extraordinary professors, and 186 *privat-docents*, were employed in teaching. There were 56 learned medical societies in all Germany, with 5,663 associates; 18 sanitary associations, with 6,492 members; 12 associations for the protection of medical rights. These associations published their proceedings in 54 different publications. The number of medical and sanitary periodicals amounted in the year 1881 to 83.

ATAXY AND SEWING MACHINES.

M. Octave Guelliot publishes, in the *Union Médicale*, an interesting paper on two cases of locomotor ataxy in women employed in working at sewing machines. In women predisposed to hysteria, working at the sewing machine seems to be, in certain cases, the occasional cause of the appearance of locomotor ataxy. The symptoms commence in the lower limbs, and follow an ascending progression. Lightning pains appear in the form of shooting pains, and traverse the limbs from below upwards. Improvement occurs when the patient rests, and may last a long time. Working at the machine by means of a treadle probably acts chiefly by the concussion, which is diffused throughout the spinal cord. Therefore, the continuous movement of the treadle is dangerous to the workwomen; and endeavours should be made to replace, in sewing machines, the foot-movement by some other mechanical motor power.

MEDICAL DEGREES IN THE UNITED STATES.

At the recent annual meeting of the Medical Society of the State of New York, a resolution was unanimously adopted, recommending that degrees of Doctor in Medicine should be conferred by the medical colleges, only after examination and recommendation of the candidate by an independent board of examiners; and that such board should be common to all the colleges.

DIVORCE AND MENTAL ALIENATION.

MM. Blanche, Charcot, and Legrand du Saulle have been heard by the commission on divorce now sitting in Paris, for the purpose of recording their opinion on the question whether insanity should rank amongst the reasons for divorce. A writer in the *Gazette Hebdomadaire* for February 17th, who signs himself "A. D.", states that they auswered the question in the negative sense, with some reservations; which, however, he does not specify. The writer approves of this conclusion, and goes on to state his reasons as follows. The most general consideration to be brought into relief is, that insanity is a disease; and that no disease, even impotence, is a reason for dissolution of marriage. The lunatic is a man suffering in his moral and intellectual health, as others suffer in their physical health. He deserves the same or even greater care; only there may be need to take precautions against the effects of his mental loss of balance; for which, however, there is no need either of divorce or separation. In the second place, chronic insanity, although often incurable, is not necessarily so; and it would be difficult to imagine a more cruel and unjust situation than for a married person to return to the domestic hearth after an unexpected recovery, and to find the other party to the contract in the bonds of a fresh marriage. The form of dementia known in France as *folie circulaire* frequently yields these surprises; and we are told that M. Blanche cited a remarkable example before the commission, in which the insanity had lasted sixteen years. General paralysis, it is true, is incurable; but it will not be denied that it may show such long and complete remissions that the most experienced practitioners may be inclined to consider them definitive; and that, in any case, the patient must be restored to his or her family. As to those cases in which the mischief makes almost continuous progress, and distinctly authorises a fatal prognosis, M. Charcot is stated to have laid down the dictum that the only conduct to be prescribed to families is to redouble every possible attention, and to have patience. As to epilepsy, nothing is more common, especially in young persons, than to meet with it limited to one or two attacks, never to show itself again. It is these cases specially which Foville thought were connected with the eruption of the large molars or wisdom teeth. There are epilepsies from worms; and the author cites the case of a librarian in whom the attacks entirely disappeared during the twelve or fifteen years he lived after evacuating a tænia. The writer of the article, whence we take these considerations on an interesting and important social question, points out that it is by no means uncommon to meet with persons sufficiently wanting in the moral sense to speculate by marriage on the diseased condition of their fellow-creatures. Those affections which are slow in presenting their true character, but are not unfrequently recognisable in their early stages, as phthisis and insanity, are particularly adapted to this kind of calculation. The prospect of divorce would be yet another encouragement, and so much the more tempting, so far as regards dementia, that it would be much more easy to accomplish an act of spoliation in the case of a person of weak intellect after marriage.

VITAL STATISTICS OF NEW YORK.

The official vital statistics of New York for the year just closed show a surprising and alarming series of figures, which indicate the necessity for very energetic action by the practical sanitarians of that great city. In a population of 1,242,543, there were 38,000 deaths, showing a death-rate of 31.07 per 1,000; the mortality of our ancient, overbuilt, and partly worn-out London showing a mortality of less than 20 per 1,000 in a less prosperous population of four millions. The mortality is, moreover, largely due to the increase of filth-diseases—diphtheria, which springs from bad drains; diarrhœa and typhoid fever, which are largely due to pollution of drinking-water. The drinking-water and the drainage of New York appear both to be poisonous and polluted, beyond even the degree to which they are so in the older capitals. This, and other such defects of sanitation, it is surely not beyond the active intelligence and practical energy of our Anglo-Saxon cousins beyond the sea to recognise and to remedy. It is now the boast o the Anglo-Saxon race to have recognised, to have enforced, and to have acted on, the doctrine that purity of the air, water, and soil are the first elements of health, and are the dues of all in the most crowded community. With adequate effort, New York might be made the healthiest, as it is now one of the unhealthiest, of great cities. It once boasted of a pure water-supply, and it has now to lament its preventable contamination. Its situation is favourable to good drainage; and, with good house-sanitation, the sea-breezes which sweep freely over it should ensure purity of air.

PERIPHERAL TROPHIC INFLUENCES ON NERVE-CENTRES.

We are familiar with atrophic degeneration of tissues, as the result of a morbid or deficient activity of nervous centres. We recognise, for instance, as atrophies of nervous origin, degeneration of the spinal cord and of the nerves themselves, amyotrophy, acute decubitus, etc., the process being in all these cases centrifugal in relation to ganglionic matter. Rumpf's experiments, recorded in the number of Pflüger's *Archiv*, afford an important addition to our knowledge; and forcibly recall to mind that a nerve-fibre, with its terminal cells, peripheral and central, is an "individuum", with regard to its nutrition as well as to its function. His observations relate to the trophic action exerted upon

centres from the periphery. He finds in frogs that the spinal cord or brain, after severance of all nervous connection with the tissues, is absorbed after a preliminary stage of swelling; and, by exclusion, he determined that the immediate antecedent of this event is interruption of the motor channels. The absorption proceeds with great rapidity; isolated portions of brain are absorbed in twenty-four hours, and the spinal cord disappears in five to eight days, leaving only connective tissue in its place. If the sensory roots be alone divided, the motor roots being left intact, removal by absorption does not ensue, or is much delayed, which indicates the existence of a centripetal influence maintaining the integrity of the cord, passing mainly by motor channels. Nor is absorption notable if only some of the motor roots be divided, leaving others intact; which goes to prove that the latter act vicariously in the preservation—or, in other words, that the trophic influence spreads throughout the cord. Considering it as a continuous action of periphery upon centre, the converse of tonus or the continuous action of centre upon periphery, Rumpf denotes the supposed action by the term "*retrotonus*". These observations, if well established, are data for points of doctrine which, if they are not absolutely novel, have been hitherto at the least nebulous. Retrograde stimulation of nutrition has been invoked, when, by electrical stimulation of muscles, it has been sought to act beneficially upon damaged centres. Rumpf's experiments to some extent support the theory, that centres may be influenced through motor as well as sensory channels, and make it credible that centres, which are incapable of motor expression, should nevertheless be affected by the retrograde stimulus of artificial motion at the periphery. But, in the present state of the subject, it must be said that the facts, even if certain for the frog, render the existence of an analogous influence on higher animals neither certain nor probable, but only less improbable. The facts, however, are a considerable addition to the ideas of physiological procedure, on which our clinical inferences are based; and we hope that the study of more differentiated nervous systems than that of the frog may lead to more definite and practical information.

SCOTLAND.

MUNIFICENT BEQUESTS.

THE Edinburgh Royal Infirmary and the Royal Maternity Hospital there have recently benefited to a large extent from the residue of the estate of the late Dr. Thomas Hunter, Deputy-General Inspector of Hospitals. It would seem that the residue of Dr. Hunter's estate was bequeathed to charitable institutions, the amount to be fixed by his executors. Accordingly, they have caused to be paid to the Royal Infirmary the sum of £13,500, and to the Maternity and Simpson Memorial Hospital £2,100. It may be remembered that there was a considerable debt on the new maternity buildings; but, the managers having devoted Dr. Hunter's bequest to the liquidation of that debt, only £200 now remains to free the institution from the incubus. The late deputy-keeper of the Signet, Mr. Hope, who was for some time law-agent, and many years a manager of the infirmary, has bequeathed to it the sum of £500.

THE INSTITUTION FOR IMBECILE CHILDREN, LARBERT.

AT the twenty-first annual meeting of the supporters of the Scottish National Institution for Imbeciles, Larbert, held in Edinburgh last week, it was reported that at present there are one hundred and twenty-three imbeciles in the institution; and, notwithstanding this, that there is accommodation for one hundred more, but not funds for their maintenance. On the resignation of Dr. Ireland last year, a layman (Mr. Skene) was appointed superintendent. Dr. Hamilton visited the institution regularly; and, in his report, stated that the death-rate was ten per thousand, and that the management of the children was excellent—each seeming to be well cared-for, contented, and happy. The superintendent's report showed that the average daily number of inmates was one hundred and twenty-one. The treasurer's report was most satisfactory, the balance in favour of the institution for the year just ended being £1611, as compared with £1276 the previous year. Dr. Alexander Wood, who spoke at the meeting, alluded favourably to the choice of a layman as superintendent.

COMBE LECTURES IN ABERDEEN.

THE seventh lecture of this course was delivered by Dr. Stirling on Saturday evening, the subject being the physiology of the blood-vessels. After describing the chief points in connection with the distribution of the arteries, capillaries, and veins, the lecturer showed some limelight views of great size, so that every member of the audience could see even the minutiæ. In speaking of the barbers who formerly practised bleeding, the lecturer mentioned that the Royal College of Surgeons of Edinburgh still pays an annual tribute of £10 to the "Society of Barbers". Experiments were shown to illustrate the pulse; first, by means of a long jet of gas, which oscillates with each beat of the radial artery; and, secondly, by means of the sphygmograph; the tracing taken by this instrument being then projected on the screen. The cause of the disappearance of the pulse in the capillaries and veins was then explained, and also illustrated, by several experiments. The effect of the nervous system on the blood-vessels was mentioned, as in blushing; in the results of division of the sympathetic nerve in the neck of a rabbit; and in blushing produced by drugs. The lecture was brought to a close with some remarks on the relation of the nervous system, and especially the vaso-motor nerves, to what is popularly termed "taking a cold". The lecturer then showed various experiments upon the arm of a lad to illustrate what ought to be done in cases of wounds of veins or arteries, in order to staunch the bleeding, so as to permit the wounded person to be taken to the nearest hospital without losing blood.

EDINBURGH MEDICAL MISSIONARY SOCIETY.

THIS Society, for which an appeal is now being extensively made to the profession, has done good work since its establishment in 1841. During the past ten years, thirty-four young men have been educated and trained under the auspices of the Society, and have obtained legal medical qualifications. Of these, twenty-seven are now in active service, in all parts of the world, as agents for the Society. Medical mission work has always had a just and strong hold upon the hearts of the profession, which it touches nearly. Its moral aims and religious uses are strengthened by the collateral consideration of the powerful humanising and civilising work of earnest minded medical men among the savage races, and in unexplored, or but little explored, parts of the world. It is, no doubt, correctly stated, also, that, by their observation of the diseases prevalent in the countries in which they reside, and of the native medicines used by the people, these medical missionaries have been able to make valuable additions to knowledge in respect to medical statistics, pathology, ethnology, botany, materia medica, and therapeutics.

THE QUARTERLY REPORT OF THE REGISTRAR-GENERAL.

The quarterly report of the Registrar-General for the last quarter of 1881, shows that in Scotland there were 17,526 deaths registered, being in the proportion of 187 to every 10,000 of the inhabitants, and very much below the average of the preceeding two years, when it was as high as 214 3 per 10,000. In the five groups of Scotch registration districts the proportions were as follows: for every 10,000 of the population, in the principal towns 218; in the large towns 206; in the small towns 191; in the mainland rural districts 148, and in the insular rural 141. In each group of districts the mortality was lower than for the last quarter of 1880. The number of deaths in October was 148.3 daily, in November 191, and in December 200 daily. In the eight principal Scotch towns the annual death-rate per 10,000 of the population was, in Perth 240; in Greenock 236; in Glasgow 234; in Leith 225; in Dundee 210; in Edinburgh 199; in Paisley 193; (in the farthest north) Aberdeen 181.

HEALTH-RETURNS OF EIGHT PRINCIPAL SCOTCH TOWNS.

DURING the month of January, there were registered in the eight principal Scotch towns the deaths of 1,136 males, and 1,220 females; the total, 2,356, was 685 under the average for the same month during the previous ten years, due allowance being made for proportionate increase of population. The respective death-rates per thousand of the population were: Leith, 18; Edinburgh, 20; Dundee, 21; Perth, 22; Aberdeen, 23; Paisley, 24; Glasgow, 25; and Greenock, 27. Forty per cent. of the deaths were of children under five years of age, and the individual percentages were: Paisley, 27; Edinburgh, 31; Perth, 32; Leith, 33; Dundee, 35; Aberdeen, 38; Greenock, 43; and Glasgow, 46. Zymotic diseases contributed 15.6 per cent. of all the deaths, but in Glasgow a much larger proportion, owing to the prevalence there of fever and diseases of childhood. Whooping-cough was most fatal, and caused 3.4 per cent. of the entire mortality; in Glasgow, however, it caused 4.7, and in Aberdeen 5.7, per cent. Of 51 deaths due to fever, 14 were registered as typhus, 36 as enteric, and 1 as simple continued, fever. Measles caused 60 deaths, and was especially fatal in Perth, where it caused 7.4 per cent, of all the deaths. Scarlet fever and diarrhœa each contributed 40 deaths, croup 30, and diphtheria 24. To apoplexy, 62 deaths were attributed; to paralysis, 61; to cardiac diseases, 156; to hydrocephalus, 62; and to premature birth debility, 70 deaths. As to the respiratory system, phthisis pulmonalis caused 241 deaths, equal to 10.2 per cent. of the whole; while inflammatory affections of the respiratory organs, other than those before mentioned, contributed 21.9 per cent. of the entire mortality. Of 93 deaths due to violent causes, 5 were of suicides. Seven persons—3 males and 4 females—were over 90 years of age, the eldest, a farmer, being 94. The births of 3,685 children, 1,834 of them males, and 1,851 females, were registered during the month. The meteorological returns for January show that the mean barometric pressure was greater by 0.339 inch, the barometric monthly range greater by 0.332 inch, the mean temperature greater by 4.9°, the mean daily range of temperature greater by 0.2°, the mean humidity less by 3, the rain-depth less by 0.97 inch, and the wind-pressure greater by 1.30 lbs. than the average for the same month during the preceding 25 years. The most noticeable features, therefore, are the high temperature and the great barometric pressure. These and the other conditions have all been favourable for good weather. The highest mean temperature, 44.0°, was at Paisley, and the lowest, 41.6°, at Dundee.

IRELAND.

DURING the past week, two additional cases of small-pox were admitted into the Lisburn Union Hospital.

EIGHTEEN deaths from small-pox were registered in Belfast during the December quarter, and nine in Waterford, but none in any other of the town districts throughout Ireland.

THE REUBEN HARVEY MEMORIAL FUND.

A MEETING of the committee of this fund has been summoned for Thursday next, the 9th inst., to consider a recommendation from the subcommittee as to the form the memorial should take. It is proposed by the subcommittee that a triennial prize should be awarded, out of the interest on the fund, for the best essay on some subject in physiology, including pathology, to be selected by the candidates themselves, and illustrated by original preparations or drawings; the prize to be open to all students of the Dublin Medical Schools, as well as to graduates and licentiates, under three years' standing, of all Irish Medical licensing bodies. It is further proposed, that the Presidents of the King and Queen's College of Physicians in Ireland, and the President of the Royal College of Surgeons in Ireland, should be requested to undertake jointly the award of the prize. The fund at present amounts to about £250. Any further subscriptions should be sent at once to Dr. George F. Duffey, Honorary Treasurer, as the list will be shortly closed.

SMALL-POX IN ARMAGH UNION.

AT a meeting of the guardians last week, it was reported that four additional cases had been admitted, which with those previously under treatment, made a total of thirty-two. As the disease appeared to be increasing, a discussion took place as to the desirability of removing the five patients at present in the Fever Hospital, which contains forty beds, and placing the small-pox patients in that institution. It was also suggested to erect a small-pox hospital, which could accommodate about forty patients, at an estimated cost of £1,000. It was ultimately agreed that a committee of the guardians should report as to what arrangements could be made subject to the approval of the Local Government Board.

BELFAST ROYAL HOSPITAL.

Dr. H. S. PURDON, one of the visiting physicians to this hospital, has resigned in consequence of having received an important appointment. For nearly twelve years Dr. Purdon discharged the onerous duties in connection with his appointment with the greatest satisfaction to the Board of Management. Dr. Whitla, who was formerly connected with the hospital, has been unanimously elected in his room. There were several candidates, but they all withdrew in Dr. Whitla's favour.

CORK NORTH INFIRMARY.

AT a meeting of the trustees held last week, the resignation of one of the physicians, Dr. John Popham, was received and accepted. Dr. Popham has been attached as one of the medical officers to the institution for the past thirty years, and the trustees, in recognition of his services, have appointed him consulting-physician to the hospital. Dr. Golding, assistant-physician, was unanimously elected to the vacancy caused by Dr. Popham's retirement.

MALE AND FEMALE PRISONS, CORK.

WE recently alluded to the retirement of Dr. Beamish, late medical officer to the Male and Female Prisons, after forty-one years' service; and that the Treasury had granted him a pension of £110 per annum, of which £33 5s. was the portion payable by the City. This sum did not equal two-thirds of his late salary, and Dr. Beamish brought the matter before the Corporation, who referred his application to the Law and Finance Committee for consideration. On their recommendation the sum of £33 5s. was increased to £46 15s. At a meeting of the Town Council last week, this recommendation was objected to by a minority of the Corporation, but we are gratified to state that the increase was agreed to by a large majority.

HEALTH OF DUBLIN FOR 1881.

THERE were 10,155 births registered, being equal to 29 per 1,000 of the population. The deaths numbered 9,424, and omitting 244, being those of persons admitted into public institutions from localities outside the district, the death-rate for last year was 26.3 per 1,000. Zymotic diseases caused 1,201 deaths, or a decrease of 1,522 as contrasted with 1880, and 696 below the average number registered during the ten years 1871-80. Fever caused 361 deaths; measles, 155; diarrhœa, 132; scarlet fever, 120; whooping-cough, 82; diphtheria, 31; and small-pox, 11. To phthisis 1,151 deaths were due, and to diseases of the respiratory organs 2,205, or a total of 3,356, showing an increase of 159 over the previous year. To convulsions 813 deaths were ascribed, and from diseases of the heart and circulatory organs 540. The mortality returns during last year do not show any permanent improvement in the public health.

BEQUESTS AND DONATIONS.—Mrs. Mary Anne Smith of Russell Square has bequeathed £5,000 to the London Hospital, £500 each to the City of London Hospital for Diseases of the Chest and the Royal Free Hospital, £300 to the Royal Sea-bathing Infirmary at Margate, £100 to the London Truss Society, and £50 each to the Bloomsbury Dispensary and University College Hospital.—The East London Hospital for Children and University College Hospital have each received £477 9s. 4d., additional, under the will of Mr. Charles Hargreaves.

THE QUEEN'S RESIDENCE AT MENTONE.

We are informed that the arrangements for the Queen's sojourn in Mentone are now practically completed. During Her Majesty's stay at Mentone, she will inhabit the *châlet* belonging to Mr. Henfrey. This *châlet* is situated in the eastern bay, on the slope of the mountain, about two hundred yards from the shore, and about a hundred feet above the sea level. It was built two years ago by Mr. Charles Henfrey, the eminent engineer (now retired), as a winter residence for himself and his family. Mr. Henfrey has already had the honour of receiving Her Majesty, two years ago, in his palatial residence on the shores of Lake Maggiore, at Baveno. The choice of this locality in Mentone by Mr. Henfrey as his own residence, is in itself a proof that no better could be found on the coast of the Mediterranean as regards mildness of winter-climate, and protection from winds and from all unfavourable influences. Having carried out many important engineering works in different regions of the Mediterranean, and in many parts of the world, as a partner in the firm of Messrs. Brassey, Mr. Henfrey has a practical knowledge of the climates of the Mediterranean and of the East; his testimony is thus conclusive. It may be also accepted as a fact, that every possible hygienic precaution has been adopted and carried out by Mr. Henfrey in the erection of this dwelling. The house, built in the Swiss style, is isolated, and commands lovely mountain and sea-views. The royal train will be able to deposit Her Majesty at the foot of the gardens which surround the villa, without its being necessary to pass through the town.

We have before us authentic details as to the sanitary state of Mentone, the result of inquiries made with reference to Her Majesty's intended visit; and are pleased to be able to state that the result is most satisfactory. The season has been very genial and exceptionally healthy, from the commencement until the present time. Not only has there been no epidemic of zymotic disease, but there has been an absence of the isolated cases of such diseases which occur in all large communities in winter, at Mentone as elsewhere. Dr. Henry Bennet, the senior of the twenty-four medical men practising at Mentone, and the president of the local medical society there, who, from his position, sees many of the more severe cases of disease that occur, writes that he has not seen this winter, either in his own practice or in that of others, a single case of continued fever, of diphtheria, or of scarlatina. He considers that the health of Mentone has been and is unusually good. This favourable condition of the public health, he thinks, is the result of several combined influences—the genial season, the unremitting hygienic crusade carried on by the local medical society, the comparative smallness of the native population (5,000), and the existence of the native town on the slopes of an all but precipitous hill. The villas and hotels inhabited by visitors are all on the sea-shore, and in the east and west bays, out of the town.

PROPOSED PROFESSORSHIP OF PATHOLOGY IN THE UNIVERSITY OF GLASGOW.

The foundation of a chair of pathology in the University of Aberdeen, through the munificence of Sir Erasmus Wilson, is likely to be followed by the endowment of a similar chair in the University of Glasgow. A prominent graduate of the University, Dr. Campbell, has given notice that, at the next meeting of the University Council, he will move the appointment of a Committee of Council for the purpose of obtaining the assistance of graduates and others in endowing a chair of pathology; and his action will no doubt meet with the cordial approval of all friends of the University. It is not seemly that a large medical school like that of Glasgow should be behindhand in the matter of professorial teaching in such an important subject as pathology. There are between three and four thousand members of the General Council, and it ought not to be a matter of much difficulty to raise as much capital as will afford an adequate salary for the chair. At the present time, so far as we can make out, the highest endowment of any of the professorial chairs in the medical faculty is £210 a year; but, in addition to this sum, there are, of course, the students' fees. Among the requirements for graduation at the present time, general pathology is not a compulsory subject. Each candidate must produce certificates of a three months' course of pathological anatomy, together with a supplemental course of practice of medicine or clinical medicine; but a course of general pathology of one hundred lectures will be held equivalent to the foregoing. At the present time, such a course can only be taken at some other medical school; but in the future we may hope that the well-timed action of Dr. Campbell will supply a long felt want in the medical curriculum of his University. A letter is being issued to a number of graduates of the University; and all who are interested in the matter should communicate their views to the mover of the resolution, and, if possible, attend the meeting to support him.

NOTIFICATION OF INFECTIOUS DISEASES.

A special meeting of the Lancashire and Cheshire Branch of the British Medical Association was held at the Free Trade Hall Assembly Room, Manchester, on Wednesday afternoon, February 8th, to consider the compulsory notification of infectious disease. The President, Dr. R. C. Brown of Preston, was in the chair, and about one hundred members were present.

Dr. W. Carter (Liverpool) said that, in 1872, England and Wales entered on a new phase of medical life. By the Public Health Act of that year, the kingdom was divided into districts, each of which was, for sanitary purposes, placed under the control of a medical officer of health. The Act had been fully discussed in Parliament: and the wisdom and moderation of its provisions were such as insured its loyal acceptance, both by the medical profession and by the public. A reference to the provisions which related to infectious disease would show that they did not regard it as an abstract entity, to be stamped out at once by the foot of benevolent officialism, but as a something inextricably mingled with many interests, all of which were as deserving of the consideration of the Legislature as the Act itself. Thus, there were the private and confidential relationships between the medical man and his patients, the ties of natural affection between parents and children, and that deep interest which every man must feel in his business as a source of livelihood. These being conserved, the Act was accepted with satisfaction, and, being so accepted, was productive of much good. For whereas, in the three preceding decades, notwithstanding all sanitary efforts, the mortality of the country remained unaffected, standing obstinately at 22.5 per 1,000, so soon as this Act came into operation, an impression was made, and this impression had gone on progressively increasing ever since, till, by the end of 1880, the death-rate had fallen to 21.5 per 1,000. This fall of nearly 4.5 per cent. indicated that nearly a quarter of a million of people were living who would have died if the mortality had continued as it was at the end of 1870. And what was very much to the purpose was, that by far the largest proportion of the saving was owing to a diminution of those diseases—the fevers—which a wisely administered sanitary law would be likely to effect. Yet, very soon after the Act was passed, medical officers of health called for a new law founded on entirely new principles. The point of the Public Health Act was to regard every medical man as the medical officer of health for the households which he attended; but the new demands were founded on the assumption that the ordinary medical man was unable to control the spread of infectious disease, and that the only person who could do so was the medical officer of health appointed by the sanitary authorities. Those demands were for compulsory notification of infectious disease by the medical attendant, compulsory removal of patients to hospital, and compulsory closure of houses of business at the will of the medical officer of health. Dr. Carter here read a memorial from the Bridge Union Sanitary Authority to the Local Government Board, presented in 1875, in which it was alleged that, in the "majority of cases, there was an utter neglect of sanitary precautions" until the sanitary officer became, often accidentally, acquainted with the fact of disease existing; and said that he believed that if the novel principles demanded were embodied in an Act, they would, by promoting concealment of disease, and by producing an antagonism between the preventive and the curative branches of the medical service, stop that steady progress towards a higher level of health which the country was now making. It was because he believed them to be contrary to a sound public policy that he strongly opposed them. The medical man had always hitherto been regarded as the trusted friend and adviser of those who consulted him. Let it be once felt, however, that to call him in would be necessarily to publish the fact of infectious disease, if it happened to exist, and he would be looked upon with distrust as a sanitary detective, and his services postponed till the last moment. And, the skilful direction which he was both able and willing to give to prevent the spread of infection being absent during this period of postponement, disease would spread. In illustration, he quoted from a communication sent by a medical officer of health for a town where such principles were embodied in a local Act, to the effect that children were removed during the night, owing to the fear of a certificate from him. Dr. Carter further quoted from the annual reports of various medical officers of health of towns having these powers, in proof of his contention. Warrington, during 1880, had 65 notifications of scarlet fever, and 14 deaths, or 1 in every 4.6. Bolton had 102 notifications of typhoid fever, and 23 deaths, or 1 in every 4.4—a death-rate which was half as high again as that of the London Fever Hospital; the only possible inference from these figures being, either that many cases were never notified—*i.e.*, were concealed, and thus the death-rate made to *appear* high, or else that the administration of the Act proved very fatal to individuals. In Huddersfield, during the

same year, the mortality from typhoid fever was exactly double that for the entire kingdom at the date of the latest returns; and complaint was repeatedly made throughout the report of a delay of ten days, and even three weeks, having occurred before the sanitary officer became aware of the cases. Greenock obtained an Act in the same year as Bolton (1877), and great anticipations of its success were formed and publicly expressed; yet, in October, November, and December, 1880, while there were reported to the sanitary officer 86, 266, and 101 cases respectively, there were hunted out by the sanitary officers sufficient additional ones to swell the numbers to 260, 588, and 161, an obvious proof of extensive concealment. It had been early pointed out by Dr. Alfred Carpenter that a probable result of making it compulsory on medical men to notify cases of infectious disease might be incorrect registration; and it was by no means certain that this had not had an effect. An Act was forced on Leicester in the autumn of 1879, contrary to the wishes of all its medical men. In the following year, the mortality from diarrhœa became alarmingly increased, the deaths being 348 in excess of those during 1879; and the disease, according to the medical officer's report, affecting persons of all ages. What was remarkable was the fact that the conditions which ordinarily attended a high diarrhœal death-rate were not then strikingly present; and, moreover, typhoid fever was prevalent at the time. Another point for serious consideration was, that the local Acts were constantly being rendered more severe. Increased stringency was imposed till the coercion exercised or exercisable in some towns must be wellnigh unendurable. Bolton was this year applying for an alteration, the effect of which would be to remove a safeguard limiting the number of diseases to be notified, which was insisted on by the Local Government Board, after a special inquiry in 1878. But Dundee afforded the most striking example of the lengths to which this kind of legislation might be pushed. It had an Act at present substantially the same as that of Greenock. This year it was applying for further powers. It required that the medical officer should have the right of entry into any house where he suspected infectious or contagious disease to be present; that he should have the right to examine any person in that house whom he might suspect to be the subject of infectious or contagious disease; to have the sick removed to hospital, and the sound to a place of quarantine; and lastly, that he should have the right of marking with a coloured placard any infected house. In view of the proposal to have an early compulsory notification by the medical attendant, it must be remembered that a very large proportion of medical officers of health were, and probably always would be, engaged in private practice, *i.e.*, were the rival medical men of those who would report to them. Two or three, from a considerable number of cases published, would serve to illustrate the evil effects that might result from indiscretion on the part of the medical officer of health. Thus, a case in Chester-le-Street, being certified by the medical man in attendance as typhoid fever, was visited by the medical officer of health, who, on the strength of an examination of the skin after death, publicly stated that the medical man was mistaken. A medical man in Jarrow was summoned because he notified a case as one of infectious disease, without specifying its exact nature; the medical officer of health informing the magistrates that he had no difficulty in at once diagnosing the case. A third asked in a published letter if the medical officer of health to whom he had notified cases had the right to see his patients, inquire what medicines they were taking, and so on. By conduct of this kind, bitterness was engendered between two classes of men whom the interests of the public health required to be kept in harmony. Those private Bills were often passed without discussion, and clauses of great stringency introduced, under cover of titles creating no suspicion of their nature. Thus Nottingham in 1878 obtained an Act for constructing additional gasworks, making a new road, and other purposes; and when it became known what the other purposes were, the indignation was so great, that the Act could not be applied. In Leicester, the Act was opposed by the entire profession. In Liverpool, one was almost passed, and in Birkenhead quite so, without the members of the medical profession being consulted, or in any way being made aware of what was in store for them in the way of pains and penalties; and yet the mere fact that local Acts existed in certain towns was taken as a proof that popular opinion in those towns was in their favour, and was made the reason for demanding an extension of their principles to the country generally. Dr. Carter concluded by moving the following resolutions.

"1. That, in the opinion of this meeting, the proposal that medical practitioners should be compelled without any discretionary power to make early notification, either directly or indirectly, of every case of infectious disease to the sanitary authority, is an unwise and unwarrantable interference with the relations between such medical practitioners and their private patients.

"2. That the dread of publicity under a system of compulsory notification might tempt many householders to conceal the existence of infectious disease, and that, owing to such concealment, there would be more danger of its being spread than there is at present, when, under the skilled guidance of medical men, more or less efficient means are in nearly every instance taken to effect isolation.

"3. That there is no reliable statistical or other evidence that the system of compulsory notification has had any beneficial effect in the towns where it has already been in operation for some years."

Dr. SPRATLEY (Rockferry) seconded the resolutions.

Dr. LESLIE JONES (Blackpool) stated that he was medical officer of health for his town, and had used his influence to obtain an Act for compulsory notification, and also a hospital to which infectious cases could be removed. He was astonished to hear Dr. Carter's statement that notification was unnecessary and injurious. He considered, on the contrary, that it was of the greatest benefit to the community. In Blackpool last year, no deaths had occurred from small-pox, measles, or scarlatina, and only three deaths from fever, in two of which the disease had been contracted out of the town. He believed that compulsory notification must have contributed to produce this satisfactory state of health. But, while he approved of the Acts, he must say he considered the mode in which they were obtained was not right. He himself had recommended that, in Blackpool, the householder should be compelled to notify; and it was without his knowledge, and much to his astonishment and disgust, that a penalty was laid on his medical brethren for not reporting. He thought medical men should decide for themselves if they would report a case, tell the householder that the case was infectious, and throw the whole responsibility on the householder. He also thought the medical officer of health should be independent, and not engaged in practice. He moved as an amendment: "That, in the opinion of this meeting, the compulsory notification of infectious disease is of great public and national importance, and a great benefit to the community. In carrying out this object, the meeting believes that the responsibility of notifying disease should rest with the householder, and that the medical attendant should possess the voluntary power of notifying cases of infectious disease."

Dr. RANSOME (Manchester) seconded the amendment. He acknowledged that Dr. Carter had obtained the sympathy of the meeting on account of the undoubted defects in the manner in which the notification of disease has been promoted and carried out, and the mode in which the Bills have been obtained; yet he must insist on the great benefit of notification to the community and to medical men. The movement for the registration of disease emanated from the Council of the Lancashire and Cheshire Branch twenty years ago, and it would be stultifying themselves if they now tried to quash it altogether. As to the objection that concealment of disease would result, he thought that, as soon as it came to be understood that the certificate of the medical officer of health declaring the household free from infection would open the house or shop to the public, people would be only too willing to take advantage of this as a boon, and as shortening the period of uncertainty. It was said medical men did all in their power to reduce the spread of infection, but the experience of many years showed that they had no power of dealing with infection without compulsory notification. Dr. Carter said that, where notification had been tried, it had been without much result; but much could not be expected from it in the middle of an epidemic. It was only by dealing with first cases that success could be obtained. The present time was in great measure free from infectious disease, and was therefore most suitable for the establishment of this notifying plan.

Dr. FITZ PATRICK (Liverpool) said that it was only through the vigilance of Mr. Hamilton that the notification clauses in the proposed Liverpool Bill were brought to the notice of the profession, who agitated against them, and the Health Committee then dropped them. Dr. Ransome had written a letter as chairman of the Registration Committee, saying that the penal clauses had the sanction of the British Medical Association. He intended to raise his voice at Worcester against this aiding and abetting a corporation in putting fetters on medical men. As to Blackpool, Dr. Leslie Jones had omitted to state how many thousand pounds had previously been spent in making it a suitable and healthy sea-side resort. What would be the result to the medical profession, when it was known that they entered the houses of their patients, not as friends and advisers of the family, but as two-and-sixpenny detectives? Were the medical officers of health the only men who were fitted to deal with infectious disease? He objected to the statement that the British Medical Association was in favour of compulsory registration of disease, and called upon the general practitioners to repudiate it at Worcester.

Dr. HARKER (Lancaster) said that at Lancaster they tried an Act, which carried out compulsory notification without injury to the medical

practitioners. The cases were only attended to by the health authorities, if they were not already cared for.

Mr. GORNALL said Warrington was one of the towns where compulsory reporting of infectious disease was in force, to the great benefit of the public. During the fifteen months he had been medical officer of health, he had had the sympathy of the entire profession, with little or no opposition from the public. The Act came into force in 1879, when there was an epidemic of scarlatina. Thirty-four deaths took place in the six months prior to the Act, and only six deaths after the Act came in force. Of 352 cases reported, 286 were removed to the fever hospital; and, if there had been accommodation, he believed he could have removed at least 330. The death-rate for the past year was 20.5; from infectious diseases, 2.1. He was not prepared at the moment to reply *seriatim* to Dr. Carter's statements.

Mr. E. SMITH (Bolton) said a great many medical men there did not report the cases of infectious disease; others reported only when they pleased. He himself was summoned before the magistrates for not reporting a case of small-pox. Sometimes a case was called "rheumatic" fever by the doctor. He had known the sanitary officers visit a notified case of scarlatina ten days later, and then deny it was scarlatina at all. He thought the British Medical Association ought to protect its members from these Acts.

Mr. R. HAMILTON (Liverpool) believed the Sanitary Acts already in existence, if properly carried out, were sufficient to check to a very great extent the spread of infection, without having recourse to the objectionable plan of compulsory notification. He referred to the difficulty of deciding the nature of a fever in its early stage. It might be twenty-four or forty-eight hours, or more, after he was called in, before he could pronounce what the disease was. Then, there was the question of compensation to be considered in the cases of compulsory closure of shops, etc. He had taken great interest in this matter, and had written to all the towns where notification Acts had been passed; and the answers he had received from the medical men of these towns led him to the conclusion that, to a very considerable extent, the Act in these places was a dead letter.

Dr. TOMKINS (Manchester) and Dr. O'SULLIVAN (Burnley) spoke in favour of compulsory notification.

Dr. F. FERGUSON (Bolton) had, for eighteen years, been associated with the sanitary committee in Bolton, during the greater part of which he acted as chairman. He was perfectly satisfied that it was of the utmost importance to public health, that there should be notification of infectious disease. He repudiated the responsibility being thrown on the medical man, and protested against the penalties, which ought to be put on the householder. If the Act were to be carried out with benefit to the public, there must be a loyal and hearty co-operation between the medical profession and the sanitary authority. During the eighteen years, he never met with an instance in which there was not the heartiest co-operation, on the part of the medical profession in Bolton, in every measure proposed for the improvement of public health. They were the real originators of every measure, and the hearty supporters of it. In the town, there was a most troublesome interference under this Act with the conduct of medical men. The sanitary inspectors—not the medical officer of health—demanded to see the patients in their sick-rooms. In two instances of infectious disease, which came under his notice (one of them small-pox), where the doctor had directed the front door of the house to be left upon the chain, and the back door and windows open, and had established a strict quarantine, the sanitary inspector ordered the doors and windows to be closed. He was convinced that the notification of disease was of the utmost importance to the public health; but, if it were to be carried out beneficially, it must be done in such a way as to commend itself to the hearty approval and loyal assistance of the medical profession.

Dr. WILLIAM ROBERTS (Manchester) hoped the meeting would indorse the principle that there should be, as early as possible, a notification of infectious disease; for he thought it not impossible to remove the objections to the working of the Act, which appear to be very considerable.

Dr. COLLEY MARCH (Rochdale) gave an instance of the surreptitious way in which the Acts were smuggled through, and the objectionable way in which they might interfere with the medical attendant in his efforts to isolate.

Dr. E. RAYNER (Stockport) said Dr. Carter had rather overstated some things. As to Leicester, diarrhœa was prevalent all over the country that year. In Stockport, they had a voluntary notification during an epidemic, in which he was assisted by nearly all the medical men of the town. He was in favour of compulsory notification by the householder. He strongly disapproved of the way in which the Acts had been obtained.

A suggestion having been made that Dr. Leslie Jones's amendment should be modified, so as to carry the general assent of the meeting, the mover and seconder agreed to omit the words "and a great benefit to the community." The amendment, thus altered, was put to the meeting:

"That, in the opinion of this meeting, the compulsory notification of infectious disease is of great public and national importance. In carrying out this object, the meeting believes that the responsibility of notifying disease should rest with the householder; and that the medical attendant should possess the voluntary power of notifying cases of infectious disease."

This was carried by a large majority.

AT a meeting of the South London District of the Metropolitan Counties Branch, held on February 17th, Dr. SPENCER T. SMYTH in the chair, Mr. NELSON HARDY opened a discussion on this subject as follows.

By the courtesy of the chairman of the Parliamentary Bills Committee of our Association, I have been enabled to place in the hands of several of our members, and to lay before this meeting, two of his able reports on recent legislation with regard to infectious disease. Dr. T. O. Dudfield, the medical officer of health for St. Mary Abbotts, Kensington, has also (while regretting his inability to be present with us this evening) obligingly placed at our disposal a copy of his elaborate report for the year 1880, in which, at pages 44 to 61, he urges in the strongest manner the desirability of making the notification of infectious diseases compulsory. In the BRITISH MEDICAL JOURNAL for February 4th, there is a copy of a Draft Bill on the subject, to which I shall refer more particularly by-and-by. Taking these various documents together we shall have no difficulty, I think, in perceiving that the subject on which I have undertaken to open a discussion to-night, is one of very great and pressing importance to each and all of us. From Mr. Hart's reports you will notice that already in many provincial towns, including Huddersfield, Bolton, Greenock, Burton-on-Trent, Jarrow, Edinburgh, and Leicester, notification of infectious disease is already compulsory either upon the occupier of the house in which such disease occurs, or on the medical attendant, or sometimes on both. Every year sees fresh additions to the towns which, by means of private Bills almost smuggled through Parliament, obtain power to require such notification to their sanitary authorities (or, as Dr. Dudfield calls them, nuisance authorities). Thus last year, Aberdeen, Barrow-in-Furness, Birkenhead, Bradford, Reading, and Stalybridge, obtained such powers; and during this present session private Bills, having the same object in view, are being promoted by Chadderton, Falmouth, Halifax, Hull, Macclesfield, and Newcastle. Piecemeal legislation of this sort cannot be considered satisfactory, and it is not astonishing that the Bill now before the House of Commons should seek to render notification compulsory over the whole kingdom. Nor need we be surprised if the Royal Commission on infectious hospitals report, as I am told they are likely to, in favour of the passing of such a measure. Nevertheless it behoves us well to consider what will be the effect of the passing of such a measure, both on our professional interests and on those of the public at large, which are, I believe, inseparably bound up together. From Dr. Dudfield's report already referred to, it seems plain that the compulsory notification of infectious diseases is but the first step in a course by which the medical officers of health who are taking active steps to promote such a measure, wish to obtain the fullest powers of interference with patients of all ranks, and with the medical practitioners who may be in attendance on them. Not only is power to be obtained to compel the registered medical practitioner who is called in to an infectious case to fill up and sign a certificate setting out the facts, but thereupon every case of infectious disease which in the opinion of the nuisance authority "cannot be isolated and treated at home, without danger of the spread of the disease to other inmates in the same building," is to be removed to hospital. (See report, page 47.) No rank or age is to secure a patient from such interference on the part of what Dr. Dudfield well calls the nuisance authority, which might easily become so, in reality as well as in name, were these powers granted. Nor is any charge to be made for the support or treatment of infectious cases removed to hospitals, however well they may be able to afford it, the benefit to the public from the removal of such cases from their homes being supposed to counterbalance the cost to the ratepayers. In the face of such a demand for extended powers, made, be it remembered, not by the public at large, but by a small section of our own profession, we may very well inquire what has been the state of sanitary administration up to the present time, and how have those who are entrusted with it, used the powers already at their disposal. I trust that my experience with regard to this matter has been singularly unfortunate, but it has several times reminded me of a saying attributed to the great Dr.

Johnson, that if there were not on earth a medical practitioner of any kind, whether physician, surgeon, midwife, or apothecary, it would be all the better for suffering humanity. I should not like to go quite so far as to say we should do better if there was no such thing as sanitary administration, but I think we could do very well without such specimens of it as the following. 1. A child suffering from scarlet fever, with a temperature of 103.50 on the day of removal, was removed to hospital by sanitary authorities in opposition to the opinion of the medical attendant, who stated that removal of a child with the above temperature in cold weather meant certain death. The child died the day after removal. 2. A schoolmistress keeping a private school which had become a centre of infectious disease was urged by two medical men who were attending several of her scholars at the time, to close the school for a week and have the premises disinfected. She sent for the sanitary authorities, who could see nothing in the school to disinfect, told her it need not have been closed at all, and gave a certificate, on the strength of which the schoolmistress visited one of her favourite pupils and conveyed the disease to her. At the same time, the sanitary authorities obtained the names and addresses of all the pupils, and to the great annoyance of the parents, one of whom was an officer in the army, went round to all their houses, asking how many children were ill, what rooms they were occupying, whether they had a supply of disinfectants, and what medical man was attending them. 3. A patient suffering from small-pox in a mild form was removed to hospital for sanitary reasons, and while recovering from that disease in hospital took scarlet fever, and died. 4. The father of the child mentioned above (No. 1) as having died of scarlet fever, was exposed in the dead-house of the hospital in which his child died, to the contagion of small-pox, which he took, and died from it. 5. I have found that the disinfection by heat of bedding in infectious cases is in Balham and several other parishes in South London impossible, for want of any public provision for the purpose by the sanitary authorities, and even where it is carried out I have known it to be done very imperfectly; mattresses being taken away to be baked, but straw palliasses left and also blankets and curtains. Such disinfection is, I consider, a mockery and a snare. 6. Several towns, such as Bolton for example, have obtained local Acts rendering the notification of disease compulsory, while they themselves are unprovided with a single hospital bed in which infectious diseases can be treated. Dr. Dudfield tells us that notification is robbed of half its value where this is the case, and I think we may safely conclude that, where apparatus for disinfection by heat is not provided, the other half of the benefit also disappears. While I do not at all agree, therefore, that a sufficiently strong case has as yet been made out for compelling the notification of infectious disease to sanitary authorities, some of whom are utterly unprepared to deal with it in an efficient manner, I desire to submit for your consideration in the remaining portion of this paper, the three principal proposals for dealing with the subject which are now before the profession—convinced as I am that it will depend very much on the members of our body whether any, and if so which, of these proposals shall pass into law. And first I take Mr. Ernest Hart's model clause. You will see that, where this clause is adopted, the onus of notifying cases of disease to the sanitary authorities is thrown upon the householder or person in charge of the case, and not upon the medical attendant, who is only required to give a certificate to the former; and in this respect the proposal is, I consider, immensely superior to that in the Bill introduced by Mr. Hastings, M.P., which renders it incumbent on the medical attendant to furnish information direct to the sanitary authority. But I confess that to my mind a third proposal, brought forward by the Council of the Dublin Branch of our Association and the Council of the Irish Medical Association jointly, and published in the BRITISH MEDICAL JOURNAL for February 4th, 1882, is, if it can be carried out, preferable to either of the others. The principal clause of the Bill which has been drafted by these bodies, runs as follows:—

"Every medical practitioner attending or called in to visit any person suffering from any of the diseases set forth in Schedule A to this Act, may, if he shall think fit, notify the occurrence of such case of disease to the sanitary authority of the district in which the person suffering from such disease resides; and every medical practitioner so notifying shall forthwith fill up, sign, and deliver, or cause to be delivered, or shall transmit by post to such sanitary authority, a certificate according to the form set forth, etc., stating the name, etc., of the patient, and the disease from which such patient is suffering; and shall also fill up, sign, and deliver to the person having charge of such patient, or to the person having charge of the building in which the patient resides, a further certificate, the production of which certificate shall be a good defence for such person against any penalties for breach of the terms of this Act."

By this clause, the medical attendant would not be forced to notify either to the occupier or to the sanitary authority, but there would be the strongest inducement to the occupier to get the doctor to notify direct, in the provision that a certificate to the effect that he had done so, delivered to the occupier, would save the latter from all further trouble. The comparative merits of these three plans is, however, a fair subject for discussion. What should be the fee payable by the sanitary authority to the medical attendant for his certificate? Jarrow and Burton-on-Trent fix it at the ridiculously low figure of one shilling, while most of the other towns where notification is compulsory give half-a-crown. Dr. J. W. Moore, of Dublin, proposes (BRITISH MEDICAL JOURNAL, November 5th, 1881), that it should be a guinea; and I cannot myself see any reason why we should expect less for rendering such an important public service as the notification of disease is expected to be, than for filling up a form for an insurance company. Lest, however, it should be thought that we are striving to throw obstacles in the way, let us fix on some more moderate fee—shall we say half-a-guinea? quite little enough when it is remembered that in case of mistaken diagnosis we may be exposed to an action for damages, while, as matters stand at present, in many provincial towns the mere omission to certify exposes the medical man to a penalty for neglect. And this brings me to the last point for discussion to-night, viz., in case notification were made compulsory on the medical attendant, what should be the penalty for non-compliance. It varies at present from £2 at Edinburgh, Derby, and Burton-on-Trent, to £5 at Nottingham, Huddersfield and Norwich, £5, and £2 a day in case of continuing offence at Jarrow, £5, and for a second or any subsequent offence, £10, at Warrington, and £10 at Bolton, Llandudno, and Leicester. In considering this point, it will be well to remember that the Poor-law medical officers who are so miserably underpaid in various parts of the country, will be equally subject to penalties for accidental omission, as will the best-feed consultant in London practice. There are districts in Yorkshire where the parish doctor's pittance does not amount to £10 a year; and would it not be in the highest degree unreasonable to provide that a whole year's earnings from his appointment should be swept away by the accidental omission to report a single case of infectious disease among his parish patients on a busy day? I trust this and the other points will receive full discussion.

Dr. FORSYTH was opposed to compulsory notification in any shape or form. He believed the public would not submit to being taken from their homes and conveyed to hospitals at the will of sanitary authorities. During the late epidemic of small-pox at Greenwich, he he had been shown a whole street infected with small-pox, nearly every house having patients to whom no medical man was called in for fear of removal to hospital. Many patients died in consequence of their removal. They were rattled over the stones for three miles, had a bath, which no doubt was necessary enough, and were then conveyed across a cold corridor, even when the eruption was full out. This had frequently a fatal effect. He did not think medical practitioners would report cases as required for half-a-crown, or even half-a-guinea.—Mr. BRINDLEY JAMES said compulsory registration would not only do harm to the profession, but to the public, for they would not call in medical men at all in such cases. Isolation at home he thought preferable to removal to hospital. A guinea fee he considered little enough.—Dr. DICKSON, R.N., thought the proposal of the Dublin Branch the most desirable of the three which had been laid before the meeting. A great blunder had, he thought, been committed in London, by establishing enormous hospitals for infectious diseases, and bringing the patients great distances to them. He mentioned a case where a lad had been brought from Poplar to Hampstead. He did not think any sanitary authority would agree to pay a guinea for each certificate.—Mr. H. W. ROBERTS thought the Dublin proposal the best. He remembered being called to a family not far from the Deptford Hospital, where several children were suffering from small-pox, and had not been seen by any doctor, because the parents had been told the children would be sent away. As bearing on the question of penalties and fees, he said the resident medical officer of the Small-pox Hospital told him that all sorts of cases were sent there as being small-pox, even measles and inflammation of the lungs being so sent; and if these cases were reported to the sanitary authority as infectious ones, the result might be serious for the practitioner.—Dr. FAGAN, as illustrating the same points, mentioned a case in which all the symptoms of small-pox were present with a temperature of 103.0. He deferred pronouncing an opinion until the following morning, when a papular eruption appeared on the face. The patient, who was a gentleman's butler, was fortunately not taken to the hospital, but to his home, and reappeared in a few days perfectly well.—Several other gentlemen having spoken, the CHAIRMAN said the feeling of the meeting seemed to be quite unanimous in opposing compulsory notification by medical men. It was then resolved:—

"That it be suggested to the Chairman of the Parliamentary Bills

Committee as desirable, that the opinion of the profession in the metropolis should be ascertained in a similar manner to that adopted by the Dublin colleges, as to the proposals brought forward by the Dublin Branch of the Association with regard to the Notification of Infectious Disease."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE annual meeting of the Society was held on Wednesday, March 1st; ANDREW WHYTE BARCLAY, M.D., F.R.C.P., President, in the Chair.

The Report of the President and Council was read by the Secretary, Mr. BERKELEY HILL. It referred to the prosperity of the Society, as illustrated by the increase of its Fellows, the number having increased in the year from 686 to 697. There had been seventeen deaths, four of resident Fellows, ten of non-resident, and three of honorary. There had been twenty-nine new Fellows: viz., twenty-one resident and eight non-resident. The favourable increase in the number of subscriptions, which commenced a few years ago, had continued. The increase in receipts and a somewhat smaller expenditure had allowed the Society to clear off a debt of £70 in last year's balance-sheet, and retain in hand a balance of about £107. There was a probability, however, of repairs connected with the Society's house being required during the ensuing year, which would form a heavy charge on next year's income. The report also referred to the Harvey Tercentenary Memorial Fund, the subscription of the Society to which had not been paid by the Treasurer, in consequence of the Society's counsel having advised them that the payment would be illegal. The quinquennial Marshall Hall Prize would be a second time awarded in 1883. The increase of the library, either by donation or purchase, was much the same as usual.

The adoption of the report was moved by Mr. SPENCER WELLS, seconded by Dr. ABERCROMBIE, and carried.

The Resident Librarian.—An alteration of the by-laws, changing the title of the resident officer of the Society from "assistant-librarian" or "sublibrarian" to "resident librarian", was put from the Chair, seconded by Dr. SIEVEKING, and carried unanimously.

The Harvey Tercentenary Fund.—Mr. EASTES asked whether the subscription to the Harvey Tercentenary Memorial Fund would be paid.—The PRESIDENT explained the position of the Council and Treasurer. A legal opinion had been obtained from the Society's counsel that such payment would be illegal, the charter and by-laws not allowing the funds to be used for any purposes beyond those for which the Society was instituted.—Mr. HOLMES proposed that, as the Society was in a manner compromised by the votes of its two annual meetings, which could not be legally carried out, the Council and such members as were interested in the question might subscribe individually to make up the required amount.—Mr. CHARLES HAWKINS agreed with Mr. Holmes, and added that the payment of the Society's money for objects other than those of the Society would lay it open to claims for legal dues from which, by Lord Brougham's Act, they were relieved.—Dr. SIEVEKING seconded Mr. Holmes's motion for a subscription by Fellows.—Mr. COOPER FORSTER pointed out that such a course would require a second special meeting within fourteen days to confirm it.—Mr. HOLMES withdrew his motion, and left the question as a recommendation for the Council.

President's Address.—The PRESIDENT addressed the meeting. He commenced by alluding to the evidence of the increasing prosperity of the Society which the report afforded; and said, nothing, in his view, could be more gratifying to a retiring president than being able to speak in such terms to the Fellows; for no institution could be considered *effete* which could point to so large an addition to its roll as that which had occurred during the past year. He had, however, to record a large number of deaths among both the senior and junior Fellows—among those who had left their mark on the world's history, and others who had quietly and unobtrusively done their duty towards their fellowmen. The names of the deceased fellows, of whom the President gave many interesting notices and details, were: Mr. Hammett Hailey, of Newport Pagnell; Dr. Francis Richard Philp, late physician to St. Luke's Hospital; Mr. Thomas Heckstall Smith, of St. Mary Cray; Dr. Randle Wilbraham Falconer, of Bath; Mr. William Donald Napier; Surgeon-Major Fitzgerald; Mr. George Leighton Wood, of Bath; Mr. James Luke; Dr. Julius Charles William Heyn; Dr. Archibald Billing; Mr. Frederick Symonds, of Oxford; Dr. Andrew Wood Baird, of Dover; Mr. George Macilwain; and Dr. George Samuel Jenks, of Bath. The three honorary Fellows, whose loss the Society had to deplore, were: Dr. Nikolaus Pirogoff, Professor of Surgery at the Medico-Chirurgical Academy of St. Petersburg; Dr. Theodore Schwann, Professor of Physiology at the University of Liege, Belgium; and Sir Robert Christison, Bart., M.D., of Edinburgh. In concluding his remarks, the President said that, in retiring from the duties of office at an early date, he had been influenced by one consideration, which he felt to be for the best interests of the Society. There were many names on the list of Fellows who ought, at one time or other, to represent this Society as its presidents, who would probably be excluded by mere seniority, but who, had their turn come a little sooner, would probably have welcomed the distinction, and thrown themselves heartily into the work. In reply to some recent criticisms on the condition of the Society, the President said that the Society was founded on principles which were too well known to need vindication. If, said he, all the sparkling novelties which glitter in the sunshine of ephemeral notoriety are carried elsewhere, it was because we all desire that our *Transactions* should maintain a high standard of excellence. He then referred to the question of amalgamation of the leading societies into one comprehensive association, which had been noticed in his predecessor's address, and again mentioned at intervals in the medical journals. The President concluded by again thanking the meeting for the honour done him by his election to the presidency, and in hoping that the Royal Medical and Chirurgical Society would still flourish as one of the great centres for the diffusion of scientific truth.

A vote of thank to the President for his conduct in the chair, alluding in laudatory terms to his address, was proposed by Mr. CHARLES HAWKINS, seconded by Mr. KIALLMARK, and carried with acclamation. Mr. C. Hawkins alluded to his having himself proposed and carried a resolution, in favour of the suggested amalgamation of the societies, as long as twenty-one years ago.

A vote of thanks was also given to the retiring Vice-Presidents and other members of the Council, which was proposed by Dr. GRAHAM BALFOUR, and seconded by Dr. JOHN HARLEY.

Officers and Council.—The following were elected for the year 1882-1883. *President:* *John Marshall, F.R.S. *Vice-Presidents:* S. O. Habershon, M.D.; *J. Burdon Sanderson, M.D., F.R.S.; T. Holmes; *Jonathan Hutchinson. *Treasurers:* C. B. Radcliffe, M.D.; J. Cooper Forster. *Secretaries:* R. E. Thompson, M.D.; M. Berkeley Hill. *Librarians:* E. H. Sieveking, M.D.; J. W. Hulke, F.R.S. *Other Members of Council:* J. Andrew, M.D.; W. Cholmeley, M.D.; *J. E. Pollock, M.D.; S. Ringer, M.D.; R. Southey, M.D.; *G. Cowell; J. Langton; *Howard Marsh; *H. Power; *S. W. Sibley.—An asterisk is prefixed to the names of those gentlemen who did not hold office last year.

COTTAGE HOSPITALS: THE NAPPER TESTIMONIAL FUND.

ALL who have been connected with a cottage hospital will recognise the great benefit its establishment has conferred upon the public and the medical profession. The first cottage hospital was founded by Mr. Albert Napper, M.R.C.S., the Rev. Canon and the late Mrs. Sapte, at Cranleigh, in Surrey, in the year 1859. As Mr. Napper not only took part in the foundation of this hospital, but by his writings and by the invaluable aid he has always readily extended to every one who desired to gain information upon the subject, greatly fostered the movement, he is clearly entitled to claim that he is, in the best sense of the word, the founder, and, in fact, the father, of the cottage hospital system. In the twenty-two years which have elapsed since the Cranleigh Cottage Hospital was opened, about three hundred others have been founded in various parts of the United Kingdom. The system has extended to the Colonies, and has recently become popular in America.

Mr. Albert Napper has lately retired from practice, and many members of the medical profession and others interested in cottage hospitals have thought the present a fitting opportunity for initiating a movement which will commemorate Mr. Napper's work in a substantial manner. With this object a provisional committee, consisting mainly of the medical officers of cottage hospitals situated in the counties of Sussex, Surrey, and Kent, was appointed at a meeting of the South-Eastern Branch of the British Medical Association, held in Reigate, on the 20th of October 1881. This committee, after due deliberation, has decided to invite the co-operation of the medical officers of every cottage hospital, and of all others who are interested in their management and progress. A subcommittee, honorary secretaries, and treasurers, have also been elected *pro tem.*, with the view of enlisting the support of all who are likely to be interested in this movement. Mr. Henry C. Burdett, Dr. Charles Parsons, and Dr. J. Herbert Stowers, are the honorary secretaries. The treasurers, by whom sub-

scriptions are invited,, are Dr. Holman, Reigate, and Mr. Malcolm Morris, 63, Montague Square, Hyde Park, London, W.

First List.

	£	s.	d.
Sir Wm. Jenner, Bart., M.D., K.C.B., F.R.S., President of the Royal College of Physicians of London	5	5	0
Sir Erasmus Wilson, F.R.S., LL.D., President of the Royal College of Surgeons of England	5	5	0
E. Saunders, Esq., F.R.C.S., President of the Metropolitan Counties Branch of the British Medical Association, London	5	5	0
H. C. Burdett, Esq., F.S.S., London	10	10	0
Dr. C. Holman, J.P., Reigate	5	5	0
E. Truman, Esq., M.R.C.S., London	5	5	0
G. H. Pinckard, Esq., Godalming	5	5	0
J. G. Cattley, Esq., Shabden, Reigate	5	0	0
Wm. Adams, Esq., F.R.C.S., London	3	3	0
The Rev. Thos. Burningham, M.A., Charlwood, Surrey	3	3	0
Sir James Paget, Bart., F.R.S., D.C.L., LL.D., London	2	2	0
Sir W. W. Gull, Bart., M.D., F.R.S., London	2	2	0
Sir H. Peek, Bart., M.P., Wimbledon	2	2	0
F. B. Hallowes, Esq., M.R.C.S., President of the South-Eastern Branch of the British Medical Association, Redhill	2	2	0
T. M. Butler, Esq., M.R.C.S., Guildford	2	2	0
C. W. Chaldecott, Esq., M.R.C.S., Dorking	2	2	0
Dr. S. O. Habershon, London	2	2	0
Dr. H. T. Lanchester, Croydon	2	2	0
Malcolm A. Morris, Esq., F.R.C.S., London	2	2	0
J. Cooper Forster, Esq., F.R.C.S., London	2	2	0
J. Hutchinson, Esq., F.R.C.S., London	2	2	0
J. E. Erichsen, Esq., F.R.S., F.R.C.S., London	2	2	0
Dr. R. L. Bowles, Folkestone	2	2	0
Surgeon-Major Waring, M.D., London	2	2	0
F. H. Harris, Esq., M.R.C.S., Mildenhall, Suffolk	2	2	0
Dr. J. Braxton Hicks, F.R.S., London	2	2	0
Dr. W. Withers Moore, Brighton	2	2	0
A. J. Keen, Esq., Betchworth, Reigate	2	2	0
J. M. Burton, Esq., F.R.C.S., Lee	2	2	0
Arthur Secretan, Esq., Reigate	2	2	0
A. E. Durham, Esq., F.R.C.S., London	2	2	0
W. J. Harris, Esq., M.R.C.S., Worthing	2	2	0
Miss M. Cooper, Reigate Hill	2	2	0
Herbert Knowles, Esq., Reigate	2	0	0
J. H. Baxendale, Esq.	2	0	0
Mrs. J. H. Baxendale	2	0	0
The Earl of Onslow	1	1	0
W. A. Berridge, Esq., M.R.C.S., Redhill	1	1	0
Dr. W. Chessall, Horley	1	1	0
R. Gravely, Esq., M.R.C.S., Newick	1	1	0
T. Hopcroft, Esq., L.R.C.P., Dorking	1	1	0
A. Kelsey, Esq., M.R.C.S., Redhill	1	1	0
Dr. C. Parsons, Dover	1	1	0
A. G. Roper, Esq., F.R.C.S., Croydon	1	1	0
Dr. H. S. Stone, Reigate	1	1	0
Dr. J. H. Stowers, London	1	1	0
Dr. J. Walters, J.P., Reigate	1	1	0
Dr. C. H. Allfrey, St. Mary Cray	1	1	0
D. B. Balding, Esq., F.R.C.S., Royston	1	1	0
T. Clark, Esq., L.R.C.P., Dunster, Somerset	1	1	0
J. L. Jardine, Esq., M.R.C.S., Dorking	1	1	0
Dr. Hy. Colgate, Eastbourne	1	1	0
T. B. Haywood, Esq., Reigate	1	1	0
T. Bowyer, Esq., Guildford	1	1	0
W. Triggs, Esq., Mayor of Guildford	1	1	0
Mr. W. Pimm, Guildford	1	1	0
T. H. Martin, Esq., M.R.C.S., Crawley	1	1	0
J. Croft, Esq., F.R.C.S., London	1	1	0
F. W. Parsons, Esq., L.R.C.P., Wimbledon	1	1	0
T. E. Parsons, Esq., M.R.C.S., Wimbledon	1	1	0
A. Stedman, Esq., M.R.C.S., Great Bookham	1	1	0
E. Crossman, Esq., L.R.C.P., Hanbrook, Bristol	1	1	0
Dr. R. Elliot, J.P., Carlisle	1	1	0
J. A. Bright, Esq., M.R.C.S., Glastonbury	1	1	0
Major F. Duncan, R.A., Woolwich	1	1	0
St. Barbe Sladen, Esq., Reigate, Chairman of Committee of Reigate Cottage Hospital	1	1	0
The Rev. Wm. Powell, M.A., Newick	1	1	0
Edwd. W. Thurston, Esq., L.R.C.P., Ashford	1	1	0
Dr. J. H Galton, Anerley	1	1	0
Dr. Alfred Carpenter, J.P., Croydon	1	1	0
Dr. T. Rutherford Adams, Croydon	1	1	0
Dr. Alfred Hall, Tunbridge Wells	1	1	0
James Reid, Esq., F.R.C.S., Canterbury	1	1	0
J. Bisshopp, Esq., L.R.C.P., Tunbridge Wells	1	1	0
Dr. W. Clement Daniel, Epsom	1	1	0
H. S. Taylor, Esq., F.R.C.S., Guildford	1	1	0
Dr. F. Bagshawe, St. Leonard's	1	1	0
Dr. J. R. Stedman, J.P., Guildford	1	1	0
M. A. Adams, Esq., F.R.C.S., Maidstone	1	1	0
E. H. Galton, Esq., F.R.C.S., London	1	1	0
Dr. W. H. Axford, Southsea	1	1	0
Dr. J. Ewart, Brighton	1	1	0
W. C. Satchell, Esq., M.R.C.S., Tunbridge Wells	1	1	0
Mrs. Wix, Reigate	1	1	0
H. A. Roome, Esq., M.B., Guildford	1	1	0
J. Lees, Esq., Reigate, late Treasurer of the Reigate and Redhill Cottage Hospital	1	1	0
Mrs. A. Saunders, Reigate	1	1	0
P. Ricardo, Esq., Guildford	1	1	0
J. W. Baxendale, Esq., Guildford	1	1	0
Mrs. J. W. Baxendale, Guildford	1	1	0
F. Crooke, Esq., Guildford	1	1	0
Dr. J. Morton, Guildford	1	1	0
Dr. F. J. Corbould, Reigate	1	1	0
F. W. Costar, Esq., Redhill	1	1	0
Dr. F. Bossey, Redhill	1	1	0
J. R. Corbett, Esq., Betchworth, Reigate	1	1	0
Mrs. Samuel Bostock, Walton Heath, Surrey	1	1	0
Miss Bostock, Walton Heath, Surrey	1	1	0
Dr. J. Gardner, Bungay, Suffolk	1	1	0
E. Horne, Esq., J.P., Reigate	1	1	0
A. O. Wilkinson, Esq., Redhill	1	1	0
R. Field, Esq., J.P., Redhill, Mayor of Reigate	1	1	0
J. Shaw, Esq., J.P., Redhill	1	1	0
Surgeon-Major W. C. Coles, M.D., Bourton	1	1	0
The Rev. Canon Cazenove, M.A., Reigate	1	0	0
E. Brocklehurst, Esq., J.P., Reigate	1	0	0
W. D. Paine, Esq., Cockshot Hill, Reigate	1	0	0
J. M. Head, Esq., Hon. Treasurer of Reigate and Redhill Cottage Hospital, Reigate	1	1	0
P. L. Pelly, Esq., Merstham	1	1	0
E. C. Hulme, Esq., Guildford	1	1	0
James Langton, Esq., Reigate	1	1	0
T. H. Cheatle, Esq., M.R.C.S., Burford	1	1	0
J. Moore, Esq., M.R.C.S., Bourton-on-the-Water	0	10	0
Dr. T. J. Burroughs, Crondall, Hants	0	10	0
Miss Chitty, Guildford	0	10	0
Mr. Henry Holden, Guildford	0	10	0

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL:

NOTICE OF QUARTERLY MEETINGS FOR 1882: ELECTION OF MEMBERS.

MEETINGS of the Committee of Council will be held on Wednesday, April 12th, July 12th, and October 18th. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary not later than 21 days before each meeting, viz., March 22nd, June 22nd, September 27th, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

November 4th, 1881. FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

SOUTH-EASTERN BRANCH: EAST AND WEST SUSSEX DISTRICTS.—A conjoint meeting of the above districts will be held at Brighton on March 29th, 1882. Dr. Ewart of Brighton will preside. Members desirous of making communications to the meeting are requested to give notice thereof to the Honorary Secretary, West Sussex District, 5, The Steyne, Worthing.

SOUTH-EASTERN BRANCH: EAST AND WEST SURREY DISTRICTS.—A conjoint meeting of the above Districts will be held at the Red Lion Hotel, Dorking, on Thursday, March 9th, at 3 P.M.; C. W. Chaldecott, Esq., of Dorking, in the chair. The following communications have already been promised. 1. Dr. Hughlings Jackson, F.R.S.: Observations on Megrim. 2. Dr. James F. Goodhart: Notes of Cases of Lunacy from Lead-Poisoning. 3. Mr. H. H. Clutton: Notes of a Case of Removal of Lymphadenomatous Glands from the Neck. 4. Mr. Malcolm Morris: Ringworm. 5. Mr. Thomas Hopcroft: Case of Complete Inversion of Uterus after Parturition. 6. Dr. Stowers will exhibit some Coloured Drawings of Rare Skin-Diseases. Dinner will be served at 6 P.M. precisely; charge, seven shillings (exclusive of wine). Members desiring to read communications will oblige by informing the Honorary Secretaries as soon as possible.—A. ARTHUR NAPPER, Cranleigh, Surrey, Honorary Secretary of the West Surrey District; J. HERBERT STOWERS, M.D., 23, Finsbury Circus, E.C., Honorary Secretary of the East Surrey District.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.—The sixth meeting of the session will be held at the Medical Institute, Birmingham, on Thursday, the 9th instant. The chair will be taken by the President, Mr. Bartleet, at three o'clock P.M. Business: To ballot for members of the Association for their election as members of the Branch. To receive nominations for officers, Council, and representatives of the Branch in the General Council of the Association for the ensuing year. Adjourned discussion on Mr. Gamgee's paper—The Benefits conferred by Vivisection on Human Surgery. The following papers are promised. Mr. Bennett May: A Case of Extirpation of Goitre. Dr. Savage: Abdominal Sections performed during 1881. Members are invited to exhibit patients, pathological specimens, new drugs, instruments, or appliances, at the commencement of the meeting. —E. MALINS, M.B., 8, Old Square; E. RICKARDS, M.B., 14, Newhall Street, Honorary Secretaries.—March 1st, 1882.

WEST SOMERSET BRANCH.—The spring meeting of this Branch will be held at the Railway Hotel, Taunton, on Thursday, March 30th, at five o'clock. The following question has been settled by the Council as the one on which members should be invited to express their opinion at the said meeting after dinner: "What is your Experience of the Complications and Sequelæ of Scarlet Fever?"—W. M. KELLY, M.D., Honorary Secretary.—Taunton, February 28th, 1882.

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

THE fourth ordinary meeting of the session was held at the Museum and Library, Bristol, on Wednesday afternoon, February 22nd, 1882; present, D. DAVIES, Esq., President, and 58 members.

New Members.—The following gentlemen were elected members:

—E. C. Bousfield, M.R.C.S., Bristol; J. A. Barton, M.B., C.M., St. George's; W. J. Penny, M.R.C.S., Bristol; A. L. Wade, B.A., M.D., T.C.D., Wells; G. W. H. Cumming, M.R.C.S., Wick; T. D. Ransford, F.R.C.S., Bath.

Homœopathy.—The secretary read a communication from the secretary of the South Western Branch on the subject of homœopathy. It was resolved: "That the secretary be requested to acknowledge the receipt of the communication, and to forward a copy of the resolution of the Bath and Bristol Branch passed at their meeting on November 30th, 1881."

Papers.—The following communications were made:

1. A case of Litholapaxy, by Mr. W. H. Harsant. Mr. Greig Smith, Dr. Swayne, and the President made remarks upon the case.

2. A case of Polypus Uteri, by Dr. Steele; which led to comments by Dr. Aust Lawrence and Dr. Swayne.

3. On the co-existence of Pregnancy with Fibroid Tumours of the Uterus, by Dr. Aust Lawrence. Dr. Swayne, Dr. Markham Skerritt, Mr. Cross, and the President joined in the discussion on this paper.

4. On Amputation in Senile Gangrene, by Mr. Dobson. This paper was commented upon by Dr. Swayne and Mr. Coe.

5. Mr. Pickering described a new method of administering chloroform in operations about the mouth, and exhibited the apparatus which he had invented.

METROPOLITAN COUNTIES BRANCH: GENERAL MEETING.

A GENERAL meeting of this Branch was held at the St. George's Hall, Langham Place, on Wednesday, February 22nd, at 8 P.M.; EDWIN SAUNDERS, Esq., President, in the chair.

Dr. Howard's Ambulance Apparatus.—The ambulance carriage designed by Dr. BENJAMIN HOWARD, and described in the BRITISH MEDICAL JOURNAL of February 4th, had been brought into the room in which the meeting was held, and was inspected by the members present.

The PRESIDENT briefly explained the motives which had led him to invite Dr. Howard to explain to the Branch his views on ambulance conveyance. The Branch was interested in all such subjects as improvements in the means of conveyance of the sick and wounded. Referring to the police, he said that they were not to be blamed if the arrangements under their control were not altogether satisfactory or in consonance with modern requirements. The police did all that could reasonably be expected of them, and perhaps more; their action was especially useful in regard to the prevention of accidents by regulation of the street traffic.

Dr. HOWARD said he had promptly responded to the invitation of the President from considerations of duty, appropriateness, and utility. It was in the BRITISH MEDICAL JOURNAL, the organ of the Association, appeared the earlier articles from him upon this question; and it was from Mr. Ernest Hart, its editor, the movement received its earliest sympathy and encouragement. To avoid repetition of what he had said or written before, he would proceed from a different standpoint, and attempt such an exposition of the question as would properly come under the headings of The Science, Art, and Ethics of Ambulance Conveyance. This line he had adopted chiefly because he had heard that a friendly rivalry in ambulance construction was springing up; and, as the Macedonians taught the Greeks to beat them, he wished to tell all he knew, and so help others to achieve something better than he had himself accomplished. First, as to the science. Given a centre of motion and a radius: in proportion to the length of the radius from the axis, the amount of vibration would be increased. The corollary from this was that, the higher the patient was placed above the axis of motion or the ground, the greater would be the vibration to which he was subjected. As regarded wheels: the larger the wheel, the smaller was the amount of shock produced on meeting with an obstacle, such as a stone. A large wheel passed over an obstacle as over inclined planes; a small wheel met it more nearly at right angles, and the shock was increased. Hence, for ambulances, small wheels were bad. Regarding springs, Dr. Howard said that a spring did not of necessity diminish motion, but modified it; a good spring always diminished shock. An excess of springs was a general fault which he had noticed in ambulances designed by amateurs, of which he had seen many in the American civil war. Patriotic individuals presented ambulances furnished with a splendid arrangement of springs; they went very well on ordinary ground, but, on the rough ground over which they had to travel after a battle, the patients were often thrown together in consequence of the excess of spring action. In an ambulance, the action of the springs should be easy, but limited. In the police-stations, there were to be found stretchers, made to be carried on the shoulders of four men by means of long handles. It was not often that four men of the same height could be brought together for the purpose; and the mode of conveyance on the shoulder produced increased vibration, especially on rough ground. Another form of conveyance, at first sight very captivating, was the wheelbarrow-litter. Here, however, the spring was elliptical, and motion was increased rather than diminished; the wheel also was small, and the means for secluding the patient was not all that could be desired. There was also danger that the patient's head might, as he had seen it, lie lower than his feet. The position and motion by these contrivances were decidedly objectionable. In London a century ago, the principal means of conveying the sick and injured was the common hand-stretcher; and this, though simple, if well constructed and well carried, was, for short distances and rough ground, the easiest means of conveyance yet devised. Respecting the art of ambulance conveyance, Dr. Howard showed how the principles he had demonstrated were illustrated in the hand-stretcher, and in the horse-ambulance before the meeting. The chief points thus referred to were the lowness of the floor, the suspension of the body, the length and semi-elliptical shape of the main springs, the use of interior counterpoise springs, the suspension in the case of the additional stretchers, the rubber tires and rollers, etc., the largeness of the main wheels. As incidental points, were mentioned perfect provision for regulating light and air, and the turning of the entire vehicle on its axis. Respecting the ethics of the question, he said that human helplessness incurred the duty of human help, asking no questions. The possible drunkenness of the patient did not absolve us from that duty. On the contrary, this was the most frequent precursor of injuries to be averted. The help given should be prompt, official, qualified, responsible. While legal qualifications were demanded for trivial maladies, the gravest street accidents were too often allowed to be maltreated by the kindness of the most incompetent first comer. The working committee of the London Ambulance Service was now meeting weekly at Scotland Yard; and he hoped that London, which now had the finest fire-brigade and the best police department in the world, would in its own due time have also the best ambulance service the world could boast.

Dr. MOUAT had seen during a visit to New York, eighteen months ago, two examples of the working of a well organised ambulance system. One day, while he was going over the New York Hospital with the superintendent, a bell rang, which, he was told, was for the ambulance. He went at once with the superintendent to the stable, where they found a horse ready harnessed, which had of itself left its stall and put itself in the shafts of the ambulance-carriage. In the carriage were appliances of all kinds likely to be required. Information had been received by telephone that some one had been run over in the street; and the ambulance-carriage was ready and left the hospital within five or six minutes, with trained assistance. It was important that skilled assistants should be brought as quickly as possible to the scene of injury. He had himself fallen in the street about three weeks ago, and dislocated his shoulder; and the bystanders had attempted to raise him by the injured arm. In the case at New York, the accident was found to be a simple fracture; this was put up by the surgeon, and, when the patient arrived at the hospital, he was at once conveyed to a room where anything that was necessary could be done. He had observed that the driver of the ambulance carried a small flag, and was informed that in New York everything had to give way to the ambulance and the fire-engine. The other case which he saw was at Bellevue Hospital; it proved to be one of drunkenness, with a lacerated wound of scalp. It was surely possible to organise an ambulance system in London; but a very careful organisation would be required. It should be under the management of the police, who ought to know every day what number of beds were available in each hospital for medical and surgical cases. He would say that none stood higher in public estimation, for the display of humanity, than the London police.

Dr. GORDON had seen much of ambulance service. Among other apparatus used in the Franco-German war, he had seen Dr. Howard's military ambulance, and he preferred this even to that before the meeting. It was arranged so that patients could be conveyed either sitting or lying; it could contain several, and was better adapted for going over all kinds of ground. His experience was opposed to placing wounded men over one pair of wheels; there was greater jolting. In the present apparatus, there was also danger of disablement from the ironwork under the seat breaking. He placed himself in Howard's ambulance on the field of battle outside Paris, and had been driven rapidly over fields and rough roads with comfort. He had counted about a dozen forms of ambulance; but Howard's (of 1870) was incomparably the best of them all for the purposes of war. He thought that it would be advisable to make the conveyance suitable for country work as well as for the streets of London. As to the administration, if it were undertaken by the

hospitals, an entire change in the management of those institutions, and administration by a central bureau, would be necessary.

Mr. FURLEY wished that the President and Dr. Howard could have witnessed the training of the police in the classes of the St. John's Ambulance Association. He believed that there were now more than a thousand policemen properly instructed and qualified. One of the instructions given to them was, never to carry the stretcher on the shoulders. Great credit was due to the police for the readiness with which they had come forward to be instructed. He disapproved of the military step in carrying a stretcher; the police were always instructed to avoid it, and to use the broken step. He had just built one ambulance carriage and had nearly completed another; and it remained to be proved what form would be adopted in London. He thought that the form of ambulance adapted for the field of battle differed in many respects from that best fitted for city work, and thought Dr. Howard was wise in having adapted his vehicles to that difference. In his ambulance, there were seats for those slightly injured in addition to the means of conveying those who were seriously hurt. In the stretcher shown by Dr. Howard, the loops at the sides were a great improvement.

Dr. R. T. DANIELL said that every policeman had the power of at once informing a medical man of a case of accident in the streets; and when an injured person was brought to a station, the divisional surgeon was summoned. It was quite true that what was best for the field of battle was not best for the streets of London. The volunteer ambulance department had been doing good work in London, in training two thousand volunteers for the service. All were taught to use the broken step in carrying patients. It was now an exception for the police to attempt to distinguish between the drunk and dying.

Dr. HOWARD said his different ambulances had been expressly made conformably to the differences in the conditions of the respective services for which they had been intended. He had fully appreciated and co-operated with the St. John's Ambulance Association, as it had reciprocally done with this movement. However, while the various hand machines for extinguishing fires were of immense value, they were not a substitute for, but only a complement to, the fire brigade. The guarantee of personal security so desirable for the public, could only be assured by an ambulance service for the saving of human suffering and life as official and complete, as is the other for the saving of property.

CORRESPONDENCE.

DEATHS FROM ANÆSTHETICS.

SIR,—The difficulties attending the classification of deaths from anæsthetics are forcibly put by several correspondents in your issue of the 25th, and must have been felt by all who, like myself, have attempted to tabulate these disasters.

The published accounts of most accidents of this kind are so meagre, that it is difficult, in many cases, to know how far to charge the anæsthetic with the fatal result; I have accordingly recorded all cases in which death could have been due to the agent employed, adding such notes as were given of the peculiar circumstances of the case.

I am glad to have elicited further particulars of the case at Addenbrooke's, which must now be classed with No. 4 in my list, in which death occurred through obstruction to the bronchus. This reduces the deaths due directly to ether to two, just one-fourth of the number assignable to chloroform, if the recent case at Pendlebury be excluded from the list.

Although it is impossible to exactly estimate the relative fatality of anæsthetics without a knowledge of the exact number of administrations, I may remind your correspondent, Dr. Sheen, that, according to a report published in your columns a few years ago, ether is in general use at most of our large hospitals; and, excluding cases in private, no fewer than twelve out of the fifteen cases I reported occurred in such institutions. Ether never came into general use at its first introduction. The idea of anæsthetics was new, and there was no good form of inhaler; while the advantages of the newer anæsthetic were pressed by the zeal and energy of Simpson. It was not till years after that some one was found to calmly add up the death-bill, and to recollect that this operation was hardly required when the older anæsthetic was in use.

Within the last few days, I have heard privately of another death from chloroform, occurring in a provincial hospital, of which I hope some account will reach you. This makes the sixth in the past six weeks.

Dr. Hollis refers to the need of more skilled administration of chloroform. It is a melancholy fact that many deaths have occurred in the practice of the most highly skilled administrators; and, I believe I am right in asserting that nearly all our professional anæsthetists—I refer to Mr. Clover and others, whose experience and skill are beyond all question—are in favour of ether as the most safe and convenient anæsthetic.—I am, sir, yours, etc.,

ERNEST H. JACOB, M.D.

Leeds, February 25th, 1882.

SIR,—Whilst acting as chloroformist to Westminster Hospital, a case occurred to me like the one cited by Mr. Marmaduke Sheild at Addenbrooke's Hospital, with the exception that chloroform was used instead of ether.

The operation was for removal of the right superior maxilla, and had proceeded as far as the removal of the diseased portion, when pulse and respiration suddenly ceased. The usual remedies were applied without avail. As in the case cited by Mr. Sheild, the hæmorrhage was very great—in fact, greater than I had ever seen before. The *post mortem* examination showed the trachea and bronchi filled with coagulated blood.

Should the Committee of Council of the British Medical Association appoint a subcommittee to obtain statistics of the anæsthetics used in hospitals for some time back, as suggested by Mr. Woodman, I shall be most happy to send the results of my cases whilst acting at Westminster Hospital and elsewhere.—Yours truly,

CHAS. H. GLASSINGTON, M.R.C.S.Eng.

105, Fulham Road, South Kensington, Feb. 26th, 1882.

CHLOROFORM AS AN ANÆSTHETIC.

SIR,—The indignation created by Dr. Ormsby's letter, in your JOURNAL of the 18th instant, was inevitable. How can he explain the cause of death in three of the cases mentioned by Dr. Hollis in to-day's JOURNAL? It would appear that each subject was in good general health when the ether was administered, yet all died suddenly during its administration. If Dr. Ormsby believes it to be "criminal and unscientific" to use chloroform, what shall we say of the alternative—ether? Both Dr. Ormsby and the writer whom he quotes would appear to indulge in unscientific reasoning. If I condemn the practice of every surgeon who does not adhere to the principles of Listerism as "criminal and unscientific," what judgment might I expect the profession to pass on such an opinion? The very disciples of Lister would laugh at it. Ringer "has given chloroform in serious heart-disease, in every stage of phthisis, in Bright's disease, cancer, chronic bronchitis, etc., to patients almost dead of exhaustion from loss of blood, to children of a few weeks, and to persons close upon a hundred years old, without any threatening symptoms." The use of chloroform, like the use of other drugs, requires skill and caution; and I hold that, with a due exercise of both, the administration of chloroform is almost absolutely free from danger. In fact, the very small proportion of deaths that do occur from chloroform may, in most instances, be attributed to the surgeon's supreme confidence in its perfect safety; and hence a lack of preliminary investigation and subsequent caution. I have administered chloroform, when in the great iron and coal centre of South Wales, at nearly every hour of the day and night, often in cabins on the hills, with hardly standing room, and the only light for operating, a candle. The patient once anæsthetised, it was our custom to get a collier to keep up anæsthesia; and I have never witnessed alarming symptoms from such practice. I never go to a case of parturition without chloroform, and I certainly never apply forceps without previously administering it; indeed, in those cases where forceps are inadmissible—the head at the perinæum; the pains at a climax of severity, with no appreciable intermission; and the perinæum, from some anatomical peculiarity, in danger of rupturing—it is our manifest duty to give chloroform; and, by doing so, we not only convert a condition of intensest agony to a perfect elysium of repose, but we also secure time for due structural relaxation of soft parts; and this is effected, too, with a rapidity and certainty to which ether can lay no claim. The man who has the hardihood to suggest the erasure of chloroform from our list of remedies, had better propose a whole burnt offering of the *Pharmacopœia*.—I am, sir, your humble servant,

JOHN LOWE.

Lichfield, February 26th, 1882.

CHLOROFORM OR ETHER?

SIR,—I have read with deep interest the letters upon anæsthetics appearing in the BRITISH MEDICAL JOURNAL, and it seems to me that there are a few questions bearing upon the subject, that may be overlooked or quite forgotten in the present discussion.

One gentleman speaks in the highest terms of chloroform, and another equally praises the virtues of ether as an anæsthetic. I fail to

see how we are going to answer definitely the question—Which anæsthetic is best? Each has its merits, each its disadvantages, and I should prefer to ask which is the best to use in individual cases.

If I am to perform some delicate eye operation, shall I use chloroform or ether? Which am I to use when an old or apoplectic man is to be anæsthetised? A country doctor in the middle of the night is about to perform an obstetric operation, his nearest brother practitioner being ten miles away. Which is the most convenient drug for him to use for the purpose?

And lastly, but still important: is an apparatus to be used; and if so, which out of the multifarious kinds is it the most advisable to select?—I am, Sir, yours faithfully, JOS. SARJANT, M.R.C.S.

Worcester, February 28th, 1882.

HOMICIDE BY INFECTION.

SIR,—Your pertinent article on Homicide by Infection, in the JOURNAL of February 4th, has suggested to me the propriety of addressing the profession, through the JOURNAL, regarding certain generalities connected with the subject of puerperal septicæmia.

There is unquestionably some want of unanimity in the minds of the profession on the question what puerperal fever really is. That it is not, in the great majority of cases, one specific disease, is allowed by all, or by nearly all. That it is never a specific disease, is held by most authorities of repute. That there is a specific disease, if we desire to abolish the name puerperal fever, say a distinct septicæmia, which at times is liable to become epidemic, is still believed by some who have carefully investigated recent outbreaks.

Among many, the late Drs. Fleetwood Churchill and Alfred McClintock, and Dr. Matthews Duncan, have stated the non-necessity for a practitioner who has charge of cases of puerperal septicæmia ceasing from obstetric practice. Others have strongly insisted that, in the event of two or more cases of puerperal septicæmia occurring consecutively in practice, a lengthened period of interruption from attendance in midwifery is absolutely imperative.

The discussion, in 1875, in the London Obstetrical Society, beyond arriving eventually at an opinion that the disease called puerperal fever was not a disease, but, as had been previously stated by Dr. Farre and others, many blended together, in no way advanced the pathology of the affection. Since then, little more has been done. One notable exception is Dr. Matthews Duncan's elaborate demonstration, that puerperal fever is non-epidemic. My own papers, contributed to the *Obstetrical Journal* (July to December 1880), endeavoured to establish various propositions. 1. At certain times, large numbers of parturient women are attacked with fever, followed by secondary evils. 2. This fever is not solely dependent on septic material conveyed manually. 3. It is not dependent on erysipelas. 4. It is not ordinary septicæmia or pyæmia. 5. It is communicable by contagion. 6. As in other fevers (*e.g.*, typhus, typhoid, scarlatina), complications frequently appear, varying in their nature, as the constitution of the patient and the surrounding hygienic arrangements may vary. 7. Like other blood-poisons, it is most virulent in hospitals, or where large numbers of lying-in women are crowded together. 8. It is a distinct disease from its complications—peritonitis, metritis, öophoritis, phlegmasia, etc. 9. It is infectious to the fœtus *in utero*, or the new-born child, as are small-pox, measles, etc. 10. The lower animals are simultaneously affected. 11. When the disease runs its normal course, the *post mortem* appearances are not more inconstant than in other fevers. 12. In the course of an epidemic, like all general epidemics, "a wave" is usual; after it has become endemic, incoming strangers are more liable to infection than habitual residents, etc.

These views were not the outcome of theoretical musings, but deductions derived from a close study of the clinical aspects of the question. They are offered for the consideration of all who care to accept clinical work as the basis of a scientific distinction in disease. I am aware that improvements might be made on my method of statement, but refer the readers of your JOURNAL to the above-mentioned cases and extended remarks for fuller particulars. The inquiry, originated by Dr. Braxton Hicks, in the BRITISH MEDICAL JOURNAL for January 22nd, 1876, most unfortunately was not taken up by the members as it should have been. A more important inquiry than "What is the requisite quarantine after attendance on puerperal fever?" could not well be originated. Except the replies of the late Dr. F. Churchill and mine, in the JOURNAL for March 25th, 1876, no other was forthcoming.

The important experiments recorded in recent numbers of the JOURNAL, by Dr. Braidwood and Mr. Vacher, seem to show that septic infection may result from normal lochia; and that, under certain conditions, this may be enormously increased in potency. For clinical purposes, these experiments prove almost too much, as, with a lacerated perinæum, which has been demonstrated by Snow, Beck, Duncan, etc., to be a most common condition after labour, puerperal fever ought, theoretically, to occur much more frequently than it does. The predisposing causes of bad general health, physical and mental, etc., must naturally be deemed important; but, whatever differences may pertain regarding the causation of the condition theoretically, practically the individual responsibility of an attendant, in disseminating infection, must be of the greatest importance. If midwives are to be registered, and entrusted with such powers and privileges as is proposed by the Parliamentary Bills Committee, and reported in your issue of February 11th, it is highly desirable that no uncertainty should remain concerning these momentous questions of quarantine or no quarantine; of disinfection, and what disinfection; of culpability or criminality, or not? To determine these points, I think it would be advisable to obtain a series of short articles, of as practical bearing as possible, from members of the Association; and to refer the matter to the Investigation Committee, or a special committee, who would collect evidence and statistics, which might be afterwards drawn up and circulated throughout the profession. Unless the members really interest themselves, and give as full information as possible, the labours of any committee must needs be futile. In addition to the etiology, recent methods of treatment—*e.g.*, quinine, carbolic acid, sulpho-carbolates, Warburg's tincture, aconite, etc.; prophylaxis by disinfectants, carbolic acid, permanganate of potass, turpentine, iodine, etc., might be embodied in the inquiry.

I have only outlined what I might have dwelt on at much length, but hope the matter may prove sufficiently attractive to be taken up heartily by the members.—Yours faithfully,

A. D. LEITH NAPIER, M.D.

Dunbar, N.B., February 18th, 1882.

THE HEALTH OF DUBLIN.

SIR,—I observe that Dr. Cameron, Superintendent Medical Officer of Health for Dublin, takes exception to a statement made in the JOURNAL of the 11th inst., to the effect that the roseate anticipations he, Dr. Cameron, made some months previously, as to the improvement in the health of the city had not been realised. Your correspondent begs to assure Dr. Cameron that in using such language he had not the slightest intention to offend his susceptibilities, or to depreciate his exertions in behalf of sanitary improvement in Dublin. These exertions are well-known in that city, and as far as they can go under the present circumstances are appreciated by no one more highly than by the writer. But in justification of the statement in addition to Dr. Cameron's own admission in his letter to you, I may remark that in each of his official monthly reports on the State of Public Health in Dublin, from May to October inclusive, Dr. Cameron refers very properly to the steady improvement in the sanitary condition of that city. This remarkable improvement, he says, in his report for August "is, no doubt, in part due to the sanitary work performed during the last two years," and he particularises the work undertaken under his auspices. But "how far all this sanitary work has been instrumental in effecting the wonderful improvement which has taken place in the state of public health in Dublin," he is "unable to say." Exactly so. I would, however, beg to submit, as has been before stated in this JOURNAL and elsewhere, that without claiming any "steady," "continued," or "remarkable," improvement in the health-rate from sanitary measures, the exceptional climatic and meteorological conditions of the past spring and summer were alone sufficient, apart from the much needed sanitary reforms, to account in Dublin, as elsewhere throughout England and Ireland, for the exceptionally low mortality during this particular season of the year. The fact that "the bills of mortality began to decline very soon after a greatly increased activity in the sanitary department" of the city on Dr. Cameron's assuming its chief control, would be more satisfactory if such undoubted climatic influences could be eliminated, and such simultaneous improvement in the public health were not general.

In November the state of public health in Dublin was "not so satisfactory," and in December it was reported as being "very unsatisfactory". The high death-rate of December (37.75 per 1000), was caused nearly altogether by bronchitis and an epidemic of measles, 101 deaths from which latter disease were registered during the month, Dr. Cameron, however, "had reason to believe" (anticipate?) on the 4th January last that the epidemic was declining. During the four weeks ending January 28th the deaths registered from measles had risen to 141, and the death-rate from all causes to 39·75 per 1000. The return of "sanitary operations" during the month, however, shows no falling off as compared with former months. It was with a

feeling of regret, and not in a spirit of cavilling that the attention of your readers was directed to the high death-rate of Dublin. We have little doubt that Dr. Cameron's exertions will in time have some effect in diminishing the exceptionally high mortality of the city, even though, in his opinion, none of his published statements warrant such a "roseate anticipation" to be made from them.—I am, sir, your

DUBLIN CORRESPONDENT.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Tuesday, February 28th.

Shop Hours Regulation Bill.—Lord STANHOPE moved the second reading of the Shop Hours Regulation Bill, the object of which he described to be to protect women and young persons employed in shops and warehouses who could not protect themselves. There was a precedent for the proposed legislation in the factory regulations respecting women and children. The Bill provided that in shops and warehouses women and young persons should not be employed for more than ten hours a day, unless with permission of the Secretary of State. This exception was introduced to meet emergencies which arose at particular periods of the year. The noble lord quoted evidence given before a Royal Commission on factories, warehouses and shops, to prove the necessity of the proposed legislation, which, he said, was recommended by that Commission.—The Duke of SOMERSET thought it would be a very good thing to reduce the hours of labour of women and young persons, without reducing their wages; but he feared that this Bill would have the effect of reducing their wages or of inducing proprietors of warehouses and shops to employ men instead of women. He recommended that if the Bill reached committee the word "women" should be struck out, so as to confine the operation of the measure to young persons.—Lord FORTESCUE, as a consistent free-trader, objected to the Bill.—Lord ABERDEEN, while recognising the force of the Duke of Somerset's observations, was of opinion that legislation was necessary in the direction proposed.—Lord SHAFTESBURY observed that as 200,000 women and young persons were employed in warehouses and shops, he sympathised in the objects of the Bill; but he did not think the measure practicable or that it had a chance of passing through Parliament in its present shape. He pointed out that, as drawn, the Bill would oblige shopkeepers to close their shops after they had been open ten hours each day, but there was nothing in it to prevent them from employing women and children after the shops were closed.—Lord ROSEBERY, for the Government, expressed his concurrence in the remarks of Lord Shaftesbury, and objected to the duty which, by the Bill, would be thrown on the Home Office. If the noble lord in charge of the Bill pressed it, he would not vote against him, but he recommended him to withdraw it.—Lord STANHOPE withdrew his motion and the Bill.

HOUSE OF COMMONS, Tuesday, February 28th.

Mr. Kenny.—Dr. LYONS inquired whether the Government had come to any decision respecting Mr. Kenny's eligibility for the post of medical officer to a board of guardians for which he was a candidate.—Mr. W. E. FORSTER said that, if the board of guardians apply for the assent of the Local Government Board to Mr. Kenny's full nomination, that assent would be given; and should Mr. Kenny be elected no objection would be offered. The sealed order under which Mr. Kenny had been removed from office would not be withdrawn, as that would be an admission, not justified by the circumstances of the case, that it was not within the duty of the Government to issue it. It would not prevent Mr. Kenny's reappointment.

HEALTH OF BERLIN IN 1881.—The mortality returns of Berlin for 1881 show that the total number of deaths was 31,050, or 27.2 per 1,000 of the entire population, estimated at 1,140,000 in the middle of the year. Still-born children are not included. Of the deaths, 12,273, or 39.5 per cent., occurred in infants under one year; of these, 3,627 were breast-fed, 5,284 had artificial food, and 3,362 a mixed diet. Diphtheria and croup caused 1,728 deaths; diarrhœa and cholera 4,718. There were 54 deaths from small-pox; the number in each year from 1873 having been 101, 23, 50, 18, 4, 8, 8, and 9. The death-rate, both in the general population and among infants, was lower than in any of the previous eight years.

MILITARY AND NAVAL MEDICAL SERVICES.

DEPUTY INSPECTOR-GENERAL of Hospitals and Fleets Thomas Colan, M.D., has been appointed to Plymouth Hospital. The appointment is temporary.

AT the examination for the Medical Services, which commenced on the 20th ult., thirty-one candidates presented themselves for eight vacancies in the Indian service, twenty-one for six in the naval, and over sixty for the army. The Army Medical Department do not announce the number of vacancies. This is particularly misleading to the candidates, who come up on vague and undetermined reports. The department now being fully organised, and its advantages well known, there can be no reason for withholding information not withheld in the sister services or in any other competitive examination.

THE NETLEY MEMORIAL TO THE LATE SURGEON-MAJOR PORTER, A.M.D.—The Committee appointed to carry out a Memorial to the late Surgeon-Major Porter of the Army Medical Department, to be placed in the Chapel of the Royal Victoria Hospital at Netley, make the following report regarding the work with which they were entrusted. The committee was appointed on January 20th, 1880. After full consideration it was determined that the memorial should have the form of a wall tablet, bearing upon it a medallion portrait. The committee had the advantage of the assistance of Inspector General MacDonald, R.N., F.R.S., who, partly from memory and partly from photographs, moulded a profile portrait of Mr. Porter, which was generally admitted to be an excellent likeness. After obtaining the approval and sanction of the War Department for the erection in the Chapel of the tablet, and of the inscription proposed to be engraved on it, and after consultation regarding an artist competent to carry out the work, an agreement was entered into with Mr. Verheyden, of London, for its execution. The work was completed and placed in the the Chapel on the 14th October, 1881. The medallion portrait is of life size, and both it and the other sculptural parts of the monument are of pure white statuary marble, on a back ground of polished black marble. The committee have the satisfaction of being able to state that the resemblance embodied in the medallion, and the artistic execution of the whole tablet have received the warmest approval of all the relatives and friends of the late Surgeon-Major Porter who have seen it. A photograph of the memorial accompanies the report, and a statement of the accounts is also appended.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

NOTIFICATION OF INFECTIOUS DISEASES.

IN the year 1877, the Corporation of Bolton was the first in the Kingdom to obtain compulsory powers for the notification of infectious diseases, and its example has since been followed by a large number of other towns. We learn, however, from the *Bolton Chronicle* of Saturday last, that an attempt to modify and extend these powers is now greatly agitating the minds of the medical practitioners of the place.

On February 22nd the Sanitary Committee was engaged in listening to the views of two opposite parties of the medical profession on this question. On the one hand a deputation, headed by Mr. Ferguson, represented the views of a large number of medical men in the neighbourhood, and brought forward many objections both to the Act of 1877, and to the New Improvement Bill. These objections were briefly summarised by Mr. Ferguson. Although the gentlemen represented did not object to reporting cases of infection, they decidedly demurred to being forced to do so under pains and penalties. They were of opinion that private medical practitioners should be left to the exercise of their own judgment in such cases. Complaints were made as to the mode in which the Acts had been carried out, and it was considered that the medical reports should be kept private and confidential. On the other hand, Dr. Livy, J.P., and with him several of the most eminent medical practitioners of Bolton, expressed an entire opposite view of the objects of the Bill. He considered the recommendations contained in the sanitary clauses of the Bill in regard to the separation of the sick from the healthy, and the isolation, for a time, of the inmates of an infected house, as absolutely necessary if smallpox and other infectious diseases were to be effectually stamped out. To do this, nothing less than the powers asked for will be sufficient

At the same time he (Dr. Livy) admitted that the powers granted would have to be exercised with the greatest tact and discretion, if they were to be successful. The sanitary authority ought in the first place to be the teacher of the ratepayers, and to seek to effect more by moral suasion than by force of law. The just susceptibilities of the private medical men in charge of infectious cases must not be needlessly wounded by unnecessary interference; and he respectfully suggested that the medical officer of health be required to give the private practitioner notice of his intended visit to the affected person, in order to secure the co-operation of the medical man in dealing with such outbreaks. In waging war upon infectious diseases, the medical officer of health would find his most powerful allies in the profession, and it should be not one of his least important duties to win their confidence and secure their co-operation. The outcome of the discussion was that the committee, after deliberating upon the representations made to them, unanimously resolved not to make any alterations in the clauses as they at present exist. We commend these remarks of Dr. Livy, not only to the corporation of Bolton, but to the sanitary authorities of every place where similar Acts are in force. It is certain that if this valuable means of coping with epidemic diseases is to be effectually carried out, it can only be by the cordial assistance of the medical profession, and this must be secured rather by a policy of conciliation than by means of force.

THE HONITON GUARDIANS AND THEIR DISTRICT MEDICAL OFFICERS.

On Monday 24th January the son of one Harriett Willioman, deceased, residing at Sidbury, in the Honiton Union, took an order to Dr. Pullin, district medical officer, residing at Sidmouth, worded as follows:—"Please attend to Harriett Williman, living in Lidford parish, on account of illness." The order was not marked urgent, thereupon Dr. Pullin asked what was the matter; to which the son, a young man, replied, "She has been sick, sir, and has got spasms." The woman, it appeared, was well-known to Dr. Pullin, who had frequently attended her, but not recently. On hearing the son's statement, Dr. Pullin prescribed for her, and on giving the medicine said "Give that to your mother and tell her that if she is not better after taking it to let me know and I will go and see her." It did not appear from the report in the *Devon Weekly Times* of the 3rd and 14th February that any further application was made to Dr. Pullin for his attendance. A short time afterwards the woman died. Subsequently an inquest was held, when it appears from the *post mortem* examination that the woman's death arose from a chronic affection of the liver and stomach; and the verdict of the jury was "that blame was attributable to no one." In the course of the inquiry, the coroner observed that it was a pity that Dr. Pullin had not seen the deceased before her death'; a very natural remark, seeing that it would have prevented any inquiry, and would have obviated the very considerable prejudice since got up against the doctor. At a meeting of the Honiton Board of Guardians, it was decided that Dr. Pullin should be required to resign. This resolution was only carried by a bare majority of a section of the Board, many of the members declining to vote at all.

Though agreeing in the opinion of the coroner's jury, as to the merits of the case, an opinion showed by the more intelligent section of the guardians and the local public, we must express our regret that the woman was not seen by Dr. Pullin, though, from the information supplied to him, we hold that he ought to be exonerated from all unintentional neglect. We would also point out to district medical officers, the very great importance of giving written instead of verbal instructions, when they hand medicines to ignorant poor persons; as it was shown that the neglect so to do was laid hold of to create prejudice against the doctor in this case. We would also urge on boards of guardians the advisability of issuing to their relieving officers, two forms of printed notices; one intimating to the medical officer that personal attendance was necessary; the other that medicines only were required. This rule, since the introduction of the dispensary system in the metropolis, has been invariably acted on with advantage to the sick poor and their medical officers.

To any one desirous of knowing how far a board of guardians can go in browbeating a medical officer, we would commend to their attention the report in the paper to which we have referred, viz., the *Devon Weekly Times* of Friday, February 17th.

LONDON SANITARY PROTECTION ASSOCIATION.

The first annual general meeting of this Association was held at the Society of Arts, John Street, Adelphi, on Saturday, February 25th. Professor Huxley, President of the Association, took the chair, and read the annual report. It stated that at the end of 1881 the Association had one hundred and ninety-two members, twenty-two of whom were medical men. The need for attention to the sanitary state of houses was shown by the fact disclosed by Mr. Burton's reports, that six per cent. of the houses inspected during the year were absolutely pestiferous. In more than two-thirds of the cases of inspection, there were, it appeared, general defects in the drainage arrangements, which were very dangerous to children or delicate adults. The Chairman moved the adoption of the report and balance-sheet.

Mr. Timothy Holmes (the Honorary Treasurer), in presenting the balance-sheet, which showed a balance in hand of £74 at the end of 1881, said that in the first two months of 1882 forty-two new members had joined, and only two of the old members had left the Association; so, at the present time, the Association numbered two hundred and thirty-two members, and had a balance of £100 in the bank.

Professor Fleeming Jenkin, one of the Consulting Engineers, said the work of the Association, as carried out by Mr. Burton, the Resident Engineer, had been most satisfactory. He had been surprised at the bad state of London houses, which compared unfavourably with the state of houses in Edinburgh. As a proof of the usefulness of such an Association, he said that during the present typhus fever epidemic in Edinburgh there had only been one case among the houses under the care of a kindred Association, and this had been contracted through visiting some very poor people. In conclusion, he would suggest to the editors of the technical and scientific papers, that they could not better serve their readers than by establishing "test cases", joining the Association themselves, or causing a friend to do so, without letting the officers of the Association know who they were, and, when they obtained their report, telling their readers what they thought of it.

The adoption of the report and balance-sheet was seconded by Sir William Tyrone Power, who called special attention to the advantage to proprietors of hotels and lodging-houses of possessing a certificate from the engineer of the Association framed and hung up in some conspicuous position. Having been supported by Mr. E. C. Robins, Architect, and Dr. Lauder Brunton, both of whom gave practical instances of the usefulness of this Association, it was carried unanimously.

It was announced that, after a ballot among the members present, the whole of the outgoing members of Council were re-elected unanimously, with the addition to their number of Dr. John Macpherson, Surgeon-General Munro, and Dr. Allen Thomson.

A vote of thanks to the President and Council having been moved by the Hon. and Rev. Mr. Fremantle, and seconded by Dr. Pearson of Kensington, and carried unanimously, the meeting adjourned.

We are requested to state that a report of this meeting will be printed *in extenso* as soon as possible, and sent gratis and post-free to any member of the medical profession applying for it to the Secretary of the London Sanitary Protection Association, 7, John Street, Adelphi.

WORKHOUSE AND DISPENSARY MEDICAL OFFICERS: MISTAKES IN DIAGNOSIS.

Sir,—The following paragraph appears in the current number of the British Medical Journal.

"Athy Union: Mistakes in Diagnosis. Dr. O'Neill, medical officer of the workhouse, has called the attention of the guardians to a practice which he states has been constantly taking place, viz., sending patients to the fever hospital who had not fever, and people who suffered from that disease to the infirmary. The danger of such proceedings was obvious; and he threatened that, if medical men persisted in the future in doing so, he should be obliged to mention their names. Further, he was of opinion that, if the dispensary medical officers had not sufficient skill and intelligence, they should be suspended."

It is hard to conceive a more serious or a more painful charge than is contained in the above; and, whilst disclaiming any intention of obtruding myself into any differences which may exist between the workhouse medical officer and the dispensary medical officers of the Athy Union, I beg you will allow me space to offer a few remarks on the subject generally, as it is one of great importance to both classes of officers, and unfortunately one which frequently gives rise to annoyance and bad feeling.

Unquestionably, it is a most unfair thing for the medical officer of a workhouse to blame a dispensary doctor if a case which the latter sends into hospital as one of fever turn out after admission to be something else; or, *vice versâ*, that a case which he supposed to be non-infectious should subsequently prove to be fever. Neither is it to be wondered at that the most experienced and skilful physician will occasionally be deceived in such cases.

If correct diagnosis in the wards of an hospital, with plenty of light, and with the mind undisturbed by surroundings, be a matter of difficulty, even after lengthened and careful observation, how is a man to tell the exact nature of a case which he sees for the first time in a little cabin without light or air, with the delicate attentions of the cur and the harmonious mingling of the hens and the pig, or possibly the goat, to "divart" him, with the truthful history of the case carefully concealed from him, and the person of his patient assiduously denied the use of soap and water? I should like to see a physician with anything short of the diagnostic skill of a Corrigan demonstrate with any degree of accuracy the presence of typhoid spots, or distinguish between them and other spots under such circumstances.

As a rule, the dispensary doctor is called in at the onset of the patient's illness,

and most frequently during the incubation stage of a fever. He finds a quick pulse and high temperature, a furred tongue, all the evidences which tell him that "a storm is brewing", which, so far as he can see, will most likely become a fever. Is he to wait till the disease has fully developed itself, till the simplest old woman can tell what is the matter, before he recommends his patient's removal to hospital? The idea is absurd.

Another and a more unpleasant aspect of the question arises in the fact that there is always a keen rivalry for private practice between the medical officer of a workhouse and the surrounding dispensary medical men. It follows that, if the workhouse doctor choose to say to a board of guardians of his brethren in the dispensaries that they are mistaken in their diagnoses of cases, and that he does this it may be with all honesty of purpose, and in what he considers the discharge of his duty, the end attained is, I say, inevitably this: that he, on his own showing, and by publicly announcing the incompetence of others, gets credit for more skill, and in all human probability gets more private practice, to the exclusion of his discredited *confrères*.

As I said in the beginning, I am discussing this matter altogether outside Dr. O'Neill, of whom I know nothing; so that if he sees this, he will not consider I am even remotely alluding to him.

My idea is that, in cases where such differences of opinion are frequent, an "observation ward", where cases of a doubtful nature could be put into on admission, would best meet the difficulty. Let the medical officer of the house classify them as he pleased then.

I must apologise for the length of this letter; the importance of the subject, and a hope that it will elicit the views of others more competent to express an opinion thereon, must be my excuse.—I have the honour to remain, your obedient servant,

JOHN L. WALSHE, Workhouse and Dispensary Medical Officer.

Kilmacthomas, County Waterford, Ireland, February 23rd, 1882.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted Licentiates on February 23rd, 1882.

Alderton, Herbert Charles, Dispensary, Stoke Newington, N.
Bevan, Henry Crook, 29, Frederick Street, W.C.
Cooper, George Frederick, St. Thomas's Hospital, S.E.
Day, Thomas Montagu, Harlow.
De Lom, Henry Anthony, 31, Denbigh Street, S.W.
Fell, Walter, 198, Earl's Court Road, S.W.
Harper, Charles John, 2, Station Road, Finchley, N.
Joseph, John Baptiste Edgar, Trinidad.
Parry, Robert, Festiniog.
Prabhakar, Govindrao Bhau, 48, Saltoun Road, S.W.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, February 23rd, 1882.

Ford, William Henry, Melbourne, Victoria.
Furnival, Francis Henry, Meeston, Nottingham.
Hudson, Ernest, Harleston, Norfolk.
Lewers, Arthur Hamilton N., 55, Torrington Square, W.C.
Stacpoole, Charles, 127, Inverness Terrace, W.

The following gentlemen also on the same day passed their Primary Professional Examination.

Baird, T. Patrick, Aberdeen University.
Williams, Charles, Middlesex Hospital.

UNIVERSITY OF CAMBRIDGE.—At a congregation held on February 23rd, the degree of M.B. was conferred on F. J. Cannon (Trinity), and James Oswald Lane (St. John's).

UNIVERSITY OF DUBLIN.—At the Hilary Term Examination for the Degree of Bachelor in Medicine (M.B.), held on Monday and Tuesday, February 6th and 7th, 1882, the successful candidates passed in the following order of merit.

George B. Russell, Edward F. Pigot, Henry St. J. Brooks and William H. Burke (equal), Travers M. Smith, George F. Dean, James S. Carson and James Gloster (equal), John W. Gowland, Patrick Neary.

At the examination for the Degree of Bachelor of Surgery (B.Ch.), held on Monday and Tuesday, February 13th and 14th, the successful candidates were arranged in the following order of merit.

George B. Russell, Edward F. Pigot, Thomas R. Gillespie, Henry St. J. Brooks, George A. Marshall, James Craig.

MEDICAL VACANCIES.

The following vacancies are announced :—

ASHBOURNE UNION RURAL SANITARY AUTHORITY—Medical Officer of Health for the Southern District. Salary, £25 per annum.

BELMULLET UNION—Medical Officer for Workhouse at a salary of £50 per annum, together with £5 per annum as Superintendent Medical Officer of Health. Election on the 9th instant.

CARNARVONSHIRE AND ANGLESEY INFIRMARY.—House-Surgeon. Salary, £100 per annum. Applications by March 7th.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Assistant Honorary Surgeon. Applications by March 4th.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C. Assistant Surgeon. Applications by the 8th March.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Administrator of Anæsthetics. Applications by March 13th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Assistant Dental Surgeon. Applications by March 13th.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Clinical Assistant. Applications by March 23rd.

EPSOM UNION, DISTRICT OF LEATHERHEAD AND FETCHAM.—Medical Officer and Public Vaccinator. Salary, £50 per annum. Applications by March 21st.

ESSEX AND COLCHESTER GENERAL HOSPITAL.—Member of Surgical Staff. Applications by the 29th March.

ESSEX AND COLCHESTER GENERAL HOSPITAL.—Physician. Applications by the 29th March.

GENERAL INFIRMARY, NORTHAMPTON.—Assistant House-Surgeon. Salary, £80 per annum. Applications by the 13th March.

KENT AND CANTERBURY HOSPITAL—House-Surgeon. Salary, £80 per annum. Applications by April 6th.

KENT COUNTY LUNATIC ASYLUM, Chatham Downs, near Canterbury.—Second Assistant Medical Officer. Salary, £120 per annum. Applications by the 21st instant.

KIDDERMINSTER FRIENDLY SOCIETIES' MEDICAL ASSOCIATION—Medical Officer. Applications by the 11th instant.

NORTH WALES COUNTIES LUNATIC ASYLUM, Denbigh.—Medical Superintendent. Salary, £450 per annum. Applications by the 29th instant.

PAISLEY INFIRMARY.—House-Surgeon. Salary, £80 per annum. Applications to Francis Martin, County Buildings, Paisley, by the 4th March.

PARISH OF GAIRLOCH, Ross-shire.—Medical Officer. Salary, £100 per annum. Applications to the Chairman, Osgood H. Mackenzie, Esq.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road.—House-Physician. Salary, £80 per annum, in lieu of Board. Applications by the 9th March.

ST. BARTHOLOMEW'S HOSPITAL—Assistant Surgeon. Applications by the 7th instant.

ST. GERMAN'S UNION RURAL SANITARY AUTHORITY—Medical Officer of Health. Salary, £100 per annum. Applications, marked "Appointment Medical Officer of Health", by March 9th.

ST. LUKE'S HOSPITAL—Clinical Assistant. Applications by March 23rd.

WESTERN GENERAL DISPENSARY—Marylebone Road—Honorary Physician. Applications by March 6th.

MEDICAL APPOINTMENTS.

BAIN, WM., L.R.C.P., appointed Resident Medical Officer to St. Mary's Hospital, and the Manchester and Salford Lying-in Hospital and Dispensary for Diseases of Women and Children, Quay Street, Manchester.

BAKER, W. M., F.R.C.S., appointed Surgeon to St. Bartholomew's Hospital.

BARTON, J. E., M.R.C.S., appointed Medical Superintendent to the Surrey County Asylum, Brookwood, *vice* T. N. Brushfield, M.D., resigned.

BARTON, W. E., L.R.C.P., appointed Medical Officer and Public Vaccinator to the Burwash District of the Ticehurst Union.

BEATTY, Wm J., L.R.C.P.E., L.F.P.S.G., appointed Surgeon to the Stockton-on-Tees Boiler Makers' and Iron Shipbuilders' Society.

CRIPPS, W. H., F.R.C.S., appointed Assistant Surgeon to St. Bartholomew's Hospital.

GRANT, J. Dundas, M.A., M.D., M.R.C.S., appointed Honorary Surgeon to Out-Patients at Poplar Hospital.

HOLLAND, L., B.M., M.D., L.S.A.Lond., appointed Lecturer on Aural Surgery to the Newcastle-on-Tyne Dispensary.

HUTCHINSON, S. J., L.D.S., appointed Dental Surgeon to the Dental Hospital of London, *vice* A. Coleman, L.D.S., resigned.

JUNE, J. B. T., M.B., appointed Assistant Medical Officer to the Montrose Royal Lunatic Asylum.

KEAY, John, L.R.C.P.Ed. and L.R.C.S.Ed., appointed Junior House-Surgeon to the Stockport Infirmary, *vice* R. A. Murray, M.B.

MARSH, R., M.B., appointed House-Surgeon to the Royal Surrey County Hospital.

MOODY, J. M., M.R.C.S., appointed Senior Assistant Medical Officer to the Surrey County Asylum, Brookwood.

MURRAY, Robert A., M.B.Ed., appointed Senior House-Surgeon to the Stockport Infirmary, *vice* R. E. England, M.D., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., *which should be forwarded in stamps with the announcements.*

MARRIAGES.

RHODES—NOOTT.—On the 21st February, at St. John's Church, Dudley, by the Revd. John Frederick Noott, M.A., Donative Rector of Blyford, and Vicar of Dunwich, assisted by the Revd. W. H. Crump, Curate of St. John's, Wm. Rhodes, M.R.C.S., L.R.C.P., Bridgnorth, to Ellen Elizabeth, third and youngest daughter of the Revd. E. H. L. Noott, Vicar of St. John's, Dudley.

ROBSON—JAMIESON.—On the 21st instant, at St. Mary-in-the-Boltons, South Kensington, by the Rev. W. T. Du Boulay, Vicar, Edward Shedden Robson, B.A., M.R.C.S., eldest son of Robert Naisbin Robson, Esq., of Durham, to Edith Isabel, youngest daughter of the late James Young Jamieson, Esq., of Gainford House, co. Durham.

DEATH.

JONES.—On February 22nd, at Swan Hill, Shrewsbury, Emma, the beloved wife of James Thoresby Jones, M.R.C.S., L.R.C.P., deeply regretted.

SANITARY ASSURANCE ASSOCIATION.—Dr. Farquharson, M.P., will preside at a meeting of the Sanitary Assurance Association on Friday, March 10th, at 7.30 P.M., when Mr. Henry Rutherfurd, Barrister-at-Law, will deliver an address on "Sanitary Assurance from a Householder's Point of View." A discussion will follow the address.

A MEDICAL practitioner at Bolton has been fined £5 and costs, under a clause in the Local Improvement Act, for neglecting to report a case of small-pox.

MR. J. H. CHANCE (of the firm of Chance Brothers and Co., of Spon Lane Glass-works, Birmingham) has offered to build an out-patient department at West Bromwich Hospital, at a cost of £600. The offer is accepted.

THE DRESS OF THE PERIOD.—A lecture on this subject was given, under the auspices of the National Health Society, by Mr. Frederick Treves of the London Hospital, on Saturday, February 26th, in the Kensington Town Hall, before a crowded audience, almost wholly composed of ladies. Professor Flower, in the absence of Dr. Andrew Clark, took the chair. Mr. Treves, assuming that the primary objects of dressing were to cover the body and maintain an equable temperature, pointed out that in a low evening dress these objects appeared to have received little or no attention. The neck and arms, and the upper part of the chest and back, were left bare; while about the lower extremities was accumulated a mass of raiment that would clothe a dozen children. In the ordinary dress of women, also, little regard was had for maintaining an equable temperature. The covering of the upper part of the chest above the line of the corset was very thin, perhaps that of the dress only. The region of the corset was reasonably covered, while about the hips many layers of clothing were massed. Thus the body might be divided geographically into a frigid, a temperate, and a torrid zone. Dealing next with tight-lacing, the lecturer said that children had normally no waist; and, if a mother gave her thought to the matter for a week, she could devise nothing more fatal to health than to make her daughter wear stays "to improve her figure". The normal waist of a woman, which was oval in section, had a circumference of twenty-eight to twenty-nine inches; the "elegant" waist, which was in section circular, a circumference of twenty inches; while the measurement of dressmakers' lay figures now varied from twenty-one to twenty-four inches. Mr. Treves also showed how, by the compression of the lower ribs, the stomach, liver, and lungs were displaced, and their free and necessary action prevented; and quoted medical evidence of the many and serious, often fatal consequences. It was announced by Mr. Ernest Hart that, as very many ladies had been unable to get into the hall, the lecture would be repeated there on the 18th of March.

HEALTH OF FOREIGN CITIES.—Trustworthy indications of the recent health and sanitary condition of various foreign and colonial cities are afforded by the following figures, deduced from a table in the Registrar-General's last weekly return. According to the most recently received official weekly returns, the annual death-rate in the three principal Indian cities averaged 32.0, and was equal to 29.5 in Calcutta, 21.0 in Bombay, and 35.8 in Madras; cholera caused 34 deaths in Calcutta, and 26 in Madras; measles 38 in Bombay; and small-pox 5 in Madras. The death-rate in Alexandria rose to 35.4, and 9 of the 144 deaths resulted from typhoid fever. In twenty-one European cities, the death-rate averaged 30.2, and exceeded by 4.8 the mean rate prevailing last week in twenty-eight of the largest English towns. The death-rate in St. Petersburg was equal to 51.3, and showed but a slight decline from the high rate in the previous week; 52 deaths resulted from typhus and typhoid fevers, 18 from diphtheria, and 17 from scarlet fever. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate did not average more than 26.6; measles, however, caused 15 deaths in Copenhagen and 5 in Christiania, and diphtheria 4 in Stockholm. In Paris, the death-rate declined to 31.7, although 62 deaths were referred to diphtheria and croup, 32 to typhoid fever, and 14 to small-pox. The rate in Geneva rose to 36.1; while it was 27.1 in Brussels, where 5 deaths resulted from typhus and typhoid fevers, and 4 from measles. In the three principal Dutch cities, the death-rate averaged 29.4, and was equal to 23.4 in the Hague, 27.2 in Amsterdam, and 35.3 in Rotterdam; whooping-cough caused 7 deaths in Rotterdam and 9 in Amsterdam. The Registrar-General's table includes returns from nine German and Austrian cities, in which the death-rate averaged 23.6; it ranged from 24.3 and 25.7 in Berlin and Dresden, to 39.9 in Trieste and 44.5 in Buda-Pesth. Small-pox caused 23 deaths in Vienna, 15 in Buda-Pesth, and 9 in Prague. The death-rate was equal to 26.1 in Venice and 27.9 in Turin; diphtheria is still somewhat fatally prevalent in both these Italian cities. No recent returns have been received either from Rome or Naples. The average death-rate in four of the principal American cities was equal to 29.1; the rates in these cities ranged from 23.1 in Brooklyn to 34.6 in New York. Small-pox caused 12 deaths in Philadelphia and 11 in New York; scarlet fever again showed fatal prevalence in New York and Brooklyn, and diphtheria in Philadelphia and Baltimore.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 2; Eye M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. General Meeting. Ballot for Officers and Council. Dr. Hughlings Jackson: A Case of Cortical Tumour of the Brain, with Convulsive Seizures beginning in the Right Foot. Dr. Sansom: A Case of Hodgkins' Disease, with Suppuration of some of the Glands of the Neck.—Royal College of Surgeons of England, 4 P.M. Professor W. H. Flower: On the Anatomy, Physiology, and Zoology of the Edentata.—Odontological Society of Great Britain, 8 P.M. Paper by Mr. Walter H. Coffin. Casual communications by Messrs. S. J. Hutchinson and M. Davis, etc.

TUESDAY.—Pathological Society of London, 8.30 P.M. Mr. Hutchinson: 1. Anomalous Nerve-Disorder in Infancy; 2. Multiple Osteochondromata (living specimens). Mr. A. Barker: 1. Congenital Dislocation of Hip; 2. Spinal Caries in Early Stage; 3. Fracture of Condyle of Femur (card). Mr. Davies-Colley: 1. Radically cured Inguinal Hernia; 2. Congenital Hypertrophy of Face (card). Mr. Eve (for Mr. Edwards): Sarcoma of Epididymis. Mr. Dent: 1. Double Displacement of Tibia (living specimen); 2. Sequestrum in Head of Femur. Dr. Warren: Intestinal Obstruction in a Marmozet. Dr. Burnet: Carcinomatous Stricture of Œsophagus (card). Dr. T. Robinson: Case of Alopecia. Dr. Thin: Three cases of Alopecia Areata in one Family. Dr. Duckworth and Dr. O. Harris: Microscopical Preparations of Alopecia Areata.

WEDNESDAY.—Royal College of Surgeons of England, 4 P.M. Professor W. H. Flower: On the Anatomy, Physiology, and Zoology of the Edentata.—Hunterian Society, 7.30 P.M., Council Meeting. 8 P.M., Dr. Bedford Fenwick: Venesection in Cardiac Disease.

THURSDAY.—Ophthalmological Society of the United Kingdom, 8.30 P.M. Dr. Walter Edmunds: Case of Suppurative Ophthalmitis after Ligature of Common Carotid. Mr. Lawford: An Unusual Case of Gun-shot Injury of the Eye. Mr. Waren Tay: 1. Case of Optic Neuritis after Concussion of the Brain; 2. Case showing Condition three years after Optic Neuritis from Injury to the Head. Dr. Sidney Coupland: Case of Optic Neuritis following Contusion of the Brain. Mr. McHardy: Case of Extensive Retinitis following Injury to the Head. Mr. Fitzgerald (Dublin): On a Case of Defective Vision in a Seaman. Dr. Brailey: Microscopical Specimens—1. From a Case of Retinal Detachment simulating Sarcoma of Choroid; 2 (for Mr. Mason of Bath). From a Case of Corneo-scleral Tumour. Mr. Snell (Sheffield): Case of Sympathetic Ophthalmitis setting in after Excision. Living specimen, (8 o'clock). Mr. Nettleship: Case of Atrophy of Optic Disc after Orbital Erysipelas.—Abernethian Society, St. Bartholomew's Hospital, 8 P.M. Mr. Griffith: The Diagnosis of Syphilis.

FRIDAY.—Clinical Society of London, 8.30 P.M. Mr. G. Lawson: On a Case of Chimney-sweep's Cancer of the Axilla, treated by Excision of the Growth, Ligature of Axillary Artery, and Amputation at the Shoulder-Joint. Mr. H. Marsh: A Case of Aneurysm of Axillary Artery; Ligature of Subclavian; Rupture of Sac; Amputation at Shoulder-Joint; Recovery (patient to be shown). Dr. Mahomed: Case of Myxœdema improving under Treatment (patient to be shown). Mr. Warington Haward: Case of Removal of the Hypertrophied Spleen. The following living specimens will be exhibited: A Case of Radical Cure of Congenital Hernia in the Adult, by Mr. C. H. Golding-Bird; A Case of Cured Spina Bifida, by Mr. Pearce Gould; Two Cases of Universal Ichthyosis in Adult Females, by Dr. B. O'Connor.—Royal College of Surgeons of England, 4 P.M. Professor W. H. Flower: On the Anatomy, Physiology, and Zoology of the Edentata.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE SHEFFIELD POISONING CASE.

MR. HARRISON informs us that the facts of the above case, as reported by us, are not quite correct. These facts were given by us as reported in the daily press. We are happy to make the necessary corrections. We should have stated that arsenic was not found in the stuffing of the fowl; we said in the stuffing in the tin. Arsenic was found in the vomit of the deceased, and not in the beer.

KNOCK-KNEES.

SIR,—I am attending a little boy, aged two years, who is slightly knock-kneed, and the parents are very anxious to have the deformity remedied, if possible. Will you kindly inform me, in your next impression, if it is curable, the best kind of splints to use, and also the time usually required in slight cases to get the limbs straight?—I am, faithfully yours, INGLUVIN.

*** Knock-knee in a child of two years of age is certainly curable. If the deformity be slight, straight outside wooden splints, reaching from the pelvis to the ground, will answer the purpose. The splints should be secured at the pelvis and ankles, and the knee drawn out by degrees by means of a webbing strap. The time occupied in cure varies in almost every case; it can never be determined beforehand, but it depends to a great extent upon the care with which the treatment is carried out.

OBSTETRIC PRACTICE IN AUSTRALIA.

SIR,—Can any member afford information as to the chances of success in Sydney, or other large city in Australia, to a man aged 36, who could make gynæcology a speciality, has the best social introductions, possesses £300 a year of private means, and is willing to wait?—I am, etc., M.D.

HOMES FOR INEBRIATES.

SIR,—Can you, through the JOURNAL, inform me of a home for a dipsomaniac whose circumstances are these? She is a middle-aged woman, who is parlourmaid in a gentleman's family, where she has been fourteen years, and where she is much valued. During the last two years, she has given way to intemperance, and drugs have failed to allay the craving for stimulants. She is desirous of being cured from what she feels to be a disease. Is there any home for inebriates where persons from such a position in life as mentioned can be admitted at low rates of payment? If not, is there any opening in a home for inebriates from the upper classes where she could serve as parlourmaid, and so work out the cost of her maintenance and treatment?—I am, sir, yours faithfully, S. REES-PHILIPPS, M.D.

Wonford House, Exeter, February 22nd, 1882.

*** The weekly charge at the Spellborne Sanatorium for Female Inebriates, Feltham, Middlesex, and the St. James's Home for Female Inebriates, Ebenezer Terrace, Kennington Park, London, is 15s. per week. It is not at all likely that any inebriate institution would employ a female dipsomaniac, as an attendant on rich lady dipsomaniacs, unless there had been a long test of persistent total abstinence; but inquiry might be made of the secretary of the new St. Raphael's Hospital, Woodside, Croydon.

PROFESSOR PARKER'S LECTURES ON THE MAMMALIAN SKULL.

THE following errata occurred in our report of the first lecture of this series. Page 262, second column, lines 25 and 27 from top, *for* "good yolk" *read* "food-yolk"; line 26, *for* "mesoblastic" *read* "meroblastic"; line 59, *for* "oval opening" *read* "oral opening".

TAPEWORM IN THE INFANT.

SIR,—Will you kindly allow me to ask my brother practitioners, through the medium of your valuable JOURNAL, what treatment they would recommend with the view of dislodging a tapeworm from the intestines of a child between two and three years of age?—Believe me, yours faithfully, A MEMBER.

NEW TEST FOR THE PURITY OF CHLOROFORM.

SIR,—In the BRITISH MEDICAL JOURNAL of January 14th an editorial note appears on "Impure Chloroform", an abstract of a paper by M. Lucas-Championnière. As the subject has attracted a good deal of attention in Paris, especially since the further publication by M. Yvon, in the *Journal de Pharmacie et de Clinique*, of his mode of testing and purification, I have examined six different samples, five English and one German (prepared from chloral), and find that all of them quickly decompose permanganate of potash in the presence of caustic alkali, producing first a green colour—manganate of potash—and then a dark-brown—oxide of manganese.

Following the process given by M. Yvon, I have purified some chloroform, and beg to submit a sample to you herewith. I also send you a little of M. Yvon's test solution, of which one cubic centimètre should be added to about five cubic centimètres of the chloroform to be examined, and well shaken; the test solution should remain violet for at least ten minutes. Care must be taken to try the test in a clean bottle—a stoppered one preferably—that has been treated with oil of vitriol, and rinsed afterwards with distilled water.

As you have lately had some discussion in your columns on the subject of anæsthetics, the importance of this new test for chloroform should not be underrated by your readers.—I remain, sir, yours obediently, W. MARTINDALE.

10, New Cavendish Street, London, W., February 25th, 1882.

OZÆNA.

SIR,—I have just read, in last week's number, a very interesting letter on the above subject from Mr. Lennox Browne. He alludes to the successful treatment of this troublesome complaint by residence in the Engadine. Permit me to express my entire concurrence in that opinion. Italian and German practitioners have been acquainted with the value of this highly antiseptic air, both for ozæna and hay-fever, for many years, and rarely prescribe sea-voyages when a delightful sojourn in the Alps is generally sufficient to rid the patients of these tiresome ailments.—Yours truly, J. HOLLAND, M.D.

St. Moritz, February, 1882.

A. M. D., writing from India, asks whether it is true, as reported there, that the ordinary five years' tour of service of British medical officers in India has been changed to six years. We can only say that no rule of the kind has been promulgated, and that, as the whole subject of medical service in India, and especially the mutual relations of the Indian and British medical services, are under anxious consideration, it is not at all likely that any change of the kind feared by our correspondent has been decided upon.

THE ISLE OF MAN.

SIR,—In answer to your correspondent's second query on the above subject, I found the cost of living, about ten years ago, to be not more than two-thirds of that in this country. Many articles of consumption were about half the price. From the difficulty experienced in obtaining the usual medical fees from natives visiting the mainland, I should imagine that fees are proportionately small in the island. It is a favourite resort for people living in the north of England; and in the season the towns are full of visitors. The climate is equable, and warmer in winter than many places in the south of England. According to the guide-books, the mean winter temperature is 42°, and the average range of temperature throughout the year only 20° F.—Yours faithfully, J. FOSTER PALMER.

King's Road, S.W., February 28th, 1882.

THE FULHAM SMALL-POX HOSPITAL.

SIR,—According to the London Asylums Board's manner of treating the question, as gathered from their reports, we must assume a special providence in their favour, always leading them to plant their hospitals where small-pox was sure to occur, seemingly (as I put it), not as an epidemic, but as an endemic, disease. Sir E. Curry not only did not in any way contradict my quotations from his reported statements in the *Globe*, but, at the next meeting of the Board, he is reported as saying that "it was very unfortunate that the *Atlas* ship was moored where she was. The in and out bound ships must pass within a few yards of it." What is this but a recantation of the theory that small-pox hospitals can inflict no harm on their neighbours. If the ships passing the *Atlas* may, as Sir E. Curry supposes, intake and carry the disease, what can he possibly say about the Metropolitan Railway, which, running under the walls of the Fulham Small-pox hospital, stands no chance of giving it a wide berth.

The present hospitals are "badly" placed, that is, are not sufficiently isolated, as statistical facts of their neighbourhoods undoubtedly show. They are "badly constructed and ventilated", seeing that the only objects of their construction and ventilation is to throw the infected air, laden with small-pox dust, into the houses and streets of those who surround them, instead of first destroying, as far as possible, its infectious influence, either by combustion or by mixing it with strong germicides. The better an infecting hospital is ventilated in the ordinary way, namely, by opening doors and windows, the better, doubtless, it is for its inmates the worse for its neighbours.

It is strange that the London Asylums Board still remains like the proverbial ostrich in the desert with its head buried in the sand. Will it keep it there, deaf and blind to the fact that the hospitals of Paris, Belfast, Christiania, Stockwell, Fulham, Hampstead, Homerton, and Islington, have one and all proved centres for the atmospheric convection of small-pox germs to their respective neighbourhoods?

That I have written to the public papers on a subject which largely and so materially concerns the public is not to be wondered at, considering that the medical journals have been persistently closed against me. My late father and myself have had but one object in view, notwithstanding your remarks, namely, the good and well-being of those intrusted to our charge. Without our exertions, and the help of the public press, no doubt the Fulham Hospital would still exist as a flourishing centre of infection in our midst.—Your obedient servant,

ALFRED GODRICH, Medical Officer for South Kensington.

140, Fulham Road, February 28th, 1882.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

A CAUTION.

SIR,—I am desirous of putting medical men on their guard against an impostor who is assuming the names of old St. Bartholomew's men, with the view of obtaining money on the plea of destitution. His scheme appears to be to assume the names of old students, who, for some reason or other—say, seniority—are likely to be unknown personally to those to whom he makes application.—I am, sir, your obedient servant,

W.

DR. CRUTCHLEY (Holmcroft, Stoke-on-Trent).—1. The address of the National Health Society is 44, Berners Street, London, W.; Secretary, F. Lankester. 2. As to Barff's process for preserving iron, a description of it will be found in the *Sanitary Record* for June 15th, 1881, page 483.

METEOROLOGY AND MEDICINE.

SIR,—The application of meteorology to medicine is very much in vogue at present, and there is no health-resort the virtues of which are not supported by columns of temperatures often carried out to the second place of decimals. Hitherto, the results of any scientific value which have been obtained in this way have been few.

As an illustration of misdirected minuteness and care in observation, I would refer to the papers on the climate of the Undercliff, which were read at the meeting of the British Medical Association at Ryde. Elaborate tables of temperature were presented, which give such results as these: "The mean daily ranges for the seasons of spring, winter, summer, and autumn, were 7.10°, 10.6°, 10.24°, and 8.8°, respectively. But in the Island of Valencia, off the coast of Kerry, these ranges were only 8.1°, 9.0°, 8.4°, 8.0°, respectively." Probably there is not a station on the south-west coast of either England or Ireland which would not show a similar mean range: but this proves absolutely nothing as to the suitability of the climate for consumption, or, indeed, for anything else. In fact, if anything is certain about the climatal treatment of consumption, it is that temperature *per se* has nothing to do with it. The Undercliff and the Riviera, Davos Platz, Colorado, and New South Wales, have all proved beneficial to phthisis; and the conditions as to temperature in these places are as different as their longitudes. Again, I find that the fact that the average annual rainfall in the Undercliff has been 31 inches (excuse omission of the decimals) during the last ten years is quoted as a proof of the dryness of the climate. But, at the meteorological station near which I am now writing, the rainfall was only one inch more in the year 1877; yet, in that year, rain fell on 260 days out of the 365, and the district is noted for the prevalence of consumption.

On the whole, therefore, it is manifest that most medical writers are very much at sea as to the application of meteorology to medicine. To account for this, it must be remembered that the meteorologist collects his facts with a view to discover the laws which regulate the various atmospheric changes which are continually taking place; and that he has no reference to the effects on health of the changes he records. He records observations for the purpose of ascertaining the mean for twenty-four hours; whereas the variations in temperature, humidity, etc., during the hours of daylight are of chief interest to the physician. Moreover, extremes are generally of more importance than means. It appears to me, therefore, that it would be of the greatest importance if the Collective Investigation Committee would get a series of medico-meteorological stations established, where the observations would be taken for the purpose of throwing light on medical questions. The following are the chief matters to be noted.

1. The maximum and minimum temperature in the shade during the twenty-four hours.

2. The temperature one foot below the surface of the ground. This might throw light on some sources of disease; at all events, it is of interest.

3. The duration of sunshine.

4. The hours during which rain falls. It is obvious that a climate is wet in proportion to the duration of rainfall, and not to its amount in inches. The rainfall in Hamilton, Ontario, and in this town, is about the same; but while, in the former place, weeks and even months pass without rain, in the latter it rains, on an average, two days out of every three. The reason being that, in the one place, it rains in torrents, and is done with it; in the other, it is always dripping.

5. The most important element in a climate is the relative humidity. But this is usually referred to, in the most general terms, as mild, relaxing, bracing, etc. So far as my observation goes, when the relative humidity is between 55 and 65, air at any temperature feels bracing. With the relative humidity above 80, and a temperature between 32° and 45°, the air feels raw and chill, especially if in motion; between 55° and 70°, soft and mild; above 70°, oppressive. Given the temperature, the relative humidity, and the amount of sunshine on each successive day, and one can judge of the climate. The relative humidity is observed at the meteorological stations at 9 A.M. and 9 P.M., but this does not give what, as medical men, we want. For nine months of the year, the evening observation gives the relative humidity for night, and it is, therefore, usually not far from saturation. Of course, the relative humidity of night is much more influenced by the absence of the sun than by any local cause; and, when it is included in the means, it tends to neutralise the day variations, which are due to local conditions, and of which we are specially anxious to take account. The same remark applies to the morning observation, which, during five months of the year, is affected by the night. I do not doubt, therefore, that an observation taken daily any time between 11 A.M. and 2 P.M. would give most insight into the medical character of a climate; and any night observation which is taken ought not to be used to get a mean. It seems to be entirely overlooked by most writers on climate that a dry atmosphere and clear sky necessarily imply a large diurnal variation. For instance, a day temperature of 70°, and relative humidity 61, implies a night temperature of 56°, that being the corresponding dew-point. And the statement that the mean diurnal range of temperature in the Undercliff is from 7° to 10° implies that the mean relative humidity during the driest part of the day exceeds 77 in winter and autumn, and 72 in spring and summer, which certainly excludes it from the class of bracing climates, so far as humidity is concerned.

6. The amount and direction of the wind. The amount is as important as the direction.

As an example of what a medico-meteorological paper ought to be, and as illustrating most of the points I have endeavoured to bring out in this letter, I would refer to the article on the Winter Climate of San Remo, by Dr. H. Hassall. It will be found at p. 659 of the JOURNAL (volume ii for 1881), immediately preceding the papers on the Undercliff.—Yours, etc.,

ALEX. W. WALLACE, M.D.

Parsonstown, Ireland, February 8th, 1882.

SPLINTS ON HORSES' LEGS.

SIR,—In answer to "J. L. J.", a splint which had existed for several years without altering in size, and without causing lameness in a nine years old horse, which I possessed several years ago, began to enlarge and encroach beneath the tendon. As lameness was produced, the skin over the splint was blistered, but no good resulted. After waiting a few weeks, and finding the tumour and the lameness increasing, I "fired", penetrating the exostosis. The result was excellent, for the splint was removed and the lameness disappeared. In this case, the lameness was possibly caused more by periostitis than by interference with the action of the tendon. If the tumour had been more in contact with the tendon, destruction of it by "firing" would probably have done harm to the tendon or to its sheath; but I can see no reason why careful removal of an exostosis with a chisel and mallet should not be performed successfully wherever the tumour may be situated, provided that any active inflammation be first subdued.

I may add that, in operating upon a horse, the probabilities of success will be enhanced by the observance of the same care, gentleness, and accuracy which are so much valued in operations upon human beings. This is a fact which is not always recognised.—I am, etc.,

E. NOBLE SMITH.

Queen Anne Street, W.

PRACTITIONER.—Day, Eustace Smith, and West, would be found useful for diseases of children.

B. B. asks: "Can you, or any of your readers, tell me anything that will stop night-sweating in locomotor ataxy? I have a patient suffering from this disease, and for three months he has been greatly troubled by excessive perspiration, often having his clothes changed five and six times during the night."

*** A hypodermic injection of one-eightieth of a grain of sulphate of atropia at bedtime would probably speedily stop the sweating. Should this fail, one-sixtieth of a grain of picrotoxine, given either in solution or as a pilule three times a day, would succeed.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. Stevenson, London; Mr. Joseph Williams, Brentford; Dr. McCombie, Deptford; Mr. M. E. Ling, Saxmundham; Mr. T. Nugent Griffith, Liverpool; Mr. G. Stoker, London; Mr. Arthur Cooper, London; Dr. P. J. Cremen, Cork; Mr. H. E. Spencer, York; Dr. Russell, Birmingham; Dr. Philpot, Bournemouth; Mr. J. Howell Thomas, Wellingborough; Dr. Barnes, Carlisle; Dr. J. Whitson, Glasgow; Dr. C. H. Allfrey, St. Mary Cray; Dr. R. W. Ingle, Cambridge; Mr. Charles Sanders, Cheshunt; Mr. E. Wortner, London; Mr. H. Cripps Lawrence, London; Our Aberdeen Correspondent; Dr. Collins, Scarborough; Dr. G. Johnson, London; Mr. Edmund Cook, Richmond; Mr. M. D. McKenna, London; Mr. R. Mansell Jones, Llandudno; Mr. C. W. Glassington, London; Mr. W. Newton Parker, London; Dr. W. Ewart, London; Dr. H. Bennet, Mentone; Mr. E. W. Hope, Liverpool; Mr. H. Wart, Eastbourne; Dr. Holman, Reigate; Dr. W. Carter, Liverpool; Dr. William Chessall, Horley; Dr. Jacob, Leeds; Dr. Saundby, Birmingham; Mr. A. Adams, Maidstone; Mr. W. Whitehead, Manchester; Mr. G. D. Sutherland, Richmond; Mr. Henry Brown, Northallerton; Mr. T. C. Railton, Manchester; Dr. Glascott, Manchester; Mr. R. Clement Lucas, London; Dr. Percy Boulton, London; Mr. M. R. J. Behrendt, Burringham, Doncaster; Mr. E. S. Page, Solihull; Mr. B. Blower, Liverpool; Dr. Middleton, Strathpeffer; Mr. H. Lewis Jones, London; Dr. G. W. Potter, London; Dr. G. F. Bodington, Kingswinford; Dr. Fairlie Clarke, Southborough; Mr. H. C. Taylor, Jersey; Our Birmingham Correspondent; Mr. Frederick Canton, London; Messrs. Ross and Co., London; Mr. S. H. Lindeman, King's Lynn; Dr. G. Danford Thomas, London; Dr. Henry Crutchley, Stoke-on-Trent; Mr. W. T. Ramsden, Ravensthorpe; Mr. J. Thoresby Jones, Ruthin; Mr. J. W. White, Glasgow; Mr. J. Foster Palmer, London; Dr. C. M. Campbell, Torquay; Mr. C. Stephens, Jedburgh; Mr. B. Barker, St. Leonard's; Mr. Timothy Holmes, London; Mr. Simeon Snell, Sheffield; Mr. G. Arthur Cardew, Cheltenham; Dr. R. Sarell, Constantinople; Mr. A. Godrich, London; Mr. W. Beatty, Stockton-on-Tees; Dr. Broadbent, London; Mr. E. White Wallis, London; Dr. Markham Skerritt, Clifton; Mr. H, Davies, Morriston, Swansea; Dr. S. Coupland, London; Dr. Ransome, Bowden; etc.

BOOKS, ETC., RECEIVED.

Du Traitement des Fractures des Membres: Nouvelle Méthode, dispensant du séjour au lit, et permettant le transport immédiat, sans douleur, du blessé. Par V. Raoult-Deslongchamps. Paris: J. B. Baillière et Fils.

Opium-Smoking in America and China. By H. H. Kane, M.D. New York: Putnam's Sons. 1882.

Cancer of the Breast. By Thomas W. Nunn, F.R.C.S. London: J. and A. Churchill. 1882.

Philosophy and Religion. By Caroline Haddon. London: Kegan Paul and Co. 1881.

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THE GULSTONIAN LECTURES
ON
PULMONARY CAVITIES: THEIR ORIGIN, GROWTH, AND REPAIR.

By WILLIAM EWART, M.D.Cantab., F.R.C.P.,
Assistant-Physician and Pathologist to the Brompton Hospital for Consumption; Physician to the Belgrave Hospital for Children; Demonstrator of Physiological Chemistry at St. George's Hospital.

LECTURE I.—PART I.

MR. PRESIDENT, FELLOWS, AND GENTLEMEN,—The study of disease with the help of anatomy was the special object contemplated by the founder of these lectures, of whom we read that he was yet greater as a theologian than as a man of science. The well known words of his bequest I need not repeat to you; they contain evidence of his scientific insight, and of his belief in the great future reserved for pathological anatomy; they prove also that his was not a theology opposed to the progress of science, but capable of rising above the prejudice of the hour in the practical search for truth. After two centuries, his objects in science are still our objects; and his enlightened theology may be set as an example singularly fitted for our own times.

This brief allusion to Dr. Goulston's original purpose will be my apology for inviting you to a study mainly anatomical and pathological. The pathology of pulmonary cavities has not hitherto been carried beyond an elementary stage; in the large works on phthisis it is treated in general terms, and almost exclusively from a clinical standpoint; and I have sought in vain for any important monograph on this subject. I shall have occasion, however, to refer to some valuable Lectures on Pulmonary Excavation delivered by my colleagues Dr. C. T. Williams (in 1873), Dr. Douglas Powell (in 1877), and Dr. Mitchell Bruce (in 1881). Some attempt at a systematic treatment of this subject is also made by Professor Rindfleisch, in his article on Tuberculosis in von Ziemssen's *Cyclopædia;* and to the views of this observer I shall specially revert in the course of my lectures. This gap in a somewhat important branch of pathology, which it is my humble ambition to point out rather than to fill, has an explanation in the method usually adopted in the study of phthisis.

The word phthisis has too often been understood to apply to a single affection, rather than to a collection of varying types of disease. I doubt whether the attempt to bind together all forms of pulmonary consumption by the thread of tubercle, so readily traceable in most, if not in all, has assisted the advance of our knowledge. Our notions of tubercle have not gained in definiteness, and we are compelled to admit that the word phthisis has ceased to be free from ambiguity. Since the late Debate on Consumption at Glasgow, we have become conscious of widely divergent meanings attached to this term. "Phthisis", it cannot be too clearly understood, is but a name covering many conditions, in which destruction of lung-tissue is a common feature. Used in this local sense, the term is convenient. But it possesses no place in a strictly pathological nomenclature of disease; and every attempt to study phthisis without due regard to its morphological varieties must end in failure.

The analytical method, which I believe to be indispensable in any investigation on phthisis, is equally required for a fruitful study of the destructive changes in the lung. Too little attention has hitherto been paid to the topography and to the anatomical relations of cavities. The lung has been regarded as an unit, and its excavation as a more or less constant quantity. I will not deny that the most persevering analysis has been carried into the depths of the pulmonary tissue; but too often the tube of the microscope appears to have obstructed the view of the coarser anatomy. My endeavour in these lectures will be to study the pulmonary lesions rather in the light which strikes the naked eye, and to attempt as it were their geography, appealing to the microscope in all matters of detail, but relying mainly on the practical data furnished by the unaided senses.

The tendency to a formation of permanent air-containing cavities is peculiar to the lung, and is obviously connected with the special structure and the ventilating function of the organ. The photograph which I place before you illustrates the production of a cavity from a gunshot-wound. The patient was shot seven years ago through the middle of the left clavicle, and bled profusely from some large vessel. The lung, which was also wounded, became the seat of an aërial fistula and of apex-excavation. Although of healthy descent, and originally strong, the patient is following the usual declivity of phthisis, showing how much depends upon the position of the cavity, and within given limits how little upon its exact causation. In this case, at least, tubercle does not bear the original blame.

More usually, excavation has its cause in disease. Bronchiectasis and emphysema, anatomically considered, may be said to occupy the border-land between physiological and pathological conditions—both being essentially the outcome of the dilatation of normal structures. The size of the air-spaces in emphysema is often so considerable, and they imply so much destruction of lung-tissue, that they virtually constitute cavities, although we prefer to term them bullæ, having regard to the thinness and to the elasticity of their walls. The latter features, together with their position along the fringes and their lung-like aspect, sufficiently warn us against any confusion with cavities of a different origin. However, if the bulla should become surrounded by a thickened pleura, and if obliteration of its bronchus should take place, and the gaseous contents be exchanged for fluid, a cyst-like cavity may result, which differs from the more habitual vomicæ, mainly in the limpidity of its contents and in the polish of its wall. Lebert, who describes in the lung the occurrence of serous cysts, refers them exclusively to ancient deposits of blood or of pus. Hydatids, which are not unfrequently met with, and the very rare dermoid cysts, of which isolated examples have been recorded by Lebert, Wunderlich, Büchner, Collenberg, etc., also belong to the category of cystic cavities.

More common than the cavities which I have enumerated are those due to bronchiectasis, a disease at first not strictly speaking excavating, but fatally tending to the formation of vomicæ not distinguishable from those of phthisis. Bearing in mind this tendency, I have preserved, in my tables of pulmonary cavities, a few instances of this affection. But bronchiectasis is too wide a subject to receive in these lectures the discursive treatment it deserves. Abscess followed by cavity-formation may result from a variety of causes, which I will not attempt to enumerate. Sarcomatous and cancerous deposits occasionally give rise to ulcerative excavation in the lung. In gangrene, the most rapidly destructive of our excavating diseases, the stage of excavation is commonly temporary; it is soon followed by a fatal termination, or by closure. When death occurs early, the cavity either presents the character of a putrid mortification, or possesses a secreting pyogenic membrane, which indicates a limitation of the necrotic process, as well as an effort at repair.

I have briefly enumerated the chief kinds of pulmonary excavation occurring from various causes; but the typical cavern which will claim the greater share of our attention is special to phthisis. It bears the impress of chronic inflammation, strikingly evidenced in the zone of condensed tissue by which it is surrounded, and in the pseudo-capsule which defines its outline. This is, however, but one variety of phthisical cavity—not, we must admit, the most common. It differs widely from the excavations of acute phthisis, and scarcely less does it differ from the ordinary pneumonic softening. We are thus made conscious from the onset of the necessity for a preliminary *classification* of varieties of phthisis if we would thoroughly appreciate the origin of excavation.

The great division between pneumonic and tubercular disease has not yet, to my belief, been superseded. In spite of the tendency of recent years to see in all phthisis the working of tubercle, a distinction is still upheld by some of the greatest authorities, who refuse to subscribe to the revived doctrine of Laënnec that caseation is invariably due to a tubercular origin.

1.—Of these two large groups, let us first take the pneumonic, which, clinically speaking, probably comprises the majority of phthisical cases. Its chief subclasses are: (1) alveolar catarrh and bronchopneumonia; (2) catarrhal pneumonia; (3) caseous pneumonia. A glance at the annexed diagrams will show a general agreement between this classification and those of Buhl and of Virchow, the differences being mainly in the terms.

Classification according to Buhl.

- Superficial inflammation (in territory of pulmonary artery).
  - Fibrinous pneumonia.
  - Catarrhal pneumonia following upon catarrhal bronchitis.
- Deep inflammation in territory of bronchial artery.
  - Peribronchitis.
  - Parenchymatous or Desquamative pneumonia.
    - 1. Consecutive desquamative pneumonia (induced by general diseases).
    - 2. Genuine desquamative pneumonia.
    - 3. Caseous pneumonia.

Classification according to Virchow.

1. Genuine fibrinous pneumonia.
2. Catarrhal pneumonia (subdivision, bronchopneumonia).
3. Caseous pneumonia (catarrhal and fibrinous pneumonia combined).

I have purposely reduced the pneumonic group of phthisical affect-

tions to its simplest factors—alveolar catarrh, catarrhal pneumonia, and caseous pneumonia; not alluding for the present to acute purulent phthisis, to œdematous softening, nor to the important group specially connected with pulmonary hæmorrhage.

1. The affections included in my first sub-class do not require any special comment. They are distinguished from all others by the moderate extent of the inflammation, which usually terminates in recovery; and by the small proportion which the epithelial elements bear to the other cells filling the alveolus.

2. A radical difference, more obvious under the microscope than to the naked eye, exists between catarrhal pneumonia and the former group. Structurally, this is scarcely less marked than the difference between a transient cuticular desquamation and a dermatitis; the former implicating only the epithelial surface; the latter striking its worst blow at the vascular layers, wherefrom the reproduction of healthy epithelium depends. This peculiarity renders catarrhal pneumonia, in a local sense, insusceptible of recovery, and implies softening as its probable termination.

3. The separation of caseous pneumonia into a definite class appears to be thoroughly warranted, not only by its anatomy, but by its clinical bearings; and I am fortified in this view by the example of Virchow and of Buhl. The difference between catarrhal and caseous pneumonia is not alone one of intensity, but of kind. Whereas the morbid deposit in catarrhal pneumonia nearly exclusively consists of alveolar cells and of leucocytes, in caseous pneumonia it is largely made up of fibrin. In addition to this partly fibrinous character of the alveolar contents, it is common for fibrinous pneumonia to supervene independently upon the chronic inflammation; and the extent of the ultimate disorganisation will greatly depend upon the behaviour of this recent fibrin, which is sometimes reabsorbed, but more commonly is involved in the caseous destruction.

II.—Perhaps the most strictly defined of all varieties of phthisis is the tubercular. I am not alluding to acute primary miliary tuberculosis; from an anatomical point of view, this is not phthisis, and clinically it also occupies an independent position. I would rather refer to a special class, in which tubercle of tolerably pure type, occurring in groups, is present from an early date, and leads to the common symptoms and termination of phthisis. The arrangement of this grouped tubercle resembles roughly that of grapes hanging from a branch, and explains the term "racemose" and "bunchy", under which it is variously described. Whereas in catarrhal and caseous pneumonia the alveolar structures are primarily involved, in this variety the alveolus is rather encroached upon than originally affected. The bulk of the lung is usually free from disease, and its tissue of good spongy quality. The chest preserves a large size, seldom revealing to auscultation the extent of the mischief; the cavities for a long time are capable of slow development only, and often escape detection. With these anatomical features, the etiology of the affection is in full harmony. The disease is very apt to attack those habitually exposed to irritating atmospheres, and the subjects of chronic or recurrent bronchial disorders.

III.—By far the largest number of fatal cases are attributable to a *mixed* type of disease, including the pneumonic element by the side of the tubercular. I cannot enter here on the arguments which render it probable that catarrhal pneumonia is the prime factor in the majority of these instances, and that tubercle is superadded as an outcome of the phthisis. According to the proportion and to the distribution of the two elements, varieties ensue, both in respect of the clinical phenomena and of the anatomical appearances, too numerous for description.

Holding fast by this rough nomenclature, we shall be better able to discuss the mode of origin of cavities. To whatever form phthisis may be due, excavation is invariably preceded by *softening*. The softening in phthisis is purely a chemical action, over which the living tissue has no control; but, like other chemical processes, it is mainly influenced by the "conditions of the experiment". Our endeavour should be to become more familiar with these circumstantial factors, whereby the course and duration of the process are so variously determined.

The chemical nature of the decay is well shown by the selective action which it exercises upon the tissues. In ordinary catarrhal pneumonic softening, the last survivors are the elastic fibres. Experimentally, they are also found to be the most indifferent to a contact with acids or with alkalies. Here the ordinary methods of oxidation and the methods of softening are in perfect accord. From this ordinary type, the putrefactive disorganisation of gangrene or of bronchiectasis is entirely distinct. In the latter diseases, cavities have been shown by Filehne to contain in solution a substance which dissolves elastic tissue and coagulated albumen, but is inert with regard to the glutin-forming substance of the connective tissues.

Among the circumstances which most modify the march of phthisical destruction, should be mentioned the varying density of the deposit and the degree of moisture within and around it. The term *caseation*, which has been rather loosely used in connection with a variety of changes, should be restricted to the dry and dense products from which the moistening influence of the atmosphere and blood-irrigation are in a great measure excluded. In this state of dryness, caseous accumulations may long continue unaltered; but with the admission of air the caseum ripens, and the degenerative reactions ensue which within recent years have been chemically studied by Duclaux (*Comptes Rendus*, vol. lxxxv, page 1171, 1877).

We should not, however, imagine that this complete absence of moisture is an early feature of caseous infiltration. The only morphological peculiarity of caseation, which consists in its extremely fine subdivision, is susceptible of being explained on a totally opposite assumption. Alveoli, in the stage of fully developed catarrhal pneumonia, are almost exclusively occupied by spherical cells, which we will admit to be the outcome of alveolar proliferation. I am aware that the epithelial nature of these cells has been denied by many; and that Senftleben professes to have settled all doubts on this point by the artificial production of the same appearance in pieces of lung, hardened in alcohol prior to their insertion into the peritoneal cavity of rabbits; but, with Buhl and with Rindfleisch, I still hold by the alveolar origin of catarrhal products; and the diagram which I have copied from a drawing by Dr. D. J. Hamilton will show that the same view is taken by that distinguished observer. The differences in shape and general aspect between the swollen epithelial elements and the normal epithelium are very striking; most striking, however, are the differences in their relative size. The enormous development which these cells undergo is plainly due to imbibition, and presupposes abundant moisture, probably arising from collateral œdema. As they expand, the cell-walls become thinner; the contained pigment-particles more scattered; and the minute granulation which results in the swollen cellular substance may be compared to the fine chemical precipitates obtainable in diluted solutions. The swelling which I have described, whilst it fills the alveolus, tends ultimately to burst the individual cells, and to weld them into an homogeneous mass, in which the scattered pigment is the only surviving witness to earlier conditions. This explanation of the compactness of the deposit as due to a swelling from endosmosis appears to me more natural than the suggestion made by Dr. Hamilton, that the healthy lung, acting by its respiratory efforts upon the caseous material after the fashion of a cheese-press, expels from it the fluid constituents; and it supplements the statement made by Rindfleisch, that a spontaneous contraction takes place in the alveolar walls after effusion has occurred within them.

In pure caseous pneumonia, the subsequent desiccative changes are carried out to perfection, owing to the complete stoppage of the supply of air and of blood; and the advent of excavation may be long delayed. Not so in many cases of catarrhal pneumonia of a low type, in which imperfect aëration persists side by side with an inveterate œdema. Here, molecular breaking down occurs early, and partakes less of the nature of fatty degeneration than of a maceration, which is alike destructive of the deposit and of the tissue. Thus, contrary to the opinion expressed by Dr. Hamilton, I consider œdema capable of exercising a most dangerous influence on the course of epithelial inflammations. The combination of an extensive catarrhal pneumonia occurring in separate foci, with severe œdema, commonly leads to what may be roughly termed a "dissecting excavation" of the lung. If the process be tolerably acute, and the softening rapid, the fibro-elastic framework of the lung is completely emptied of its parenchyma, and the lobular septa alone remain.

This condition of excessive moisture need not result from low œdema; it sometimes is produced by a localised congestion. To this class probably belong many of the apex-excavations. The apex-catarrh, which runs a rapid course and breaks down under our observation without passing through a stage of complete consolidation, furnishes us with daily recurring instances of this mode of formation of cavities, sometimes less disastrous than the rapidity of the softening might lead us to suspect. All observers agree in admitting that, *cæteris paribus*, the quicker and the more complete the softening, the more favourable, also, will be the chances of recovery.

It is especially in these moister, least caseous, forms of catarrhal destruction that *elastic tissue* is most abundantly ejected. Even true caseation does not completely destroy elastic fibres; I have found them repeatedly in ancient pultaceous deposits, where all other elements were reduced to granular *débris*. The elastic structures, however, do not wholly escape the destructive influence of caseation; occasionally they are so much comminuted (probably as a result of the degeneration rather than of the original inflammation) that their recognition may become a matter of difficulty. Grancher, in his valuable article

in the *Revue de Physiologie*, ascribes their fragmentation to a mechanical, rather than to a chemical, agency: the strength of elastic tissue lies in its suppleness; if stretched unfairly, and embedded in a hard and brittle mass, it loses its resisting power together with its pliancy. This fact is demonstrated by Grancher by means of injections of the lung with paraffin. The toughness natural to the pulmonary tissue is, under these circumstances, completely abolished, and the lung becomes capable of fracture. Exactly similar conditions are present in caseous pneumonia, which is characterised by the stretching of the alveolar wall, and by the density of the infiltration; and under the microscope, it is difficult to find in advanced caseation the markings of the alveoli, although the larger elastic tracts remain conspicuous.

These remarks will explain the true significance of a discovery of elastic fibres in the sputum; if present, they constitute proof positive of softening, but their absence does not furnish us with any negative evidence. With regard to fully formed cavities, I may anticipate further details, by stating that we do not habitually find any elastic sediments among their contents.

I propose, after these general observations, to enter upon a short description of the modes of excavation special to the leading varieties of phthisis.

Pulmonary cavities most commonly owe their existence to some form of *catarrhal pneumonia*. The ordinary type of the excavation is lobular. Even in larger cavities, this lobular origin remains for a long time evidenced by the persistence of trabeculæ. The softening, which begins at a bronchial termination, gradually proceeds through the consolidated lobule as far as its fibrous boundaries, or it may even extend beyond the latter. But, sooner or later, the excavating process is interrupted by tissue-reaction, and a barrier is formed which resists the further encroachment of the disease. This reactive inflammation is probably due to the irritation set up within the alveolar wall by the pressure of foreign material, and especially of the products of disintegration.

Sections of this zone of irritation exhibit, under the microscope, the appearance of a sarcomatous or of a granulating tissue. Sprouting into the alveolar space, the new growth ultimately obliterates the air-cells, the epithelium of which may, for a time, assume undue activity and a cuboid shape; but all alveolar character is finally lost, except in a few air-sacs which had suffered collapse before they were reached by the infiltration. By degrees, the young connective tissue cells elongate into fibres, or become flattened into laminæ, and thus a fibrous zone may be formed, which, for a time, delays the forward march of the softening. Active lymphatic functions also belong to this layer; for, in its fissures, streaks of a finely granular substance, mixed with pigment-particles, indicate the high road followed by absorption. A similar process takes place at the periphery of caseous nodular deposits, and of inflamed bronchioles.

Thus fibrosis, or its first stage, fibroid cell-growth, is inseparable from catarrhal softening; but it does not in every case lead to the formation of a distinct capsule. In a special class of cases, a membrane is developed at the periphery of the deposit prior to excavation. I believe these clean-cut cavities, isolated from healthy lung-tissue by a simple membrane, to be usually the outcome of slow caseation (it will be hereafter shown that they may also originate as a late result of hæmoptysis). Should the bronchus of the district affected be rendered impervious, the degenerative process may ensue without any excavation. Increasing inspissation takes place in the deposit, owing to the gradual absorption of fluids, and to the contraction of the membrane; and the latter becomes thicker and more fibrous, ultimately resembling a stout ring of hyaline cartilage. Such is the history of many an old broncho-pneumonia, which has never culminated in open excavation. The tissue has been destroyed by caseation, but has never been expectorated; and its remains exhibit under the microscope the *débris* of cells and abundant elastic fibres.

This occlusion of the bronchus need not, however, be permanent. From a variety of causes, the slender barrier separating the caseum from the atmosphere may ultimately break down. Rindfleisch ingeniously attributes the laceration to the force of the inspiratory current; but it is referred by Dr. Douglas Powell rather to the expiratory cough-pressure. This is an important, because a very common, mode of excavation. The softening may have progressed slowly, but the cavity is formed *ex abrupto*, the physical signs of an empty space becoming suddenly developed, after the expectoration of the caseous fluid. The rapidity of the process is one of the more favourable features in these cases.

When the healthy tissue-reaction (to which is due the formation of the pseudo-capsules of cavities) is absent or imperfect, as in cases presenting less consolidation than œdema, the invariable result is a wide-spreading destruction. The same consequence follows even in the presence of moderately firm consolidation, should the œdema happen to be great; of this, we possess an instance in the catarrhal pneumonia of drunkards. But, more commonly, diffuse softening results from a variety of pneumonia, which has never reached consolidation, but remains in a state of congestive œdema. This condition, it will be observed, is but one step removed from alveolar catarrh. In the latter, the slight accumulation of cells within the alveoli, and the moderate œdema of the alveolar wall, may completely disappear under treatment. But, if the œdema should become severe and inveterate, the power of epithelial proliferation, and of vascular reaction, is completely extinguished; and the obliteration of a vessel of moderate size will suffice to establish a progressive softening, for which there is no longer any check.

In *caseous pneumonia* the cavities are influenced by the special character of the inflammation. The consolidation, which I have elsewhere described, rivals in extent that of fibrinous pneumonia, whilst in density it greatly exceeds the latter. As in fibrinous pneumonia, so here, the air-cells are not only filled, but distended, with the products of inflammation. Whereas, however, in fibrinous pneumonia, exudation invades suddenly a tissue structurally healthy, in caseous pneumonia the onset is gradual; numerous lobules have been for varying periods in a state of catarrhal pneumonia, and the intervening tissue deeply altered by chronic irritation, when the finishing stroke is given by the effusion of fibrin into the diseased districts. Our diagnosis between the two affections, when the consolidation occurs at the base, will, therefore, mainly rest upon the history of the case; but its correctness can only be tested by subsequent events. In common fibrinous pneumonia, the exudation, which consists of fibrin, of leucocytes, and of red blood-corpuscles, all readily liquefiable, clears up early and rapidly. The result is widely different in caseous pneumonia. The fibrin may be not inferior in quality, but it is mixed with cells of epithelioid type, the fatty degeneration of which is naturally slow, whilst the channels of absorption are blocked by cell-growth. Yet greater differences are found in the vascular conditions. The circulation in fibrinous pneumonia is, for a while, impaired by lateral pressure on the capillaries; but, in caseous pneumonia, the stoppage is permanent, and due to endothelial growth. This peculiarity is sufficiently well marked to establish a safe distinction between caseous disease, and not only fibrinous pneumonia, but also the ordinary forms of catarrhal inflammation. The obliteration is not restricted to the capillaries, but attacks the larger vascular branches, cutting off all blood-supply to the districts involved. This blocking of the blood-vessels, which has been described by Friedländer, by Grancher, by Hamilton, and others, is well illustrated in the diagram which I submit to you. I cannot agree with the view, that the softening in caseous pneumonia is determined by this obliterative arteritis. I hold that the latter is but an ascending change; that it is altogether secondary to the arrest of the circulation within the capillaries; and that it does not, therefore, possess the ordinary value of an arterial thrombosis.

Equally distinctive of caseous pneumonia is the obliteration of the bronchial tubes, a feature less important anatomically than as a valuable guide to a diagnosis between the two forms of basic pneumonia. Under the influence of the same deep-seated irritation which leads to obliteration of the blood-vessels, the bronchi become permanently plugged by their own secretion and by the irritative proliferation of their epithelium. The practical result of the plugging is a complete stoppage of the air-traffic in the diseased region, and a loss of all auscultatory sounds. Instead of yielding bronchial respiration as in fibrinous consolidation, the lung is silent, whilst giving a percussion-note of absolute dulness. From this combination arises, even for the trained observer, a danger of mistaking caseous pneumonia for a pleurisy. The only physical sign establishing a distinction between these two conditions is the increase of vocal resonance in pneumonia, and its diminution in pleuritic effusion; but if the pneumonia be accompanied with thickening and œdema of the fibrous layers, the physician is deprived of this last diagnostic help. Hérard and Cornil relate cases in which the presence of pneumonia was veiled in the manner I have described; and a striking instance of the confusion to which I have alluded has come under my own notice.

I need not insist at length upon the mechanism of the process of excavation, upon the combination of liquefaction with that "dry crumbling" so characteristic of the disease. From the moment that softening has gained access to it, the entire mass is at the mercy of purely chemical forces. Undermined in various directions, large blocks of dense tissue are loosened and cast into the cavity, where they suffer ultimate disintegration. The lung-tissue is destroyed, as it were, in its integrity; neither interlobular septa, elastic fibres, nor bronchi offer any lasting resistance to the softening; alone, the largest blood-vessels

survive, thanks to their *vasa vasorum*, and to the great thickening of their coats; whilst the diseased tissue falls away from them, as it does from the thickened pleura, much as a ripe fruit is detached from the branch. Thus dissected by the softening, the vessels may long remain sole occupants of the vomica.

From this brief description, it would be easy to recognise the typical case of pneumonic excavation. The main features of these cavities are their size, which is often considerable, the anfractuous condition of their walls, and the persistence within them of large vascular trunks absolutely cleared of all tissue. An arrest of the excavating process short of the boundaries of caseation is absolutely impossible, but in some cases caseation is not stopped, even by the spongy tissue around. In constitutions weakened by intemperance or undermined by kidney-disease, the œdematised alveolar tissue falls an easy prey to the advance of softening, which may end in the transformation of a whole lobe, or even of the lung, into a huge vomica.

I have purposely drawn an extreme picture of this affection. In many instances, however, the extent and the intensity of the lesion are limited, so that it may become quite impossible to draw an absolute distinction between a catarrhal and a caseo-fibrinous consolidation. Again, in the less severe cases, the slowness of the process and the occurrence of tissue-irritation, to which I have already alluded, favour the formation of a limiting membrane, which protects the lung against further damage.

In the common form of phthisis known as *tuberculo-pneumonic*, owing to the diversity of the morbid conditions, it is difficult to describe any special type of excavation. The following varieties are included in this group.

1. Limited inflammatory processes leading to a generalised tuberculosis.

2. Catarrhal phthisis followed by tubercular infection of a local character.

3. Tubercular phthisis from the first complicated with much inflammation, which often specially affects the peribronchial tissue.

The process of softening may similarly partake of the features of the tubercular, or of the catarrhal, or of the caseous varieties. Many of the excavations which will most engage our attention belong to this class; they need not, therefore, be further described at this stage of my subject.

In the *tubercular* variety of phthisis, characterised by the large size and spongy state of the lung, and by the presence of bunchy masses of pigmented fibroid tubercle, yielding a dry surface on section, excavation is a much less prominent feature than in the pneumonic forms. The cavities are often small; their peculiarities are chiefiy those of the dense tubercular tissue in which they occur—a tissue where proneness to decay is often surpassed by the tendency to fibrosis. Their walls are thick, abruptly cut, and usually provided with a pseudo-capsule. Tubercular softening is, under normal circumstances, a very slow process, strictly localised, owing to the perfect isolation of the caseum at the centre of a fibrous capsule. Consequently, the work of repair progressing at the periphery is allowed time to prevent, or at least to check any great extension of the cavities beyond the original tubercular deposit. These vomicæ, however, may occasionally attain a considerable size from a successive implication of neighbouring tubercular masses.

This part of my subject would be incomplete, were I not to allude to the cavities found in *chronic pneumonia* and in *acute phthisis*. Neither of these forms, strictly speaking, belong to the groups I have hitherto discussed.

Chronic irritation of the bronchi complicated with pleuritic adhesions is at the root of the changes known as chronic pneumonia, which generally include irregular dilatation of the bronchi. Bronchiectasis in this variety is obviously secondary to the fibrosis; it is especially prone to degenerate into phthisical excavations. We are familiar, on the other hand, with a form of bronchiectasis where fibrosis is superadded as a consequence of the bronchial disease. I believe that these two conditions, although extremely different both in their origin and in their clinical history, have been frequently confounded. In respect of the chronic pneumonic form, I am prepared to adopt the able description given by Dr. D. J. Hamilton, and to refer the bronchiectatic dilatations to the fibrosis resulting in the interlobular tissue and in the pleura from the irritation of an inveterate bronchitis.

The pathology of acute phthisis is far from complete, but the connection of the process with a purulent bronchitis of virulent type is generally admitted by the side of complications, sometimes more tubercular, and sometimes rather pneumonic. The cavities in this disease are barely worthy of the name of vomicæ, but resemble the sinuous burrowings of chronic abscesses. This feature is illustrated in the diagram which I have borrowed from Hérard and Cornil's work on Phthisis. Softening is invariably accompanied with much redness, inflammation, and œdema. The excavating process thus derives considerable assistance from the friability of the neighbouring textures, and in the worst cases leads to an extensive tunnelling of the lung. The affection is distinguished by the great rapidity of the softening, by the formation of pus, and by the redness, often erysipelatous, of the bronchial membrane. In this variety of the disease, pneumothorax is often threatened as a consequence of the insidious march of the ulceration, and of the lack of interstitial reaction. Life, however, usually drops before this point is reached, and only at the necropsy do we recognise the multiplicity of the patient's dangers.

The rough sketch which I have endeavoured to give of some of the forms of excavating disease will convince you that, if attempted separately from a description of the respective pulmonary affections, a classification of cavities can possess but a limited value. For practical purposes, some such classification is, however, required; and its most appropriate basis is probably to be found in a description of the cavity-walls.

In whichever process they may have originated, cavities pass through a *period of formation*, during which their walls consist of inflamed or necrosing tissue, incapable of prolonged vitality. Cruveilhier has described this stage under the term "géode". This, in the typical vomica, is but a state of transition, sooner or later to be succeeded by the development of a lining membrane, for the fibroid material thrown out for the protection of the lung becomes the wall of the cavity when the original consolidation has been softened and removed. The more quickly this change is completed, so much more favourable will be the prospects of the case. Too frequently, however, owing to the progressive crumbling of caseous masses, and to the coalescence of neighbouring caverns or cavernules, a limiting membrane is slow to be developed, or is carried away by the rapidly advancing wave of destruction. This formation of large cavities by a progressive encroachment is clearly to be distinguished from the excavating process in caseous pneumonia, where, large tracts having been simultaneously involved in consolidation and lost from the first for the purposes of respiration, disintegration may proceed to an extraordinary extent without entailing additional strain upon the system.

The absence of a limiting membrane in cavities usually implies that the excavating process is not completed; and that, actively or slowly, decay is progressing, laying bare successive strata of consolidation, and not infrequently exposing the calcified remains of earlier disease. The expectoration of chalky particles gives us a proof of tissue-destruction occurring in a fibrotic district, just as the detection of elastic fibres in the sputum points to the softening of a tissue where inflammatory changes bear a more recent date. In all these non-circumscribed cavities, the surrounding tissue is caseous, fibrotic, or pneumonic, and is doomed, wholly or in part, to destruction. The line of demarcation has not yet been drawn; and too often, as in surgical gangrene, it fails to be drawn before the powers of life are exhausted.

It is, however, in the *mature* cavities that centre our chief interest and our hopes of successful treatment. I would again refer to the vomicæ surrounded by well-defined capsules, and developed in the abrupt manner to which I have alluded. The wall of such a cavity usually presents internally a pyogenic lining, and externally it is provided with a substantial fibroid coat. Owing to the suddenness with which it is relieved from internal pressure, and to the spongy character of its environment, the capsule is placed under extremely favourable conditions for contraction. A large proportion of the healed cavities are to be reckoned to this class. This happy termination does not, however, obtain in every case. The caseous abscess may fail to contract, and, after a varying period of suppuration, may assume the character of a chronic vomica.

I agree with Dr. Reginald E. Thompson in thinking that a large proportion of these well defined encapsulated cavities take their origin in hæmorrhagic deposits. I shall have occasion elsewhere to insist upon the remarkable degree of fibrotic action set up at the periphery of the deposits of blood in the lung. It may be incidentally observed that, in simple hæmoptysis, this "reactive" fibrosis is carried out with the full energy of a tissue thoroughly healthy as yet; hence the abrupt transition, not elsewhere observed, of spongy tissue into a tough fibroid capsule. These capsules are in other respects sufficiently characterised by their pigmentation and by the radiating puckering which invariably occurs at their surface.

Whether originally caseous, tubercular, or hæmorrhagic, the cavities ultimately acquire denser walls, and the secretion becomes more free from solid *débris*. The following is roughly the aspect presented by a cavity in this stage. Internally, the surface is lined with a greyish *false membrane*, often of appreciable thickness, but, in other cases, possessing little more substance than the bloom on a fresh fruit. In either case, it is readily detached, and exposes a red layer, which constitutes

the *inner or vascular* portion of the capsule, the outer portion of which it *purely fibrous*. The relative thickness of these three coats varies according to the age of the cavities, and to the degree of irritation under which they may be placed.

1. *False Membrane.*—Most cavities are for a time the seat of a suppuration which gradually diminishes, and ultimately ceases, unless called into renewed existence by some fresh irritation. During this suppurative stage, the innermost lining of the cavities presents pyogenic characters; but, at all other periods, it can more aptly be designated as a necrotic layer. If examined under the microscope, it is found to consist mainly of caseous particles and of decaying cells, and to be merely an exfoliation from the inner surface of the cavity wall. In this particular, the wall of a vomica is comparable to the wall of the medullary cavity of bone, for it sheds its waste products internally, and acquires thickness from without.

2. *Fibro-vascular Layer.*—The real gauge for the activity of a cavity is given in the state of the vascular layer, which, in irritative conditions, becomes extremely congested. The remarkable polish of this surface, and its uninterrupted continuity with the surface of the air-tube, have often deluded observers into mistaking the cavity for a bronchial dilatation. The smoothness, the firmness, the bright arterial hue, are the same as naturally belong to the bronchial membrane; and had we trusted to the naked eye alone, we must have concluded, with some eminent observers, that, far from being rare, bronchiectasis is among our most common diseases. But the specific constituents of the bronchial tube are not continued into the cavity. The mucous membrane, with its epithelium and its characteristic limiting structure, is stretched for a short distance over the infundibular entrance into the cavity, but it is ultimately thinned away. Scattered islands of mucous membrane, it is true, may be noticed where outlying bronchi have been intersected by the cavity-wall; and to the continued activity of these bronchial segments is doubtless to be ascribed a great proportion of the secretion commonly referred to the latter; from islands of this nature were probably obtained the cells which have been adduced as evidence of the bronchiectatic nature of cavities formed in tubercular tissue. With the progress of time, the thickness of the vascular layer is gradually lessened, its exposed surface becomes more tolerant of irritation, and the secretion less abundant, whilst the fibrous membrane acquires increasing strength.

In comparatively rare instances, the lining of the cavity becomes purely fibrous, and the space is ultimately encircled by a continuous layer of wavy fibres. The diagram which represents this somewhat unusual condition was taken from a case of chronic apex cavity. More commonly, the fibres are interrupted and intermixed with a varying proportion of vascular tissue; but, in all cases, this layer is in contact with a fibro-nuclear zone, which becomes denser and more fibrous on the cavity side, whilst its outer boundary is lost in the spongy substance. Invariably, also, lymphatic spaces are enclosed in the meshes of the fibrous layer; they are readily identified, owing to the pigment-particles which they usually contain.

I would call attention incidentally to a peculiar appearance, not hitherto described, presented by cavities of old standing, which have reached the pleural boundary. In these I have often noticed a fine fasciculation, closely resembling the muscular coat of an intestine from which the peritoneum has been detached. The fasciculation appears to consist mainly of fibrous tissue; it is striking only in respect to the arrangement of the fibres, which is almost invariably horizontal. Having found the same appearance in the lining membrane of an empyema, I do not look upon this formation as special to pulmonary cavities, but more probably referable to the pleural membrane.

The chief features of the walls of cavities in phthisis are briefly the following:

1. Absence of protecting epithelium.
2. Gradual decay within, leading to the formation of a necrotic layer (pseudo-pyogenic).
3. Gradual fibroid growth from without, constituting the so-called capsule.

I have made it sufficiently clear that, by whichever process produced, the cavity-membrane is never a separable entity, but a surface-induration. Loose capsules have been described by Dr. Reginald E. Thompson as due to the retraction of a layer of blood which originally adhered to the cavity-wall. For such an appearance, I can conceive but two other explanations: either the loose capsules must be due to a pulmonary aneurysm which has expanded into a cavity, and furnished it with an accurate internal lining; or we must imagine the unlikely event of the necrotic zone special to the cavity having been shed in its integrity, and in a layer of considerable thickness.

The eminently practical classification of cavities given by Dr. Douglas Powell in his book *On Consumption* (second edition, page 102), is based upon the pathological states of the cavity-wall. Cavities are divided into four classes: (1) the recent; (2) the quiescent; (3) the secreting; (4) the active or ulcerous. As expressions of various phases of development and of morbid action, this nomenclature is complete, and it corresponds to equally well defined clinical states.

From a different standpoint, that of anatomical description, I would propose, side by side with this useful division, the following classification of cavities:

1. Cavities devoid of limiting membrane: in these excavation takes place by a crumbling in the dry variety, by a liquefaction in the moist variety. The usual type is the moist. Reaction is at a minimum, and disintegration often overtakes the fibroid zone before it has become a protection to the tissue. *Special subvarieties*: *a*. Suppurative necrotic form, commonly present in acute phthisis, where it is apt to occasion pneumothorax; *b*. Simple liquefaction, apparently from soakage, most frequently witnessed in compressed devitalised tissues when attacked by œdema; *c*. Ichorous ulceration, observed in the rigid and sinuous burrowings of indurative chronic pneumonia.
2. Cavities possessing a distinct capsule in the midst of spongy lung-tissue: excavation is due to limited caseous abscesses, frequently also to the softening of hæmorrhagic foci.
3. Chronic cavities with thick lining, continuous, with more or less induration, partly inflammatory, but chiefly due to collapse.
4. Chronic cavities with thick lining, surrounded by a rim of tubercle.

[*To be continued.*]

ABSTRACT OF LECTURES ON THE MORPHOLOGY OF THE MAMMALIAN SKULL.

Delivered at the Royal College of Surgeons of England.

By W. K. PARKER, F.R.S.,
Hunterian Professor of Anatomy in the College.

Lecture III.—On the Superficial Cartilaginous Skeleton: Labial, Oral, and Pharyngeal; on the Limbs; and on the Dermal (bony) Skeleton.

There are certain parts of the vertebrate framework which cannot be classed with the endoskeleton; these are both cartilaginous and osseous. The former are usually developed in the lower types, and are manifestly archaic; they seem to represent elements which probably formed the principal part of the skeleton in types which we must suppose to have existed as the precursors of our present vertebrates.

The most simple and primitive of these parts are the barbels or oral palpi. Next to these come the cartilage formed in the substance of the lip, and the separate cartilaginous valves lying around the openings of the nasal capsules. The proper lip-cartilages evidently represent the proximal ends of barbels, which have more or less lost their distal parts. All these cartilages are classed together as labials.

In Amphioxus, the main skeletal parts are a fringe of labial palpi which surround the mouth. In the most abortive forms of fishes—Myxine and Bdellostoma—there is no proper suctorial mouth; but that opening is surrounded by barbels, which have a cartilaginous pith with a broad base. Instead of the detached nasal valves, which we find in Selachians, Anura, etc., these Myxinoids have a long passage leading to their single nasal aperture which is supported by a series of rings of cartilage, imperfect below, forming a structure very much like that of the mammalian trachea.

In the next form above these, the lamprey, in its larval condition as an Ammocete, we have a very simple myxinoid condition, there being no suctorial disk; the mouth is surrounded by palpi, but there is no trachea-like prenasal tube. In the adult lamprey, the skeleton—which is composed entirely of cartilage—is mainly superficial. There is a very perfect suctorial mouth, surrounded by one solid ring of cartilage. This latter, which is a lower labial, has another median T-shaped piece behind it, and a styloid cartilage on each side. It is surmounted above by a large median shield-shaped upper labial, and a styloid and a subcrescentic piece behind this. The visceral arches in this type are only partially differentiated from the basis cranii; there is no proper mandible, but an immense lingual cartilage in the floor of the mouth represents the basi-hyo-branchial. These, and the imperfect neural arches, constitute the whole of the proper endoskeleton; but a large and highly complex basketwork of soft cartilage encloses

the whole of the huge pharynx in the hyoid and branchial region, the pericardium being also partially enclosed in cartilage.

In the Chimæroids and Selachians, there is a very large development of cartilages in the lips, and also partly occluding the openings of the nasal pouches, which latter are inferior in position. Taking an ordinary shark, we find that, besides perfectly normal branchial arches, there is a series of rings which strengthen the septa between the pouches. There may be from one to three even over the first aborted cleft—the spiracle. On the hyoid and branchial arches they are large; those in the former being pectinate, but in the latter simple. Outside the extremities of these there is also a large styloid cartilage, which is dilated below and strengthens the outer edge of the septum. These bars are extrabranchials, and represent, in a distinct form, the main elements of the basketwork of the lamprey. Extrabranchials and labials are but little developed in Ganoids and Teleosteans, but reappear in considerable force in the Dipnoi, which have a Chimæroid relationship.

There are no labials in the Urodeles; but, as already mentioned, the gills are epiblastic in origin, and their subcartilaginous supports therefore, belong to the extrabranchial system. Larval Anura come very close to the lampreys in the structure of these superficial cartilages. In the tadpole of Dactylethra, the large upper labial is extended into a long oral palpus on each side. In all anurous larvæ, the suctorial disk is composed of two cartilages, which form a horse-shoe, and not a ring as in the lamprey; the upper labials are large, and number from one to four. These latter are transitory, and are followed, during metamorphosis, by new nasal valves. The branchial arches proper only exist in rudiment, but the pouches are strengthened by extrabranchials, which are all connected together as in the lamprey; the septal rays thus pass inwards from these, as pectinate processes. Another superficial cartilage appears during metamorphosis, which is at first crescentic and then annular, and gives rise to the annulus tympanicus.

In the Sauropsida, we find small elements belonging to the nasal valve cartilages. Of these, there are two pairs in the Ophidia and one in the Lacertilia, supporting Jacobson's organ. They are not present in turtles and crocodiles, but in these the annulus tympanicus reappears. In many birds, there is a pair of cartilages in the front part of the palate, which evidently correspond to those in the snake and lizard; in the Rallidæ there is an inferior labial in the mandible.

In Mammalia—even in man—the representatives of the nasal valve cartilages are found in the *appendix alæ nasi*, which is formed of four pieces. In the pig there is probably only one. In all mammals there is a large band of cartilage obliquely overlapping Meckel's cartilage on each side of the head, which exactly resembles the inferior labial of a shark. In this case, however, their proportional sizes are reversed, the labial being much larger than Meckel's. The ramus of the jaw is formed by the grafting of the dentary bone on to this plate—a combination of the superficial cartilage and bone, which is also seen in both the upper and lower jaw of the frog. Besides the bony annulus, most mammals have a cartilaginous ring surrounding the bony one. On the front margin of the first (hyo-mandibular) cleft, there is also a true opercular cartilage, or branchiostegal ray—the *tragus;* this cartilage passes with a special fold of the skin behind the cleft, which develops into the *concha*.

The limbs are included in this lecture, in order that they may be compared with and distinguished from the superficial cartilages (extrabranchials) of the pharynx. The latter are developed in a part which corresponds to the somatopleure or body-wall; and their position, therefore, corresponds with that of the ribs. But the limb-girdles are developed between the skin and the ribs, the limbs being simply continuations of the girdles—developing, according to their type, into ichthyopterygium, or cheiropterygium. As already mentioned, the visceral arches arise in the splanchnopleure; and thus both girdles and limbs correspond to something altogether external—not only to branchial arches, with which they have been compared by Gegenbaur, but even to the extrabranchials and ribs.

With regard to the external bony skeleton, the placoid scales of the Selachians are not influenced much by the endoskeleton. But in Ganoids, and still more in Teleostei, the bony scales are largely dominated—especially in the head and shoulder—by the parts which they protect. In the lower forms of fish (Selachians, Ganoids, etc.), the scales are ossifications of the whole skin *(dermostoses);* but, as we ascend, we gradually come to bony plates developed beneath the skin *(parostoses*, or splint-bones). These parts, which can only correspond to the innermost lamina of a placoid or ganoid scale, largely help to build up the cranium and face in all the Amniota, giving rise to the membrane bones forming the roof and sides of the skull. Deeper laminæ are called *ectostoses—e.g.*, the shafts of the long bones, the vertebral arches, etc.

ETHER v. CHLOROFORM.

By T. PRIDGIN TEALE, M.B., F.R.C.S.,
Surgeon to the General Infirmary at Leeds.

It is confessedly difficult, perhaps even impossible, to settle by statistics the question of the relative danger of these two anæsthetics; chiefly for the reason that, whilst we know pretty nearly how many deaths from each agent occur during the year, we have not the means of ascertaining the relative proportions of the cases in which each anæsthetic has been used.

Such being the case, it may be worth while to record the opinions of those who, having for a great number of years had experience of chloroform, have also for many years (in my own case, more than six years) almost abandoned it in favour of ether. I wish, therefore, to tender my conclusions for what they are worth, based, as they are, upon what I have seen in the practice of my colleagues and myself at the Leeds Infirmary, and upon my experience of anæsthetics in my private practice. My conclusions are as follows.

1. Ether, *properly administered*, is a much safer anæsthetic than chloroform. So much safer do I believe it to be, that I counsel every surgeon whom I can influence in the matter, to study the method of its right administration, and to let ether take the place of chloroform. The exceptions I make in favour of chloroform are: in infants, in patients subject to asthma or chronic bronchitis, and also, perhaps, in cases of abdominal obstruction, with difficult breathing, in which an operation has to be performed.

2. When many operations have to be done in rapid succession, to use ether is a great economy of time. A good "etherist" can get most patients under its influence in from one and a half to two minutes, whereas, in my experience, chloroform must be given from six to fifteen minutes before an operation can be commenced. I am aware that chloroformists trained in Edinburgh usually administer chloroform more rapidly than those trained in English hospitals.

3. A patient under the influence of ether is far more passive, and therefore in a more convenient condition for operation, than one under chloroform. As soon as the effect of chloroform is passing off, the patient becomes, as a rule, and often very suddenly, very sensitive to pain; whereas, in the case of ether, especially if the patient have been kept for some time under its influence, the return of sensibility to pain is very slow. In fact, a patient may become so far conscious as to converse with the surgeon whilst stitches are being placed in the wound, and at the same time be entirely unconscious of pain. This was not my experience of chloroform.

4. When ether is administered without food on the stomach, troublesome sickness is very rare.

5. In using ether, the *safety and comfort of the patient*, the *rapidity of the anæsthesia*, and the *convenience of the surgeon* in operating, depend very directly upon the *method* of administration employed, and the *manner* in which the administrator does his work.

6. There are good methods of administration of ether and bad methods, and there are good and bad "etherists". The varying opinions of the value of ether which prevail in the profession probably depend very directly upon the varying methods and manners of administration.

7. It is a bad method to give ether "on a towel", as first taught us by Dr. Joy Jeffreys, to whom England is deeply indebted for his successful crusade in favour of ether. This involves a great waste of ether, ten to twenty ounces being required. The patient's lungs are chilled, and bronchial *râles*, struggling, and maniacal excitement not unfrequently result. I, along with my colleagues, commenced ether under this system as a duty, and by no means an agreeable one, and held on doubtfully when I suspected that some patients probably died from the effects of the chilling of the lungs.

8. It is a bad method to give ether with the American basket-work frame, which, though not much better than the towel, served a good purpose as a step to better things.

9. The good methods are those in which the patient breathes over ether into an India-rubber bag, a method, I believe, introduced into practice by Dr. Ormsby of Dublin, and carried to further perfection by Mr. Clover. In this method, the patient breathes the same air over and over again for six or eight times, thereby economising the heat of the air-passages, economising ether, and enhancing the effect of the ether by partial asphyxia. My experience of the use of Clover's smaller inhaler, under good management, is this: *a*. A patient can generally be ready for operation in a minute and a half, sometimes in less than a minute; *b*. There is rarely any struggling; *c*. Noisy excitement hardly ever occurs—perhaps, in my private practice,

once in a hundred times; *d. Râles* in the trachea are but seldom heard; *e.* Instead of six or eight ounces of ether being used in a short operation, and sixteen to twenty in one lasting an hour or an hour and a half, half an ounce or less suffices for a short operation (such as "sphincter-stretching" or "iridectomy"), and two to three ounces for an operation of an hour's duration, such as colotomy or excision of a joint.

10. The administration of ether by inferior methods is still too common, and was until recently prevalent in some of our larger hospitals.

11. Even with Ormsby's or Clover's inhalers, there is an infinite variety of skill in different etherists.

12. In order to become a good etherist, the administrator must *study how* to give ether, must *watch* the patient *attentively* whilst giving it, and during the earlier inhalations must very carefully and *studiously adjust* the anæsthetic to the sensations of the patient.

13. A careful, attentive student, with tact, and not hard and unfeeling, can easily and in a short time be taught to give ether properly.

Since the adoption of Clover's inhaler, I have had singular freedom from anxiety about my anæsthetics—far greater freedom than in the previous period, when I had to depend upon chloroform.

Finally, I would say that this favourable opinion of ether is based upon my experience of its use by a series of very able administrators—some in the Leeds Infirmary, others whilst acting as my private clinical assistants. Speaking as a looker-on, rather than as an administrator, I should say that the chief points in the right administration of ether are: first, to overcome the nervous dread of the patient by applying the mouthpiece only; then to turn on the ether gently, until the glottis becomes tolerant and the patient is slightly unconscious; lastly, to complete the anæsthesia rapidly. In advising beginners, I compare the regulation of the quantity of ether to the "curve of harmonic progression".

PERCUSSION AS A THERAPEUTIC AGENT IN NERVOUS DISEASES.

By J. MORTIMER GRANVILLE, M.D.

With the cognisance of the leading physiologists and neurologists in England and on the Continent, I have for some years past been employing carefully graduated and precisely applied percussion as a therapeutic agent in the treatment of nervous diseases and disturbances, on a principle of which the following statement, published by me in February 1881, may be taken as a brief exposition.

"As far back as 1862-3, I was, in the course of certain clinical studies of mental and sensory phenomena, induced to believe that many forms of the sensation we call "pain" were, in fact, unnecessary, and might be interrupted by appropriate mental and physical methods and appliances. My first observations were made in connection with the paroxysmal or recurrent pains accompanying the uterine contractions in the natural process of parturition. On May 4th, 1864, Dr. Graily Hewitt was good enough to communicate the results of my experiments and to show certain apparatus, to the Obstetrical Society of London. In a paper On the Application of Extreme Cold as an Anodyne in the Pain attendant on Parturition, a short abstract of which will be found in the *Lancet* of July 9th, 1864, I contended that the sensations of pain experienced by the parturient woman were not invariably synchronous with what, for want of a better name, we term the "pains" of her labour; and from this and other premisses—for example, the circumstance that the sensation is commonly "referred" to some region more or less remote from the contracting uterus, or the dilating external passages, in which the real seat of the pain might have been supposed to be located—I deduced that the pain attendant on labour is neuralgic in its character. I had constructed small boxes or chambers of such sizes and shapes as to admit of their being conveniently applied to the supposed seats of the pain. These were filled with freezing mixture, and the effect of sudden contact in some thirty cases was to arrest the sensation of pain without in the least degree lessening the force of the uterine contractions. The experiment was, of course, simply interesting as bearing on the nature of the pain, as this process was too troublesome to admit of its adoption in practice; albeit some of the persons on whom I had the opportunity of trying my method experienced such striking relief that, on subsequent occasions, I believe they asked that the measure might be repeated. Having thus far persuaded myself that this form of pain was neuralgic, and that if the nerve affected could be strongly impressed, so as to change its *state of irritation*, the pain would cease, I proceeded to try the effect of rapidly tapping the skin over the fifth nerve in ordinary facial neuralgia with a Bennett's percussion hammer, using the ivory pleximeter as a shield. The results obtained by this method were very remarkable. Still, I simply thought of arresting the morbid action by shock. Later on—it is only possible to sketch the outline of the inquiry—I was led, by the light thrown on Newton's doctrine of concords and discords by Grove's generalisation as to the correlation of forces, and, more recently, by Professor Tyndall's beautiful series of experiments with sensitive flames and musical burners, to believe that the results of the tapping were not, like the interruption with shock produced by the sudden application of cold, due to a mere arrest of the painful state of irritation into which the nerve had been thrown, but were, in fact, brought about by the extinguishment of some morbid—that is, either inordinate or disorderly—set of vibrations by the superimposition of another, incompatible or discordant, set of vibrations mechanically produced. With this notion, I set to work to devise an instrument which should give a known number of blows per second, and thus admit of this new phase of the inquiry being pushed further.....

"The sensation produced by the application of the instrument over a healthy nerve, so situated as to be readily thrown into mechanical vibration, closely resembles the effect of a weak dose of the interrupted current of electricity, and if it be prolonged the vibration will extend its area, exciting first formication or tingling, then a sensation of numbness, and finally some twitching of the superficial muscles. A nervous headache, and even migraine, may be induced by the application of the percuteur to the frontal ridges or the margins of the orbit. By the interposition of a thin plate of metal, or even stiff paper, the vibration may be readily propagated through a considerable region of the surface of the body, and in time the deeper muscles will frequently begin to act. I have even produced an involuntary movement, not unlike tendon-reflex, by applying the percuteur for some time over the ligamentum patellæ or the margin of the patella. Still more notable has been the fact that, by laying a sheet of paper over the abdomen, and moving the percuteur slowly in large circles round the umbilicus, the intestines have seemed to be excited to vermicular movement, and the bowels commenced to act. These results have not been constant, but have occurred with sufficient frequency to indicate that the experiments already made are worthy to be repeated.....

"I will take leave to say that I think these results go to support my theory that it is by the introduction of discord into the rhythm of the morbid vibrations of the painful "state" the change which brings relief in neuralgia is effected. To apply the percuteur with a high rate of blows per second will aggravate the morbid state when that is itself a series of rapid vibrations; and in the same way a low speed of percussion increases, instead of relieving, the pains of a low-pitched and slow "boring" or "grinding" sensation. Acute or sharp pain is, I believe, like a high note in music, produced by rapid vibrations, while a dull, heavy, or aching pain resembles a low note or tone, and is caused by comparatively slow vibrations. A slow rate of mechanical vibration will, therefore, interrupt the rapid nerve-vibration of acute pain, while quick mechanical vibration more readily arrests the slower. The aim—if I am right in my conjecture—should be *to set up a new set of vibrations which shall interrupt or change the morbid set by introducing discord.* This is the principle. Failure in the application of this principle will, I believe, be found to explain the failure to put an end to the pain; and I have, accordingly, set as much scientific value on my failures as on my successes."

My method is, it will be seen from these extracts, based upon the hypotheses (1) that all nerve action, whether normal or morbid, is vibratile; and (2) that it is possible to influence and control abnormal vibrations—in the manner above described—by mechanical vibrations propagated to the nervous structures, in *particular* directions and at *known* rates of speed. It is not my present purpose to discuss these hypotheses, or the method in detail; but I am anxious to re-state, and now affirm, certain propositions, founded on experience, which, in previous intimations of the progress and success of my experiments, I submitted tentatively. They are these.

1. I have rarely failed, in a fairly large number of cases—many of them of several years' standing—to bring the cerebro-spinal and, sometimes directly at others in secondary circuits, the sympathetic, ganglia under control, by the application of my percuteur over, or in mechanical relation through the adjacent tissues with, those ganglia.

2. I have in no instance failed to produce activity of the bowels, even in cases of previously obstinate constipation; and in many instances I have succeeded, within a short period, in restoring the periodic evacuation of their contents without recourse to drugs. This success alone places the method on a footing of value in daily practice.

3. I can now, in result of my more recent experiments, propagate the vibrations I produce along the trunks and into the branches of most

of the principal nerves, from their centres of origin, or call them into action, reflexly, through the afferent nerves connected with those centres. In limited paralyses, and even in circumscribed scleroses, this power is of the highest therapeutic importance.

4. I can nearly always arouse torpid centres to action, and thus pave the way for their restoration to states of normal activity. Since it is physiologically certain that nutrition depends on exercise, and every part of the organism feeds in proportion as it works *healthily*, it is a great thing to be able to act thus directly on the nerve-centres which are the seats of energy.

5. I can subdue the exaggerated reflex irritability of revolting subordinate centres, and replace them under the control of the higher centres, even in cases of lateral sclerosis.

Applying these facts—for such they undoubtedly are—to the needs of special nervous states, the practitioner will have no difficulty in perceiving that my method has great and obvious uses. I am anxious not to overstate the results I am obtaining, but they are such as to show that the physiological process of mechanical vibration is likely to prove a potent agent in the treatment of a wide range of maladies now the most intractable. It will afford me much pleasure to show the process to any medical man who will call on me. It is impossible at present to describe its details in writing; but I will gladly aid anyone in its application. My method has nothing in common with the "muscle-beating" and shaking to which you directed attention in your last issue. It is a system which must be approved and practised by the profession exclusively. Nothing do I so much dread as its falling into unprofessional hands. I have been engaged upon it since 1862, shortly after which date some of the first results were communicated to the Obstetrical Society.

THE USE OF IODOFORM IN THE TREATMENT OF SOFT SORES.

By WALTER WHITEHEAD, F.R.C.S.Edin., Manchester.

IODOFORM appears to be one of the most efficacious drugs in the treatment of the syphilitic non-infecting soft sore, when not unduly inflamed. It has, however, the unfortunate counterbalancing disadvantage of attaching to the patient the liability of unenviable suspicion, and the significant expressions of his companions—the public having become keenly alive to its distinctive and penetrating odour, and having also acquired an appreciative knowledge of the principal purpose for which the drug is most frequently used.

The various attempts which have been made to disguise or modify this peculiar odour appear hitherto to have failed. Tonquin beans, kept in the same bottle with the iodoform, succeed to a certain extent and for a limited time. The beans, however, possess a smell which is regarded by many with equal objection to that of iodoform.

I have succeeded, I consider, in obviating this objectionable feature, without apparently sacrificing any of the therapeutic advantages of the drug, by using it after the following manner. I first very carefully cleanse and dry the sores by means of little pledgets of bibulous paper, and then, by means of a camel-hair pencil, apply freely over the surface of the sores a solution of iodoform in ether. The ether rapidly evaporates, and leaves the iodoform uniformly spread in an impalpable powder over the sores.

To ensure a free application, the latter part of the process may be repeated and allowed to dry. When perfectly dry, each sore is given a coating of collodion, which is allowed to overlap about a quarter of an inch the area of each sore. Before the collodion has had time to dry, a pinch of absorbent cotton-wool is placed on each patch as a protection against the rough contact of clothing. This dressing is allowed to remain undisturbed for twenty-four hours, when the firm film which forms may be gently removed and a fresh coating applied. This treatment is continued day by day until all the sores have quite healed. I have found, on the same principle, and with equal success, that a piece of goldbeaters' skin may be substituted for collodion after the application of the iodoform.

By this means, the patient and his associates are spared the disagreeable consciousness of the remedy being employed, whilst the full benefit of the drug is being preserved. A further advantage gained is the protection afforded by the collodion against auto-inoculation, and also against the risk of contagion from others coming in contact with the sores.

The iodoform solution I am in the habit of using has been made for me by Messrs. Standring, Son, and Co. of Manchester, by dissolving one part of iodoform in two of ether; and, in my Lock Hospital practice, where time and economy is of moment, I have the collodion and iodoform mixed together, the formula being iodoform one part, ether two parts, collodion to ten parts. In the latter solution, the odour cannot be said to be wholly disguised, but it is sufficiently concealed for all practical purposes.

OBSTETRIC MEMORANDA.

TWO OBSTETRICAL CASES.

I was recently sent for by one of our midwives in attendance on an out-patient who was said to be "bleeding profusely in consequence of placenta prævia. On examination, I found presenting, at the brim, a fleshy mass from which there was considerable hæmorrhage. There were scarcely any labour pains, and I passed my hand into the vagina, which was capacious, and had no difficulty in making out that the mass was not a placenta, but a large hæmatoma growing from the vertex of an acephalous monster. I applied forceps, and delivered a very large fœtus.

A case of prolapsus uteri has just left my ward at the Samaritan Hospital with the following curious history. When the woman was last pregnant, the uterus came down between the third and fourth month, and could not be returned. The fœtus was carried to full term in the prolapsed uterus, "which reached down to the hamstrings", and was not unlike a cow's udder.

Dr. Lowe of Lynn attended the patient, and saw the fœtus and placenta pass straight from the uterus, without, of course, traversing the pelvis. The labour was short, easy, and quick. The case suggests the possibility of producing artificial prolapse in certain cases as an alternative for craniotomy and the opportunity afforded of making accurate and interesting observations with regard to uterine contraction during labour.

PERCY BOULTON, M.D., M.R.C.S. Lond., Physician to Out-patients, Queen Charlotte's Lying-in Hospital.

SURGICAL MEMORANDA.

TREATMENT OF TONGUE-TIE.

VARIOUS and elaborate instruments have been adapted by different surgeons for the treatment of tongue-tie (as it is commonly called by the profession at large), by incision. I think the following method preferable and much safer. I pass my right index-finger into the mouth of the infant to be operated on, under the tongue, and press my nail against the frænum till I rupture it to a sufficient extent. So far my cases have turned out quite a success. The plan, I am sure, will recommend itself to all.

J. BRINDLEY JAMES, M.R.C.S., London.

THERAPEUTIC MEMORANDA.

THE TREATMENT OF DIPHTHERIA.

THE note by Dr. F. P. Atkinson is a valuable addition to the means at present employed for limiting the extension of false membranes in diphtheria.

The following combination of the glycerols of tannin and carbolic acid has proved itself, during a considerable experience of diphtheria and scarlet fever, a highly efficient application in my hands, viz.: ℞ Glycerini acidi tannici ℥vij; Glycerini acidi carbol. ℥j. Misce. In the application of glycerine as an absorbent, it is of practical importance (as pointed out some time since in the *Pharmaceutical Journal*) that a small proportion of water should be added to it. In order to secure this, a sufficiency of the glycerine should be placed in a saucer, and a throat-brush dipped in water should first be stirred into the glycerine before applying it to the tonsils and fauces.

The combination above-mentioned has been found practically the most efficient proportion for securing the necessary astringent and antiseptic results, without irritation. An application twice, or at most thrice, in the twenty-four hours secures the utmost benefit the remedy affords—a matter of importance both to the patient and practitioner, as the former is not fatigued by frequent applications, and the latter can make these personally at the usual visits.

It is seldom that any additional local remedies are required, but it is wise to precede the application of the glycerols with gargling the fauces and washing out the mouth with a solution of permanganate of potass and water, and to use the sulphurous acid spray; the double advantage which follows being, that the fauces are the better prepared to benefit from the glycerine, and that the safety of the practitioner is increased in the event of the patient expectorating any false membrane during the act of swabbing. To further increase the safety of the medical attendant, a glass screen, placed between him and the patient, will afford protection without limiting the efficiency of the procedure.

H. CRIPPS LAWRENCE, L.R.C.P.Lond., etc.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

RICHMOND HOSPITAL, SURREY.

CASE OF LACERATION OF THE INTESTINE INVOLVING ITS WHOLE CIRCUMFERENCE: DEATH IN TWENTY-TWO HOURS.

(Under the care of Mr. F. CHAPMAN.)

[FOR the report of this case we are indebted to Mr. LEONARD P. MARK, House-Surgeon.]

H. P., aged 21, a slenderly framed youth, was hurrying along in the dark on February 18th, at 8 P.M., when he ran up against an iron post placed in the middle of a narrow alley, and "had his wind knocked out of him".

When admitted soon afterwards, he complained of great pain in the epigastrium. No bruising nor fracture of ribs could be detected. His extremities were cold. Pulse 100, very weak. He vomited several times, but later on was able to keep down some hot milk and brandy-and-water. He passed a very restless night, but in the early morning his condition was somewhat improved. Pulse 90; temperature 97°. He was quite conscious, and able to give an account of himself. He took some beef-tea and milk, and at 11 A.M. passed a little urine for the first time since the accident. It was high-coloured, but normal. At 12 o'clock, he became rapidly collapsed; the abdominal muscles were rigid; and the face and hands livid, but not blanched. He gradually sank, and died at 6 P.M.

Post mortem examination showed that the small intestine had been torn completely through twelve inches below the pylorus, where it crossed in front of the spine. This had apparently been caused by its being violently crushed between the iron post and the vertebral column. There was some bruising, and some slight hæmorrhage into the cellular tissue in front of the spine. Only a few particles of the contents of the intestine had escaped into the peritoneum. It was interesting to notice about the rupture, how the muscular coat of the intestine had retracted, allowing the loose mucous membrane to spread outside it for about half an inch, putting one in mind of the sleeve of a coat over which the shirt-cuff had been turned back. General peritonitis had already set in. The serous coat of the anterior coils of intestine were highly injected, and some of them were slightly adherent. All the other organs were uninjured. There were no external signs of injury.

WESTERN INFIRMARY, GLASGOW.

COMPOUND FRACTURE OF THE TYMPANIC PLATE BY INDIRECT VIOLENCE.

(Under the care of Professor GEORGE BUCHANAN.)

[Reported by ANSTRUTHER DAVIDSON, M.B., C.M., House-Surgeon.]

MR. JORDAN LLOYD of Birmingham quotes, in the BRITISH MEDICAL JOURNAL of February 11th, two cases of this kind. The rarity of this accident induces me to detail a case coming under observation since reading his article.

P. G., aged 14, rivet boy, was admitted on February 14th. He had fallen into the hold of a vessel, a distance of twenty-five feet, his chin in his descent striking a wooden beam placed half-way down the hold. When picked up, he was slightly stunned; he was seen shortly after by a medical man, who, suspecting fracture of the base of the skull, sent him to the Infirmary, where he arrived about one hour after the accident. He was then quite conscious. Across the base of the chin was a wound, two inches long. In front of each ear was a puffy swelling, painful on pressure. From the right ear, bright red blood flowed in considerable quantity. This blood being cleared away, pressure on the swelling over the condyle caused blood to well out of the meatus. A probe passed in plainly revealed, about three-fourths of an inch from the meatus, a bit of bare bone, which was projecting a little way into the middle ear, at its anterior and lower border. A shred of the lining membrane, torn by the broken fragment, could be seen floating on the issuing blood. There was no hæmorrhage from the left ear. Most careful examination revealed no crepitus on the fractured side. The jaws were about three-fourths of an inch apart, and any attempt to approximate them caused great pain; the lower jaw was placed much behind the upper, the recession being most marked on the right side. The blood continued to ooze all night and a little next day. Dr. Barr, dispensary aural surgeon, examined the ear on the day following. The swelling in the canal, and the pain caused by examination, prevented inspection of the membrana tympani; hearing was dull on the right side.

REMARKS.—The history of this case leaves no doubt as to there being a compound fracture of the tympanic plate; and, in most points, the similarity as to causation and symptoms, between this case and those of Mr. Lloyd, reported in the BRITISH MEDICAL JOURNAL of February 11th, 1882 (page 190), is very striking; but, with this important difference: that, besides being compound from the beginning, this lad was unable to close the jaws, probably on account of the impaction of the right condyle against the fractured tympanic plate. There was certainly no dislocation. The fracture was exactly in the situation of the tympanic plate, at the anterior and lower part. A study of the normal parts does not favour the possibility of such a fracture of the articular part of the glenoid fossa, as there intervenes between the condyle and the fossa an articular plate, capable of greatly influencing the force of the shock. To produce this fracture, the posterior part of the condyle must come in contact with the tympanic plate—a condition favoured by the size of the angle of the jaw at this age, which would throw the direction of the force further back than is possible in the adult. The case was evidently not one of fracture of the base, as there were no head symptoms, and the blood was seen to come from the fractured part; further, the blood was bright red, and not of the darker colour seen in fracture of the base.

The profession is indebted to Mr. Lloyd for calling attention to this form of accident, and to the liability of its being mistaken for fracture of the base, as occurred in this case; but he is incorrect in supposing that no such case had been previously recorded, for at page 25 of *Lehrbuch der Ohrenheilkunde*, the occurrence of such accident is commented on by Dr. A. von Troltsch.

ROTUNDA HOSPITAL, DUBLIN.

A CASE OF PARTIAL OCCLUSION OF THE VAGINA.

(Under the care of Dr. LOMBE ATTHILL.)

[Reported by Mr. U. K. DUTT.]

MARY R., aged 24, married, was admitted into the Gynæcological Department of the Hospital on January 10th, 1882. She stated that her health had always been good, but that menstruation had been, from the first appearance of the discharge, more or less painful; and it had become much more so since her marriage, five months previously. For the first few hours of each period, the pain was only slight, gradually becoming more and more intense, and lasting not only during the whole time that the flow continued, but also for a day or two subsequently. The pain was most severe on the back and above the pubes. Sexual intercourse had always been painful, and of late could not be borne; and it was for the relief of this condition specially that she sought admission into hospital. The breasts and labia were well formed; but, on making a vaginal examination, the finger penetrated to the depth of only an inch and a half, and neither os nor cervix uteri could be felt; but, through the rectum, the uterus could be distinctly made out. On introducing a speculum, the vagina was seen to terminate in a smooth *cul-de-sac*, in which two small orifices could be detected, one on each side, so minute that the point of a probe was, with difficulty, inserted; the probe passed to the depth of an inch from these orifices, and could be moved freely about. The cause of the dysmenorrhœa was now evident. The vagina was occluded at its upper third, and the menstrual discharge could only pass with great difficulty through the two small openings which existed. But it was still doubtful whether the vagina was closed by a membrane, or atresia of the canal existed in its upper third. The probabilities, however, were in favour of the former.

January 13th. The bladder and the bowels having been thoroughly emptied previously, the patient was brought fully under the influence of chloroform. A duck-bill speculum being introduced, and the perinæum drawn back, a probe was now passed by Dr. Atthill through one of the small apertures already mentioned, a sharp-pointed knife introduced alongside it, and the opening cautiously enlarged, the edge of the knife being kept towards the centre of the canal. A finger being now introduced, the vagina was found to exist perfect above the thick and dense septum, and the os uteri could be distinctly felt. The edge of the septum, which was dense and muscular, was seized with a tenaculum, and a considerable portion of it cut out with a pair of blunt-pointed scissors. Very little bleeding followed, any which did occur being checked completely by the introduction of a plug of cotton saturated with glycerine. No constitutional disturbances followed. The only treatment adopted for the next few days was to introduce the finger into the vagina, so as to keep the raw surfaces from uniting. The

vagina was now fairly patulous, but still a very firm band constricted the canal anteriorly at the site of the septum.

January 24th. This band was incised laterally, under chloroform, and a full-sized Fergusson's speculum introduced easily; through it the os uteri was now seen extensively eroded. The uterus was a little enlarged, and a clear glairy discharge issued from it. A few applications of carbolic acid to the cervix and canal of the uterus were followed by marked improvement; and the patient was discharged, in a short time, cured, the vagina being quite patulous throughout its entire length.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, MARCH 7TH, 1882.

SAMUEL WILKS, M.D., F.R.S., President, in the Chair.

Multiple Osteo-chondromata.—Mr. JONATHAN HUTCHINSON described the condition seen in a patient exhibited by him for Dr. Elder at the last meeting, but not discussed then, owing to pressure of business. The fingers were almost all occupied by enchondromatous tumours. The feature of unusual interest in the case was the coincident occurrence of exostoses in the parts about certain epiphyses; they were distinct from the enchondromata, and grew from the forearms near the wrist, at both ankles, and near the right knee. In addition, there was a curious deformity of one thigh; the patient had, it was said, hip-joint disease in early childhood; the left lower extremity was eleven inches shorter than the other; this was owing to an alteration in the length and form of the femur, and to a displacement of the lower epiphysis behind the shaft. The family history threw no light on the case. She began to complain of pain in the hip and knee when about nine years old, but was never laid up; the deformity of the hip gradually appeared. There was no reason to suppose she had rickets at any time.—Mr. BUTLIN said that he was not surprised to find exostoses coincident with enchondromata, for it was an open question whether the cancellous exostoses, which were covered by cartilage, were not really enchondromata. He questioned whether the exostoses in this case were not some chondrifying and ossifying forms of sarcoma, which might assume a more serious appearance after a time.—Mr. HUTCHINSON, in reply, said that, theoretically speaking, the coincidence of the conditions was very probable; but clinically his experience was that it was excessively rare.—Mr. BUTLIN concurred in this observation, and added that he knew of but one other instance in literature.

Case of Anomalous Nerve-disorder in Infancy.—Mr. HUTCHINSON said that he had brought the case before the Society about seven years ago; and the child had again been in attendance at the last meeting. The child was quite helpless, with an idiotic expression, but with power to move slightly all the muscles of the face and of the limbs. There was a peculiar marbled condition of skin now showing itself. Dr. Hughlings Jackson diagnosed double hemiplegia, the conditions being quite symmetrical on both sides; the muscles responded to galvanism, and there were no secondary affections of nutrition in the limbs—facts which distinguished the disease from infantile paralysis. The child was born healthy, of healthy parents, and was one of a healthy family, as Mr. Hutchinson had verified by examination. The illness began when the child was three or four days old, after, it was said, exposure to cold, which was followed by a severe illness, the most prominent symptoms being convulsions, and a peculiar rash on the neck and shoulders. This rash, at first vesicular, was, at seven months old, when first seen, represented by scabs and a peculiar marbling which had diminished gradually up to the present time. One eye was excised in infancy for supposed new growth, which turned out to be an inflammatory material between the choroid and retina. The other eye was, at the time of exhibition, in constant oscillation, and sight was imperfect. Dentition was very imperfect. There was no marked arrest of development in the body or limbs. He referred to a case of Dr. Hadden's reported in these columns on February 18th, 1882, where both lower limbs and one upper limb were affected. He had himself seen a child who, a few days after birth, was found in a condition of cold and shock, in which not paralysis but destructive lesions of both eyes followed; in another similar case, he had seen symmetrical cataract occur. Dr. Hadden said that, in his case, the paralysis was preceded by a series of fits. The paralysis in this case was accompanied by atrophy of the limbs. The adductors were rigid and the reflexes were exaggerated. The fact that the fits began in the right arm seemed to point to some cerebral lesion, and he was inclined to localise the disease in the motor zone of the cerebral cortex.—Dr. WARNER had seen two cases of double hemiplegia in children, which appeared to be congenital. He had made a *post mortem* examination of a child in whom there was bilateral defective development of the convolutions behind the fissure of Rolando; double hemiplegia had existed from birth. In some cases of progressive hemiplegia in children, there seemed good ground for suspecting syphilis.—Mr. JONATHAN HUTCHINSON, in reply, said that Dr. Hughlings Jackson believed that the condition was due to a cyst situate in the motor zone on each side, and that the cysts were probably secondary to an earlier thrombosis. He did not think that in such a case as this, where the symptoms were not progressive, syphilis could be invoked as a cause; indeed, one motive which led him to bring the case forward again was, to show that the condition had remained unaltered for seven years.

Congenital Dislocation of Hip.—This specimen was shown by Mr. A. E. BARKER, who said that the child had suffered from an abscess near the hip-joint, and that the head of the femur had appeared to be dislocated. The child died in a few days. The capsule of the hip-joint was found *post mortem* to be three or four times its natural size, and the acetabulum was lined by soft granulation-tissue; the femur had no head, but on the trochanteric portion was a covered surface: this was but slightly diseased; the joint seems to have been involved secondarily by an abscess outside. He believed the case was originally one of congenital dislocation, founding his opinion on the looseness and large size of the capsule, and the healthy state of the cartilage. He believed, from a comparison of the two sides of the pelvis, that there was some arrest of development of the os innominatum on the affected side, together with a similar arrest in the head of the femur and the ligamentum teres. He referrred to several cases in the Musée Dupuytren which lent support to this theory.—Mr. HENRY MORRIS agreed with Mr. Barker in the name he applied to the specimen, and also in his manner of accounting for the condition, viz., an arrest in development. He doubted whether this explanation could apply to the ligamentum teres, for, in some cases where that ligament was absent or attenuated, the head was perfect. On the contrary, it appeared that, in congenital cases, the enlarged capsule and the elongated ligamentum teres were very characteristic of congenital dislocation.

Dislocation of the Tibiæ Backwards.—The patient, who was shown by Mr. DENT, was aged 18, but was so very ill developed as to appear much younger; there was no history of syphilis, rickets, or other hereditary disease. When about ten years old, she had measles; a year later, she suffered from scarlet fever, and her convalescence from the latter disease was very slow. Genu valgum then became very marked, and she soon afterwards found it necessary to make use of crutches. Some enlargement of the wrist-bones and about the knees then began to appear, and increased during the last five months more rapidly. The femora were much deformed; the tibiæ were displaced backward. He thought that the case was one of arrest of development; ought it to be regarded as a variety of mollities ossium? That disease was liable to follow acute fevers. He referred to similar cases affecting only one bone recorded by Billroth and Humphry. In this mollities of the young, the cranial bones were not affected, and dentition proceeded naturally.—Mr. R. W. PARKER had come to the conclusion, from examining the case, that it was one of late rickets. He suggested that the case should be examined by a committee.—Dr. DREWITT believed that the case was of the same nature as one he had shown in the last session, and was one of rickets; there was the characteristic deformity of the skull, of the long bones, and beading of the ribs.—Mr. EVE said that there was a specimen illustrating this condition in St. Bartholomew's Hospital Museum. It was labelled rickets.—Dr. BARLOW agreed with Mr. Dent in believing that the disease rather had affinities with osteomalacia than with rickets; there were none of the ordinary symptoms of rickets. As the epiphysal junction was the most actively growing part, one would expect to find any constitutional change manifesting itself most markedly there; this was, for instance, the case with syphilis.

A Case of Extensive Alopecia Areata.—Dr. T. ROBINSON, who showed the patient, said that, about five years ago, the hair in patches, about the occipital bones, became white, and then fell out; subsequently, the whole of the head became bare; there were, when shown, some symmetrical patches of paleness on the face, and on the scalp similar patches, where the hair was entirely absent, a fine downy growth occupying most other parts of the scalp. Very little healthy hair was to be found anywhere on the body, and, where present, it was generally symmetrical; the eyebrows and eyelashes were absent.—Dr. THIN gave an account of four cases of alopecia areata in one family. The father, aged 38, remembered that, as a boy, his hair fell off, and grew on again repeatedly. From the age of 15 to 18, his hair was perfect. At the latter age, patches of alopecia began in the usual way; and, after six months, during which time they had increased in size, he had his head shaved all over, and wore a wig. From that

time, the shaven hairs never grew, and the alopecia became complete. The eyebrows and eyelashes were also then permanently lost. His daughter, now aged 13, became the subject of the disease eighteen months ago. After nearly the whole of the hairs had disappeared from the scalp, they grew again, but were now white. Recently, the white hairs began to fall out rapidly, and some parts became entirely bald. The disease was, for the present, again arrested, and downy white hairs were coming. A sister, aged 11, has a small patch near the nape; and a brother, aged 7, has two patches on the occiput; in both children, the alopecia being observed early in January of this year. The three children lived together, and used the same towels, combs, and brushes.—Mr. JONATHAN HUTCHINSON thought the cases were of great interest. He had brought forward a similar series of cases many years ago. At that time, he had been convinced, and he thought he had convinced most members, of the existence of a fungus; he had seen many cases apparently due to infection.—Mr. BALMANNO SQUIRE had known a public school in which several cases of alopecia areata occurred within a short time, apparently due to contagion transmitted by the caps.—Dr. CROCKER had met with several cases in which there appeared to be a contagious agency; but it was impossible to deny that, in some cases, the cause seemed to be neurotic—so that, if there were a parasitic alopecia areata, it was necessary also to admit a non-parasitic variety.—Dr. CROSBY thought that similarity of occupation might explain some of these cases of apparent contagion.

Case of Radical Cure of Inguinal Hernia.—Mr. DAVIES-COLLEY, who exhibited the specimen, stated that it had been removed from the body of a man who, about eight years before death, had undergone the operation for the radical cure of hernia, by Mr. Wood, at King's College Hospital. For five years the operation was successful, but then the hernia began to give trouble, and finally strangulation occurred; an operation then gave complete relief, but three years later he died of acute peritonitis, due to perforation of the duodenum. The tunica vaginalis was obliterated, and the structures about the inguinal canal were matted together. Mr. Davies-Colley, where feasible, was in the habit of stitching together the two walls of the sac, so as to obtain firm union; this procedure had been quite successful in this case.—Mr. WOOD said that the hernia in this case had originally been very large, and there was a congenital history. The history of the case demonstrated that an effectual fibrous boundary can be formed by his operation. Congenital hernia he had found less susceptible to cure than other kinds, and in these cases he now invariably removed the sac; the use of antiseptic precautions enabled this to be done with little risk. The cure was, he believed, due to the union of the sides of the inguinal canal; it was most important to get the conjoined tendon adherent to Poupart's ligament, otherwise a channel might be left. He found, as a rule, that if the cure remained for two years, it was permanent.

Microscopical Preparations of Alopecia Areata.—Dr. DUCKWORTH described, for himself and Dr. HARRIS, the microscopical sections exhibited. The skin was obtained from the scalp of a boy who had died in St. Bartholomew's Hospital. There had been two recoveries from, and two attacks of, the affection during nine years; the patient had also suffered from chorea. On examination with a low power, there was seen to be atrophy of the hair-follicles, increase of the fibrous tissue in that region, and atrophy of the sebaceous glands. No parasitic elements were discovered; there was a new cell-growth about the hair-follicle, opening up into the papillary elements of the skin.

Card Specimen.—Mr. A. E. BARKER showed a specimen of fracture of the condyle of the femur.

The Society then adjourned.

CLINICAL SOCIETY OF LONDON.

FRIDAY, FEBRUARY 24TH, 1882.

J. LISTER, D.C.L., F.R.C.S., F.R.S., President, in the Chair.

Aneurysm of the Ascending Aorta.—Dr. COUPLAND read the report of the committee appointed at the last meeting of the Society, from which it appeared that the case was one of sacculated aneurysm, with some regurgitation through the aortic orifice.

Swallowing an Ear of Rye-grass.—Mr. GODLEE read the notes of a case occurring in the practice of Dr. Rudyard of Watford, in which a child, aged 2, had swallowed an ear of rye-grass, which had made its exit through a small opening in the back on the left side, between the sixth and seventh ribs, three inches from the spine. The grass was shown at the meeting. The patient had suffered in the meantime from spasmodic cough; but, as the grass was supposed to have passed by the bowels, the two facts were not connected by the mother. The interval of time between swallowing and the extraction of the piece of grass was altogether forty-three days. Mr. Godlee thought that the grass had probably entered the œsophagus, and not the trachea, and the cough depended upon some little pleurisy. Reference was also made to a case, the notes of which were supplied by Mr. R. W. Parker, of a child who swallowed a piece of grass, which made its emergence through an abscess, which was set up in the left side, having a distinctly fæcal odour. The analogy between these cases and those of needle-swallowing was pointed out; and a case of the latter was referred to, in which a large number of needles had been found by Mr. Godlee *post mortem* in various parts of the body, where they had excited little or no inflammation.—Mr. GOLDING-BIRD related the case of a girl, eight years old, who swallowed an ear of rye-grass, which was discharged, about a year after being swallowed, through an abscess which formed under the left breast. The girl had then recovered.

Acute Perforative Pneumothorax, terminating in Complete Recovery.—Dr. GEORGE JOHNSON read a paper on this case. A schoolboy, aged 17, ran in a paper chase about twenty miles, and was so fatigued that he fell down exhausted. The two following days, he was quite well; but, on November 5th, after running upstairs, he was suddenly seized with pain in the left side, urgent dyspnœa, and great prostration. He was sent to bed, and in four or five hours the distressing symptoms had ceased; but, on the following day, Mr. Wharton of Gosport found all the physical signs of pneumothorax. On November 14th, his father took him to his home at Woolwich, where, on the 15th, he was seen by Dr. Johnson, in consultation with Surgeon-Major Godwin. He was in bed, but declared himself quite well. Pulse 60, respirations 24, temperature 97°. The left side of the chest was nearly motionless, and over-resonant everywhere except in the interscapular region, where it was slightly duller than at the corresponding point on the right side. Over this space there was a feeble respiratory murmur; but elsewhere, over the whole left side, there was distinct amphoric blowing, with occasional metallic tinkling, and amphoric echo of the voice and cough. There was no evidence of liquid in the pleura; no dulness at the base, nor splashing succussion-sound. The heart was felt and heard distinctly beating to the right of the sternum. With rest in bed and simple diet, the physical signs gradually changed. On November 27th, Dr. Godwin reported more movement on the left side; cessation of amphoric blowing and metallic tinkling; some respiratory murmur on the left side of the spine; the heart's impulse to the left of the sternum; the general health excellent. On December 23rd, Drs. Godwin and Stevenson jointly found vesicular murmur over the whole left side, and the heart in its normal position. On January 4th, he was brought to Dr. Johnson, who found that the only difference between the two sides of the chest was a doubtful flattening and diminished respiratory movement in the left subclavian region. He had since gone back to school; and Mr. Wharton wrote that, "so far as he could determine, he had perfectly recovered of his pneumothorax." In explanation of the perforated pleura, it was stated that, two years ago, he had a chronic cough; and it was suggested that, as a result of some structural change in the apex of the left lung, the pleural surfaces had become adherent, and that the adhesions were stretched and torn by the violent exertion, so as to cause a rent in the texture of the pleura. Then, as there was no purulent or other morbid secretion which, by escaping into the cavity of the pleura, would excite inflammation and suppuration, the ruptured pleura was soon repaired, the air was gradually absorbed, the lung again expanded, and the heart resumed its normal position. Reference was made to a case published by Dr. Stephen Mackenzie (*Lancet*, vol. ii, 1871, page 259). A man, aged 50, had sudden pneumothorax, resulting, as was supposed, from the rupture of an emphysematous air vesicle. The air was drawn off by an aspirator, and the patient made a rapid recovery. Three cases of recovery from simple pneumothorax had also been recorded by Dr. Wilks (BRITISH MEDICAL JOURNAL, vol. ii, 1874, page 770). In none of these three cases was any operation performed.—Dr. DOUGLAS POWELL thought the termination was fatal in these cases because they often occurred in advanced stages of phthisis. When pneumothorax occurred in the earlier stages, it often distinctly retarded the advance of the disease; and the occurrence of effusion on the chest, the result of pneumothorax following phthisis, had often distinctly arrested the phthisis on that side.—Dr. F. TAYLOR mentioned a case similar to Dr. Johnson's. A young man had slight pleurisy, with symptoms of hydro-pneumothorax on the left side. The symptoms improved, and the area which had been too resonant came to have the ordinary resonance of lung-tissue. He was perfectly healthy before the attack, as far as could be known. Could acute pneumonia have produced the pneumothorax? It was not stated in the text-books to be capable of doing so.—Mr. PEARCE GOULD spoke of a case of pneumothorax which happened in a boy who had been run over. He had no broken rib. The pleura was tapped; air escaped with a loud noise, followed by a few drops of blood. The lung expanded again, and in a week the thorax had quite recovered (*Lancet*, "Mirror", 1881, vol. ii).

—Mr. HOWARD MARSH mentioned two cases of traumatic pneumothorax. In one case, that of a man run over by some heavy conveyance, who was almost moribund from collapse of the lung and pneumothorax, a hydrocele-trocar was passed into the thorax between the ribs; a puff of air then came out, and the man was relieved, but eventually died, and the lung was then found to be quite torn from the trachea. In a second case, that of a woman who fell on alighting from an omnibus, and died with pneumothorax, only rupture of the pleura was found, without fracture of a rib. A case of the kind had been also mentioned by Dr. A. S. Taylor, in which pneumothorax had been produced by severe direct violence.—Dr. TYSON (Folkestone) mentioned a case of chronic ulcer of the leg, with pyæmia, and pneumothorax of the right lung.—Dr. COUPLAND considered that case might be one of abscess of the lung rupturing into the pleura. He mentioned also the case of a young banker's clerk who had overtaxed himself in walking to the City, and who the same day was found to be suffering from pneumothorax of the right lung. In a fortnight or three weeks, the lung re-expanded. There were, meanwhile, some symptoms of slight effusion into the chest. A young woman had hydro-pneumothorax, which was tapped, and she died. The condition was in that case probably due to early tubercular ulceration. How many of such cases recovered?—The PRESIDENT thought the case suggestive of the trouble often seen from fracture of the rib, in which the pneumothorax might easily be fatal. The mere entrance of air into the pleura was not of itself very serious, unless the pneumothorax became great and bulged the other lung. As an experiment to exemplify this overdistension to a surgical class, a lung from a butcher's shop might be taken, its pleura wounded, and a syringe fitted into the bronchus. If the piston were then forced down, air escaped by the pleural wound; but, upon the drawing-up of the piston, air did not return. The surface of the lung, instead, was sucked inwards; for the wound of the pleura was a valve-wound, letting air pass out, but not in. By ordinary inspiratory efforts in cases of pneumothorax, air was forced into the pleura.—Dr. G. JOHNSON thought the amphoric blowing was due to the passage of air from the lung into the pleura. If the aperture became closed, the amphoric blowing ceased. In a case published by him in the BRITISH MEDICAL JOURNAL in which the amphoric blowing ceased, he had said the aperture would be found covered with lymph, as was discovered to be actually the case after death. In another case in which there was an aperture externally, the amphoric blowing ceased when the opening was covered. His opinion was that, if pneumothorax occurred in a case of phthisis, it rather hastened the case, in consequence of the suppuration set up in the chest. In the conditions of pneumothorax, he thought there must be some air passing out of the pleura; otherwise the distension of the chest would become enormous. In pneumothorax, there was a difference of atmospheric pressure on the two sides of the chest; and the displacement of the mediastinum to the other side was an exact measure of the difference of this pressure.

Case of Eyeball-Tension.—Mr. W. SPENCER WATSON read the sequel to such a case. The right eye having been sclerotomised five years ago, the result was reported to the Society in 1880 as being perfectly satisfactory. Premonitory symptoms were then showing themselves in the left eye; and in June 1881 Mr. Watson operated by sclerotomy on this eye also. The result was not so good as in the right eye, but it was tolerably good. The use of eserine before the operation and after it had been very advantageous. There was a slight contraction of the palmar fascia in this patient; and Mr. Watson, having observed the same condition in other glaucomatous cases, was inclined to regard the concurrence of the two conditions as throwing some light on the pathology of glaucoma, and as indicating that an atrophic hardening of the sclerotic coat of the same kind as the shrinking of the palmar fascia might be the initial stage of the disorder. Further proof, however, of this was necessary before the theory could be accepted as proved.—Mr. G. LAWSON had tried sclerotomy instead of iridectomy; but in the former there was so often an entanglement of the iris; whilst the results of sclerotomy were in no respects better than those of iridectomy. In acute glaucoma, he knew of no operation in surgery more successful than iridectomy. In chronic glaucoma, he thought neither sclerotomy nor iridectomy was of much use.—Mr. MCHARDY was glad to find the opinion he had entertained of the value of iridectomy in cases of acute glaucoma thus substantiated. In chronic glaucoma, he thought less risk was run by submitting the patient to sclerotomy than to iridectomy. He mentioned the case of a young man, aged 20, with a tendency to cold feet and hands, with chronic glaucoma of both eyes, nearly total blindness of the right eye, and much limited field of vision of the left eye. The former eye was treated with a considerable iridectomy; there was no anterior chamber, and four hours afterwards hæmorrhage ensued, and the eye was enucleated. Mr. Bowman decided to advise iridectomy instead of sclerotomy in the case of the left eye also. Iridectomy was consequently performed, and the patient went on well for nine days; but the glaucoma returned, the eye bulged, and the eye had been lost.—The PRESIDENT said Mr. Watson's case was a successful one of sclerotomy; and such success was due to the relief of tension. The fluid once let out did not return. Fluid *in situ* in the body kept up nervous excitement; the fluid being let out, the nervous excitement abated.—Mr. WATSON had not brought forward the case as one illustrating the advantages of sclerotomy over iridectomy, but to show that the advantages of sclerotomy were in some cases persistent—in one instance for six years, in another for two years. He thought the reduction of tension in such cases was most useful. Sclerotomy, too, was much less likely to be followed by intra-ocular hæmorrhage than was iridectomy. The aqueous humour escaped very slowly, and the pressure was therefore slowly taken off the parts at the back of the eye. In the second case of Mr. McHardy, he was surprised that sclerotomy was not tried rather than iridectomy, which had been so unsuccessful in the case of the first eye.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, FEBRUARY 1ST, 1882.

J. MATTHEWS DUNCAN, M.D., President, in the Chair.

Doubtful Case of Double Vagina.—Dr. GALABIN showed a microscopic section of the septum dividing the vagina from a peculiar abnormal passage, in a girl aged 17. She was admitted into a surgical ward in Guy's Hospital for what was thought to be a cystic dilatation of the base of the bladder or urethra, protruding at the vulva. Dr. Galabin recommended it to be cut away, and the edges brought together; but his surgical colleague declined to operate, fearing a permanent fistula. Dr. Galabin subsequently operated himself; but, on cutting across the swelling, he found that he had not opened the bladder, but the lower extremity of a cylindrical passage, like a second vagina, but lying in front of the left half of the main vagina, and ending just to the left of the os uteri in a small opening through which a probe could be passed half an inch only.—Dr. ROUTH asked if the narrow part of the canal had been explored, and what was the condition of the uterus. He thought a second vagina might lie in front of the main passage, instead of at the side.—Dr. CARTER had, on several occasions, met with cysts in the anterior vaginal wall, though none so extended as that described by Dr. Galabin. The cysts were opened, and contained a glairy mucoid fluid.—Dr. ROUTH said that he did not think that the fact that the long cyst was anterior to the vagina was an objection to its being a second vagina. The two halves of a double uterus were sometimes so placed.—Dr. GALABIN said that the uterus could not be detected as abnormal on bimanual examination. He did not think the passage could have been a cyst, for it was cylindrical, and not globular, and the contained fluid was not mucoid.

Retention of Menstrual Fluid in one half of a Double Uterus.—Dr. GALABIN related this case. The patient, aged 15, was brought by her mother for consultation for symptoms resembling those of ordinary severe spasmodic dysmenorrhœa; and no swelling nor tumour had been noticed. Menstruation was fairly regular, and rather profuse. The pain was felt chiefly during the flow, was intermittent, very severe, and led to retching and hysterical manifestations. On examination, a firm globular swelling, without any fluctuation or elasticity, about as large as the uterus at three and a half months' pregnancy, was felt through the anterior vaginal wall. The os was difficult to discover, and was displaced backward and flattened antero-posteriorly. The patient was so hyperæsthetic, that it was impossible to attempt to use the sound. The author rejected the hypothesis of fibroid tumour, on account of the patient's youth, and the commencement of the symptoms with puberty; and felt sure that menstrual fluid would not accumulate to any amount in the uterus, if there were any exit whatever through the cervix. He therefore diagnosed retention in one half of a double uterus. It was agreed, with Dr. Stirling of Grange Road, under whose care the patient had been, that an anæsthetic should be given, and the swelling evacuated if the diagnosis appeared to be confirmed on use of the sound. Under anæsthesia, it was found that the sound passed easily to the normal length, going rather toward the right side, and the os appeared to be displaced a little to the right. The swelling was then punctured, and the usual treacly fluid, seen in cases of retained menses, began to escape. The opening was enlarged with scalpel and director till it easily admitted the finger, and about ten ounces of fluid escaped. No injection was used on the spot, but it was intended to commence antiseptic injections after allowing a few hours for complete escape of the fluid. The extreme hyperæsthesia and hysterical resistance of the patient, however, made it impossible to do more than syringe the vagina. Discharge of sanguineous fluid was free up to the third day,

but it then almosts topped, and what there was became offensive. Next day febrile symptoms set in, the temperature rising to 104.6°, the pulse to 140. The patient's friends refused to allow an anæsthetic to be given, to wash out the uterus, until the seventh day, when the author saw her again. There was then still high fever, but no sign of peritonitis. An anæsthetic having been given, the opening into the left half of the uterus was again enlarged, and the cavity washed out with solution of absolute phenol, 1 in 40. Considerable improvement followed up to the twelfth day, although it still proved to be impossible to do more than syringe the vagina; and little doubt was felt about the patient's recovery. On the twelfth day, she was suddenly attacked with violent pain in the abdomen and collapse, and died in about twelve hours. The author thought that the symptoms pointed to rupture either of the Fallopian tube, or of some abscess in the neighbourhood.—Dr. GRAILY HEWITT's experience had led him to the conclusion that it was safer, in performing the operation for retained menses, to make a small opening and allow gradual escape of fluid, and gradual contraction of the walls of the cavity, which were often weak and thin. If allowed to discharge itself too quickly, a suction might afterwards be exercised, and septic material drawn in.—Dr. GERVIS thought that Dr. Galabin had himself pointed out what would have been the most useful addition to the conduct of the case, the washing out the uterine cavity with antiseptic fluid. He agreed with Dr. Hewitt as to the importance of moderately slow evacuation, but with antiseptic precautions, thinking that the danger was less through any uterine suction than through decomposition of unremoved fluid.—Dr. WYNN WILLIAMS differed from Dr. Graily Hewitt, in that he made a very free opening to get rid of all the menstrual fluid at once. He would have syringed out the uterus with a solution of iodine, which he believed the safest and best antiseptic. He would also have avoided making a second incision, any septic conditions being present.—Dr. CHAMPNEYS had seen a case of retained menses in one half of a double uterus under Dr. Winckel of Dresden. In this, slow evacuation did not prevent a fatal result, which was caused by the retraction of the uterus from an adhesion, which tore a hole in the thin uterine wall. Death resulted from septic peritonitis.—Dr. CLEVELAND was surprised at the fear expressed as to the use of carbolic acid injections. In chronic inflammation of the bladder, he had used injections of absolute phenol, 1 to 50 or 60 of water, with excellent results.—Dr. CARTER agreed with what had been said as to the dangerous results which had at times followed the injection of a solution of carbolic acid into the uterus. He related the case of a patient who was for some time in a very critical state after washing out the uterus, the third day after a miscarriage, with a solution of the strength of one in eighty.—Dr. MALINS thought there was some doubt about Dr. Galabin's diagnosis in the absence of a necropsy. The symptoms and physical state did not seem inconsistent either with an anterior hæmatocele, or thrombus in the cellular tissue. He had met with similar cases in which the difficulty in ensuring drainage and disinfection had been overcome by using a winged catheter with the end cut off. He thought nothing better than tincture of iodine for disinfection.—Dr. ROUTH did not agree with Dr. Graily Hewitt in his advice to make a small opening. Experience had proved that it was apt to close, and sometimes it had been followed by a fatal result. His plan was to draw off by a large aspirator, and inject iodine solution; and to do this morning and evening, keeping in a drainage-tube.—The PRESIDENT would only remark that, in cases of retained menses, he made a free opening and allowed the fluid to drain away, using no injection of any kind. He had, in a considerable experience, had no fatal case or evil result, and he believed he had observed injurious consequences of the injection of plain warm water, in cases which he had witnessed.—Dr. GALABIN thought that the plan of gradual evacuation was desirable, when the quantity of retained fluid was large, but not when it was small or moderate. He did not think the fatal result in his case could be attributed to the injection of carbolic acid, or even to the second incision, for a marked improvement had followed that proceeding, and continued for at least four days. He did not believe the case could have been one of hæmatocele, for the swelling had been perfectly movable, and he did not think that the contents of a hæmatocele ever so perfectly resembled the uniform treacly fluid seen in cases of retained menses.

THE METEOROLOGICAL SOCIETY.—At the ordinary meeting of the society, to be held by permission of the Council of the Institution of Civil Engineers, at 25, Great George Street, Westminster, on Wednesday, the 15th inst., at 7 P.M., there will be an exhibition of anemometers, and of such new instruments as have been invented and first constructed since the last exhibition. During the evening, the president, Mr. J. K. Laughton, will give a historical sketch of the different classes of anemometers, and will also describe such forms as are exhibited.

REVIEWS AND NOTICES.

SCHEMATIC ANATOMY; or, Diagrams, Tables, and Notes, Treating of the Association and Systematic Arrangement of Structural Details of Human Anatomy. By W. P. MEARS, M.B., Co-Lecturer on Anatomy, Supervisor of Dissections, and Medical Tutor, at the University of Durham College of Medicine, Newcastle-upon-Tyne. London: Baillière, Tindall, and Cox. 1881.

THIS work consists of two hundred pages, filled with notes much resembling the plans of the relations of arteries, so familiar to the student in the pages of Gray; with outlines of bones, bearing lines which represent the attachments of muscles, after the equally familiar system of Holden; and with diagrams, such as the anatomical lecturer would draw with his own hand before his class. Some sketches of the course of the sympathetic and the connections of its ganglia are, in our opinion, the best part of the book. The average student has neither the time nor the opportunity to dissect out the intricacies of this remarkable part of the nervous system; yet it is advisable that he should remember, after a few years of practice, that the solar plexus is not merely "something or other near the abdominal aorta, that one has to get up for the first college"; and a good plan, like that facing page 163, may indelibly impress on the student's mind that the plexus is not a synonym for the semilunar ganglia, as sometimes supposed. The diagrams of the cardiac plexuses are very clear, and the author has evidently expended a vast amount of labour in preparing this "Schematic Anatomy". Mr. MEARS gives, in his preface, some salutary warning, lest his work should be made to entirely usurp the place of an uncondensed text-book; we fear that this advice will not be taken, as abstracts have ever a charm for the student, and this manual is very attractive in style, print, and binding. We more particularly commend this work to lecturers on anatomy at London medical schools, and especially to newly appointed demonstrators, who can make use of the schemes and diagrams, for the benefit of their classes, at a great saving of their own time—taking care that the student does not make a wrong use of education conveyed in this fashion.

SYPHILIS AND LOCAL CONTAGIOUS DISORDERS. By BERKELEY HILL, M.B., F.R.C.S. Second edition, entirely rewritten by Berkeley Hill and Arthur Cooper. London: Smith, Elder, and Co. 1881.

IN spite of the numerous publications that of late years have been issued on this subject, a good treatise on syphilis has remained a decided want; this want, however, the long-expected work of Messrs. Berkeley Hill and Cooper may be said to meet efficiently. What is modestly called a new edition of Mr. HILL'S former work is, in reality, an entirely new one, for not only has the whole text been completely rewritten, but a very large amount of new matter has been added.

The authors are evidently well acquainted with the literature of syphilis, and the reader will not fail to notice the array of quotations from writings in every European language; but why do they not give us a complete list of authorities cited? The writers still retain their belief in "dualism", and devote a short chapter to the history of this and the opposite theory. Their views are stated with great clearness, and with that forbearance which is characteristic of the scientific spirit.

One of the longest and most valuable chapters in the book is that on Contagion, in which the important question of vaccino-syphilis is dealt with at some length, as also that of the hereditary transmission of the disease. From an analysis of the instances of contagion by vaccination, the following conclusions are reached. "*(a)* Syphilis may undoubtedly be propagated by vaccination. *(b)* Persons vaccinated from a syphilitic vaccinifer do not necessarily contract syphilis. *(c)* Of several persons vaccinated from the same syphilitic vaccinifer, some may escape, whilst others become infected; or one of the punctures in the same subject may become the seat of the initial lesion, while the rest remain healthy. *(d)* Vaccinia and syphilis may be inoculated together, each disease running its own course." The description of the various forms of initial lesion is exact and good, and the distinctions between the so-called local chancre and the true primary sore are made clear by means of a table in which their different characteristics are contrasted.

A chapter is devoted to the subject of the prognosis of syphilis, which will be found to contain many hitherto unrecorded observations. The fact is prominently brought forward that, when the syphilitic virus attacks the skin obstinately, the internal organs more rarely become the seat of severe tertiary lesions, the disease appearing to spend itself on the surface.

Under the head of Prophylaxis, a useful chapter is devoted to dis-

cussing the effects of the Contagious Diseases Acts, which the authors find to be very beneficial.

It is, of course, in the department of visceral syphilis that our knowledge has advanced most; and though the tendency of the day is to put down everything to syphilis, many pathological conditions are traceable to it, which ten years ago were held to be quite distinct. We cannot, however, help thinking that some of the functional derangements of the alimentary canal, which, *teste* Fournier, are ascribed to syphilis, have no connection with that malady. Great thirst, which Fournier thinks it necessary to call "Polydipsia", is surely a not unfrequent accompaniment to headache, nausea, and a temperature of 102°, without having any special bearing on syphilis. The same may be said of chronic vomiting.

The authors have been fortunate in securing the co-operation of Dr. W. R. Gowers and Mr. Nettleship; the former contributing the essay on Syphilitic Diseases of the Nervous System, while the latter has revised the chapter on Diseases of the Eye.

An appendix to the volume contains a collection of useful formulæ, among which will be found the now well known "Zittmann's decoction", with directions for the carrying out of his method of treatment. We can cordially recommend this admirable treatise to the practitioner and student.

THE INTERNATIONAL ENCYCLOPÆDIA OF SURGERY: A SYSTEMATIC TREATISE ON THE THEORY AND PRACTICE OF SURGERY. By Authors of Various Nations. Edited by JOHN ASHHURST, jun., M.D., Professor of Clinical Surgery in the University of Pennsylvania. Illustrated with Chromo-lithographs and Woodcuts. Vol. I. London: Macmillan. 1882.

[FIRST NOTICE.]

FROM this first instalment, we find that Dr. ASHHURST's great Encyclopædia will appear in six volumes, large and bulky, but printed on good paper in large type. In almost every respect, it bears a strong resemblance to a well known British work of identical character, of which a new edition is shortly forthcoming. This first volume contains over seven hundred pages, three chromo-lithographs, and one hundred and ninety-nine woodcuts and charts. The illustrations, though mostly original, are chiefly of the kind familiar to readers of text-books on surgery. New instruments are copiously represented. Thus, we find some good engravings of transfusing apparatus, aspirators, thermocauteries, and inhalers; great desiderata in a work of reference, as those who seek knowledge about instruments are better instructed by illustrations than by mere verbal descriptions. More than half the woodcuts illustrate amputation, whilst a large proportion of the remainder are devoted to bandaging and minor surgery. Only twenty-two illustrate the purely pathological part of the work, several important papers being quite devoid of illustrations; and but six are to be found in the article on the pathology of inflammation, these six not being remarkable either for originality or delicacy of execution. If this first volume be a sample of the remaining five, the practical part of the *International Encyclopædia* will be illustrated more freely than usual, though on no original plan; whilst in the pathological departments the drawings will be few and far between, and not worthy of the papers they illustrate.

The first paper is entitled "Disturbances of Nutrition, the Pathology of Inflammation," by S. Stricker, M.D., translated by Dr. Alfred Meyer of New York. It is a valuable article, though the views of the learned author are already well known. Professor Stricker devotes several pages to an admirable history of the development of theories of inflammation from Virchow's suppuration doctrine, established about 1855, down to the present date, especially dwelling on the question of the origin of pus-cells from metamorphosis of connective tissue-cells, or from migration of white corpuscles. He concludes this history by the very definite assertion that "the migration theory has proved to be fruitless. It has made no progress since 1867; and, in regard to the doctrine of inflammation, it cannot make any progress, for it denies the active processes. But the doctrine of tissue-metamorphosis has made constant advances, and every new step which I have taken in the course of the last decade has proved to be an argument against the migration-theory." Professor Stricker discusses at length the question of the natural or artificial nature of branched cells in the healthy cornea; his experience admits of the statement that "these corpuscles are formed under the influence of inflammation, or of reagents." He holds similar opinions on the fine fibrillar networks found in the cornea under certain conditions, but never, he believes, do they make up the structure of the healthy cornea. A few illustrations appended to these observations would have been, at the least, like water in a fine landscape, and would have indefinitely enhanced the value of the article.

The more clinical aspects of inflammation form the next article. This is written by Dr. W. H. Van Buren. It is a masterly essay on the well-known clinical varieties of inflammation and their treatment. Its limits, as compared with those of its subject, are of necessity very artificial; abscess not forming, as in most works of reference, a separate paper; whilst pyæmia is kept apart from inflammation by the next article on erysipelas. This highly practical paper would have also been improved by some woodcuts representing the mode of applying the ice-cap, inserting drainage-tubes, etc.—subjects for which we look in vain in the "minor surgery" department of the Encyclopædia. Dr. Stillé's paper on Erysipelas is of great merit, and contains a collection of valuable observations on the causes of the disease, cases of epidemic outbreaks, and its connection with puerperal fever. In discussing the treatment, after abundant reference to the opinions of great authorities, Dr. Stillé remarks: "Nothing can be more certain than that erysipelas, as such, stands in no need of alcoholic treatment; but that the typhoid forms and states of the disease generally do call for it, as the same conditions do in all other febrile affections, is unquestionable." The author has the greatest belief in iron as an internal remedy, whether for milder or for less sthenic cases, though "the measure of the medicine's utility is not always the same." Dr. Stillé can find no newer remedy worth quoting in his article, which is a point that speaks highly in favour of iron. He quotes the opinions of several writers who have extolled the use of quinine in erysipelas, but he does not appear to have any belief in that drug.

Dr. Delafield's paper, "Pyæmia and Allied Conditions," is more satisfactory in its observations on what is now generally understood by pyæmia, than in its remarks on "allied conditions". Pyæmia is "used as a general term to designate the entire group of cases," after a recapitulation of the various opinions of pathologists on its relation to septicæmia. Yet, a page later, we find the heading "Examination of the Blood and Tissues in Persons who have died of Pyæmia and Septicæmia." We also find the author stating, in the introduction, that "ordinary usage, at the present day, applies the term pyæmia to those cases in which infarctions, abscesses, and local inflammations are present; while the term septicæmia is employed to designate cases in which similar clinical symptoms exist, but in which no lesions are found." This passage will hardly be accepted in its entirety in Great Britain, where "septicæmia" is understood to be a form of pyæmia, perhaps; but whether a variety or a distinct disease, the onset is much earlier; and the very important clinical symptom, the appearance of rigors, is frequently absent. That deadly form of blood-poisoning, as seen sometimes after operations on the abdominal viscera, deserved more notice. Dr. Delafield illustrates his paper by some very well-condensed clinical reports. He has not ignored the valuable report of the Committee of the London Pathological Society, published in the thirtieth volume of their *Transactions;* and two accurate, though roughly executed, coloured engravings of metastatic abscesses in the lung and liver, are added to the paper. They may prove useful to those who have not had the advantages and opportunities of making or observing many *post mortem* examinations.

Dr. W. T. Forbes's essay on "Hydrophobia and Rabies, Glanders, and Malignant Pustule" is short. Its author evidently distrusts all theories on the morbid anatomy of hydrophobia so strongly that he confines himself, in discussing its morbid anatomy, to a quotation of Dr. Gowers's report on specimens of spinal cord from four cases of rabies; with a brief recapitulation of the researches of others condensed into one paragraph. He inclines chiefly, on Mr. Dolan's authority, to believe in the curability of hydrophobia, a point already discussed by many contributors in our pages. The names which Dr. Forbes gives, of surgeons and physicians who have claimed experience of cases of recovery are Drs. Offenburg, Austin Flint, Schmidt, Zehender, Watson (whose case was observed by Dr. Flint), Polli, as well as Dolan himself, who attributed the cure, as in Flint and Watson's cases, and in several cases under the care of Offenburg and Polli, to curare. Schmidt and Zehender saved a child suffering distinctly from hydrophobia, according to their belief. We are very glad to find such valuable evidence collected into an accessible work of reference. Glanders is discussed briefly, but well; Malignant Pustule is dismissed in two pages, and the term charbon is never once used; if for motives of literary purity befitting a work written in English, so much the better, for foreign words in italics disfigure the pages of medical works too much in these days. The clinical records are limited to a short quotation from Gross. Probably Professor Raynaud's remarkable researches were published too late for Dr. Forbes's use in this essay.

DR. ADALBERT DUCHEK, Professor of Clinical Medicine in the University of Vienna, died on the 2nd instant, at the age of 57. The cause of death was disease of the valves of the heart, following acute rheumatism.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1882.

SUBSCRIPTIONS to the Association for 1882 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, MARCH 11TH, 1882.

MORTALITY IN INDIAN PRISONS.

THAT the problem of the sanitation of Indian prisons is still unsolved, may be inferred from a brief analysis of the inspectorial reports for 1880. The death-rate per 1,000 of convicted prisoners during that year amounted to 81. 4 in the Punjaub, 65.4 in Bengal, 61.2 in the Central Provinces, 53.1 in Assam, 46.9 in Mysore, 44 in Bombay, 43.4 in Madras, 35.2 in the Hyderabad Assigned Districts, 28.5 in the North-Western Provinces, and 23.4 in British Burmah. With such appalling death-rates as these, the sanitarian and statistician will be prepared for considerable fluctuations in some of the gaols. Thus, taking Bengal, for the sake of illustrating this point, we find that the rate of mortality was 10.4, 16.6, 18.1, 23.3, 23.9 and 29 per 1,000 in the Backergunge, Chittagong, Noakhally, Hazareebagh, Pooree, and Presidency (European) gaols respectively; whilst it amounted to 341.2, 193.7, 181.7, 148.4, 142.8, and 120 per 1,000 in the Julpigoree, Lohardugga, Dinagepore, Baraset, Mymensing, and Purneah gaols. Although immense reductions have been effected in many gaols, as demonstrated by a comparison of the death-rates of 1880 with those of 1879, the existing mortality is still so excessively high, that it shows how much remains to be accomplished before it can be said that the lowest standard attainable has been established. Only four years ago, the rate of mortality in the Punjaub was "a trifle over 140 per 1000"; but, during 1880, it amounted, according to our information, to the still enormously high rate of 81.4. No surprise need, therefore, be felt at the declaration and regrets of the Lieutenant-Governor, "that the rate of mortality has been unduly high." So great, indeed, is the annual death-rate in the majority of Indian gaols, that, in all our experience and reading, we have not succeeded as yet in finding anything elsewhere to approach or parallel it.

Melancholy and sad as are the present mortuary results of Indian gaols generally, there is evidence to show that some improvement has taken place of late years in their hygienic and sanitary condition. Thus in the 51 gaols in the Bengal Presidency, during the year 1843, the average death-rate was 92.8 per 1,000; in 1880, it was 65.4. In Madras, during the ten years ending 1853, the average mortality in thirty-three gaols was 61 per 1,000; in 1880, it was 43.4. In the North-Western Provinces, the mean death-rate in thirty-three gaols, during 1857, was 60.5 per 1,000; it was 28.5 in 1880. The exception is to be discovered in the Punjaub, where, in its 29 gaols, in 1857, the average ratio of mortality was 66.7 per 1,000; in 1880, it was 81.4! Whilst there is, therefore, some cause for congratulation, the case of the Punjaub gaols being excepted, the existing rates are nevertheless so terribly high in most of the gaols in all the provinces, that great reforms remain to be executed before their sanitary condition can be regarded as satisfactory. A vast amount of avoidable mortality continues from year to year; and we look to the able officers to whom the management of these prisons has been entrusted to persist in their efforts to bring the death-rate down to a standard so as to eliminate all avoidable or preventible sources of sickness and death. As gaol affairs have been in the past, and as they are at this present moment, in a mitigated degree, incarceration in most of the prisons too often means much more than mere punishment; it means death, in no way contemplated in the sentences inflicted according to the law of the land. This is not only the result to many thousands of those who are convicted and undergoing positive imprisonment for terms varying from a few months to the entire period of life; but, according to the data at our command, it overtakes with remarkable frequency those waiting trial, many of whom would have been proved to be altogether innocent of the crimes of which they stood charged or accused, and all of whom must, under English law, have been viewed as presumably innocent until, by judicial investigation, they had been pronounced guilty. Thus, in 1880, we find that the death-rate of "under trial" prisoners was 34.5, 29.4 42.6, 47.5, 61.9 and 40.49 per 1,000 in Bengal, North-Western Provinces, Punjaub, Central Provinces, British Burmah, and Mysore respectively.

Much more than half the mortality in Indian gaols is caused by fevers, dysentery, diarrhœa, cholera, and phthisis. In 1856, out of every 1,000 deaths, no fewer than 589.25, 647.1, and 639.92 were so caused in Bengal, Bombay, and Madras, and a goodly number of the remainder were doubtless indirectly due to the effects and sequelæ of these diseases. There is no reason to suppose that these proportions are materially altered at the present time. That these causes of disease and death are largely preventible will scarcely be denied. Why should the mortality to strength have been 2.14, 14.7, 11.0, 16.6, 4.8, 6.2, and 5.1 times greater from fevers, dysentery, diarrhœa, hepatitis, cholera, phthisis, and "other diseases", among prisoners than their fellow-countrymen, the Sepoys, in Bengal; and 2.3, 6.4, 9, 3, 4.7, 1.5, and 3.9 times greater from the same diseases among prisoners than Sepoys in Bombay? The explanation of this immense discrepancy is, we fear, to be found, not in the punitive treatment ordered by law, or in mere imprisonment, but in a lamentable failure in the practical application of the laws of sanitary science to the special needs of the Indian prisoner. It probably embraces considerations of dietary, drainage, conservancy, drinking water, air-space, and ventilation, etc., all of which have from time to time received the earnest attention of the inspectors of gaols. But it is manifest, from the few facts herein-before recorded, that the officers answerable for the management of Indian gaols are charged with a very grave responsibility in this matter. The hygienic and sanitary measures required to place the Indian prisoners, as regards health and the chances of longevity, at least on a par with the surrounding civil population, as has already been more than accomplished in the prisons of this country, must be urged and reiterated by these officers upon their respective Governments. Most of them are members of the medical profession, and officers of standing and ability, and amply furnished with the special knowledge to enable them to grapple successfully with this subject. Let it not be said that they have been tried and found wanting. Let them have the courage of their opinions, and by the power of their scientific authority enforce the teachings of modern hygiene and sanitation in the systemic management of the gaols under their control, regardless of all considerations opposed to their eradication of the preventible causes of disease and death, in view, we hope, in the no distant future, to the annihilation of a serious and long-standing blot on Indian gaol administration.

A NAVAL COURT-MARTIAL.

A NAVAL surgeon, Mr. J. N. Browning, of H.M.S. *Cambridge*, has been tried by court-martial at Devonport, on the charge of negligent performance of duty. According to the published reports, the statement of the prosecution was that an able seaman, who had been seized with rheumatism whilst ashore at his parents' house, was seen by Mr. Prynne of Plymouth, who certified him to be unfit to be removed; that, nevertheless, the patient was removed by Browning's orders to the Royal Naval Hospital, at the peril of his life. Evidence was given that in the captain's order-book was an instruction that "Persons detained on shore by sickness are to be visited by a medical officer, and sent on board or to the Royal Naval Hospital as soon as practicable; and abuses in such cases shall be immediately reported, especially

when sickness results from intemperance;" also that Mr. Prynne's message was duly given to the accused on the occasion of his first sending for the patient to be brought aboard. Mr. Hawton, of the Royal Naval Hospital, gave evidence that he considered proper precautions were taken for the patient's removal; but it would have been better that a medical man should have directed it. Mr. Prynne thought it unadvisable, but not dangerous, that the patient, who was now convalescent, should have been removed. The accused, in defence, regretted the occurrence, and pleaded ignorance of the captain's orders. He handed in first-class testimonials. The court, however, considered the charge proved, and adjudged Mr. Browning to be severely reprimanded, and dismissed his ship.

This evidence and the verdict cannot be allowed to pass without comment. The medical instruction is, "A medical officer will, when practicable, be sent with the patients to see that they are properly received at the hospital or sick quarters, and that they are conveyed thither with as little inconvenience as possible." The ship's order-book contained a local order: "Persons detained on shore by sickness are to be visited by a medical officer, and sent on board or to the Royal Naval Hospital as soon as practicable." The naval instruction applies to sick men sent from ships, and it admits the question of "practicability". We are informed that it has long been a not uncommon event for sick to be received from harbour ships into the naval hospitals, attended by a sick-bay steward in lieu of a medical officer; and, *à fortiori*, in cases where officers or men are hurt or taken ill on shore, the impracticability of a medical officer attending them thither may be assumed to occur more frequently. In such cases, it may and does happen that the sufferer is brought direct to the hospital by his friends, and the fact is made known by the hospital authorities to the commanding officer of the ship. The ship's order does not direct that a medical officer shall be sent to bring him on board or take him to the hospital; and a reasonable doubt may be entertained that it has ever been the ordinary routine followed, or that it was meant to insure more than medical visitation, with the view of preventing malingering, or inefficiency for duty as a result of drunkenness.

In the case in point, a junior medical officer appears to have been in charge of the ship's duties, there being, at least, no evidence to the contrary; and he was not acquainted with the "ship's order", from which it may be inferred that he had never read the ship's order-book, and that he had received no instruction from the principal medical officer for guidance when he might happen to be left in charge. The sick man had been skilfully treated, by a private practitioner, for rheumatism; and, although unfit to be removed when he first certified, yet when he was actually removed he was convalescent, and free from danger in removal; and the medical officer who received him into hospital stated that "proper precautions were taken in the removal"; while the sick-berth steward asserted that he was conveyed by him, "partially dressed, and well wrapped up, to the hospital". It is quite clear, from these circumstances, that the grave charge of the removal having been effected "at the peril of his life" was entirely unsubstantiated. The more interesting issue, although much weight has not been laid on it, is, to our mind, that the sick man should have been visited on three successive days by a sick-berth attendant, the removal being left to his responsibility, without the intervention of a medical officer of the ship, the onus of which seems to have been unfairly attributed to a junior surgeon, who happened to be in charge on the day of the removal to the hospital; but it does not appear that he had been in charge on the two previous days, although possibly he was so.

The accused was found guilty on both charges, and sentenced "to be severely reprimanded and dismissed his ship"—a sentence, we imagine, to be, in the case of a medical man, an intimation that his resignation would be accepted. We are creditably informed that, during the late dearth of junior medical officers, it has become difficult, in the gunnery-ships particularly, of which the *Cambridge* is one, where the junior medical officers are away so much on detached duties, to find it practicable to perform all such calls of duty, of a secondary nature, that may take a surgeon away to any part of the extensive three towns, and that a full medical staff would find enough to do. On another point there is an evident laxity of custom, which we would fain hope is limited to H.M.S. *Cambridge*, and not general throughout the Navy; for where local orders—*i.e.*, by-laws—are not made known, attention to them should not be rigidly exacted. Here, not only the accused but another of the medical officers, worked in ignorance of the orders which this officer has been punished for neglecting. We think that negligence elsewhere has been proved, and that every "local order" should be initialed by every officer whom it concerns. In this case that simple precaution had not been attended to, since it was sworn to by one of the surgeons that, "although he was not acquainted with the instructions, if he had been informed that a man was too ill to be removed, or to return on board, he should have considered it his duty to have personally visited that man, if possible." It is fair to observe that this was the generous declaration of the junior medical officer, who had not been long in the ship; but, in the purview of the case, it might be assumed that the court of executive officers relied more on that declaration than on their own reading of the plain facts as stated on oath, or they would never have judged the charges to have been proven—that is, not have inflicted the severe sentence.

This instance adds weight to the opinion we expressed, not long since, on another court-martial, of the necessity of having a civilian of superior rank in the same profession with the accused, as an assessor, together with the executive officers, who now exclusively administer what is termed justice in the Royal Navy.

ON PRIMARY CHRONIC DISEASE OF THE ORGANS OF VOLUNTARY MOTION.

Our knowledge of many diseases affecting the sphere of the neuro-muscular system is still so recent, and our insight into what is essential and adventitious in them so scanty, that an attempt to assign their true place in our pathological system to a certain group of these affections must be welcome, more especially if we consider how greatly at variance the views of the best workers in this department of medicine are at the present day. We therefore notice with pleasure a clever *brochure* by Dr. Paul Möbius of Leipzig on this subject, as it appears to considerably simplify matters which have until now seemed somewhat confused and perplexing. Thus, to mention only one instance, the views of Friedreich and Charcot on progressive muscular atrophy have hitherto appeared quite incompatible, as the former considered that disease to arise from primary inflammation of the muscles, while the latter thought it due to atrophy of the anterior cornua of the spinal cord.

The organs of voluntary motion, taken from above downwards, consist (*a*) of the central convolutions (including the paracentral lobule), the subjacent white medullary matter, the motor portion of the corona radiata, internal capsule, pes pedunculi, and pons; (*b*) of the pyramids of the medulla oblongata and the pyramidal strands of the spinal cord; (*c*) of the ganglionic cells of the anterior cornua of the spinal cord and homologous parts of the medulla; (*d*) of the anterior root-fibres and the motor nerves; and (*e*) of the voluntary muscles. Dr. Möbius contends that the whole system may become diseased, but that in general only a portion of it is affected; that the lower portion of the system suffers invariably; and that the limits of the pathological process vary as we proceed upwards in the motor zone. Thus the muscles are always diseased; and, if no other part suffer, we have to do with simple progressive muscular atrophy. Such are the cases which have been recorded by Friedreich, Lichtheim, and others, in which the nervous system was found healthy throughout its extent; and those of hereditary atrophy with or without lipomatosis (pseudo-hypertrophy of the muscles), which have been described by Meryon, Duchenne, Charcot, and others. Whether there are cases in which the peripheral nerves alone participate in the affection, as Cruveilhier asserted, is still doubtful. The next class consists of those cases in which the muscles, peripheral nerves, and the anterior horns of the grey matter, are de-

generated, as described by Luys, Charcot, Hayem, and others, and in which we now see the type of progressive muscular atrophy. This class comprises three different varieties, according to the localisation of the pathological lesion; viz., the ordinary spinal form, which has a sub-variety where the nerves remain intact; the bulbar or medullary form (progressive bulbar paralysis); and, finally, the bulbo-spinal form, which may be complicated with degeneration of the pyramidal strands, as seen by Leyden, or exist without it, as in the cases of Duval and Raymond. Generally, the disease is arrested in the pons Varolii; in a few cases, however, the external segment of the middle third of the pes pedunculi has been found affected; of the internal capsule, nothing has been noticed; but, in a case of Kahler and Pick, the central convolutions were likewise wasted, so that the whole system of the pyramidal strands has been found affected.

In all these forms of disease, there are simple atony and wasting; but progressive muscular atrophy may be combined with spastic phenomena, assuming a spinal or bulbo-spinal form, the latter being amyotrophic lateral sclerosis. Dr. Möbius doubts the existence of primary lateral sclerosis without affection of the grey matter, as this would be in contradiction with the principle that, in all primary diseases of the motor sphere, the lowest portion, viz., the muscles, is invariably found affected. According to him, the lesions in lateral sclerosis, bulbar paralysis, and progressive muscular atrophy, are identical, consisting of chronic parenchymatous inflammation or sclerosis; the differences which have been noticed being not separate processes, but only varieties, caused most probably by a peculiar predisposition of certain parts, and also by the duration and intensity of the pathological action.

There is probably no systematic disease of the motor sphere strictly so called, as we generally meet with mixed forms of systematic and asystematic degeneration. The essential point is, that the lesions are symmetrical; and this is more particularly the case the higher they proceed upwards towards the centre. Clinically, all these affections are characterised by their being limited to the motor sphere; the intellect and organs of special sense remain intact to the last, the bladder and rectum do not suffer, and, if sensation be affected, this is confined to the muscles, which are tender to pressure and the seat of throbbing pains, arising from their inflammation. Further features common to all of them are atrophy of the muscles, which is the principal symptom, identical electric tests, and a progressive course. Where spasmodic symptoms appear more prominently, the pyramidal strands are affected; yet the latter have been found sclerosed where no spastic signs had been present during life. Kahler and Pick have explained this by assuming that, where the grey matter was wasted previously to the affection of the pyramidal strands, no spastic phenomena could be produced; while Charcot, with more probability, argues that spastic contractions always arise from irritation of the grey matter.

The muscular wasting is uniformly of the same character; viz., there are fibrillary twitches, and the muscle gradually decreases in size until it has quite disappeared; the limb is not affected *in toto*, but single muscles, or portions or sets of muscles, become diseased; and there is no spread by contiguity, but by selection of functionally equivalent muscles. The faradic excitability of the diseased muscle is invariably preserved, and only becomes less in proportion as the wasting progresses. The galvanic excitability of the muscles is in general normal, but occasionally qualitative alterations are discovered, and that in all forms of these affections. The excitability of the nerves to both currents is always normal.

The course of these diseases is always progressive until death. Ordinary muscular atrophy generally lasts from ten to twenty years, while bulbar paralysis generally kills in one or two years. In general, it may be said that the further upwards in the motor sphere the disease is located, the more rapid is its course. Thus the case of Kahler and Pick, in which the central convolutions were affected, proved rapidly fatal; on the other hand, cases in which the muscles alone suffer have an eminently chronic progress.

It will be seen at a glance how essentially these affections differ from other diseases apparently similar to them, such as poliomyelitis. In the latter, there is first paralysis, and then wasting; the faradic excitability of the muscles is annihilated; there are the appearances of the reaction of degeneration (for which barbarous term we should prefer that of "wasting-test", as proposed by Dr. Althaus); we find stages of invasion and acme, after which, if the patient survive, the affection remains stationary. Similarly, amyotrophic lateral sclerosis differs from chronic myelitis of the cervical portion of the cord; for, in the latter disease, there is atrophic paralysis and wasting-test, and the affection of the lower extremities is a pure spastic paralysis without atrophy. With regard to the mode in which the different forms of progressive muscular atrophy spread in the neuro-muscular sphere, Möbius considers it neither ascending nor descending, but affecting the several portions of the system equally and *in toto*.

SANITARY CONDITION OF THE PRISONS IN IRELAND.

THE questions recently asked, in the House of Commons, by the honourable members for Tyrone, Waterford, and Carlow, in regard to the death of Captain Disney, governor of the gaol at Omagh, show that some investigation into the sanitary condition of the Irish prisons is urgently needed. In the particular instance thus brought under our notice, the facts are as follows. Captain Disney, an active and zealous officer, who was greatly beloved and respected, joined the prison service in 1878, and served successively at Wicklow, Belfast, and Castlebar. From the latter town, he was removed, on promotion, to Omagh; but, on arriving there, he found that the governor's quarters were in such an unsanitary condition as to oblige him to take lodgings in the town for his wife and family, though his duty compelled him to reside himself within the walls of the gaol. For the first few weeks of his residence in Omagh, he lived in a part of the prison which was tolerably healthy; but, on the arrival of a batch of "suspects", he lodged them in the portion which he had himself occupied, and lived for a short time in the governor's quarters. Although it was known that this part of the prison was in an unsatisfactory condition, and due notice had been given of it to the Prison Board, yet so little attention was paid to it, that Captain Disney, writing only a few days before his death, says that he had been five weeks resident in Omagh, and as yet no steps had been taken to put his house into habitable repair, and that tenders had not even been asked for. This appears the more unaccountable, as it was well-known, before Captain Disney's appointment, that the drainage was in bad repair; and that the previous governor had lost, within a comparatively short time, three members of his family, of whom one at least had died of diphtheria. At length, however, an architect was sent down, and certain alterations were made—with such effect that, whilst they were being carried out, Captain Disney succumbed to an attack of typhoid fever, after only a few days' illness—brought on, as the Chief Secretary for Ireland himself stated in the House of Commons, by his sleeping over an open sewer. Mr. Forster lays much stress upon the fact, that Captain Disney in a measure brought his fate upon himself, since he persisted in sleeping within the prison after he had been warned that it was dangerous to do so. The warning, however, came from the architect; and was unaccompanied by any official permission, or, what was equally important, by any offer to defray the extra expense which would have thus been incurred, as the wretched stipend which he received was wholly inadequate to meet it. It thus appears that Government buildings in Ireland may, in some cases, be allowed to fall into a state of the utmost neglect; they may become not only uninhabitable, but even deadly, without attracting any unusual amount of interest from the higher authorities, whose duty it is to look after the welfare of their subordinates. We would, therefore, suggest the advisability of attaching to such bodies as the Prisons Board, with whom in the present case the chief blame appears to rest, a medical officer, to be held responsible for the sanitary condition of the buildings under their control. In the meantime, it would be a graceful act, upon

the part of the Government, as well as a tribute to the zeal of the late governor, to bestow a pension upon his widow, who is at present wholly without resources.

LORD RANDOLPH CHURCHILL, who is, we are glad to learn, rapidly recovering from the troublesome local affection from which he has been suffering, will shortly, by the advice of Mr. Oscar Clayton, proceed to Pau to complete his convalescence.

NO fewer than 120 cases of small-pox are said to have occurred at Ampthill, of which sixteen have proved fatal. This serious epidemic is supposed to have originated with a tramp who recently died in the workhouse. The majority of the patients are under the care of experienced nurses from London, in the workhouse hospital.

ARRANGEMENTS have been made for the erection of a Convalescent Hospital at Milford, near Stafford, as a memorial to the late Sister Dora, who was the founder and mainstay of the Walsall Cottage Hospital. The cost is estimated at £2,000, towards which £1,400 have been subscribed, including £1,200 by Miss Lonsdale, being profits on her "Life of Sister Dora."

MR. A. E. CUMBERBATCH has been formally appointed Aural Surgeon to St. Bartholomew's Hospital, where for several years he has had the charge of the patients in the ear department. This gentleman was a member of the Council of the Section of Diseases of the Ear at the recent International Medical Congress, and has written contributions to aural surgery, which are to be found in the *St. Bartholomew's Hospital Reports*.

IN consequence of the refusal of the Superior Council of Public Instruction to sanction the translation of M. Hayem from the chair of Therapeutics to that of Pathological Anatomy, the Faculty of Medicine has named three other candidates for the consideration of the Council. M. Cornil is chosen by sixteen votes against fourteen given to M. Hayem, who has since withdrawn his candidature. MM. Grancher and Lancereaux come next. M. Cornil's nomination by the Superior Council and the Minister may be considered as certain.

THE Clitheroe rural sanitary authorities have wisely decided to close all the schools at Chipping and Thornley, in consequence of an extensive epidemic of measles prevailing in the Clitheroe Union. Nearly every house where children are living is said to be infected with the disease. It was imported from Harwood, near Blackburn, about Christmas, and since then it has spread with alarming rapidity. Thirty-seven children who attended one school are afflicted, and at the Catholic schools half the children are absent through illness. A large number who attended the Thornley School are also affected.

THE Cambridge Local Examinations, by means of which intending medical students may pass the Preliminary Examination required by the Medical Council, and students proposing to enter the University can obtain the certificates which will exempt them from the Previous Examination, will be held on Monday, September 4th, in Cambridge and London, and at such other places as the Syndicate may determine. Forms of entry must be signed and sent in before August 1st. They can be obtained, for Cambridge, from Rev. G. F. Browne, St. Catharine's College; and, for London, from R. St. J. Corbet, Esq., 10, Portman Street, W.

IN consequence of the serious prevalence of ophthalmia in the Norwood schools belonging to the Lambeth union, the guardians are seeking the assistance of the Local Government Board in devising means for checking the disease.

ADULTERATION OF BEER.

A BILL has been issued to amend the law relating to the sale of beer, with a view to the protection of the public from adulteration of beer. It proposes to provide that every person who sells or exposes for sale by wholesale or retail any beer brewed from or containing any ingredients other than hops and malt from barley, shall keep conspicuously posted, at the bar or other place where such beer is sold or exposed for sale, a legible notice stating what other ingredients are contained in such beer. Any person who sells or exposes for sale any such beer without complying with the above enactment, is liable to a fine not exceeding in the case of the first offence £20, and in the case of the second or any subsequent offence £50. Any fine incurred under this section may be recovered summarily by any informer, and one-half of the fine is in every case to be paid to the informer. The term "beer" includes beer (other than black or spruce beer,) ale, and porter. The Act is not to extend to Scotland or Ireland, and is to come into operation on the 1st January, 1883.

MORPHIA-POISONING.

THE death of a medical student from the effects of an overdose of morphia has occurred at West Derby. According to the evidence given at the inquest, the deceased had suffered for a long time from rheumatism and disease of the heart, to relieve which he had taken morphia. He was found lying on the floor breathing heavily, and died in half an hour after the discovery.

LABOURERS' DWELLINGS.

A REMARKABLE instance of the overcrowding prevalent in labourers' dwellings in some parts of the country has been afforded at Atherstone. The Nuisance Inspector stated that, at Witherley, he found thirteen persons sleeping in one bedroom, viz., a man, his wife, four daughters (whose ages ranged from eleven to twenty-three years), six sons (from five to seventeen years of age), and a child of one of the daughters.

POISONING BY TINNED MEATS.

A WHOLE family at Northampton, consisting of five persons, have recently had a narrow escape of being fatally poisoned. After partaking of tongue from a hermetically sealed tin, they all suffered from symptoms of irritant poisoning, due to verdigris caused by imperfect sealing.

AN ANTIDOTE FOR STRYCHNINE.

MESSRS. Greville Williams and Waters (*Proceedings of the Royal Society*, xxxi, p. 162), have discovered an antidote for strychnine in the organic base first prepared by the former, by distilling cinchonine with caustic potash, and to which he assigned the name β lutidine. Having ascertained, by experiments upon frogs, that β lutidine causes a distinct increase in the tonicity of both cardiac and voluntary muscular tissues; also retardation of the heart's beat; that it arrests the inhibitory power of the vagus; and that, by its action upon the nerve-cells of the spinal cord, it, in the first place, lengthens the time of reflex action, and then arrests that function; they proceeded to test its direct counter-action to strychnine. The brains of frogs were destroyed in the usual way. An animal was then treated with β lutidine till reflex action disappeared; when the subsequent administration of strychnine was not followed by the usual results. To another frog, strychnine was given till strychnine tetanus was produced, when it was found that the subsequent administration of lutidine caused the tetanus to pass off. The almost simultaneous administration of the two bases was not followed by tetanus. The results of these experiments are most promising; and it is to be hoped that the fanaticism of the anti-vivisecting portion of the community will not be influential to prevent the use of β lutidine in practical toxicology. We hope to hear that the base has been used for experiments on animals poisoned by strychnine, and whose brains have not been destroyed.

HOW INFECTIOUS DISEASE IS SPREAD.

MR. ATKINSON, in his last annual report on the health of the Craven combined district, mentions some curious instances of the ignorance existing among the population under his charge. In one case, when pointing out the necessity for disinfection, he was told by an old woman that, "Ye mak' a deal o' fuss i' sich like cases, but it's na' good; for

if they'll have it, they'll have it, and if they'll dee, they'll dee." In another, when examining some premises to find a cause for typhoid fever, he was told that he could look if he chose, but it was of no use, for "t' feaver's i' t' family, 'is father 'ed it, and 'is grandfather 'ed it, and na' t' lad's gotten it." Mr. Atkinson adds that, in this last case, the cause was not far distant, since an open rubble sewer was constantly emitting its odours at the back of the premises, and a foul gutter was just below the windows.—Another typical instance of the carelessness of parents in cases of infectious disease recently came before the Exeter School Board. At the last meeting of that body, it was stated that, while one girl was lying at home ill with fever, five other members of the family were being sent to one of the Board schools without the slightest intimation being given to the authorities. The existence of fever only came to the knowledge of the Board on their summoning the parent for the non-attendance of the sufferer. It is not encouraging to reflect that, after so much time, money, and energy have been expended in erecting and maintaining a public health service, such instances of crass ignorance as these should have still to be reported.

THE MEDICAL SOCIETY OF LONDON.

At the general meeting of the Medical Society on Monday last, the following were elected officers for the ensuing year. *President*, Francis Mason. *Vice-Presidents*, Richard Quain, M.D., F.R.S.; R. Brudenell Carter; J. Hughlings Jackson, M.D., F.R.S.; J. C. Wordsworth. *Treasurer*, Alfred Wiltshire, M.D. *Librarian*, W. H. Allchin, M.B. *Honorary Secretaries*, Edmund Owen; Isambard Owen, M.B. *Secretary for Foreign Correspondence*, Sir William Mac Cormac. *Council*, H. F. Baker; R. S. Fancourt Barnes, M.D.; Samuel Benton; William H. Broadbent, M.D.; Sidney Coupland, M.D.; J. Hamilton Craigie; H. Radcliffe Crocker, M.D.; T. Stretch Dowse, M.D.; J. H. Drew; Arthur Durham; F. J. Gant; Heneage Gibbes; D. H. Goodsall; A. Pearce Gould; F. de Havilland Hall, M.D.; W. M. Ord, M.D.; W. Pye; T. Gilbart-Smith, M.D.; W. F. Teevan; C. Theodore Williams, M.D.

BRITISH LYING-IN HOSPITAL.

The report of the British Lying-in Hospital for the year 1881 contains further testimony to the value of antiseptics in lying-in hospitals. The physicians, Drs. Heywood Smith and Fancourt Barnes, state that, "owing to the care with which the antiseptic precautions ordered have been carried out, there has been far less feverishness among the patients; and recoveries have been, as a rule, unimpeded." There were 160 women delivered in the hospital, of whom 32 were primiparæ; among these, one patient died from septicæmia. In the out-patient department, 496 women were delivered, with one maternal death. Among the in-patients, 6 children were still-born, or 3.75 per cent.; and among the out-patients, 14, or 2.82 per cent. The operations in the hospital comprised four forceps cases, one case of version, and one division of the vagina in a case of atresia.

DEATHS UNDER ANÆSTHETICS.

The following account of a death under the use of chloroform at the General Infirmary at Gloucester has been sent to us by Mr. W. Brown, house-surgeon to the infirmary. It occurred on February 12th. J. C., aged 23, was admitted for excision of the eyeball; the other eye showing symptoms of sympathetic ophthalmia. Chloroform was administered by placing a towel over the face (Edinburgh method). The patient became unconscious in about eight minutes, and the operation commenced. Shortly afterwards, the patient began to struggle, and the towel was replaced. Almost immediately afterwards, the pulse was found to fail. The usual means were at once adopted to restore animation: pulling forward the tongue, artificial respiration, nitrite of amyl applied to the nostril, and the head lowered; the patient at this time made three deep inspirations. The faradic current was applied to the chest and neck, and the external jugular vein was opened, but without avail. With the exception of some copper-stained spots on the legs, the *post mortem* examination revealed no abnormal condition. The heart, lungs, and kidneys were healthy. —On December 20th there was (says the *Detroit Lancet*, Febuary 1882) a death from the administration of chloroform in Chicago. The patient was in a dentist's chair and a physician administered the anæsthetic. One and a half ounces of chloroform were consumed in anæsthetising the patient. After two or three teeth had been extracted, the patient became livid and ceased to breathe. He was a man about forty years of age, and was supposed to be healthy. As usual in such cases, the patient was in a sitting posture. Only a short time previously, another death occurred from chloroform given for the extraction of teeth. We have had notice, also, of another death from chloroform at a hospital, of which particulars will, we believe, be kindly forwarded for our next issue.

EXOPHTHALMIC GOITRE.

In a short monograph on the pathology and treatment of exophthalmic goître, M. Noel Guéneau de Mussy describes four cases of this disease, which have recently come under his notice. Two of these occurred in males, and two in females. In all four, the ordinary symptoms were observed, while two were conspicuous for enlargement of the tracheo-bronchial glands; two for distinct choreiform movements, and two for muscular weakness and trembling of the limbs. In two there were cardiac complications, and in one marked pigmentation of the face. M. Guéneau de Mussy is an advocate of the theory of defect of innervation. He lays great stress upon the enlargement of the thoracic glands about the bronchi and trachea, and in the immediate vicinity of the pneumogastric nerve. He lays down a few diagnostic rules for the determination of such enlargements, for he considers that they may give rise to irritation of the pneumogastric nerve by contiguity, and so form the initial factor of the phenomena of this disease. He, however, throws this out only as a hypothesis, but one which is strongly supported by facts. He does not deny that this disease may have other sources of origin, such, for example, as a peripheral one, similar to a sclerosis of the posterior cornua from a lesion of a nerve. In support of the defect of innervation theory, he further adduces the pigmentation of the face, which occurred in one case, and sees in the irritation of the pneumogastric nerve a plausible explanation. He then goes on to strengthen his argumen tby reference to Dr. Greenhow's remarks on bronzing of the skin in an address on Addison's disease, read before the International Medical Congress. M. de Mussy seems to have faith in the freshly prepared tincture of iodine, and on the natural waters of Dongues and La Bourboule; but it is proper to remark that the treatment is given of only two cases, one of which died, and the other made a brilliant recovery.

ALCOHOLISM.

The Lower House of Congress at Washington has appointed a committee to inquire into everything relating to alcoholism; and there is a motion pending in the Senate for the appointment by that branch of the legislature of a similar committee. The scope of the inquiry will, it is stated, be the widest ever entered upon.

THE CAUSE OF PELLAGRA.

The etiology of pellagra is one of the most obscure points concerning that disease. It has been attributed to a great variety of causes—distress of mind, poverty, abuse of salted provisions, impure water, the use of rye-bread, etc. A more satisfactory theory was first enunciated by Thouvenel as far back as 1798, and supported at a later period by Roussel and Costallat in France, and by Balardini in Italy. This theory attributes pellagra to the exclusive use of maize or Indian corn for food, especially where damaged samples of that cereal are consumed. Researches recently undertaken by M. Lambroso, and reported in the *Revue Scientifique*, January 28th, 1882, seem to demonstrate to a certain extent the truth of Roussel's theory. According to Lambroso, pellagra is undoubtedly developed under the influence of a diet of damaged maize, only the poisonous agent is not, as was formerly believed, the fungus found on the altered grain, but a special extractive

substance obtained by a process analogous to the preparation of ergotine, which it also resembles in some physical characteristics. M. Lambroso names it pellagrozeine. In experiments undertaken by that gentleman, the daily consumption of six grammes of tincture of damaged maize produced in twelve workmen feelings of intense hunger, associated with dislike to food, diarrhœa, and enteralgia; there afterwards appeared the most characteristic cutaneous lesions of pellagra, pruritus, stinging pains, ephelides, burning sensations, followed by nervous symptoms, mydriasis, ptosis, sleepiness, and pleasure in seeing and touching water, as well as headache and giddiness; other symptoms were sometimes observed, such as palpitations, acceleration or slowing of the pulse, and fainting fits. Grisolle states that a large number of sufferers from pellagra commit suicide. They do not kill themselves in a fit of maniacal excitement, but quietly, as though impelled by a purely automatic impulse. Stambio has noted that the majority of these suicides destroy their lives by drowning. In the workmen subjected to a diet of damaged maize, there was also an increase of the specific gravity, and a decrease in the amount, of the urine, which had a red tinge. It may be noted that these symptoms have the greatest analogy with those of incipient pellagra. These experiments, repeated on various kinds of animals, yield important practical results, both as regards prevention and treatment of pellagra. For the prophylaxis, M. Lambroso recommends various modifications of the cultivation and storage of maize, and of its manufacture into bread. As to treatment, a prolonged series of experiments has demonstrated to him that there is no specific remedy and no special therapeutic treatment for pellagra. It is not the disease which must be treated, but the patients. He has seen good results follow the administration of opium in cases of pellagra complicated by mental fear or stupor. Quinine is valuable when there is prostration; and calomel, arnica, and cold douches in cases of pellagrous diarrhœa. He has obtained cure in desperate cases by varying doses of from one-fourth to two-thirds of a milligramme *per diem* of arsenious acid. In infantile pellagra and in the kind accompanied by an arrest of development, he has had occasion to be satisfied with the use of frictions of chloride of sodium. Pellagrous vertigo has frequently yielded to the administration of cocculus orientalis. Medication by chloride of sodium and arsenic has been tried on a somewhat large scale in the localities where pellagra is endemic, and the successful results have been sufficiently numerous and rapid to give reason to hope that it is possible to cure pellagrous patients without attempting the difficult task of changing their usual form of diet.

MEDICAL CONGRESS AT SEVILLE.

THE medical congress to be opened in Seville on the 9th of next month promises to be a success. An organising committee has been at work for some time, and has appointed the necessary subcommittees and decided on the general programme of the congress. Certain subjects have been suggested for general discussion, but it will be open to any private member to bring forward any other matter in which he may be interested. The town selected is one of the oldest and most interesting in Spain, and the season of the year is that in which it can be seen at its best. The President-elect is Dr. Antonio Rivera y Ramos, and the Secretary-General Dr. Raphael Tuñon de Lara. All correspondence on matters connected with the congress should be addressed to this latter gentleman, 15, Plaza de la Constitucion, Seville. The meetings will be held from April 9th to 15th inclusive. The official language will be Spanish; but Latin or French may be used. The reading of papers is to be limited to fifteen minutes, and the subsequent discussion on any paper must not occupy more than three-quarters of an hour. The following are the sections, with the subjects proposed for discussion in each. *Physiology:* The connection of animal heat with the nervous system. Researches into the physiology and pathology of animal heat. The formation of urea, and its excretion, with special reference to the secretion of urine and to any pathological conditions which may be produced by the want of harmony in the proportion of urea present. *General Pathology:* An examination of the different methods of illuminating the cavities of the body. *Pathological Histology:* Genesis and evolution of tubercle. *Hygiene:* The causes of the excessive mortality of young children in large towns, and the best means of reducing it. Prophylaxis of infectious diseases; isolation and disinfecting; best methods of applying these. The most suitable means of checking tuberculosis in barracks and infirmaries. *General Therapeutics:* Atmospheric air as a therapeutic agent. The application of heat in the treatment of disease. *Electro-Therapeutics:* Faradisation and galvanism in the different stages of rheumatic paralysis of the facial nerve. The value of constant and continuous currents in the treatment of parenchymatous congestions. How may these currents be established? *Hydrology:* An inquiry into the comparative merits of natural nitrogenous waters, and their effects on phthisiogenic processes. The most suitable mineral waters in the treatment of pulmonary tuberculosis. *Medicine:* The pathology and treatment of diabetes mellitus. *Surgery:* The value of antiseptic methods in the treatment of wounds. The best method of treating wounds antiseptically on the battle-field. Tetanus; its pathology and treatment. *Ophthalmology:* The simplest and most precise means of determining the presence of Daltonism. The best method of combating strabismus in children under seven years of age. *Dermatology:* The local treatment of eczema. The etiology of true lepra. *Diseases of the Larynx:* A certain and safe method of producing limited anæsthesia in the larynx. The differential diagnosis of simple, tuberculous, syphilitic, and cancerous ulcers, founded on their objective characters. *Operative Surgery:* An analysis of the various methods of surgical treatment in strangulated hernia. The indications to be followed in orthopædic appliances in the treatment of coxalgia. *Obstetrics:* The medical and surgical treatment of central placenta prævia. Retro-uterine or peri-uterine hæmatocele. Artificial induction of labour. *Gynæcology:* Lupus of the Vulva; its forms, course, and treatment. *Diseases of Children:* Hæmophilia and purpura hæmorrhagica; and the distinction between these two conditions in newly born infants. Diagnosis and treatment of pulmonary atelectasis in infants. *Forensic Medicine:* Ought the degree of criminality of an accused person to be gauged by the length of time required to repair the wounds or lesions he may have been instrumental in causing? On what scientific grounds should it be estimated?

THE FRENCH HUMANE SOCIETY.

THERE are established at Paris, along the banks of the Seine and Saint Martin's Canal, eight Humane Society houses (*Pavillons de Secours*). A store of blankets, mattresses, and every appliance necessary to restore life to the drowning, is kept at every house. The number of apparatus intended to succour the drowned, deposited at the different police-stations in Paris and its environs, including those of the *pavillons de secours*, amount to 267; with 210 stretchers at the Prefecture of Police. There are, besides this, ample provision-tents, which are requisitioned by the *service de secours* on the days of public *fêtes*, and also for reviews. They are pitched where the crowd is the most dense, and are furnished with all the appliances of an ambulance; a medical man is attached to each of these movable ambulances during the duration of the *fêtes*. From 1805 to 1877, 11,500 sick and injured persons were relieved. Since 1875, 88 out of 196 apparently drowned persons have been restored to life. This proportion has considerably increased since the creation of these *pavillons de secours;* out of 87 apparently drowned persons, there have been only four deaths.

A NEW STOCK OF COW-POX.

M. HERVIEUX has sent to the Paris Academy of Medicine an interesting report of a new stock of cow-pox furnished by a heifer sent from Bordeaux. This heifer had, in the vicinity of the teats, about thirty pustules, which, on the fourth and fifth days of their development, showed the characteristics of true vaccine. The matter obtained from these pustules, either by puncture with the lancet, or by expression, and inoculated either into heifers or children, produced a crop of pustules entirely identical with normal vaccine. With a few exceptions only, the inoculations have produced as many positive results as there

have been children vaccinated, and very nearly as many as there were punctures. The transmission of the vaccine from the Bordeaux heifer to those bought for the purpose by the Paris authorities was completely successful, as they yielded as many pustules as there were incisions made. The Paris animal vaccine service has, therefore, been able to substitute fresh cow-pox from the Gironde for their official stock; and this is held to be the more satisfactory as this particular animal vaccine is considered to be of a first-rate quality.

STATISTICS OF INSANITY.

THE Lower Rhenish Sanitary Association has issued the first number of its *Centralblatt*, or official journal, which will deal with a more extended range of subjects than the organ of the society which is now merged into it. An interesting article deals with the general question of insanity from a statistical and economical point of view. According to the facts quoted by Dr. Pelman, the proportion of persons whose intellects are disordered amounts to 1.37 per 1,000 in North America, 1.46 in Austria, and 1.65 in Italy. On the other hand, Switzerland shows a ratio of 2.91, Norway 3.05, Scotland 3.40, Wurtemburg 4.22, and the Canton of Berne (treated separately from the rest of Switzerland) 5.54. In Prussia, there seems to have been a progressive increase of madness during the last fifteen years. The statistics quoted (which are more detailed than those referring to other countries) show that, in 1867, the proportion was about 1.59, while it had risen in 1871 to 2.23. It is estimated that, at the present time, it is not less than 3 per 1,000, which ratio the author doubtless wishes to put forward in comparison with the approximate proportion quoted with respect to other countries. Some details of interest are cited in reference to the accommodation for insane persons afforded by public institutions in various countries, the increase of which, it is remarked, is in consequence of the growing conviction in the public mind that, in the majority of cases, home-treatment is less desirable for such patients than the experienced care they receive at a properly organised asylum.

THE CONTAGION OF TYPHOID FEVER.

DR. ARNOULD of Lille discusses, in the *Bulletin Médical du Nord*, August 1881, a small epidemic of typhoid fever which broke out in his wards in the military hospital at Lille. He has used the opportunity of studying closely the conditions of transmission of this disease. Medical opinion ranks, he observes, typhoid fever among the infectious diseases, and its development requires the previous existence of a focus. Direct contact with the patient as a cause of contagion is not accepted; and Van Gietl has gone so far as to say that "a typhoid patient, naked and washed, would not injure anyone". The facts observed by Dr. Arnould, the rapid diffusion of the disease through a series of patients in the same hospital-ward, without the existence of any epidemic in the town, seem to him to contradict this too positive assertion. He thinks, in certain cases, that typhoid fever may be really contagious. As to the question whether the contagion is lessened or increased, or the soil more or less favourable for its reception, Dr. Arnould does not pronounce a decided opinion. He inclines, however, towards the latter hypothesis, and remarks upon the deplorable sanitary condition of the hospital in question. In such a medium, the creation of a focus of disease may be very rapid, and the apparent contagion may well be only an infection of special activity. To English hygienists, it will seem surprising that, on such slender grounds and under such circumstances, so excellent a sanitary authority as Dr. Arnould had not proceeded to eliminate the ordinary causes of typhoid fever before proceeding to invent new ones. We may remind him that, out of 16,000 or 17,000 cases of typhoid fever admitted into the London Fever Hospital, the disease has never been known to spread from one patient to another; and this is apparently due to the care taken to disinfect and remove the typhoid stools, which are thoroughly recognised as the genera seat of infection. In the French hospitals, with the filthy arrangements commonly prevailing with the latrines, the dirty habits of the patients, the want of personal cleanliness on their part, and also on the part of the nurses and assistants, anything is possible in the way of filthy contamination; and, until these facts are perfectly understood by French hospital authorities, little attention will be paid to the probable fact, that typhoid fever in France is not conveyed by any other form of infection than that by which it is spread in England or other countries. The contagiousness of typhoid fever by other sources, however, is not a thing to be set aside as impossible, or as unworthy of investigation; but it is certainly necessary first to eliminate the ordinary causes of infection.

SCOTLAND.

COMBE LECTURES IN ABERDEEN.

DR. STIRLING delivered the last lecture of the course on Saturday evening. The subject was respiration. The lecturer showed the mode of breathing of a fish on a large screen twenty feet square, so that the audience could see the movements of mouth and the gill-covers. The action of the cilia in the windpipe was also rendered visible by the amount of work these cilia can do in carrying along considerable loads. Numerous experiments were shown with the gases of the air, and also to illustrate the difference between inspired and expired air. At the close, the lecturer intimated the result of the written competitive examination for the prizes presented by the Combe trustees. These lectures have been a complete success. We think the Combe trustees have scored a great success in instituting such courses of lectures; for undoubtedly a properly arranged course of lectures on one subject is far preferable to a mixed course by several lecturers. The former becomes educational in the highest sense. The large audiences which attended nightly testify to the desire of the public for a knowledge of the laws of health; and these Combe Lectures of Dr. Stirling have shown conclusively how successfully large numbers may be instructed in the fundamental laws of health, and that on a thoroughly experimental basis, for the numerous experiments were so arranged as to be visible to every one of the audience. The lithographic syllabus, also, has been found to be invaluable, for each member of the audience holds in his or her hand a copy of every diagram used by the lecturer. The lecturer suggested that policemen and all railway servants ought to receive ambulance instruction, or in "what to do till the doctor comes", in cases of accidents.

EDINBURGH NEW TOWN DISPENSARY.

THE annual meeting of the managers and supporters of the New Town Dispensary, Edinburgh, was held last week, when Professor Douglas Maclagan (one of its bygone officers, and the author of the *Nugæ Canoræ Medicæ*) presided. The medical secretary, Dr. Graham Weir, reported that, during the year, 9,129 patients had been treated by the medical officers of the dispensary, and of that number 1,794 had been visited at their homes. The New Town Dispensary adopted, a year or two ago, the system in vogue at some of the other Edinburgh dispensaries, of causing each prescription dispensed to be charged one penny, except in cases where this was out of the power of the patient; and a sum of £55 had accumulated during the year from this humble source. Unfortunately, the subscriptions have fallen off during the past three years; but, with a balance of £118, a noble past history, and a large sphere of present usefulness, this dispensary must be congratulated on its position.

EDINBURGH INSTITUTION FOR RELIEF OF INCURABLES.

DURING the past year, this unostentatious and very useful charity has been able to give relief to a large number of persons suffering from incurable diseases. It is quite apart from the Longmore Hospital for Incurables, as it has no in-door system, but endeavours to give to persons suitable for its purpose the sum of £4 annually. At present, 200 such are deriving this benefit. Nine deaths had occurred among the pensioners, and ten vacancies had occurred otherwise during the year, leaving nineteen places to fill up. Last year, £5,400 was received from the executors of the late Dr. Vans Dunlop, to be applied to the

relief of patients, and to be managed by Mrs. Keith's trustees and the directors jointly. These co-trustees have agreed to give the sum of £8 annually to incurable patients who have been treated in the Royal Infirmary. During the year, sixteen such patients have received the benefit of this arrangement, and at present there are several vacancies. Those present at the annual meeting were asked to make application for any deserving and suitable patients, especially if suffering from cancerous disease.

SMALL-POX AT BERWICK.

AT a meeting of the urban sanitary authority of Berwick, the medical officer of health, Dr. Fluker, reported this week that there were no new cases of small-pox in Berwick. Of three cases which had occurred, one had died; the other two were progressing favourably. The Works Committee submitted a report on the subject of the outbreak of small-pox, and the necessity that existed for a hospital to receive such cases and other cases of infectious disease. Of two plans submitted to the meeting for such an hospital, one at a proposed cost of £370 was accepted, to be built of brick; the other for an iron building, and to cost £219, not being considered so substantial as the one accepted, which is for a brick building. The new hospital will be situated in Tweedmouth.

DR. MCKENDRICK AND HIS ALMA MATER.

THE many friends, professional and lay, of Professor J. Gray McKendrick, of Glasgow University, will be much pleased with the public announcement that his Alma Mater, the University of Aberdeen, on Saturday conferred on him the honorary degree of LL.D. Dr. McKendrick graduated there with the highest honours in medicine, and since then has had a busy scientific life, which his University has thus fittingly acknowledged.

IRELAND.

MONKSTOWN HOSPITAL.

DURING the past year, 150 patients were admitted to the wards, and 2,181 treated at the dispensaries. The financial condition of the hospital appears satisfactory; the debt due on the building account has been closed, some debentures paid off, and a sale of work last October realised a sum of £288 15s. 3d.

SMALL-POX IN BELFAST.

DURING the past month, eighty-four persons suffering from small-pox were removed to hospital, every precaution having been taken to prevent the spread of the disorder. It is gratifying to notice that a marked decrease has lately taken place in the number of cases of the disease admitted to hospital; and it is to be hoped that the worst of the epidemic has passed.

EPIDEMIC DISEASE IN WATERFORD.

BOTH fever and small-pox prevailed to a considerable extent in Waterford during the past eight months. From June 1881 to the 28th of last February, no fewer than 259 cases of fever and 158 cases of small-pox were treated in hospital. At the present time, there are 96 cases of fever and small-pox in the hospital, being an increase of 43 as compared with the number on the 1st January.

POOR-LAW MEDICAL OFFICERS' SUPERANNUATION.

THE Council of the Irish Medical Association have issued a very pressing circular to the union medical officers of Ireland, urging them, for their own sakes, to exert their influence with their local members of Parliament to induce them to support the Union Officers' Superannuation (Ireland) Bill, lately introduced in the House of Commons by Mr. Herbert Gladstone as a Government measure. The state of the case is now simply this: If the proposed Bill be passed, the medical officers upon retirement, in accordance with the terms of the Bill, will be entitled to receive the maximal rate of superannuation allowance which the Local Government Board will sanction, the Board having, by circular order, No. 339, M., of 25th November last, positively declared it will not sanction any retiring allowance the amount of which exceeds the scales contained in the Bill; whereas, if the Bill be not passed, the medical officers will remain dependent upon the will and caprice of the guardians as at present, and cannot get as much as the maximum which would be sanctioned by the Bill; for at present the salaries of medical officers of health, and the fees received for examining alleged dangerous lunatics, are not allowed to be taken into consideration when computing superannuation allowances; but if the Bill become law, these emoluments must be taken into account. The question, therefore, arises, which is preferable: the obtainable maximum as a certainty; or less, and perhaps nothing, as the boards of guardians may be pleased to decide? The answer to the question can hardly be doubted; but, unfortunately, the majority of the Irish Poor-law medical officers have not in time past exhibited that energy and united action which might at least be expected when their own interests were at stake.

NOTIFICATION OF INFECTIOUS DISEASES.

THE King and Queen's College of Physicians in Ireland have adopted the report of its Parliamentary Bills Committee, recommending the College to support the Infectious Diseases Notification (Ireland) Bill, introduced into Parliament by Mr. Meldon on behalf of the Irish Medical Association and of the Dublin Branch. And the College has further directed the Committee to take steps to oppose or amend, in accordance with the views of the College, the Bill on the same subject introduced by Mr. Gray. The Royal College of Surgeons in Ireland have adopted the following resolution as regards Mr. Meldon's Bill: "That this Bill, being in conformity with views already expressed by the College, and having been considered and adopted by the medical associations specially interested in the matter, be now approved by this College." And the Executive Committee of the Dublin Sanitary Association, "while approving of the principle of direct notification of infectious disease, as contained in Mr. Gray's Bill, finding that the opposition of the medical profession would be probably a fatal obstacle, is disposed to accept Mr. Meldon's Bill as the best compromise under the present circumstances."

BELFAST ROYAL HOSPITAL.

As the working classes in Belfast have not supported the hospital as they ought, early in December a circular was directed to the secretaries of the trade societies, with a view of enlisting a greater interest in the hospital among that portion of the community, and in the hope that it might lead to an increase in the sum annually subscribed. These anticipations have, however, not been fulfilled; and with the exception of one society which promised to subscribe, no response has been made to the circular issued by the board of management.

CORK FEVER HOSPITAL.

DURING the past year, the total number of cases treated amounted to 708. Of typhus, there were 419 cases admitted; typhoid, 42; scarlatina, 24; measles, 13; and of all other classes of disease, 174. Of the two principal contagious diseases, typhus and typhoid fever, the mortality in the former during 1881, deducting cases hopeless on admission, was 8.3 per cent.; and in typhoid, 7 per cent.; while the entire mortality for all diseases treated came to 8.3 per cent. Several necessary improvements in the hospital have been delayed in consequence of the impoverished condition of the funds. The medical officers, in their report, referred to the lamented death of Dr. Budds, extraordinary physician, who, they state, was ever regarded with esteem and respect by his colleagues, and earned the gratitude of the patients by his uniform kindlness of manner, his unselfish care, and the sympathy never withheld from the poorest sufferer needing his attention. Dr. T. Edward Atkins, the resident medical officer, was during the year a sufferer from a most virulent and well-nigh fatal attack of typhus fever, caught in the discharge of his duties, and was absent from duty for three months, during which time Dr. Blair acted in his place. The year was commenced with a deficit of £754, and closed with a debt of £945.

PREPARATIONS FOR THE QUEEN AT MENTONE.

THE municipal authorities at Mentone are, we are informed, energetically striving to prepare their town for Her Majesty's visit. Some time ago, a series of main sewers were constructed, intended to carry the sewage of the town into the sea, in deep water, at the fortification called "The Genoese Fort," at the base of the jetty. These sewers *(égouts collecteurs)* have hitherto been inefficient, on account of the scanty supply of water. A water-company discovered, this summer, an abundant supply at the mouth of the principal mountain valley (the Carei), has made a large reservoir at a considerable elevation, into which the water is pumped, and is now laying pipes all over the town. It is anticipated that all the preparations for freely and regularly flushing the sewers will be completed in the course of a few days. What man, however, has not yet accomplished, nature has just done. In the night, from the 3rd to the 4th, two inches of tropical rain fell, with a south wind; following, as is usually the case, a strong north-west wind, which had lasted forty-eight hours. All the drains, ravines, gutters, etc., have thus been thoroughly washed and flushed. In these southern regions, as in more northern ones, this is nature's mode of purifying town and country. The public health is always improved, even in the tropics, by hurricanes of wind and rain.

On Friday, the 3rd, the Society of Medical Men Practising at Mentone met at the Hotel Victoria, under the presidency of Dr. Henry Bennet, to consider in what way the hygienic state of Mentone could be ameliorated, with a view to the Queen's visit. The Mayor had previously signified his hearty readiness to adopt any suggestion the Society or its members might suggest. Various questions connected with the public health were discussed; and a report was drawn up, and presented at once to the Mayor. No doubt is entertained that he will act upon it.

The gale of wind of the 1st and 2nd March, and the tropical rain of the 3rd, terminated, on the Riviera, we are informed, a period of two months' all but uninterrupted sunshine and fine weather. Both the north-west wind and the south-west rain have, no doubt, been general on the Riviera, from Hyères to Genoa, as was the previous sunny winter season.

It has been stated that Sir William Jenner is going to Mentone, in attendance on the Queen; there has, however, been no question of Sir William Jenner going abroad. Dr. Reid, the resident physician, will attend Her Majesty on this occasion, as Dr. Marshall did on the last.

RODERICK MACLEAN AT WELLS ASYLUM.

THE antecedents of Roderick Edward Maclean, whose attempt upon the life of Her Majesty has providentially failed, are, of course, undergoing investigation by the police. He is said to have taken up his temporary residence at Weston-super-Mare in 1880, from which place he was removed to the Somerset and Bath Lunatic Asylum, Wells. The medical officer who was at the time in charge of the male wards is not now at the asylum; but it has been thus far ascertained that Maclean, when admitted, had delusions of persecution; believed the world to be at enmity with him; and felt a strong impulse to kill some one. Two letters were written by him, a week before admission, to his sister, in which he stated that he was determined to commit murder. He was admitted on June 2nd, 1880, and appears to have lost the above delusions in August. He is reported to have been well for some months before discharge; but his discharge was delayed, as he appeared to be destitute. He is said to have been of intemperate habits. He was finally discharged July 21st, 1881. Those who worked with him state that he was rather weak-minded, even when he appeared free from delusions; also, that he was fond of talking about the Queen and royal family, although he never gave expression to any desire to injure them. The present superintendent, Dr. Law Wade, did not enter on his office till three months after Maclean was discharged.

THE WORK OF THE COLLECTIVE INVESTIGATION COMMITTEE.

THE members of the Association will probably be interested to know what progress has been made by this Committee in the important work they have undertaken. During the past month, much has been accomplished. An Honorary Secretary having been appointed on February 1st, it was next decided to form an active and powerful "General Committee", who will "determine the subjects for investigation, and the manner in which such investigations shall be conducted" (*vide* Report of the Collective Investigation Committee, BRITISH MEDICAL JOURNAL, December 17th, 1881). It was felt that upon this Committee experience and knowledge of various kinds must be represented; while its influence must be as far-reaching and diffused as possible, as it would require to be in communication with every district in which the work is being carried on—in other words, it is hoped, with every Branch of the Association in the United Kingdom. Hitherto, our knowledge of medicine has been derived chiefly from the experience of our hospitals; no attempt having been made to utilise that great mass of experience, to garner that harvest of facts, constantly being reaped by the whole body of the profession throughout the kingdom. Our Association has decided that this shall no longer be so, but that every man shall be invited to contribute his mite for the common good and for the advancement of medicine. Such being the case, it was evident that they who had to teach medicine, and this chiefly from their hospital experience, could best tell us what information about disease this experience fails to afford them, and therefore in what direction our science can be most advanced by the facts which come to the knowledge of the ordinary practitioner of medicine. It was, therefore, decided to obtain the assistance of one or more representatives from every medical school, both metropolitan and provincial. These members, moreover, will know where to find the ablest and best of those who have been trained at their respective schools, and will add the influence of the medical schools, to that of the Association, in promoting the work. The Committee have been fortunate in already obtaining thoroughly representative men from many of the schools—men whose names are well known as among the most active of our scientific workers. They have also sought the help of those Secretaries of Branches, who are also representatives of provincial schools. Lastly, they invited the assistance of some of the most active and energetic members of the Association in various districts; and the number of these they hope to see further increased hereafter by representatives from subcommittees in each Branch. The work they had immediately in view being rather of a medical nature, very few surgeons have yet been added to the General Committee; but, as subjects of surgical interest, more especially in connection with syphilis and cancer, are likely to come under discussion shortly, they have determined to ask the assistance of some surgical colleagues; some most distinguished surgeons have already consented to join the Committee.

The enthusiastic and earnest manner in which the work has been taken up, not only in London, but in many parts of the kingdom, wherever application has been made for help, is most encouraging. It is proposed to form subcommittees in connection with each Branch of the Association, to carry on the work in their own districts; already, in many of our largest Branches, able and energetic men have expressed their willingness to join in the work, and to give it their active support. It is hoped that these subcommittees will not only bring the matter before their own district meetings, and encourage their friends to give them aid, but will also bring forward valuable and interesting local material in connection with the inquiry in hand; that they will suggest subjects of local interest for combined observation, and co-ordinate the members of their districts for this purpose. The subcommittee of each Branch will be represented by one of its members on the General Committee, who will bring his own local committee into direct relation with the central organisation. Although the Committee is already in communication with the Secretaries of most of our largest Branches, no official action has yet been taken in the Branches generally, as it is hoped that shortly a complete scheme, thoroughly worked out, will be ready to be laid before them.

The selection of subjects, when so many present themselves, has been by no means an easy task; but still more difficult is it to contrive the best method of obtaining the desired information. The Committee has first to determine the exact objects of its inquiry, and then to frame questions which will give the required information in the most exact and definite manner possible. In doing so, it is necessary to remember that we are dealing with the time of a most overworked and busy class of men; if anything be asked from them, it must be only such things as will prove no appreciable addition to their labours. It has been accepted as a principle, that no written answers to questions beyond a single stroke of the pen, a figure, a date, or occasionally a few words, must be asked for. To contrive questions that can be answered in this manner, that will give exactly the information required and no more, and to arrange these on convenient cards, which can be carried in the pocket and filled up in a spare minute at any time or place, has been a work requiring no small amount of patience, thought, and ingenuity. This work, however, is nearly completed; and there is little doubt that the pains bestowed upon it will be generally appreciated. At a meeting of the General Committee on Friday, February 24th, it was resolved to take up the following subjects for investigation.

1. Acute rheumatism: with regard to (1) its immediate and remote

antecedents; (2) the frequency with which certain symptoms occur; (3) the minor ailments to which those who suffer from it are most liable; (4) the climatic conditions with which it is associated.

II. Chorea: (1) its relation to rheumatism and other diseases; (2) the frequency with which certain symptoms occur; (3) the minor ailments to which those who suffer from it are most liable; (4) the conditions predisposing to it.

III. Acute pneumonia: (1) its epidemic prevalence; (2) its communicability; (3) its association with other prevalent diseases and with defective sanitary conditions; (4) its symptoms, duration, and result.

IV. To devise a plan for obtaining complete medical life-histories of patients.

Papers will shortly appear in the JOURNAL, giving details of the objects and scope of each of these inquiries. With regard to the last (No. IV), which at first may appear of alarming dimensions, there will be proposed a plan of a comprehensive nature, which will demand careful discussion, as it will be a new feature of medical research.

A list of the members of the General Committee, as thus far constituted, is appended.

Appointed by Committee of Council.—Professor Humphry, F.R.S. (Chairman); C. G. Wheelhouse, Esq. (Leeds); W. D. Husband, Esq. (Bournemouth); Dr. W. F. Wade (Birmingham); Dr. A. Carpenter (Croydon); Dr. B. Foster (Birmingham); Dr. A. Ransome (Manchester); Dr. E. H. Sieveking (London); Dr. T. C. Allbutt, F.R.S. (Leeds).

Representatives elected on General Committee.—Dr. Duckworth, Dr. Lauder Brunton, F.R.S. (St. Bartholomew's Hospital); Dr. F. Taylor, Dr. Goodhart (Guy's Hospital); Dr. Barlow (University College Hospital); Dr. Sharkey (St. Thomas's Hospital); Dr. Burney Yeo (King's College Hospital); Dr. Stephen Mackenzie, Dr. F. C. Turner (London Hospital); Dr. Cavafy (St. George's Hospital); Dr. Cheadle (St. Mary's Hospital); Dr. Sidney Coupland (Middlesex Hospital); Dr. T. H. Green (Charing Cross Hospital); Dr. O. Sturges (Westminster Hospital); Dr. A. Davidson (Liverpool); Mr. A. Jackson (Sheffield); Dr. D. Drummond (Newcastle); Dr. E. M. Skerritt (Bristol); Dr. C. Parsons (Dover); Dr. Underhill (Edinburgh); Dr. Duffey (Dublin); Dr. G. Atkins (Cork); Dr. Withers Moore (Brighton); Dr. W. J. Tyson (Folkestone); Francis Galton, Esq., F.R.S. (London); Dr. Mahomed (Honorary Secretary).

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL:

NOTICE OF QUARTERLY MEETINGS FOR 1882: ELECTION OF MEMBERS.

MEETINGS of the Committee of Council will be held on Wednesday, April 12th, July 12th, and October 18th. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary not later than 21 days before each meeting, viz., March 22nd, June 22nd, September 27th, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

November 4th, 1881. FRANCIS FOWKE, *General Secretary.*

COMMITTEE ON THE STUDY OF AURAL SURGERY.

AT a final meeting of this Committee, held on March 1st, the honorary secretary announced that the following gentlemen, previously elected, had signified their willingness to join the Committee since the meeting on January 25th, viz.: Messrs. G. Abbott (London), John Chiene (Edinburgh), Angus Macmillan (Hull), and J. B. Story (Dublin). Dr. Robert Sinclair of Dundee was also elected a member of the Committee, raising the total number of members to fifty-eight. The report drawn up by the Subcommittee was then approved and adopted, and the honorary secretary was directed to forward the same to the Committee of Council, with a list of the members of the Committee appended.

BRANCH MEETINGS TO BE HELD.

SOUTH-EASTERN BRANCH: EAST AND WEST SUSSEX DISTRICTS.—A conjoint meeting of the above districts will be held at Brighton on March 29th, 1882. Dr. Ewart of Brighton will preside. Members desirous of making communications to the meeting are requested to give notice thereof to the Honorary Secretary, West Sussex District, 5, The Steyne, Worthing.

WEST SOMERSET BRANCH.—The spring meeting of this Branch will be held at the Railway Hotel, Taunton, on Thursday, March 30th, at five o'clock. The following question has been settled by the Council as the one on which members should be invited to express their opinion at the said meeting after dinner: "What is your Experience of the Complications and Sequelæ of Scarlet Fever?"—W. M. KELLY, M.D., Honorary Secretary.—Taunton, February 28th, 1882.

METROPOLITAN COUNTIES BRANCH: NORTHERN DISTRICT.—The next meeting of the District will be held at the house of Dr. Grosvenor, 22, Priory Road, Kilburn, on Wednesday, March 22nd, at 8.30 P.M. Dr. Danford Thomas will read a paper on The Registration of Diseases and Deaths. Mr. Ernest Hart will preside.—G. W. POTTER, M.D., Honorary Secretary, 12, Grosvenor Road, N.—March 6th, 1882.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting of the above District will be held on Thursday evening, March 16th, at half-past eight, at the Hackney New Town Hall; John Wood, Esq., F.R.S., will preside. The following papers will be read: Fred. Treves, F.R.C.S.Eng.: On the Treatment of Strumous Gland-Disease; Joseph Hunt, M.D.: On the Diagnosis and Treatment of Pleuritic Effusions in Children.—FREDERICK WALLACE, Honorary Secretary, 96, Cazenove Road, Upper Clapton, N.—March 1st, 1882.

CORRESPONDENCE.

ETHER *versus* CHLOROFORM.

SIR,—The discussion which is going on in your columns concerning the comparative safety of ether and chloroform is most important, especially as an eminent surgeon has not scrupled to write to the *Times* in such terms as to lead the laity to infer that the surgeon who uses chloroform is wilfully endangering the patient's life. When death occurs during the administration of chloroform, it seems to be always assumed that the anæsthetic was the cause of death; but, if ether were employed, some other explanation is generally suggested. Surely it is not forgotten that patients died on the operating-table quite as frequently, if not more so, before anæsthetics were used. I have only twice seen a major amputation performed without anæsthetics. In one, an amputation of the thigh, the patient died before the operation was completed; in the other, an amputation of the arm, the patient became pulseless and apparently dead in the middle of the operation, and was resuscitated with great difficulty. The symptoms in both these cases were exactly similar to those which are described as due to chloroform; and, if it had been administered, they would certainly have been attributed to it. We must all have heard of patients dying suddenly during the extraction of a tooth, or even while awaiting that operation, when no anæsthetic has been used. I believe that the outcry against chloroform is likely to have prejudicial results, because it not only makes patients about to be operated on nervous and likely to faint, but, what is perhaps of more importance, it causes timidity in the administrator, who, fearing to give an overdose, does not give sufficient to neutralise the shock of the operation. I observe that, in fatal cases, the administrators often seem to take credit to themselves for the small amount of chloroform expended. Lister, in his admirable article on Chloroform in Holmes's *System of Surgery*, points out that most of the fatal cases are probably due to this cause. Macleod, in his valuable clinical lectures on the administration of chloroform, published in your JOURNAL in January 1876, takes much the same view. During my student and house-surgeon days, from 1856 to 1861, chloroform was freely and deeply administered, and deaths were unknown. I cannot but think that the nervousness of the patients and the timidity of the administrators, both caused by the newspaper discussions on the subject, have a great deal to do with the great increase of mortality. It is very probable that the proportion of deaths from ether and chloroform represents the proportion in which they are used. Ether is so inconvenient and so unpleasant to the patient, that chloroform is generally preferred; but those surgeons who use ether proclaim the fact upon the housetops, while those who prefer chloroform say very little about it, as they consider the matter still *sub judice*. The mixture of alcohol, chloroform, and ether, if given boldly and in large quantities, seems to act as well as chloroform alone; but experience only can show whether it is safer. It seems to me, if I may judge from the published cases, that, when the heart fails during the administration of chloroform, much time is wasted in applying galvanism, which is probably useless, and possibly injurious; while Nélaton's plan of inverting the patient appears to be forgotten. I am inclined to think that this, combined with artificial respiration, is the most reliable plan of treatment, as pointed out by Dr. Macleod.

If I had to be operated upon, I should not, with my present knowledge, take ether, if I could get anyone to give me chloroform; but I should stipulate that the drug should be got from a first-rate maker, and tested before it was used.—I am, sir, your obedient servant,

B. J. TUCK, M.R.C.S., etc.,
Surgeon to the Seaford Convalescent Hospital.

Seaford, Sussex, March 5th, 1882.

INHALATION OF CHLOROFORM.

SIR,—The last paragraph in Mr. Joseph Sarjant's letter to the JOURNAL of March 4th suggests the question, How should an anæsthetic be administered? As there is a correspondence on chloroform *versus* ether at present going on in the JOURNAL, and much anxiety is evinced relative to their comparative freedom from risk of fatality, it may be acceptable to give a mode of administering chloroform which has hitherto proved safe during the twenty-seven years I have used it, both in my own practice and with surgeons in nearly every kind of operation, including ovariotomy.

Premising an empty stomach—patient in bed until arrival of surgeon—about six minutes before the inhalation of chloroform I give one drachm of spirit of chloroform in an ounce of whiskey with some water, more or less, according to age and habits. This makes the patient less averse to the chloroform, keeps up the heart's action, and prevents pulmonary asphyxia and venous engorgement. It also makes the patient succumb more speedily to the anæsthetic; indeed, it is rare that anyone treated in this way struggles, sings, or tells secrets, as is apt to be the case.

I have often used a mixture of ether and chloroform, but have rarely found it satisfactory. It seemed to me slower in producing narcosis, which, beside, did not continue so long or deep as is generally required.

In administering chloroform, I simply use a folded napkin, on which I sprinkle about sixty minims. One end of the napkin is held close to the nasal bones with the left hand; and with the right I regulate the quantity of chloroform and atmospheric air by holding the lower part of the napkin near or away from the mouth, according to the depth of anæsthesia, as indicated by raising an arm and observing if it falls involuntarily. The eyes being uncovered, observation may also be made of them, as generally recommended.

In giving chloroform to parturient women, it has been my practice to give as little at a time as possible, inasmuch as it has to be continued for a longer period than in operations; and, although the patient *will* shout that she has not had enough, when the case is terminated she can remember nothing from the time of inhaling the first whiff, which should always be a full one.—I am, yours faithfully,

J. CARRICK MURRAY, M.D.

44, Newgate Street, Newcastle-on-Tyne, March 1882.

ANÆSTHETICS.

SIR,—From paragraphs and correspondence in your JOURNAL during the last few weeks on the subject of chloroform, it appears that that anæsthetic is still largely used; and there seems to be every probability of a renewal of the controversy as to the relative safety of that anæsthetic and ether.

In the JOURNAL of February 25th, Mr. Woodman asks you to use your influence to get a committee appointed to inquire into the matter; and he suggests that that committee should collect statistics of the anæsthetics used for some time back in all the hospitals in England, with the mortality of each, etc. Now, sir, I question the practicability of obtaining the statistics he suggests: firstly, because hospital anæsthetists do not confine themselves to the use of one anæsthetic; secondly, because, to estimate the mortality from an anæsthetic, the number of administrations must be known, and also the number of deaths which are due to the anæsthetic of those which occur during its use.

I venture to think that more valuable information would be obtained from statistics of the opinions of anæsthetists; and I know of no better mode of collecting them than through the columns of your JOURNAL. I feel sure that anyone who has had special experience would be pleased to copy, fill up, and forward any form you might propose in your JOURNAL. I think such a form should give information as to the nature of the experience of the person filling it in, and the anæsthetic he now prefers. In the provinces, as in the metropolis, the anæsthetising of "bad cases" chiefly devolves upon a few, who generally have been, but may not now be, hospital anæsthetists. The opinion of these would be valuable, inasmuch as an estimate as to the relative safety of an anæsthetic may be made not only by the death-rate, but by the condition of patients under its influence, especially if these patients are unfavourable subjects.—I am, sir, faithfully yours,

EDWIN RICKARDS,

Physician to the General Hospital, Birmingham.

14, Newhall Street, Birmingham, March 5th.

OVARIOTOMY IN SWITZERLAND.

SIR,—I read with great interest Mr. Alban Doran's article on "Ovariotomy in Switzerland," which appeared in your JOURNAL 28th January last. This work seems to me to be, generally speaking, very complete; and if I take the liberty of sending you some rectifications, it is in order to contribute to your statistics an exactitude which is their principal merit. I do not desire to wrong in the least the renown of your illustrious Spencer Wells, the greatest ovariotomist of this century, by modifying the account of the origin of ovariotomy in Switzerland.

Among the documents that I have in hand, this is the history of the operation from the commencement. In 1863, Professor Breslau, of Zürich, was at the baths of Baden (Argovie), at the same time as Dr. de Montet, of Vevey. He told our friend that he proposed shortly to perform an ovariotomy, and invited him to assist him. Dr. de Montet, delighted to have an opportunity of being an eye-witness of an operation that he had never seen, went to Zürich a month later. The operation was skilfully performed; unhappily, acute peritonitis set in two days later, and the patient died.

The following year, Dr. de Montet had charge of the medical and chirurgical service of the little infirmary, the Samaritan, at Vevey. An unmarried woman, Marie C., aged 26, was admitted into this hospital. She was suffering from a voluminous cyst, and had been tapped three times. Dr. de Montet operated upon her December 8th, 1864; the operation was successful; no complication took place, and the patient was soon cured. A sentiment of gratitude induced this person to become a Sister of Charity, and she is known throughout the country as an excellent nurse. I believe this case to have been the first successful operation obtained in Switzerland. That of Mr. Wells took place immediately afterwards (in 1865).

Among the cases in which antiseptic precautions are not specified, you cite the twelve cases of Dr. Dupont. In sending the result of his practice to Professor Kocher, he has neglected to mention the antiseptic precautions; but the fact is, that he did not think it to be necessary. During the seven years since he has succeeded Dr. Rouge, he has been one of the warmest advocates of the Listerian dressing; he has often insisted upon its advantages in the meetings of the Medical Society of the Canton of Vaud; and his twelve operations were performed under rigorous antiseptic precautions, comprising the spray. Thus, Dr. Dupont's cases ought to be put in Table I, No. 3, instead of Table III.

You mention a successful case of ovariotomy at Nyon, but the name of the qualified practitioner who has obtained this success is de Miéville, and not Michaille. He also is a decided partisan of Listerian dressing. In this particular case he made a careful antiseptic dressing, but without spray. It was a voluminous multilocular cyst. He used the clamp.

I think that some cases may have escaped the conscientious research of the author of the statistics. For instance, I find among my notes an ovariotomy performed at Fribourg by Dr. Schaller. He is now dead; and I am ignorant of the result.

Before I close, pray allow me, sir, to make a last observation. Mr. Alban Doran appears to consider that the expressions "rigoureux", "strengste," "Listerian," have a less serious meaning when used by surgeons of less experience than Professor Kocher. I believe this to be an error; and that on the contrary, the Swiss operators merit an entire confidence. A great number of our medical students have followed the lessons of the illustrious professor at the university of Berne. A great many medical men, especially in French Switzerland, have completed their medical studies by a visit to London; and all have made a pilgrimage to King's College Hospital. Therefore I think that there are few countries where the majority of practitioners are as familiar with the Listerian dressing as in Switzerland.—I am, Sir, yours truly,

DR. JOËL, Swiss Delegate to the Congress of London.

LADIES' WAISTS.

SIR,—The profession will be grateful to the National Health Society for endeavouring to demonstrate the evils of tight lacing to popular audiences. I fear, however, that Mr. Treves, in his recent lecture at Kensington, treated the subject a little too confidently from a sanitary, and a little too cavalierly from an æsthetical, point of view. I should be very sorry if anything I said could be looked on as an encouragement to tight lacing by ladies; but still I think we should take them into our councils, and discuss the subject in all its bearings with moderation. I think that Mr. Treves fell into an important error when he assumed that the primary use of dressing was to cover the body and maintain an equable temperature; and again, when he asserted that a small waist in a draped figure is ugly, and offends our sense of the beautiful in the human form. Now, all anthropologists agree that the primary object of dress was decoration, and this is still the only object of dress in probably a third of the human race. It is an instinct of which the physiologist takes no note, but nevertheless is as potent in High Street, Kensington, as in the centre of Africa or the provinces of North America. The decorative use of dress is not only a fact, but

the first fact to be taken into consideration by reformers of the dress of the period. Again, it is idle to attempt to convince women that small waists are ugly, by comparing them with casts of nude figures of ideal proportions. Comparisons are odious, and this is a supremely odious one to women, and, moreover, a very unfair one; drape the figure, and see what becomes of its grand proportions. A custom which is so general must have some *raison d'être*, although women cannot explain it. Some women think that men admire small waists; and, until the question is decided by a vote by ballot, they will not believe otherwise. In truth, small waists in draped figures are the result of the law of proportion, which is at the bottom of our sense of the beautiful, not only in the human form, but in all other objects. Professor Zeising, to whom we owe the discovery of this law, states it thus: "If the divisions of a whole (made up of unequal parts) appear proportional, the smaller part will bear the same relation to the larger that the larger does to the whole." Now the waist forms the division of the body which gives these proportions. Thus, if we take a well proportioned figure, and represent its total height by 1,000, we shall find the portion below the waist is represented by 618, and the portion above it by 382 parts; and 382 is to 618 what 618 is to 1,000. Zeising's law applies equally well to the hand, the head, the arm, and the leg; and, indeed, to all animate and inanimate objects which appear proportional to us. But in some nude figures, the proportional division is not at the waist, but at the knees. In the Venus de Medici, where the arms are folded across the body, this is the case; hence the charm of young girls with short skirts and no waists (and perhaps of men in frock coats). The shorter the skirts in children, the better the proportion appears; but as they grow up, and their skirts are lengthened, a new division line becomes necessary, and the waist is constricted accordingly. The dress reformers should, therefore, bear in mind that dressing is the instinct of decorating the body, and that a small waist is the result of a law of nature; but within these limits there is ample room for their efforts for improvement; many dresses are fantastic and in bad taste, and most waists are constricted too much even from an æsthetical point of view.—Your obedient servant,

C. ROBERTS.

HOSPITAL AND DISPENSARY MANAGEMENT.

GLASGOW ROYAL INFIRMARY.

AT the annual meeting of the contributors to the above institution, held on January 30th, the medical report was considered and approved. From this report, we learn that, during the year, 5,107 patients were admitted into the hospital, being 10 fewer than during the previous year. Of these, 2,388 were medical cases, and 2,719 surgical. Taking in the patients who remained in hospital at the end of last year, the mortality in the medical wards was 11.1 per cent., against 12.7 in 1880; and in the surgical wards 6.5, against 6.4 in 1880. In the whole institution, the number remaining at the end of December 1880 was 509, which, with the 5,107 admitted, makes a total of 5,616. Deducting 486 remaining on December 31st, 1881, we have a total number treated of 5,130, of whom 4,685 were dismissed, and 445 died, giving a mortality over all of 8.6, against 9.3 in 1880; but, if there be deducted, as in previous years, the number who died within forty-eight hours of admission, the mortality is reduced from 8.6 to 6.5 per cent. The number of out-patients treated at the dispensary was 20,629. Of these, 9,370 were medical, and 11,259 surgical. The number who received special treatment for diseases of the throat was 639, for diseases of the ear 846, and 179 for diseases peculiar to women. The above figures include some who obtained advice on more than one occasion. Grouping together the patients from every department, we find that the grand total of those who received the benefits of the hospital during the year is 31,603.

LEITH HOSPITAL.

AT the annual meeting of the supporters of Leith Hospital and Dispensary, held lately, it was reported that the number of patients admitted to the hospital during the year was 558, the largest number yet recorded. In the previous year, 80 patients had been admitted to the fever-wards, while last year the number was actually 235, and of these a great many were suffering from typhus, which was very prevalent in Leith. The total number treated in the in-door and out-door departments was 4,156, while 2,460 were visited at their homes, and 415 were attended to by the district nurse. The average cost of each bed for the year was £59 13s. 3d., while the average mortality was 8½. The income for the year was £2,190, and the expenditure £2,334. It is most gratifying to notice that a lady, who withheld her name from publication, handed over to trustees the sum of £16,000, stipulating that two-thirds of the free income from it was to be paid to the directors, to be by them used in maintaining a ward to be called the "Stead Medical Ward". Legacies of £1,000 and £200, and a donation of £300, were also received during the year.

EDINBURGH DENTAL HOSPITAL.

THIS institution continues to increase in usefulness. During 1881, 2,503 female patients, and 2,140 male ones, were treated at it; of course, the majority of these cases were for extraction of teeth; but, as evidence of the other work done at the institution, no fewer than 425 teeth had been stopped, while 151 cases were receiving other treatment. The income of the institution showed a very creditable balance over the expenditure, and it is worth noticing that £10 9s. had been voluntarily contributed by the patients.

THE GENERAL HOSPITAL, BIRMINGHAM.

THE Committee of the General Hospital have issued the 102nd Report of the Institution. The total of in- and out-patients treated was 32,995 last year, as compared with 30,785 in 1880, and 27,105 in 1879. The teeth extractions were 3,808, against 4,876 in the previous year, and 3,009 in 1879.

The total expenditure during the year has been £21,739, as compared with £18,419 in the previous year, and £14,779 in 1879. The ordinary expenditure being £13,160 in 1881, £12,727 in 1880, and £12,993 in 1879. The work of this institution continues steadily to increase year by year, chiefly in the free department. This appears to be due to the great increase in the population of the town and neighbourhood; and also, to a considerable extent, to the popularity of the hospital among the sick poor. Last year there was an excess of patients over the previous year of 2,210 (excluding teeth cases), and of these 1,444 were admitted without tickets. The large number of 36,803 persons received treatment during 1881 within the walls of the hospital, either as in-or-out-patients; and of these, on account of the urgency of the cases, 23,172 were attended to without tickets, being nearly two-thirds of the total number. The great pressure on the space and resources of the hospital referred to in the report of last year continues; and the committee trust that with the revival of trade they may shortly feel justified in appealing to the public for funds, to enable them to make the much-needed addition of a suburban chronic hospital, the necessity for which is daily becoming more urgent. The ordinary income shows an increase of £733, on the year immediately preceding. Of this amount, £122 is due to increased subscriptions, and £697 to donations, both of which classes of income indicate the public appreciation of the work of the hospital. Under the head of "Miscellaneous," and "Income-tax returned," there is an increase of £135, in dividends and ground rents. And in consequence of the funds on deposit being withdrawn for payment of the new buildings and furniture, a decrease of £66 in the interest from the bankers. Of the extraordinary income, amounting to £5,516, the large sum of £4,238 is due to the proceeds of the periodical Hospital Sunday collections. The extraordinary expenditure is again very large, being £7,294, on account of new buildings, and £1,285 for furniture, bedding and linen, etc., for the burn wards, nurses' home, etc. This expenditure has absorbed the accumulated savings of the hospital, and has resulted in a deficiency of £2,000 at the end of the year. During the past year the additions, on the present site, of a nurses' home, burn wards, and new mortuary, with jury-room, have been completed; and alterations to the main building, so as to provide small wards for noisy patients, have been carried out. The quadrangle at the back of the hospital, which is used as a recreation ground, has also been enlarged, levelled, and gravelled, at considerable expense. These necessary and important works have greatly improved the institution and completed the arrangements on the present site, but the cost has far exceeded the amount originally intended to be spent, and has caused a deficit in the general funds of the charity.

ORIGINAL RESEARCH IN AUSTRALIA.—The Royal Society of New South Wales offers the following, among other prizes, for the best essays containing the results of original researches or observations on the Aborigines of New South Wales, £25; (2) the Treatment of Auriferous Pyrites, £25; (3) the Chemistry of the Australian Gums and Resins; (4) the Embryology and Development of the Marsupials; and (5) the Infusoria Peculiar to Australia. The prizes are thrown open to general competition, without any restriction whatever. The essays should be sent in not later than August 31st, 1883.

MILITARY AND NAVAL MEDICAL SERVICES.

A GREAT boon has been conferred upon the medical officers of field rank by the provision contained in the newly-published edition of the Queen's Regulations, that they, in common with all staff officers, are allowed to have a soldier groom to attend upon their horses, without in any way trenching upon the shilling per day allowed to pay for a personal servant.

MAJOR-GENERAL C. C. FRASER, V.C., C.B., commanding Curragh Brigade, has found it necessary, in consequence of the unhealthy condition of the troops stationed in camp, to issue an order "requesting commanding officers to prevent their men from going out in shirt-sleeves, open coats, etc., and from exposing themselves in any way to the chances of sudden chills, naturally produced by passing out from warm huts into the cold air of the Curragh."

NAVAL MEDICAL DEPARTMENT.

WE have received the following satisfactory official announcement.

The following is a list of the successful candidates for six vacancies as surgeons in the Royal Navy, at the competitive examination at Burlington Gardens, on the 20th February and following days.

Barnes, W. G. K.	2,260 marks.
McCormack, R. J.	2,075 ,,
Smith, W. G. C.	1,965 ,,
Farmer, S. } Peyton, A. D. }	1,925 ,,
Wray, J. S.	1,875 ,,

Twenty-eight, out of thirty-one accepted candidates, presented themselves at the Admiralty for the physical examination; five failed to pass owing to defective vision, etc. Of the twenty-three who appeared at Burlington Gardens, two retired, and twenty-one qualified. Seventeen of the latter did so well, that the examiners suggested to their lordships that all should be admitted into the service.

*** It is highly satisfactory to find that this important department of the public service has, by just concessions to the reasonable requirements of the profession, been restored to a position of popularity, and consequent increasing efficiency. Upon this result, which we did not hesitate to anticipate and predict when formulating these requirements, and submitting them for the assent and support of the profession and the service, we may venture to congratulate the naval authorities, the heads of the medical service, who acted with so much vigour and ability in the inquiry conducted by the Admiralty; and, in some measure we hope, the Association and ourselves, who undertook the responsibility of a minute and extended investigation of the grievances, and of defining the requirements of the service, in a series of propositions which were ultimately accepted as the bases of that reform which has proved so satisfactory in its results.

ARMY MEDICAL SERVICE.—The following is a list of candidates who were successful for appointments as surgeons in Her Majesty's British Medical Service at the competitive examination in London on the 20th of February, 1882.

	Marks.		Marks.
1. S. Westcott	2295	9. H. S. McGill	2065
2. H. R. Whitehead	2280	10. A. A. Pechell	2060
3. B. M. Skinner	2200	11. C. R. Tyrrell	2050
4. C. R. Bartlett	2195	12. J. Hickman	1980
5. J. D. T. Reckitt	2175	13. W. B. Thomson	1975
6. T. A. P. Marsh	2150	14. H. E. Deane	1945
7. R. Kirkpatrick	2140	15. S. O. Stuart	1940
8. A. C. A. Alexander	2095		

INDIAN MEDICAL SERVICE.—The following is a list of the candidates for Her Majesty's Indian Medical Service who were successful at the competitive examination held at Burlington House on the 20th February, 1882, and following days. Thirty-one candidates competed for eight appointments. Twenty-seven were reported qualified; four retired from the examination.

	Marks.		Marks.
1. H. H. R. Charles	2495	5. G. Duncan	2245
2. J. P. Barry	2452	6. A. V. Anderson	2020
3. R. W. S. Lyons	2385	7. E. W. Reilly	1945
4. W. A. Sykes	2325	8. J. Scott	1900

REMARKS ON THE MOVEMENTS OF TROOPS.

SIR,—The JOURNAL of January 7th, 1882, having just reached me, I have had the opportunity of reading the very interesting and suggestive paper of Surgeon-Major Boileau on "Yellow Fever in relation to the Movement of Troops." I am not only prepared to accept Dr. Boileau's views as being correct, but I am inclined to extend his position a little, by suggesting that "an immediate previous residence in Malta is no less a bad preparation for service in some portions of the East Indies than Dr. Boileau has shown it to be for service in the West Indies under certain circumstances." The portions of the East Indies to which I here allude are those possessing a hot, moist, and enervating climate, with little, if any, cold weather; such a climate, for example, as is that of Bombay city, or Karáchi. In relation to, and in some support of, this view, I will mention a few facts in connection with the medical history of the 98th and 61st Regiments. Before doing so, I am desirous of stating that, owing to my being, at the moment of writing, on the line of march from Karáchi to Nusscerabad, I have no means of access to returns of any description, and hence am unable to add to the general statements I am obliged to make any figures in support of them.

On news being received of Brigadier-General Burrows's disaster in Southern Afghanistan, reinforcements were called for from Europe; among the regiments despatched in compliance with this demand were the 98th and 61st Regiments, both happening at the time to be stationed at Malta, where they had been for several years previously.

I may here say that the 98th Regiment was specially selected to be sent to India owing to its strength and exceptionally healthy condition; and I understand that the 61st were equally fit for immediate active service.

To resume: the 98th were sent direct to Karáchi from Malta, and there they remained; for, by the time of their arrival in India, Kandahar had happily been relieved by General Sir F. Roberts, and, in consequence, all necessity for fresh reinforcements to Southern Afghanistan had subsided. Now, mark the sequel. After a very few months' residence in Karáchi, this exceptionally healthy regiment had become so weakened and so fever-stricken that, had the necessity again arisen for reinforcements being sent to Afghanistan, I think I may safely say that the 98th could not possibly have gone.

This prevalence of fever in the 98th could not be accounted for on the plea that the regiment had happened to arrive in India during an exceptionally unhealthy year; for the battery of artillery of which I was in medical charge, and which was stationed in Karáchi with the 98th, were in better health at the time of the great unhealthiness of the 98th than they had for several years previously been.

Now, to refer to the 61st regiment. This regiment was stationed in Bombay (city) on their arrival from Malta. In a very short time, they (like the 98th) began to suffer severely from fever, until at last not more than half the regiment, as it landed from Malta, were fit in all respects for duty. Under these circumstances, they were ordered to Quetta; and there, in the fine bracing climate of that station, they rapidly assumed their previously healthy condition. In relation to the 61st regiment, I wish to say that I have had no personal knowledge of the health of the regiment during its residence in Bombay; all that I have said is simply hearsay, and, therefore, cannot be vouched for by me as being in all respects correct.

I would not have it inferred from the above remarks that I hold it to be highly impolitic to bring troops from the Mediterranean to the Indian command. By no means. In India, during the cold season, there are many stations the climate of which is at that time bracing and invigorating. To such stations as these, I see no reason for thinking that a transference to them of a regiment which had been previously stationed in Malta would have an untoward influence on that regiment's health. But I certainly think that previous residence in a climate like Malta, which in no sense of the word can be considered as one calculated to brace and invigorate, is, to say the least of it, unsuitable for a subsequent residence in any Indian climate similar to that of Bombay (city) or Karáchi.—Your obedient servant,

RICHARD H. QUILL, M.D.Dub., Surgeon A. M. D.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

THE outbreak of small-pox at Bolton still continues, unhappily, to spread. At present, there are thirteen cases under treatment in the borough, and thirty-five in the workhouse hospital. Since the outbreak in November last, no fewer than thirteen deaths have happened from the disease.

A DISCUSSION has arisen on the proposal of the authorities of the Highgate Small-pox Hospital to divert their drainage into a pipe-sewer recently constructed, and which passes through a thickly populated neighbourhood. The vestry of St. Pancras have expressed themselves in direct opposition to the scheme, but the Islington Committee think that, while it would be more desirable that the present drainage into the old sewer should be reconstructed and improved, they do not think that the vestry could legally refuse permission to divert the drainage into a public sewer within their district.

VACCINATION PROSECUTIONS.

AN important prosecution, under the Vaccination Acts, was recently held at Nottingham, before a special meeting of the magistrates. The vaccination officer stated that he had served the usual notices by post on the defendant, and that he had not received either a certificate of postponement or of successful vaccination. The defendant argued that the officer could not possibly know whether the child was properly vaccinated or not. He contended, moreover, that the summons was not properly laid; and that he ought to have been charged, under the section, for not having sent in a certificate of successful vaccination. By Section 2 of the Act of 1871, it is enacted, that, where a person is charged with the offence of neglecting to take any child to be vaccinated, and, on the defence made by such person, it appears to the justices that such person is not guilty of such offence; but has been guilty of not transmitting any certificate with respect to the vaccination of such child, the justices may convict such person of the last-mentioned offence, in like manner as if he had been charged thereunder. Defeated

in this plea, the defendant raised another—to the effect that the proceedings should have been taken earlier, viz., within twelve months of the notice of requirement to vaccinate given him by the registrar of births. The Court of Queen's Bench have, however, ruled that the twelve months must date from the time when the notice to vaccinate, sent by the vaccination officer, and not the registrar's notice of requirement, has been disregarded. Moreover, by Section 13 of the Act of 1867, it is stipulated that the parent of any child, under the age of fourteen years, can be proceeded against. The defendant's last objection was, therefore, overruled by the bench, who imposed a fine of ten shillings upon him for neglect to comply with the law.

THE SWAFFHAM BOARD OF GUARDIANS AND POOR-LAW MEDICAL RELIEF.

ABOUT five years ago, Dr. I. K. Milne, of Shipdham, bought the practice there. It carried with it the appointment to one of the districts of the Swaffham Union, to which he succeeded on the same terms as his predecessor, which was stated to him, at the time of purchase, to be after the rate of 7s. 6d. a case and the ordinary mode of attendance. There was only a verbal agreement. On the receipt of his first quarter's salary, he found he had been misinformed as to the remuneration; and, as overseer's orders came very frequently, he went to Swaffham, and asked the clerk to let him know definitely what his engagement was. The clerk naïvely stated that it was difficult to explain it; but ultimately promised to write and let him know. After waiting a twelvemonth, Dr. Milne wrote and reminded the clerk of his promise; but neither this letter, nor another, written six months afterwards, elicited any reply. Last Michaelmas, although much sickness had been attended to during the quarter, Dr. Milne received no salary at all. After waiting two months, he went to the village of Bradenham to see the relieving officer; he did not, however, see him, but saw the sanitary inspector, who was doing duty for him, to whom he stated that he had received no salary, and who promised to ask for the money for him. Two days later, he saw him again, when the inspector said "that they thought in the office that they had sent some money", but, as they could not find any receipt, they supposed it had been overlooked, and that they would send him some in a day or two. A few days afterwards, he received £3 16s. This amount, having regard to the services rendered, was so utterly inadequate, and the procedure appeared to be so extraordinary, that Dr. Milne wrote a letter, giving all the facts, to the chairman of the board, but this gentleman did not trouble himself to send any reply. About this time, a widow woman, by name Darkins, aged 76, feeble and wandering, became worse, and her son got a medical order for Dr. Milne's attendance. This order was issued by the assistant overseer. As it was not marked "urgent", and as the bearer did not consider immediate attendance necessary, and Dr. Milne had made arrangements to go elsewhere, he told him to take the order back and get it marked "immediate" if it were necessary, and he would then call that day, and if not that day, on the following morning. It would appear that there was no necessity for his services, as the old lady died before he could be again summoned. Subsequently, an inquest was held, at which it was stated by Dr. Milne that all orders to see patients should reach him, except in urgent cases, before 9 A.M.; that he had often received orders from overseers for cases which were not urgent, and, in many instances, where no sickness existed at all. The jury returned a verdict, that the woman had died from natural causes, and added a rider to the effect, "that the method of doing business by the Swaffham Board of Guardians required revision," in which opinion the coroner heartily concurred. It would also appear that, the local reporter not being in time for the inquest, Dr. Milne furnished him with a copy of the depositions. This coming to the knowledge of the board, Dr. Milne was summoned to attend their next meeting, when, after hearing his explanation, the guardians passed the following resolution: "Having heard Mr. Milne's explanation, the board considers it did not justify him in not obeying the overseer's order in the case of Darkins, especially as he was in the parish the same day; and desires him to be more careful in future. The board considers it a great act of indiscretion for one of their officers to cause reports to be published in the newspapers reflecting on the character of the guardians, whether true or not."

It will be seen from the above that, as in the case of Dr. Pullin in the Honiton Union, referred to by us recently, the guardians have thought fit to ignore the verdict of the coroner's jury, and come to a decision of their own. Dr. Milne, we learn, is much dissatisfied with the action of the board, and is desirous of obtaining an official inquiry. We heartily support him in this desire, and feel, after the statement we have laid before our readers of the mode in which the Swaffham Board of Guardians provide for the necessities of the sick poor in their union, that such inquiry is loudly called for; for what prospect can there possibly be of any efficient treatment under the system which prevails in the Swaffham Union? Indeed, one can only suppose that a medical officer can retain his position upon the plea that "his poverty but not his will consents"; and that the guardians "pay his poverty, and not his will."

PROTECTION OF THE MILK-SUPPLY.

THE following memorial has been presented by the Manchester and Salford Sanitary Association to the president of the Local Government Board.

To the Right Honourable J. G. Dodson, M.P., etc., President of the Local Government Board.

The memorial of the Manchester and Salford Sanitary Association, respectfully sheweth. That your memorialists are a body consisting of medical men, chemists, architects, engineers, bankers, merchants, etc., associated for the purpose of promoting measures calculated to improve the public health. That they have had under consideration the question of the milk-supply of large towns, and submit the following conclusions. 1. That severe and fatal epidemics of scarlet fever and typhoid fever have undoubtedly been caused by impure milk; 2. That it is probable that other diseases, such as diphtheria and cholera, may be conveyed in a similar manner; 3. That certain other serious maladies affecting human beings have been traced to the use of milk of cows affected by disease or kept under unhealthy conditions; 4. That adulterated milk is also frequently a cause of disease, and especially diarrhœa, amongst children; 5. That the only means at present existing of effectually protecting the milk-supply consists in the formation of voluntary associations (like the Aylesbury Dairy Company), and that this method can be applied only by a limited number of milk consumers. That on these grounds your memorialists deem it important that an efficient inspection of dairy farms and control of milk-supply should be carried out, and they, therefore, venture to suggest to your honourable Board the desirability of taking steps to provide local authorities with additional powers: *a*. To enable local authorities to require every licensed milk-seller to give due notice of the appearance of any infectious disease among his dairy stock, in his family, or in the house in which his premises are situated; *b*. That on such notice being received by the sanitary authority it should be empowered to close the said premises until the removal of the infected animal or person, and the thorough disinfection of the house or portion of the house infected; *c*. To enable local authorities to veto the sale of milk by vendors coming from without such authorities' boundaries. Your memorialists would also urge: 1. That inspectors should be appointed by the sanitary authorities whose whole time should be employed in inspecting milkshops, dairies, etc.; 2. That no person be allowed to sell milk in towns who is not licensed to do so by the local sanitary authority; 3. That the fitness of premises for the sale of milk for dairy purposes, and for housing milch-cows, should be decided upon by the local medical officer of health; 4. That samples of milk for analysis should be collected from time to time by the inspector or his agents from every licensed milkshop or dairy, and not merely from those against whom special complaint has been made. Your Memorialists deem the importance of this subject so great that they venture to suggest that a general Inspector of milk-supply should be appointed by the Local Government Board, whose sole duty it should be to superintend the duties of milk inspectors and medical officers of health in this department of their work. Your memorialists trust the foregoing proposals may receive your favourable consideration. And your memorialists will ever pray, etc.—(Signed on behalf of the Manchester and Salford Sanitary Association.) ARTHUR RANSOME, M.A., M.D., Chairman; HENRY ASHBY, M.D., Honorary Secretary; FRED SCOTT, Secretary.

THE REGISTRATION OF INFECTIOUS DISEASES IN NEW SOUTH WALES.

FROM the report of a recent meeting of the New South Wales Branch of our Association, it would seem that the question of the compulsory notification of infectious diseases has advanced considerably further in the antipodes than in the mother country, just as America is already considerably a-head of us in this matter. At the meeting in question held on the 2nd of December last, the Vice-President (Dr. Fortescue) took occasion to refer, in terms of surprise, and with "general demonstrations of approval" at his language, to the fact, which "had unfortunately been established beyond doubt", that one member of their body had neglected to immediately report to the Board of Health a case of small-pox that had occurred in his practice. Dr. Fortescue said he was sure he was but expressing the opinion of every member present

when he affirmed that no sentiment from the individual, nor personal interest, could absolve any practitioner, in the present emergency, from the duty of immediately reporting to the authority appointed by the Government any fresh case of small-pox he might become acquainted with.—Dr. BELGRAVE considered that, if the Government had paid that deference to the representations the Association had made to it, touching the compulsory registration of cases, to which their importance entitled them, it was probable the disease would not nearly have attained the development it had. Moreover, he thought the constitution and proceedings of the Board of Health left much to be desired. Temporary accommodation ought to have been long ago provided in an isolated situation for cases, pending the construction of the permanent infectious hospital. The board also ought to express itself less ambiguously when it condemned, so that it might be made clear whether the doctor or the patient's friends had failed to report in proper time. For his part, though he believed the duty properly devolved on the latter, he had not hesitated to report without the least delay the cases he had met with. He thought it was a fundamental mistake to limit the function of the board to merely advising. It ought to be reconstituted, have legal power to enforce registration, and the usual scientific elements of all such boards should be equitably represented on it.—Dr. MACKELLAR, as a member of the Board of Health, assured the meeting that the board entertained the most anxious solicitude in reference to the whole subject; and that their executive officer neglected nothing that could contribute to stamp out the disease. The board had sent for an abundance of bovine lymph from Europe and America, and had nearly established a vaccine calf farm; had built a magnificent hospital; and had shown the utmost activity in detail.—Dr. O'REILLY thought that a law to compel the immediate registration of cases applicable to landlords, if not to the attending medical men, was urgently required by the Government to stamp out the disease. The Association desired to co-operate with the Board of Health, and were adopting the best course to that end.—Dr. MILFORD said medical men might consider it a breach of honour to report cases without consent. The question was not so simple, though important. It was obvious, however, that, if the law did not step in, the disease would extend, and the most dreadful consequences must follow. Only that afternoon, they had heard of a milkman, with four or five secret cases in his house, plying his trade as usual. He moved: "That this meeting deems it the duty of medical men to at once report all cases of small-pox that may come under their observation to the board appointed to suppress the outbreak."—This, and a further motion, proposed by Dr. BELGRAVE and seconded by Dr. MARANO, to the effect, that "the immediate introduction of a Bill to render the notification of cases of small-pox compulsory is a matter of necessity", are reported as having been passed "with much eagerness", and after considerable discussion. It is to be hoped that the representations of the Branch will meet with due consideration at the hands of the colonial authorities. Doubtless, the excitement caused by the present prevalence of small-pox at Sydney has given prominence to that disease in the discussions and resolutions of the Branch; but compulsory notification may, with equal propriety and necessity, be demanded for other infectious diseases also; and, if legislation on the subject be attempted by the local authorities, it will be well to make the scope of the Bill as wide as possible.

REPORTS OF MEDICAL OFFICERS OF THE LOCAL GOVERNMENT BOARD.

AN outbreak of diphtheria occurred in Llanwddyn, a village situated in the Llanfyllin rural district, in 1880, when eight persons were attacked and four died. There was no evidence to show that the disease was spread by direct infection, and the sanitary condition of some of the houses was good, but in others bad, being close, damp, and ill ventilated. The district is divided into four, and a Poor-law medical officer is appointed to each. The district generally is ill-drained, no proper provision being made for carrying off the slops, fæcal matter, or surface-water. The mean death-rate was 19.1 for the ten years 1871-80, which is high for a rural district. Dr. Parsons recommends that the cottages should be better drained and ventilated; that the common lodging-houses should be carefully looked after; that sewers should be provided for the villages, proper privy accommodation for the houses not having it at present, and a sufficient supply of wholesome water. He also advises the sanitary authority to arrange with the adjoining districts in employing a single medical officer of health, who should devote his whole time to the work.

Dr. Parsons also reports on the sanitary condition of Walton-on-the-Naze urban district, which contains 2,600 acres, and includes the watering-place of this name. The resident population was 1,376 at the last census (1881), but about 4,000 to 5,000 visitors are added during the height of the season. The want of potable water is a great drawback, as that supplied by the water-company contains 182 grains of common salt per gallon, and drinking-water has to be brought into the town by water-carts. The drainage is indifferent, as the penstock to the reservoir has to be closed to keep out the sea-water, and is opened by hand instead of being self-acting, and sewer-gas was driven back into the houses; but this has been partially remedied. Many of the larger houses have their scullery sinks connected with the sewers, and only protected by a bell-trap; and the water-closets and drains are often insufficiently flushed for want of water. There were about forty cases of typhoid fever in 1880. The first occurred at an hotel which was badly drained, and the other inmates suffered from the same disease, but in a mild form. The other cases also occurred in defectively drained houses.

Dr. Ballard has made a report on an epidemic of scarlatina in Halifax, which was attributed by the medical officer of health, Mr. Ainley, to infected milk. The total number of reported cases amounted to 510, occurring in 281 separate families; but it is probable that the number was much larger. The deaths were 86 in number. The disease was chiefly confined to the west and south wards, and increased suddenly and rapidly during the last week of December and the first and second weeks in January 1881, 78 per cent. of the household invasions occurring between the 29th of December and the 8th of January. The evidence that the milk was the primary cause in certain cases was that, out of 135 households supplied by one milkman, 53 were invaded, 72 escaped, and no facts were ascertained as regards 10. As regards the 72 families, 22 had suffered from the disease previously, in 29 there were no children, and in 2 others the milk was boiled. A man who milked the cows and took out the milk slept in the same bed with his children, who were attacked with scarlet fever on December 31st, January 1st and 5th. As twenty-four families had suffered from the disease before this date, and as isolation of the sick and disinfection of the beds, bedding, clothing, and houses were not carried out, Dr. Ballard attributes much of the disease to its spreading in the ordinary way from person to person.

There is, in addition, a report from Dr. Blaxall on the prevalence of enteric fever in the urban sanitary district of Ilkeston. Dr. Blaxall says that rather more than half the houses are supplied from public sources, the remainder deriving their supply from private wells and rain-water tanks, the wells being sunk in a soil befouled with filth from privy-pits, etc., and the tanks exposed to contamination from surface, soakage and sewer-gas. The privy-pits are a great nuisance, many being left open and rarely emptied; and even when emptied, they become partly filled with subsoil water. The sewers are also very imperfect and defective, being made in most cases of brick. The outfall is into an open ditch from the north part of the town; but there are three or four separate sewers and outlets for the remainder. The house-drains are badly trapped, and the sink-pipes in direct communication with the sewers. There were 191 cases of enteric fever during the year 1880; and from January to June the greatest number of these occurred in houses situated on separate lines of sewers.

RETURNS OF VACCINATION-OFFICERS.

IN his last annual report on Bethnal Green, Dr. G. P. Bate gives certain figures with regard to the vaccination-results of the parish, which appear to cast a somewhat lurid light upon the returns periodically sent by vaccination-officers to Whitehall. Dr. Bate states that, according to recent returns, little more than six per cent. of the children in his parish escape successful vaccination; and yet it appears, from a report based upon a house-to-house visitation made by order of the guardians, that, out of a total of 6,018 children under fourteen respecting whom inquiries had been made, no fewer than 828, or 13.8 per cent., were unvaccinated. Such a failure of the machinery of our compulsory vaccination calls for explanation, and throws some light, Dr. Bate thinks, on the causation of the present fatal epidemic. A considerable part of the divergence between the percentage of unvaccinated cases as returned to the Local Government Board and as actually discovered, may very possibly be accounted for by the immigration of parents with young unvaccinated children. This immigration, in a parish like Bethnal Green, would doubtless be considerable in amount, but it can hardly bridge over the difference between 6 per cent. and 13.8 per cent. The suspicion is forced upon the mind, that the returns periodically furnished by vaccination-officers are not always strictly accurate. We believe there is no system of auditing their books beyond an occasional glance at them by a Government inspector once every two or three years; and the discrepancy discovered at Bethnal Green furnishes another argument for the adoption of the system of payment of vaccination-officers by means of a fee for each case of successful vaccination registered. By

thus making the amount of his remuneration dependent upon the results obtained, the vaccination-officer is stimulated to increased exertion, and an efficient check can be kept upon his work.

VACCINATION IN THE CENTRAL PROVINCES OF INDIA.

In his report on vaccination in the central provinces during the season of 1880-1, Dr. Hutchinson states that in no year since the introduction of systematic vaccination have so many cases been vaccinated. The total number of operations performed was 325,021, 302,226 of which were successful. Dr. Hutchinson adds that the amount of work done could have been largely increased, had all conditions been favourable. Six of the eighteen districts reported serious decrease of work, and in the three the increase was very inconsiderable. If it had not been for the large increase reported from the other districts, the figures of the past season would not have borne a favourable comparison with those of the previous one. Among the chief causes of the decrease were the apathy and idleness of many of the native vaccinators, and gross neglect on the part of others. It should be mentioned, however, that several of the vaccinators were employed on census duty. Revaccination does not appear to have received the attention which it merits, the operation having been performed in only thirteen of the eighteen districts; and in nine of these districts the numbers were insignificant. Alluding to the dislike which the natives have to vaccination, Dr. Hutchinson states that, while superstition governs the opinions of the people, it is hopeless to expect that vaccination will be welcomed, though their prejudices may be conciliated by judicious and considerate treatment. He thinks that the practice of vaccinating the children of low-caste parents should be abandoned in favour of the plan of commencing with the children of the higher castes, and that the practice of operating upon infants of very tender age should be given up.

SUPERANNUATION OF POOR-LAW MEDICAL OFFICERS.

Sir,—I have read with much interest the appeal of the gentleman who signs himself "A Dispensary Doctor", in your issue of the 25th ultimo, and generally I concur with him in his statement as to the differential character of the position of the English parish doctor when contrasted with his Irish *confrère;* but though, in England, a greater prospect does exist of eking out the parish pay by general practice, yet, in many instances, unfortunately far too frequent, the condition of provincial district medical officers here is equally as bad as in the worst parts of Ireland. Again, it would not be difficult to make out a list infinitely longer, and in many instances equally distressing, of men who have been refused superannuation, or who feebly hold on to office, because their stipends, small as they may be, afford them almost their entire means of subsistence. Should any of your readers desire to get authentic information on this subject, I would refer them to the return obtained by my brother, Mr. Thorold Rogers, two years ago, and which may be purchased for a penny of Messrs. Hansard, the parliamentary printers, Great Queen Street, Lincoln's Inn Fields.

Your correspondent solicits the moral support of his English *confrères.* I write to state that he may rely on securing the co-operation of our Association whenever the time arrives when such will be of service. I use the word "time arrives"; for at present, and mainly owing to the obstructive policy of your correspondent's representatives, it is very doubtful whether we shall get legislation of any kind during the present session. Our support will take the shape of petitioning the House; we shall also seek an interview with the Irish Secretary, and, if considered advisable, with the Premier, and urge on them the necessity for an amendment of the Act. In the meanwhile, I would urge on your correspondent and on his medical friends to use that influence which they may possess to diminish the obstructive activity of the Biggars, O'Donnells, and Sextons, etc., whose proceedings in Parliament render all legislation impossible.—I am, sir, yours obediently,

Joseph Rogers, Chairman of Council Poor-law Medical
33, Soho Square, March 1st, 1882. Officers' Association.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

Teaching of Anatomy.—The Professor of Anatomy gives notice that:—1. Practical Anatomy in the dissecting room will be continued during the Easter vacation; 2. The Demonstrator will take classes of students preparing for the second examination for M.B. on Mondays Wednesdays and Fridays at 12 noon during the Easter vacation, beginning on March 27th; 3. The Demonstrator of Anatomy will give Demonstrations in Human Anatomy during the Easter term on Mondays and Fridays, at 12, noon, beginning on Monday, April 24th; 4. Mr. MacAlister will lecture on the Mechanics of the Human Skeleton during the Easter term on Wednesdays, at 12, noon, beginning on Wednesday, April 26th. These lectures will be given at the Old Anatomical School, and will be open to members of the anatomical class and to members of St. John's College without fee. The above demonstrations and lectures are intended more especially for students preparing for the natural sciences tripos.

OBITUARY.

GEO. BODINGTON, M.D.Erlangen, L.R.C.P.Edin., L.S.A.

Dr. George Bodington, whose death occurred on February 5th, at Sutton Coldfield, in his eighty-third year, was a well-known and widely-respected practitioner. He was a descendant of one of the old yeoman families of Warwickshire—the Bodingtons of Cubbington, who have tilled their own land in that parish since the time of Henry VIII. As a boy, he was sent to Magdalen College School, at Oxford; and, when seventeen years old, was apprenticed to a Mr. Syer, a surgeon of Atherstone, by whom he was transferred, a year later, to a Mr. Wheelwright, a surgeon in the City of London. He afterwards became a student at St. Bartholomew's Hospital, and obtained the L.S.A. in 1825. On this qualification Dr. Bodington began to practice in Birmingham; but in a very short time he removed to the neighbouring village of Erdington, where he carried on a very successful practice until 1843. In this year, he determined to devote his whole time to the treatment of the insane at the Driffold House Asylum, Sutton Coldfield, of which he had become proprietor in 1836. At this work he continued until his retirement in 1868, when he handed the asylum over to his son, Dr. G. F. Bodington. Since that date he mainly occupied himself with public work in connection with the royal borough of Sutton Coldfield, of which he was warden in the years 1852-3, 1853-4, and, up to 1881, one of its most active members and magistrates.

Dr. Bodington was not a silent member of the profession. An acute observer, a vigorous thinker, and a good solid and fluent speaker, he was always able to take his share in the public work connected with his position. In politics, he was a man of strong opinions, and to the last was an ardent Protectionist, never wavering in his faith, but ever earnest in advocating the theories in which he believed. It is more especially, however, as a forgotten medical author that we would speak of Dr. Bodington. His first medical essay was *A Letter on a Case of Asiatic Cholera, addressed to the President and Council of the Central Board of Health, London,* and published in 1831. This pamphlet was a vigorous protest against the use of bleeding and calomel, and displayed the same tendency to think and reason for himself which made his later *Essay on the Treatment and Cure of Pulmonary Consumption,* 1840, so very noteworthy. In this little book, Dr. Bodington anticipated by many years the modern views on the treatment of phthisis. In 1840, consumptives were closely and carefully confined, from a fear of the evil influence of cold fresh air. Against this, Dr. Bodington earnestly protested, as "forcing them to breathe over and over again the same foul air contaminated with diseased effluvia of their own persons". Arguing against the value of antimony, calomel, and bleeding, he urged the free administration of nutritious food and stimulants, with plenty of exercise in pure air, and, if possible, dry "frosty air". He did not value sea-air highly, but contended for the drier air of inland districts. His great specific was cold dry air, which, he said, had a most powerful influence in "healing and closing of cavities and ulcers of the lungs". It is remarkable that a village doctor should have arrived, in 1840, at these conclusions, which anticipate some of our most recent teachings. He was severely handled by the reviewers, and so discouraged from pursuing observations which might have been of the greatest value.

In 1857, some years after he had given up general practice, a writer in the *Journal of Public Health* unearthed Dr. Bodington's treatise, and did him tardy but ample justice. We are glad again to claim for a general practitioner the high credit of having been the first, or among the first, to advocate the rational and scientific treatment of pulmonary consumption. Dr. Bodington was for many years a member of the Birmingham and Midland Counties Branch of the British Medical Association.

ALFRED GARDINER BROWN, F.R.C.S.Ed.

Mr. Gardiner Brown, was, as a student, well known at Guy's Hospital for his scientific attainments, great mechanical ability, and inventive skill. He was indeed a born inventor. Recently as surgeon-aurist to the London Hospital, his scientific and mechanical proclivities proved of high service to himself and to the cause of aural surgery. He was gradually becoming recognised as a leading aurist, when his career was suddenly cut short by death, which occurred on February 23rd, at the age of 44, after six days' illness. His kindly nature, his unobtrusive manners, his punctilious sense of honour, and the courageous cheerfulness with which he bore trials of no ordinary severity, endeared him to an appreciative circle of professional and private friends.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A MEETING of the Council of the College was held on Thursday, the 9th March. The minutes of the previous meeting of Council were read and confirmed.

It was decided to send an address of congratulation and sympathy to the Queen, in reference to the late dastardly attempt on Her Majesty's life.

The formula for the necessary alteration of the standing rule relating to the further study of rejected candidates for the primary membership examination was approved. Rejected candidates will in future be required to give evidence of three months' anatomical and physiological study before again presenting themselves for examination, instead of three months' dissection as heretofore.

Messrs. W. M. Coates of Salisbury and Alexander Harkin of Belfast were elected Fellows.

Mr. Christopher Heath's motion, that no candidate be allowed to present himself for the pass membership examination until a period of two years has elapsed since the date of passing the primary examination, was referred to a Committee to report thereon to the Council.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, March 2nd, 1882.

Atkinson, Thomas Reuel, West Park, Clifton, Bristol.
Key, David Thomas, The Oval, Brixton, S.W.
Prangley, Henry John, West Cowes, Isle of Wight.
Williams, Charles, Llangennech, Carmarthen.

MEDICAL VACANCIES.

The following vacancies are announced :—

DENTAL HOSPITAL OF LONDON, Leicester Square.—Administrator of Anæsthetics. Applications by March 13th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Assistant Dental Surgeon. Applications by March 13th.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E. – Clinical Assistant. Applications by March 23rd.

EPSOM UNION, DISTRICT OF LEATHERHEAD AND FETCHAM.—Medical Officer and Public Vaccinator. Salary, £50 per annum. Applications by March 21st.

ESSEX AND COLCHESTER GENERAL HOSPITAL.—Member of Surgical Staff. Applications by the 29th March.

ESSEX AND COLCHESTER GENERAL HOSPITAL.—Physician. Applications by the 29th March.

GENERAL HOSITAL FOR SICK CHILDREN, Pendlebury, Manchester—Resident Medical Officer. Salary, £80 per annum. Applications by March 22nd.

GENERAL INFIRMARY, NORTHAMPTON.—Assistant House-Surgeon. Salary, £80 per annum. Applications by the 13th March.

GREAT NORTHERN HOSPITAL, Caledonian Road, N.—Obstetric Physician. Applications to the Secretary by March 31st.

GREAT NORTHERN HOSPITAL, Caledonian Road, N.—Surgeon. Applications to the Secretary by March 31st.

HARTLEPOOL UNION—Medical Officer and Public Vaccinator. Salary, £50 per annum. Applications by the 17th instant.

HARTLEPOOL UNION WORKHOUSE—Medical Officer. Salary, £65 per annum. Applications by the 17th instant.

KENT AND CANTERBURY HOSPITAL—House-Surgeon. Salary, £80 per annum. Applications by April 6th.

KENT COUNTY LUNATIC ASYLUM, Chartham Downs, near Canterbury.—Second Assistant Medical Officer. Salary, £120 per annum. Applications by the 21st instant.

KIDDERMINSTER FRIENDLY SOCIETIES' MEDICAL ASSOCIATION—Medical Officer. Applications by the 11th instant.

KNIGHTON UNION—District Medical Officer. Salary, £40 per annum. Applications by 29th instant.

MOUNTMELLICK UNION—Medical Officer for Maryborough Dispensary District. Salary, £100 per annum, with £20 yearly as Medical Officer of Health, registration, and vaccination fees. Election on the 17th instant.

NORTH WALES COUNTIES LUNATIC ASYLUM, Denbigh. – Medical Superintendent. Salary, £450 per annum. Applications by the 29th instant.

NOTTINGHAM DISPENSARY—Resident Surgeon. Salary, £200 per annum. Applications by March 25th.

PARISH OF GAIRLOCH, Ross-shire.—Medical Officer. Salary, £100 per annum. Applications to the Chairman, Osgood H. Mackenzie, Esq.

RICARTSBAR ASYLUM, Paisley—Superintendent. Salary, £100 per annum. Applications to R. Rowand, Inspector of Poor, Paisley.

ROCHESTER AND DISTRICT FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION—Assistant Medical Officer. Salary, £120 per annum. Applications to H. T. Kybett, 48, High Street, Strood, Kent, by March 14th.

ST. LUKE'S HOSPITAL—Clinical Assistant. Applications by March 23rd.

TAUNTON UNION—Medical Officer. Salary, £52 per annum. Applications by March 18th.

TOWCESTER UNION—Medical Officer. Salary, £60 per annum. Applications by March 20th.

MEDICAL APPOINTMENTS.

ELLIOTT, J. Trimble, M.D., elected Medical Officer of the Kilmore Dispensary, co. Monaghan.

FIRTH, Eustace, M.B., C.M., appointed Medical Officer of the Rishangles District of the Hartismere Union.

HARRISON, W. A., M.B., appointed Medical Officer of Health for Pontefract Borough.

LIMONT, James, M.A., B.Sc., M.R.C.S., appointed Senior House-Surgeon to the Newcastle Infirmary.

NICOLL, T. V., M.R.C.S., appointed Honorary Medical Officer to the British Asylum for Deaf and Dumb Females at Clapton, *vice* A. Boswell, M.B., resigned.

OWEN, J. W., M.R.C.S., appointed Medical Officer to the St. Asaph Union.

POPHAM, S. L., M.D., appointed Resident Physician to the Craiglockhart Hydropathic Establishment, *vice* T. D. Wilson, M.D., resigned.

PUDDICOMBE, F. M., L.R.C.P., appointed House-Surgeon to the Teignmouth, Dawlish, and Newton Infirmary and Convalescent Home, Teignmouth, *vice* F. W. H. D. Harris, M.R.C.S., resigned.

ROBINSON, J. J., M.B., appointed House-Surgeon to the St. Mark's Ophthalmic Hospital, Dublin, *vice* S. Davis, M.B., resigned.

SMYTH, A. C. B., L.R.C.P., appointed Assistant Medical Officer and Chloroformist to the Hospital for Women and Children.

STAMFORD, Wm., L.R.C.P.Lond., M.R.C.S,Eng., and L.S.A., appointed Medical Officer of Health for Tunbridge Wells, *vice* W. H. Rix, M.R.C.S. and L.S.A., resigned.

STREET, A. F., M.B., appointed Junior Resident Medical Officer to the Radcliffe Infirmary, Oxford.

THOMAS, J. H., L.R.C.P., appointed Medical Officer of Health to the Wellingborough Rural Sanitary Authority.

TUKE, J. B., jun., M.B., appointed Assistant Medical Officer to the Montrose Royal Lunatic Asylum, *vice* A. Thomson, M.B., resigned.

VENN, A., M.D., appointed Honorary Physician to the British Lying-in Hospital, *vice* Arthur Edis, M.D.

WALSH, W. A. S., M.R.C.S.Eng., L.S.A., appointed one of the Medical Officers to the Worcester Dispensary and Provident Medical Institution, *vice* J. D. Jeffery, M.R.C.S.Eng., deceased.

WELCH, Geo., M.R.C.S., appointed Assistant House-Surgeon to the St. Bartholomew's Hospital, Chatham, *vice* G. H. Patterson, M.R.C.S., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., *which should be forwarded in stamps with the announcements.*

MARRIAGE.

MOFFAT—ADIE.—At 2, St. Colme Street, Edinburgh, on the 2nd instant, by the Rev. John A. Cooke Auchtergaven and the Rev. T. S. Anderson Crailing, Robert Moffat, M.D., Falkirk, to Martha, eldest daughter of the late James Gray, of Kalemouth, Roxburghshire, and widow of the late James Arthur Adie, Voe, Shetland.

LADY HARRIET BENTINCK, who gave a donation of £4000 sterling to purchase new premises for the International Hospital at Naples, has added a new gift of £500 sterling to the former sum.

TEN thousand tons of ice, gathered from a river which contained sewage, we hear, have been condemned by the Newhaven Board of Health.

THE Brighton Town Council have decided to purchase Preston Park from Mr. Benett-Stanford, at the price of £50,000, for the purpose of converting it into a public recreation-ground.

AN effort is being made to organise a branch of the British Medical Association at Allahabad, the capital of the North-Western Provinces.

THE death of Elenor, Lady Burrows, the wife of Sir George Burrows, M.D., F.R.S., late President of the Royal College of Physicians, occurred a few days ago. Her ladyship was the youngest daughter of the late Mr. John Abernethy, F.R.S., formerly President of the Royal College of Surgeons.

THE managers of the Royal Infirmary of Edinburgh have received from Messrs. J. C. Brodie and Sons, W. S. Edinburgh, the sum of £13,500 for the funds of the Institution from the estate of the late Dr. Thomas Hunter, Deputy Inspector-General of Hospitals.

CHOLERA AT TRICHINOPOLY.—There has been a serious outbreak of Cholera at Trichinopoly, and 2,457 persons are reported to have suffered from it since the 24th of October, when it first made its appearance.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.—The sixth meeting of the twenty-sixth session was held at the Royal Kent Dispensary, Greenwich Road, on Friday evening, March 3rd, when the following papers were read: Remarks on Succussion within the Abdomen, by J. Braxton Hicks, M.D., F.R.S.; a Case of Intestinal Obstruction which Recovered under the Use of Belladonna, by R. Carrington, M.D., physician to the Seaman's Hospital.

ANTISEPTIC SOLUTIONS OF ATROPINE AND ESERINE.—Kræmer believes (*Corr-Blatt für Schweizer Aerzte*, 1881, No. 19) that the solutions of atropine and eserine used in eye-diseases are not unfrequently the cause of irritation, and even catarrh, through their containing fungi—*e.g.*, leptothrix, etc. He recommends the addition to the solutions of 4 per cent. of boracic acid, or 0.1 per cent. of carbolic acid. He has found, from numerous experiments, that not only do these solutions then remain longer clear, but there is much less frequently irritation or inflammation during their use.

HEALTH OF FOREIGN CITIES.—The following figures are deduced from a table in the Registrar-General's last weekly return, and afford trustworthy indications of the recent health and sanitary condition of various foreign and colonial cities. According to the most recently received official weekly returns, the annual death-rate in the three principal Indian cities averaged 34.9 per 1000, and was equal to 29.3 in Calcutta, 34.0 in Bombay, and 42.4 in Madras. Cholera caused 12 deaths in Bombay, 24 in Calcutta, and 26 in Madras; 42 deaths from measles were returned in Bombay, and 6 from small-pox in Madras. The death-rate in Alexandria was 34.7, scarcely differing from the rate in the previous week; 8 fatal cases of typhoid fever were reported. In twenty European cities, the death-rate averaged 32.4, and exceeded by no less than 7.9 the mean rate prevailing last week in twenty-eight of the largest English towns. The death-rate in St. Petersburg was equal to 49.0, but showed a further slight decline from the still higher rates in previous weeks; 46 deaths resulted from typhus and typhoid fevers, and 18 from scarlet fever. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate averaged 30.2, measles causing 22 deaths in Copenhagen and 6 in Christiania. In Paris, the death-rate was 31.7, and scarcely differed from that which prevailed in the previous week; 64 deaths were referred to diphtheria and croup, 36 to typhoid fever, and 11 to small-pox. The rate in Geneva was equal to 30.1. In Brussels, the rate fell again to 26.2, although the deaths included 2 from small-pox and 3 from measles. In the three principal Dutch cities, the death-rate did not average more than 25.6, and was equal to 24.0 in the Hague, 25.7 in Amsterdam, and 26.4 in Rotterdam. Small-pox caused one death in Rotterdam. The Registrar-General's table includes returns from nine German and Austrian cities, in which the death-rate averaged 32.0; it ranged from 25.3 and 25.9 in Berlin and Dresden, to 40.1 and 47.1 in Munich and Buda-Pesth. Small-pox caused 19 deaths in Vienna, 9 in Prague, and 8 in Buda-Pesth; and diphtheria 69 deaths in Berlin. The death-rate was equal to 37.4 in Venice, where 2 deaths were referred to diphtheria and croup. No returns were received from any other Italian city. The average death-rate in four of the principal American cities was equal to 29.2; the rates in these cities ranged from 25.6 in Philadelphia to 34.5 in New York. Small-pox caused 20 deaths in New York, 15 in Philadelphia, and 2 in Baltimore; and diphtheria was more or less fatally prevalent in each of these American cities.

BEQUESTS AND DONATIONS.—Mr. Osgood Torkington, of Holly Lodge, Clapham Park, bequeathed £1,000 Consols, each, to the East London Hospital for Children, the Royal Hospital for Children and Women, the Hospital for Epilepsy and Paralysis and other Diseases of the Nervous System, the Evelina Hospital for Sick Children, the Samaritan Free Hospital for Women and Children, the West London Hospital, the Victoria Hospital for Sick Children, the North-Eastern Hospital for Children, the Hospital for Women, and the Royal Hospital for Diseases of the Chest; and £50 to the Clapham Dispensary; and £6,666 13s. 4d. Consols to be divided between the Metropolitan Free Hospital, the Cancer Hospital, the Royal Free Hospital, and the Westminster Hospital, upon the death of his niece Emma Clayton; £6,666 13s. 4d. Consols, to be divided between the Charing Cross Hospital, the Middlesex Hospital, St. Mary's Hospital, and the Great Northern Hospital, upon the death of his niece Clara Worger; £3,333 6s. 8d. to be divided between University College Hospital and St. Mark's Hospital, upon the death of his niece Edith Dinah Torkington; £3,333 6s. 8d. to be divided between King's College Hospital and the Poplar Hospital, upon the death of his niece Susannah Frances Torkington; and £5,000, New 3 per Cents., to be divided between the Royal Westminster Ophthalmic Hospital, the Royal Orthopædic Hospital, and the Hospital for Sick Children, upon the death of Selina Smith.—Colonel Cecil William Forester, of Admaston, Salop, bequeathed £2,500 to the Westminster Hospital, £2,000 to the County of Salop Infirmary, £1000 to the Brompton Hospital for Consumption, £1,000 to the Royal Hospital for Incurables, and £500 to the Western Dispensary, Broadway, Westminster.—Sir Julian Goldsmid, Bart., has given one hundred guineas, and Lady Goldsmid fifty guineas, to University College Hospital.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY .... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear. Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p. Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M.Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30 Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2 o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30 Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.75 Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. The President (Mr. Francis Mason): Opening Address. Dr. Drewitt: A Case of Marked Tetany in a Child (living specimen). Mr. Reginald Harrison (of Liverpool): The Early Treatment of Prostatic Enlargement. Dr. Fancourt Barnes will exhibit a specimen of Stricture of the Rectum, mistaken for Retroflexion of the Uterus. —Royal College of Surgeons of England, 4 P.M. Professor W. H. Flower On the Anatomy, Physiology, and Zoology of the Edentata.

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Dr. Theodore Williams: On the Influence of Albuminuria on the Temperature Curve o Phthisis Pulmonalis; with an account of its Pathology.

WEDNESDAY.—Royal College of Surgeons of England, 4 P.M. Professor W. H Flower: On the Anatomy, Physiology, and Zoology of the Edentata.

THURSDAY.—Harveian Society of London, 8 P.M. Dr. Fitzpatrick: A Case o Puerperal Septicæmia. Mr. W. B. Owen: A Retrospect of Fifty Years' Professional Experience.

FRIDAY.—Royal College of Surgeons of England, 4 P.M. Professor W. H Flower: On the Anatomy, Physiology, and Zoology of the Edentata.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

USE OF STEAM FOR HEATING HOSPITAL WARDS.

IR,—May I ask, through you, if any of your readers will be good enough to supply me with information as to the desirability, or otherwise, of using steam for the purpose of heating hospital wards? If it be desirable, please state the advantages, and, if undesirable, the disadvantages, of the system; or if you will kindly refer me to any reliable sources from which I may gather knowledge on the subject, I shall feel equally obliged.—I am, sir, yours faithfully, GEO. LONGBOTHAM.

*** We have referred this question to Mr. W. Eassie, C.E., author of *Healthy Houses*, who has favoured us with the following reply. Heating by steam is rarely adopted in England, except for workshops in connection with the steam boiler where the exhaust steam is economically used for the purpose. In America, however, steam is largely used for heating purposes; and a very comprehensive description of the value of steam for heating purposes will be found in a paper read by Captain Douglas Galton, F.R.S., in the *Society of Arts Journal*, in the latter months of the year 1881. The most comprehensive works on the subject are those written by Buchanan in 1815, and by Tredgold in 1836, which can be seen in most public libraries. The drawbacks of ordinary steam-heating are the constant attendance necessary to secure a continuance of heating power, the necessity of keeping the fire in full action, and some little danger of a possible explosion unless the whole is under the control of proper workmen. In this respect, steam cannot be placed on the same level as heating by hot water circulation; and in point of expense, also, except under rare conditions, steam-heating must give way to hot-water pipes heated from a boiler, which, in the case of a hospital, would preferably take the form of a slow combustion separate boiler placed in the basement of the building.

Heating by steam, however, has its advantages, the chief of which is that the pipes can be conveyed in any direction, and to any extent, whether above or below the boiler, provided that the condensed water be properly carried away from the lowest part; failing which, the pipes will fill with water, and the heating power become destroyed. The disadvantages of heating by steam are its greater danger, the necessity for constant attention, the non-permanency of an equal temperature except under circumstances of extreme care, and the enhanced cost for fuel over and above that of a hot water circulating system. This last objection, however, may be overruled under conditions where waste steam can be employed. Owing to the higher temperature which obtains with steam heating, which, compared with hot water heating, is as 120° to 165°, or more, depending upon the pressure, it is of the utmost importance to keep the surface of the steam pipes free from dust and waste-drips, which affect the purity of the room. And, whether steam or hot water be circulated through coils—especially when enveloped in cases—the latter should be placed upon castors, so that the pipes can be regularly cleansed from dust and fluff. Taking everything into consideration, we certainly should not advise steam heating for hospital wards, when so much more cleanly, safe, and economical system can be obtained by low-pressure hot water circulation. Our correspondent could, with advantage, consult Mr. Dyer, of 66, High Street, Camden Town, whose excellent method of heating has received great commendation.

TREATMENT OF DIPHTHERIA.

SIR,—During a rather severe epidemic of diphtheria which occurred here some short time since, I found a plan somewhat similar to the one adopted by Dr. Kennedy, as described in your Memoranda of February 25th, most successful. After the first case, which died, in none did I employ a caustic; and though a considerable number were very severe, all except my last case improved rapidly under the treatment adopted. A saturated solution of permanganate of potash was injected well into the throat, and a gargle of it used freely. The first two or three times it made the patients very sick, which, if the membranes were loose, caused them to be detached and expelled at once. It invariably prevented the formation of fresh membranous patches, and if the treatment was adopted before the grey specks coalesced, no membranous patches were formed, and the patient was soon well. The general treatment, of course, was directed in all cases towards the keeping up of the general health, so as to prevent the frequent subsequent debility.

The last case which I attended terminated unfavourably. It was that of a young lady who had been suffering from anæmia for some time previously. The lips and conjunctivæ were extremely pale from want of blood. The gargle within twenty-four hours quite cleared the throat, leaving it very red and tender-looking, but the difficulty of breathing gradually increased, and she had a constant cough. On the second day, she coughed up a hard round mass, which from its size one would have thought would with difficulty have been expelled. Upon opening it out, I found a complete lining of a bronchial tube extending to six ramifications. She breathed better for a few hours, then gradually sank exhausted.—I am, etc.,

Prestwich. A. HIRST, M.R.C.P.Ed.

SCARLATINA PATIENTS.

SIR,—Would any of your readers kindly inform me at what time, from the commencement, are scarlatinal patients free from infection? Having a patient with gouty eczema who has been desquamating for nearly four weeks, I am in difficulty as to whether he would be a source of contagion, and he is anxious to resume his usual duties.—I am, sir, yours faithfully, M.R.C.S.ENG.

BARON LIEBIG.

OUR attention has been called to the fact that a cocoa is now being advertised as Baron Liebig's cocoa, which has, in various places, naturally led to the conclusion that the Baron Liebig whose name is thus used is the celebrated Justus Von Liebig, who allowed his name to be attached to the well known Liebig's extract of meat. This, however, we are informed, is not the case, and that Liebig's cocoa is prepared under the directions of a son of Baron Liebig, who, we have good reasons for saying, would be the last person to wish that confusion should arise.

WANTED A MODEL HOSPITAL.

SIR,—Would any of your readers kindly refer me to a hospital with all the latest improvements, that might be taken as a model for one about to be erected to contain thirty beds.—I am, yours obediently, R. H. WOOD.

Rugby, March 4th, 1882.

MEDICAL ATTENDANCE ON THE ARTISAN CLASSES.

SIR,—The rapid development in provincial towns of systems of medical relief on provident principles threatens to form a very serious item in the train of calculations of those practitioners whose income is mainly derived from the class inhabiting houses of less than £20 rental. The question presents itself under two aspects: firstly, how can they continue to retain this source of income without stooping to unworthy methods of obtaining patients, such as advertising? and secondly, how can they best uphold, whilst doing this, that character for philanthropy with which the profession of medicine has so long been accredited? It appears to me that the means to be employed are two: Firstly, the establishment, in opposition to the new "medical aid associations", of real "provident dispensaries", the staffs of which should be composed of any practitioners who chose to join them, instead of resident medical officers devoting their whole time to the work, and receiving in return very paltry salaries; and fixing a wage-limit, say, at forty shillings per week. Secondly, a little moderation in the matters of charges to the poorer class of private patients. Many young practitioners commence with the idea that there is something degrading in taking a half-guinea midwifery fee. I did so myself. But one thing has struck me forcibly during my two years' practice, namely, the very little comparative trouble of attending midwifery cases amongst the poor. They very seldom send for one unless the case is pretty well advanced; even if they do, they are content to let one leave, and be sent for again when the case becomes more urgent. They are generally willing to have the forceps used when it is necessary; and they are by no means exacting as regards after-attendance. At the same time, it is wise to let it be understood that the fee must be paid at the time of attendance. As regards other fees, I think the ordinary charge per visit should be 2s. 6d., including medicine, which, by-the-by, they are always willing to send for themselves; and if the attendance is very long, even this may be made less—for example, a bill of £4 17s. 6d. may be made into four guineas.

It certainly appears to me a very mistaken idea, and yet it is a very prevalent one, that the dignity of the profession is dependent on the magnitude of the fees. Of course, in saying this, I studiously avoid encouraging any direct or indirect advertising.—I am, sir, yours obediently, A YOUNG PRACTITIONER.

BUCHU.—There is no objection to either of the forms to which you refer, for a professional card.

CHLOROFORM AS AN ANÆSTHETIC.

SIR,—Permit me to call the attention of the medical profession to a point which, until lately, we were bound to leave entirely in the hands of manufacturers, and to the reputation of those drug-houses from whom our supplies of chloroform are obtained. It is the purity of chloroform. The dichromate of potash test, the specific gravity and evaporation tests, and absolute neutrality test, were all that most of us cared to trouble ourselves about. M. Yvon, however, has found that all these fail, and that it is necessary to test the boiling point, or the point at which distillation takes place; but, moreover, that absolutely pure chloroform should not give a greenish colour when shaken up with permanganate of potash in caustic potash solution. Of all tests yet applied, this is the most crucial. It may seem unjust to condemn all chloroform that will not answer to this test, and also that of the distillation, as unfit for administration; yet I hold that so long as one of our principal anæsthetics fails to come up to this absolute standard, we are bound to pause.

I have the subject in hand, and I shall give you my testings of various samples. In the meantime, I may say that M. Yvon's solution is thus prepared: Permanganate of potash, 1 part; caustic potash, 10 parts; distilled water, 250 parts. I need not say that the utmost cleanliness must be observed in testing with this solution any specimen of chloroform. I carefully wash out the tube two or three times, and wait for a few seconds to see if any change from the deep violet occurs in the solution before adding the chloroform. I have not examined a single specimen of chloroform that does not, in ten or fifteen seconds, give the greenish or condemnatory tint. The proportion of solution to chloroform may be one of the former to five of the latter; but this is quite arbitrary.

I may point out that nothing but recently prepared and absolutely pure chloroform can conform to this test, so far as I have been able to judge. Now, all acquainted with the decomposition of chloroform when above specific gravity 1.48 know how unstable it is; sunlight, air, and water favouring decomposition in the purest samples. To avoid this, one per cent. of alcohol is added, or allowed to distil over, and the product is then a most stable compound. To condemn all chloroform having a preservative added to it, and which preservative gives the green tint, as unfit for inhalation, is pushing matters too far. No doubt, in a lawsuit, a clever lawyer could make a good point out of M. Yvon's tests; but how far any slight addition of alcohol, or decomposition of the purest chloroform by being kept, has had to do with any death, I am not prepared to say. For the present, at least, we must not place absolute confidence in M. Yvon's fears as to the administration of our pure samples, but which contain a little alcohol. The subject, from more points than one, is deserving of every consideration.—I am, etc.,

Northallerton. HENRY BROWN.

MR. E. S. PAGE (Solihull).—The disease described in the pamphlet as "Swat", "New Acquaintance", *alias* "Stoupe Knave and Know thy Master", etc., was the sweating sickness, which prevailed as an epidemic over a great part of Europe at various times from 1483 to 1551. Five visitations of the disease are recorded in England: 1, in 1485; 2, in 1506; 3, in 1517; 4, in 1528; 5, in 1551, from 15th April to 30th September. Our correspondent should read the excellent history of the disease in Professor Hecker's *Epidemics of the Middle Ages*, translated in 1844 for the Sydenham Society by Dr. B. G. Babington. The "new sickness" which prevailed in 1557 and 1558 was probably the plague—not the sweating sickness, of which there is no record later than 1551.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

THE HIGH ATMOSPHERIC PRESSURE.

SIR,—In answer to "Medical Meteorologist's" query (the outcome of the recent high atmospheric pressure, the highest reading being 30.986, and recent sickness), "Was there any connection between the physiological and meteorological disturbance?" I think most medical practitioners, particularly those in rural districts, will answer in the affirmative. I cannot recall to mind such a genial fine season, dry over-head and under-foot, and what winds we have had really enjoyable than otherwise, and a very fair amount of sunshine; and yet what amount of sickness has there been all around, and illnesses of a very severe, and in a great many instances of a fatal, type. Pulmonary and gastric affections have been very rife. I never remember them more so at any season of the year; and yet, why should it be so? We have always been taught to believe in a severe slushy winter, with a continuance of northerly and north-easterly winds, as being the factor of all pulmonary mischief, that if anything could be more effectually brought forward than our present mild season to refute such an opinion, I am at a loss to know what could. I have long been of the opinion that some sepsis is at the bottom of it all, and which is more easily introduced into our bodies through the different channels under favourable circumstances, such as heat and consequent evaporation from the surface of newly turned soils, such as we are at present, and have been for some little time, surrounded with. I have been satisfied, from the history of cases of acute broncho-pneumonia, occurring in strong and previously healthy subjects, that they were cases of blood-poisoning *pur et simple*, and that no supposed cold, or exposure to draught or wetting, had anything whatever to do with the causation of the attack, and I rely far less on local treatment and expectorants than I would on quinine, good nutriment, a fair quantity of stimulants, and good nursing; in other words, treating the case as a specific fever with a septic origin.

In the several outbreaks of scarlet fever we have had in the villages around, and of a fatal type too, strange to say, they have always been early in the year, when the seasons have been mild, and when the gardens of the cottagers (where the excrements of fever patients have been buried), and the fields around, are being prepared for the sowing of the different vegetables and crops. I am inclined to think that we living in the country have more illnesses in early spring than our town friends; and I cannot help regarding the emanations from the soil as being in a great measure accountable for it.—Yours truly, E. T. T.

SHIP-SURGEONCIES.

SIR,—Would you kindly tell me whether a double qualification is essential for applicants for ship-surgeoncies? Are such appointments difficult to procure without influence?—Faithfully yours, A RECENT MEMBER.

SCHOOL-BOARDS AND MEDICAL FEES.

SIR,—Can you, or any member of the profession, tell me who is the person responsible for the payment of the fee charged for the medical certificate required by the School-Board for a child's non-attendance through illness? Sometimes the parents pay it themselves, and sometimes I do not get it at all. I have repeatedly told the parents to insist on having the fee before delivering up the certificate; but in no case that I know have they been able to get it. It has been definitely stated in the BRITISH MEDICAL JOURNAL that the School-Board is liable, but I should be glad to know which individual should pay it.—Yours obediently,

J. NUGENT GRIFFITH, M.R.C.S.Eng., etc.

43, Northumberland Terrace, Everton, Liverpool, Feb. 22nd, 1882.

*** According to the decision of the magistrate at the Southwark Police-court, which we noticed in a recent leader, it appears that the School-Board requiring the certificate mentioned by our correspondent would be liable to pay for it. We would advise him to apply for the settlement of his fees to the clerk of the board, and if he cannot obtain them from this body, it would be expedient to write to the Education Department for this purpose. From reliable information we have received, we believe, however, that this Department do not acknowledge the responsibility of school-boards generally to pay for medical certificates of the inability of children to attend their schools on account of illness; although, from the report of the case tried in the Southwark magistrates' court, it is evident that they approved of the payment by the school-board for a medical certificate required by one of its officers for the non-attendance of a child at school from sickness, notwithstanding the Board disputed its liability for the fee.

ULCERS AFTER USE OF BROMIDE OF POTASSIUM.

SIR,—Can any of your readers tell me of a good local application for ulcers due to the continued use of bromide of potassium? The ulcers are pouring forth a rather fœtid secretion.—I am, etc., PRACTITIONER.

PRURITUS ANI.

SIR,—In reply to an inquirer in your correspondence column, I feel bound to give my experience of this troublesome disease. I had already tried most of the remedies recommended without receiving any permanent benefit. The disease had lasted over three years, and was becoming more and more troublesome. I thought it primarily depended upon a gouty diathesis, and I placed myself upon the strictest regimen: avoided all kinds of pastry, sugar, etc.; from being very temperate, I became all but a total abstainer; and, as a country practitioner, I had a large amount of exercise. The disease has now ceased from troubling me for twelve months, and I am hoping I may fairly say it is now cured. The remedy from which I received (after a continuance of the restricted diet for some time) most benefit was self-control, never irritating the seat by scratching, and always, after defæcating, making use of a soft sponge dipped in cold water and soap, aided with an occasional use of an ointment of equal parts of oleate of mercury and extract of belladonna. Upon the continued use of these means the irritation has ceased, and the at one time exquisite torture—I can call it nothing else—has entirely passed away.—I am, etc., H. J. F.

NEW DISEASES.

SIR,—A valuable paper has just been printed for the Isle of Wight guardians, in the form of a list of paupers, who were such during the half-year ending Michaelmas 1881. The value of the paper does not consist in the information of who were paupers six months ago, but in revealing the existence of certain complaints that seem to be peculiar to the island. Among these are: "dolor later", "nobis cordis", "varitis", "pleurozoma", "amenorola", "febriac", and "pyrecia". As the Isle of Wight is in repute as a health-resort, it is to be hoped that these disorders are not infectious.—I am, sir, yours, VECTIS.

VACCINATION WITH CALF-LYMPH.

DR. T. H. HAYLE of Rochdale writes us, giving his recent experience of primary and secondary vaccination with calf-lymph. Of ten primary vaccinations, none failed; and of one hundred and forty-two cases of revaccination, only three failed. One of the failures took on being vaccinated a second time. Of the successful cases, twenty-three took strongly, one hundred and twenty well, and six slightly. By taking strongly, Dr. Hayle means when the inflammation spreads below the elbow. He found that, under ten years of age, no cases took strongly.

SIR,—In answer to one of your correspondents, "J. H. T.", in your last weekly issue, I beg to say that Haresceugh's excreta pails are manufactured by Messrs. Haresceugh and Co., Bentinck Street, Leeds.—I am, yours obediently,

Bidford, Alcester, February 16th, 1882. G. H. FOSBROKE, S.Sc.C.Cantab.

PRISONERS WITH TYPHUS.

AT a meeting of the Bristol guardians lately, the chairman called attention to the case of a man who, whilst suffering from typhus fever, and having been found in the streets by the police in an unconscious state, was charged with being drunk, and, upon the statement of a police-constable, committed for seven days. At prison it is alleged that his malady was discovered, and he was discharged the day before the expiration of his sentence, without communication being made to the medical officer; and the poor fellow going to the workhouse, it was seen that he was suffering from spotted typhus in an advanced stage.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Mr. W. Marriott, London; Mr. Edward Smith, Bolton; Mr. B. Bell, Edinburgh; Dr. Carroll, New Brighton, New York; Our Birmingham Correspondent; Mr. A. S. Currie, London; Mr. H. B. Walker, Lowestoft; Messrs. W. and A. Bradshaw, Nottingham; Our Glasgow Correspondent; Mr. H. D. Roberts, Deptford; Dr. John Williams, London; Dr. Fairlie Clarke, Southborough; Mr. Eustace Firth, Beckenham; Messrs. E. Street and Co., London; Mr. Timothy Holmes, London; Mr. Litton Forbes, London; Mr. D'Arcy Power, London; Dr. Brailey, London; Mr. C. W. Hemming, Edinburgh; Dr. T. Churton, Leeds; Mr. W. H. Lamb, London; Dr. E. Rickards, Birmingham; Dr. G. W. Potter, London; The Military Secretary, India Office; Mr. C. R. Illingworth, Clayton-le-Moors; Mr. E. Philip Lydlow, Leicester; Dr. A. M. Alcock, Innishannon; Mr. E. Cresswell Baber, Brighton; Mr. W. A. S. Walsh, Worcester; Dr. Whitla, Belfast; Dr. J. M. Redmond, Dublin; Dr. J. W. Moore, Dublin; Surgeon-Major Evatt, Woolwich; Dr. J. Carrick Murray, Newcastle-on-Tyne; Dr. Pye-Smith, London; Mr. J. R. Thomas, Llanelly; Mr. E. W. Wallis, London; Dr. Tripe, London; Our Dublin Correspondent; Mr. Shirley F. Murphy, London; Mr. W. K. Parker, London; Dr. Crichton Browne, London; Mr. S. H. Lindeman, Lynn; Mr. W. Stamford, Tunbridge Wells; Mr. T. Pridgin Teale, Leeds; Dr. Percy Boulton, London; Dr. J. Patterson Cassells, Glasgow; Mr. B. J. Tuck, Seaford; Mr. James Limont, Glasgow; Dr. H. M. Johnstone, Stranorlar; Dr. Ewald, Berlin; Dr. T. Jackson, Hull; Mr. J. Dougall, York; Mr. J. R. Lunn, London; Mr. A. Griffith, Manchester; Dr. Fitzgerald, Ponteland; Dr. Galabin, London; Dr. Philpots, Bournemouth; Dr. Althaus, London; Dr. J. F. Howard, Sheam; Mr. Robert Birch, Newbury; Dr. N. Knox, Glasgow; Mr. J. R. Lunn, London; Mr. George Meadows, Hastings; Mr. T. Jackson, Hull; Mr. E. F. Scougal, Huddersfield; Mr. H. E. Allen, London; Dr. D'Oyly Grange, Moffat; Mr. R. Watson, London; Mr. W. Holloway, Kidderminster; Mr. R. Amunay, Stockport; Mr. J. J. Sarjant, Worcester; Dr. Malins, Birmingham; Mr. J. Oliver, Durham; Dr. Ransome, Bowden; Editor of *Practitioner*, London; Mr. Walter Whitehead, Manchester; Mr. A. H. Wildy, London; Mr. D. T. Evans, Manchester; Mr. T. Thompson, London; Mr. J. F. West, Birmingham; Mr. Alfred Benson, Sutton; Mr. Walter Brown, Gloucester; Mr. E. J. Adams, Sheffield; Dr. Brett, Watford; Mr. Alfred E. Harris, Sunderland; Dr. Dufley, Dublin; Dr. C. McLearn, London; Mr. Arthur Cooper, London; Dr. Ormsby, Dublin; Dr. Burney Yeo, London; Mr. Bennett May, Birmingham; Mr. O. B. Shelswell, London; Mr. Whitton, Towcester; Dr. A. Filson, Portaferry; Dr. R. Sarell, Constantinople; Mr. W. Wilson, Carlisle; Mr. C. Roberts, London; Dr. Collie, Homerton; Dr. C. S. Clouston, Gunnersbury; Mr. Herbert E. Wright, London; Mr. H. Rogers Tillstone, Wigan; Mr. Joseph Hadley, London; etc.

BOOKS, ETC., RECEIVED.

Garden of Hyères. By A. Smith. London: Fleet Street Printing Works. 1881.

Leprosy in British Guiana. By J. D. Hillis. London: J. and A. Churchill. 1881.

A Practical Treatise on Materia Medica and Therapeutics. By R. Bartholow, M.D. London: H. K. Lewis. 1881.

Schematic Anatomy. By W. P. Mears. London: Baillière, Tindall, and Cox. 1881.

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CROONIAN LECTURES
ON THE
CLIMATE AND FEVERS OF INDIA.

Delivered before the Royal College of Physicians of London.

BY SIR JOSEPH FAYRER, K.C.S.I., M.D., F.R.S.,
Physician to the Secretary of State for India in Council.

LECTURE I.—PART I.

MR. PRESIDENT, Fellows of the College, and Gentlemen,—In conformity with the custom of others who have been honoured with the duty of delivering these lectures, I have selected a subject in practical medicine which will prove, I hope, of sufficient interest to merit your attention, not only because it is the origin of much sickness and mortality among the European and native people of India, and is the cause, directly or indirectly, of much Indian disease met with here, but on account of its relation generally to the cognate subject in Europe. I trust, therefore, that I shall give effect to the purpose of the founder of these lectures by selecting as my theme certain "Types and Forms of Indian Fever", premising with a brief sketch of the physical characters of the country, climate, and people among whom they occur. I venture to think that the time is not inopportune; for it is thought by some of considerable experience, that the nosological arrangement of fevers needs some modification as regards their etiological relations in India and the tropics, and that sufficient importance has hardly been attached to the effects of geographical position, climate, and endemic influences in determining and modifying their characters.

The following is the plan I intend to adopt. After giving a brief outline of the physical characters of the climate and people, and of the prevalence of fever in India, I propose, under the head of Malaria and Malarial Fevers, to describe the various remittent and intermittent forms it assumes, from the jungle-fever of the primæval forests and swamps, to the simplest ague or *malaise* of the plains; and also some of those morbid conditions which are so closely related to malarial fevers that they are naturally considered with them.

Under Continued Fevers, I shall include febricular, enteric, ardent, and other forms; comparing them with continued fever in temperate climates, noting their relations to climatic influences. I do not pretend to have much that is new to say, for fevers have been described by numerous writers, from the earliest periods down to the present day. But in giving my own impressions, it is expedient that I should refer to and acknowledge those of others. The subject is so extensive, that I can only hope to touch on the salient points of interest.

Let me remind you of some of the physical characters of the country and climate in which the fevers occur. Health and disease are so much influenced by the locality, nature of the soil and its vegetation, the temperature and its fluctuations, the quantity and seasonal distribution of the rainfall, atmospheric and other meteorological changes, that some reference to them seems a fitting introduction to the study of the fevers. You will, I trust, pardon me for inflicting on you some geographical and statistical details, which I will make as brief as possible; they relate to a country and people whose extent and magnitude are but imperfectly appreciated, and have an important bearing on the subject.

Climate.—As regards climate, India may be divided into three regions: 1. The Himalayan, which includes Bhotan, Nepal, Gurhwal, Cashmere, and Cabul; 2. Hindostan, which extends along the foot of the Himalayan range, and includes the alluvial plains of the great rivers Ganges and Indus, with their numerous tributaries, as far south as the Vindyah mountains; 3. Tropical India, or the Deccan, which consists of elevated table-lands, littoral plains intersected by numerous rivers, mountain ranges, extensive forests, and isolated hills.

There are three distinct seasons in India—the hot, the rainy, and the cold—which vary in duration and times of setting in; the cold season extends from November to March, the hot from March to June or July, and the rainy season from that to October or November, these seasons being greatly influenced by the monsoons or periodic seasonal winds. The south-west monsoon commences in May with storms, soon followed by the bursting of the rain on the Malabar coast, but does not reach regions further north till later in the year; its force and influence are wellnigh spent ere it passes the twenty-fifth parallel of north latitude. The Carnatic and Coromandel coasts, being sheltered by the Western Ghâts, are dry when the west coast is deluged with rain.

In the north-west, the rains begin towards the end of June, and fall in diminished quantity. Near the hills, the rainfall increases; but in the Southern Punjab there is very little rain, in some parts none. There are tracts of country commencing in Sind which are almost rainless, or with a fall as low as two inches; whilst in the Khasia hills, on the north-east frontier, six hundred inches fall in the year. Next to this, the Western Ghâts and coast of Tenasserim have the greatest fall; at Mahableshwar, two hundred and fifty to three hundred inches, and on the Tenasserim coast one hundred and eighty inches, fall yearly.

The amount of atmospheric humidity also varies greatly. Hot plains, like Sind, where there is little or no rain, have an atmosphere almost saturated with moisture; whilst on some of the lower mountain ranges, in Bengal, and in many districts near the coast in Southern India, the air is very damp. But on the elevated table-lands of the Deccan and Central India, and on the hot sandy plains of North-West India, a dry air blows like a furnace blast during the months of May and June.

The north-east monsoon commences in October, and is dry, except on the Coromandel coast, where it brings rain between October and December. Variable winds last till about June. About the end of May, the south-west monsoon again sets in, bringing a few showers, known as the lesser rains, which precede the greater rains. In the hill stations, and generally in the elevated provinces of the lower ranges of the Himalayas, the Neilgherries and Ghâts—stations at elevations of 5,000 to 7,000 feet—the climate is genial, the rainfall in most is moderate, it is cool and healthy in summer, and almost as bracing in winter as Europe. These may perhaps become the sites of future colonisation, for it seems probable that there the European may thrive and continue to reproduce his race, which, it is said, would cease to exist in the plains after the third generation.

Rainfall.—The rain-map of India shows areas of rainfall of various degrees of irregular form and extent.

In the north-west corner of India there are arid regions, which have a fall of less than fifteen inches; in many parts, much less; whilst the desert is to some extent rainless. This area includes Sind, part of the Punjab and of Rajputana. There is a northern dry zone, with an annual fall of between fifteen and thirty inches, surrounding the arid region on the north and east, in a belt of one hundred to two hundred miles wide. The upper parts of the valley of the Ganges, Central India, and the coast of the Madras Presidency, have a fall of between thirty and sixty inches.

There is also a southern dry region, which extends from Nassick to Cape Comorin; whilst the deltas of the Mahanuddi and Ganges, and the lower part of the Gangetic valley, have a fall of between sixty and seventy-five inches. There are two belts of excessive rainfall; one extending along the Aracan coast, from the mouth of the Irrawaddy up the valley of the Bramahpootra; the other, on the west coast of India, from Cape Comorin to the Tapti—from the seashore to the summit of the Ghâts. In these regions, the most remarkable falls occur, as they are placed in the direct course of the south-west monsoon, and catch its first impact at heights where vapour is most readily condensed. Cherra Poonjee, in the Khasia hills, at 4,500 feet above the sea, has six hundred inches of rain in six months on the edge of an abrupt mountain plateau situated about two hundred miles from the Bay of Bengal. The intervening country is alluvium, covered with rivers and swamps. Over this the south-west monsoon blows, laden with moisture, which is increased by the wet country over which it passes.

At Mahableshwar, in the Western Ghâts, the conditions are somewhat similar, the fall amounting to about three hundred inches; but these excessive rainfalls in certain elevated regions are quite local, no more representing the average rainfall of all India than the heavy fall on the hills on the west coast represents the average rainfall of Great Britain.

Irrigation.—Though great part of India is amply supplied with rain, there are regions where the normal quantity is so small that it is insufficient to produce the crops necessary for the support of the population, and where, without the aid of artificial irrigation, the land would be sterile. The Government of India has given much attention to artificial irrigation, and many gigantic works have been completed for this purpose. Some are new; others are reconstructions of works of the Hindoo and Mahomedan periods; and the importance it attached to irrigation is manifested in the canals, anicuts or dams of rivers and reservoirs, many in ruins, left by these people. The area now irrigated is nearly six and a half millions of acres. The area irrigable by

canals is capable of extension. The agricultural benefit derived from this system of irrigation is, no doubt, great; but with the water there is generation of malaria and fever, to what extent I shall presently show.

Another point to which I would refer very briefly is the influence of the rainfall on the growth of forests, and their effects on climate. There is reason to believe that some of the desert plains of India were at one time covered with trees; when they were so, the climate was cooler than it is now. The desert regions in the north-west having once been the seat of early Hindoo civilisation and population, it is obvious that the physical conditions of the country must have once been very different from what they are now, and it seems probable that the change is due to destruction of trees. The cultivation and protection of forests, therefore, is a matter of the greatest importance; for they temper the climate by the moisture they exhale, and tend to cause rain where there would be none.

Population.—The population of India, according to the census of February 1881, is 252,541,210; the males exceeding the females by about one-fiftieth. It has increased about 12¼ millions since 1872, at the rate of 6½ per cent., except in British territory in Bombay, in Mysore and Madras, where there is a decrease of from 20 to 2 per cent., owing to famine and its consequences. The census of 1872 was about 239,750,000.

The average of the whole population gives about 162 persons per square mile; but in the British it is twice as dense as in the feudatory States, the number per square mile varying considerably in different provinces.*

This vast mass of human beings, double the number of the population of the Roman Empire in the zenith of its power, and larger than the population of all Europe (excluding that of Russia), is composed of many races. They inhabit a continent presenting every variety of climate, and almost every physical condition on which health may depend, or by which disease may be originated and propagated.

The people of India represent four elements: 1. The non-Aryan, composed of Turanian and Dravidian or Scythic stock, the aborigines so called, and their descendants; 2. The Aryan, represented by the high caste Hindoos, Brahmins, and Rajpoots; 3. The great mixed population, commonly known as Hindoos, grown out of admixture of Aryan and non-Aryan elements; 4. The Mahomedan, who invaded India from the north and north-west; and to these must be added the Eurasians, 108,402, and the European races who now rule India, 121,148. The Himalayas are occupied chiefly by the Turanian stock, the plains of Hindustan by the Aryan race, the table-land of the Deccan by a mixture of Aryan and Scythic or Dravidian races. The Europeans and Eurasians are distributed over the whole continent.

Habits and Food.—Among this diversity of races, there is equal diversity in physical characters. A Norwegian does not differ more widely from a Neapolitan than a Sikh or Pathan from a Bengali, or the powerful warlike Rajpoot of the North from the peasant of Southern India. In mental and physical attributes there is close analogy; and, corresponding with the difference of climate, locality, and habits, they evince different capacities for enduring or resisting disease.

With regard to their habits and food: the Mahomedans, Sikhs, some of the lower castes of Hindoos, and the aboriginal races, eat a mixed diet, including animal food, and are often robust, powerful people; many are in military service. The higher caste Hindoos subsist mainly on farinaceous food, such as wheat, rice, millet, and other grains, supplemented by pulse, with milk, ghee, vegetables, and fish—occasionally the flesh of the goat or pigeon. Those who inhabit Northern India are powerful men, and from them the army is largely recruited.

Among the Europeans and Eurasians there is, I think, a tendency to eat more animal food and to drink more alcohol than are absolutely required, though in both respects they are more judicious than in past years. The natives of all classes are, as a general rule, temperate as regards stimulants; though some races, such as the Sikhs, the low-caste Hindoos, and the aboriginal races, drink freely. The use of tobacco, hemp, betel, and even opium—the latter especially in malarious districts—is prevalent. Opium, however, is less used than by the Chinese.

On the whole, the natives of India are moderate and abstemious as regards food and stimulants—rather under than overfed among the lower classes, and therefore more prone than the European to the asthenic condition in disease. The dress for the most part is of cotton, which in northern regions is supplemented by warmer materials. The dwelling is generally a hut, built so near the ground and so ill-ventilated that miasmata play a great part as a cause of death. The lodging of the European is, as a general rule, good; sanitary precautions are duly observed; and the houses, barracks, clothing, food, and occupations of the British resident and soldier are so well ordered and carefully supervised as to leave little to desire.

The habits and social conditions of a large proportion of the native people are prejudicial; early marriages and sexual excesses sap the vital force; whilst the effects of impoverished health and vitality, and of the diseases that result from imperfect nutrition, have been painfully manifested in the results of the famines that of late years have ravaged large districts and checked population; and the prevalence of malaria is shown in the character of the fevers and bowel-complaints which destroy or deteriorate millions. It is satisfactory to know that, under the fostering care of the British Government, the intensity and mortality of disease is diminishing, and the mode of living is being improved.

Prevalence of Fever, and Causes.—Let me now speak of the extent to which fever prevails, and some of the reasons why it does so. Official records prove that it causes sickness and mortality which, in some years, almost challenges comparison with the Black Death which ravaged Europe in the fourteenth century. The registered deaths from all causes in India, in the year 1879, were: 4,975,042; Cholera accounting for 270,552; small-pox for 194,708; bowel-complaints for 250,173; fevers for (out of a population of 187,105,833) 3,564,035; or thirteen times as much as cholera; though it may probably be fairly estimated that not more than 50 per cent. of these deaths are due to endemic fevers.

The mortality from "fevers" in Calcutta was, in 1880, 3,797; whilst Clarke says that, in 1770, 80,000 natives and 1500 Europeans died from fever in the city of Calcutta.

The British army in India, in 1879, numbered 57,810 men; of these, 51,959 suffered from fever, with a mortality of 387. The native army, of 130,011 men, had 122,375 cases of fever, with 756 deaths. The jail population, of 117,680, had 73,484 cases of fever, with 1306 deaths. The year 1879 was unusually unhealthy—epidemic fevers of a malarial type being prevalent and fatal. In some districts, the mortality was very high. In Bolundshur and Allyghur, the deaths rose to about 113 per 1000 of the population.

In the Bombay Presidency, in 1880, the annual mortality from fevers averaged 193.508 during a period of fourteen years; but, in 1880, the deaths were 246,779, or 15.21 per 1000 of the population; *i.e.*, for every fatal case of cholera, there were 360 deaths from fever. The deaths for each month were: January 24,689; February 22,625; March 23,921; April 19,901; May 18,579; June 16,572; July 18,922; August 19,856; September 18,396; October 18,406; November 22,339; December 22,565.

The seasonal prevalence shows how cold and variable temperatures affect the etiology of these fevers. The contrasted mortality of the hot and dry, and the rainy and damp seasons, shows the effects of added moisture on the amount of fatality—fever types comprehended being the malarial and continued. Among them, no doubt, are included deaths due to inflammatory disorders—such as pneumonia; whilst, on the other hand, not a few of the deaths from dysentery and diarrhœa belong more properly to malarial fevers.

The thirteenth annual report of the Sanitary Commissioner of the North-West Provinces, for 1880, contains much information in respect of the prevalence of fever, the causes of malaria, and the influence of irrigation on fevers. This province includes the pestilential Terai, the Doab, and irrigated area, which was scarcely less unhealthy. The chief causes of death in 1880 were: Cholera 71,546 deaths, or 1.67 per 1000; small-pox 8240 deaths, or 0.19 per 1,000; fevers 987,220 deaths, or 23.11 per 1000; bowel-complaints 80,312 deaths, or 1.88 per 1000. injuries 20,553 deaths, or 0.48 per 1000; all other causes 113,284 deaths, or 2.65 per 1000. About twenty-three out of every twenty-nine deaths were due to fever. Nearly a million of people (987,220) died in 1880 of malarial diseases. The liability to fever seems to have been increased by underfeeding; but, as this was not the case with the entire population, and as they were not all badly clothed and housed, though all suffered, it is evident that there were other causes in operation. The total annual deaths from fever taken through the scarcity period were: in 1877, 574,722; in 1878, 982,117; in 1879, 1,616,108; and in 1880, 987,220. The fundamental cause of the great loss of life from fever, was increased predisposition from scarcity of food. Cold, damp, and alterations of temperature in the latter half of the year, and dampness of soil, the result of irrigation throwing more water into the subsoil than was needed by growing crops. This must have acted as a serious predisposing cause.

The chief engineer was of opinion that the fever is not due to irrigation, but to great diurnal range of temperature, chills, and imperfect feeding; and thinks that better clothing and food would protect the

* In Bengal it was 387, in Bombay 131, in Baroda 454, per square mile; whereas some native States in the Central Provinces had only 36 to the same area. Many causes, no doubt, continue to explain these differences.

people. But we know that these fevers occur irrespective of changes of temperature, though they have much influence in re-exciting it in those who have previously suffered, but not *de novo*. The remedy for all this is better drainage, whilst no more water should be used than is required for the crops.

(*To be continued.*)

THE GULSTONIAN LECTURES

ON

PULMONARY CAVITIES: THEIR ORIGIN, GROWTH, AND REPAIR.

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Lecture I. Part II.—[*Concluded.*]

I HAVE attempted roughly to describe the leading varieties of disease in which cavities originate. I would invite you now to a review of the situations which they affect. The practical importance of this topographical study is best demonstrated by the advantages which have been gained from a knowledge of the few facts which we already possess relating to the position of cavities. I would specially allude to the clinical results obtained from a recognition of the great preponderance of apex-excavation over cavities in other situations. In any case of suspected phthisis, our examination is first directed to the apices, and from a negative result we acquire the certainty that the patient is not the subject of advanced disease. Theoretically, there is a rashness in this conclusion; but in practice, our induction ceases to be rash, in virtue of its scientific basis; for the upper part of the lung has been proved to be almost invariably the seat of the early pulmonary disease. By a due regard to this acquired fact, we are saved much superfluous labour, and not a little unnecessary doubt in forming an opinion.

An inquiry into the causes of this frequency is not foreign to my subject. How great an importance has been attached by former writers to an elucidation of this point, may be perceived from the number and variety of the theories to which it has given rise in the literature of phthisis. The causes which have been suggested may be arranged under two headings: (1) postural; (2) functional.

1. Lebert connects the frequency of apex-cavities with the peculiarities of posture in man; during the day erect, at night generally supine. In what manner the erect posture exerts its influence, he does not proceed to explain; but with the supine position at night, he couples the frequent development of cavity at the posterior aspect of the lung. His arguments in favour of the "postural" theory are supported by observations in comparative pathology. From a careful study of phthisis in monkeys, he concludes that the apex is not specially liable to the disease in these animals. The close analogy of structure between man and ape renders this fact of special value.

The explanation adopted by Rindfleisch, which we will presently discuss, is also based upon the influence of posture. To the same order may be said to belong the suggestion that the apex of the lung is specially exposed to the agency of cold. From clinical observers this view has received no small share of support; we still lack, however, conclusive evidence that the parts of an organ struck by the impression of cold are invariably the seat of the resulting inflammation.

The other causes suggested by authors are mainly functional or anatomical. First among these is the alleged inequality of function at different regions of the lung. From a teleological standpoint, there would be a palpable improbability in the assumption that any part of an organ should remain permanently deprived of function; but it must be admitted that varying degrees of activity may exist not only in different parts of the same organ, but at different times in the same part. The view sometimes put forward, that the air-cells at the apex are larger than those at other parts, requires to be confirmed by practical observation. A demonstration of any such difference in the human subject is surrounded with great difficulties, owing to the possible interference of irregular inflation, of emphysema, and even of *post mortem* distension. Dr. Waters, in his Fothergillian Prize Essay on the Anatomy of the Human Lung, denies the existence of any variation in the size of air-sacs in different parts of the same lung.

Greater probability attaches to the view that peculiarities in the bronchial supply may influence the frequency of the apex-disease. Among the features special to the bronchial distribution at the apex, the relatively larger size of the tubes, and their rigidly patent and circular orifices, deserve to be noticed. But further study is required before any etiological conclusion can be based upon the anatomy of the bronchial system.

The occurrence of pleurisy at the apex has also been advanced as a determining agent. Among other considerations, the frequency with which pain is referred to the clavicular region at an early stage of phthisis, lends colour to the view, although after death the recent pulmonary deposits are often uncomplicated by pleural adhesions.

Before entering further into this etiological discussion, it may be well to sift the evidence as to the exact site of so-called apex-disease. In the later stages of pulmonary consumption, it must be conceded, the vomica commonly extends to the summit of the lung. It is habitual, however, even at this stage, to find the cavity lateral rather than median in its axis; and I may state at once that the extension of a cavity to the periphery is mainly a matter of time. We cannot, therefore, with safety, conclude from the size and position of the late cavity to the size and situation of the earlier disease. Clinical observation supplies us with valuable evidence in our endeavour to settle the question. A careful diagnosis will not fail to convince us that the early consolidations are more commonly seated in the subclavicular region than at the apex. The same fact is often capable of direct demonstration, when at the time of death one of the lungs is as yet but slightly affected. I do not wish to underrate the clinical value of an examination of the supraclavicular space. This is undoubtedly a position in which the signs of the disease are very early perceptible; but I have not encountered breaking-down in this situation with as much frequency as in the inner or in the outer subclavicular region.

With this reservation, I would proceed to discuss the etiology of the apex-lesions. I hesitate to attribute to posture so direct an influence on the localisation of phthisis as is implied by Lebert and by Rindfleisch, and I would look rather for the operation of functional causes. We must assume that all parts of the lung are endowed with breathing capabilities proportionate to their amount of spongy tissue. It would be inconsistent to suppose that any one part of the lung is in this respect at a relative disadvantage. On the other hand, we cannot fail to recognise that the type of breathing normally differs in the various districts. More than any other, the upper region of the chest is the seat of voluntary respiration, as opposed to automatic breathing; and the enlargement of the thorax by drill probably occurs to a greater extent in this than in any other part. In this observation we possess a proof that the breathing powers of the apex are not far behind those of other regions; but also an indirect proof that, under ordinary circumstances, this breathing power remains imperfectly utilised. During the bulk of our existence, respiration at the apex is decidedly sluggish; and, even in the female type of breathing, the pectoral region, rather than the apex proper, is the seat of respiratory activity.

Just as attention and training, combined with exalted vital energies, can effect an improvement of the apex-breathing, impairment of function will follow upon a general loss of tone. Even in conditions of fatigue, depression of apex-breathing is perceptible. In the initial stage of phthisis, the depression to which I have referred is extremely striking. At this stage, an inspiration sufficient to raise the subclavicular region to the normal extent may become a matter of considerable effort; and, whilst the patient breathes quietly, no appreciable forward thrust of the ribs is obtained; yet the lower and more elementary mechanism of respiration, that of the diaphragm, remains in nearly unabated activity.

Viewed in this broad manner, the theory of unequal function as a determining factor in the localisation of early phthisis commands my adhesion. The direct outcome of such a condition of lessened respiration is doubtless lessened aëration of the blood; but local effects yet more important are apt to follow. Greater than the loss of inspiratory vigour is the loss of an efficient expiration. We can scarcely overestimate the value of expiration. It shares with inspiration an influence over the circulation, which may be with accuracy compared to the action of muscular contraction in assisting the passage of blood through the muscles; and it possesses a similar influence over the lymphatic currents in the lung and pleura, as pointed out by Dr. Klein (*The Anatomy of the Lymphatic System*, Part II, The Lung, p. 18). But it is upon the bronchial system that expiration exercises its most beneficial influence. In the absence of good expiratory power, the tubes cease to be cleared of their contents; and, under the influence of the impairment in the general tone of the bronchial membrane, their secretion becomes abnormal in quantity and in kind. These are tangible results, by the side of which we are led to suspect as highly probable

a lessened vitality of the parenchyma and a disturbance of the vaso-motor mechanism.

The stagnation in the tubes of the apex is explained by Rindfleisch in a somewhat different light. Rindfleisch, in his first proposition, states that the secretions of the apex are thicker than those in any other part of the lung. The inspissation would be due to a relative dryness of the apex structures, caused by a subsidence of the blood within the vessels, in accordance with the laws of gravitation; but the mechanical explanation given for the gravitation of blood towards the base is weakened by an omission of the most important among the normal conditions of the vessels. The pulmonary vessels are not only elastic tubes, but tubes embedded in an elastic tissue, which is never quite free from tension. In the variations of the pulmonary tension, and, on the other hand, in the varying contractility of the small vessels, are to be found the real moderators of the circulation. Leaving out of consideration the slight suction which intermittently arises in the large intrathoracic veins, I fail to discover, in the supposed emptiness of the latter, a force capable of materially influencing the contents of the capillary system.

The minor details to which I have alluded in the theory supported by Rindfleisch are, in my estimation, less important than its leading idea. The drift of the theory is to refer apex-disease to local anæmia, as a cause. With such a conclusion, I feel that much of our clinical, and much of our *post mortem* experience, will be hard to reconcile. The derivation of any such view from clinical observation would have appeared to me almost impossible. With better excuse, it might have been urged from a contrast with the immunity from phthisis conferred upon the lung, by the chronic congestion of mitral disease. The rarity of the occurrence of phthisis in those suffering from mitral insufficiency, is generally admitted; but the cause of this peculiarity does not, I would suggest, reside in the large amount of blood contained in the lungs, but rather in the degree of intravenous pressure. It is rational to suppose that the pressure kept up in the vessels by persistent regurgitation may act upon the endothelial membrane to an extent which would discourage the soft cell-growth characteristic of phthisis. Assumption, however, is superfluous in this case. We possess, with regard to the pathology of venous obstruction, a rule which is of universal application. In the liver, in the spleen, in the kidney, interstitial fibrosis is the invariable result of mitral disease. This condition is also induced in the lung from the same cause—thus the antagonism is not between phthisis and congestion, but between fibrosis and phthisis.

For my part, I believe congestion to be never absent from the earliest phases of pulmonary phthisis; but, unlike the mechanical congestion of mitral disease, I hold blood fulness to be here the expression of a local loss of tone. It is comparable to the congestion present in relaxed states of the tonsils and in subacute pharyngitis; and it is similarly coupled with hypersecretion and with cell-overgrowth. This local retardation of blood is directly induced by an impairment of the aërial traffic; for we have seen that regularity and fulness of breathing are essential to the thoroughness of the circulation. Excessive collapse of the alveoli, and their excessive distension, alike constrict the capillaries. Congestion is, on the other hand, most favoured by a state of flaccidity equally removed from either extreme. Of the existence of some degree of congestion as an early condition, we possess clinical evidence, if we are to trust to the usual interpretation of the auscultatory sounds. Anatomical proofs of the same fact are not wanting: lobules are frequently found in a congested state which are unmistakably attacked by an early pneumonic catarrh; and, in other regions, we recognise indelible traces of former congestion in the black pigmentation of the lobule.

To sum up my views as to the etiology of apex-cavities, I look upon the latter as late consequences, in subjects predisposed to phthisis, of alterations at first purely functional, namely, imperfect thoracic movement—imperfect ventilation of the apex, which results in imperfect vascular tone—and, finally, subinflammatory congestion. These conspiring elements are well calculated to awaken in the tissues the dormant predisposition to endothelial proliferation which is at the root of the phthisical habit. With the progress of the cell-growth and of the alveolar distension, a secondary anæmia is induced; but the persistence of the bronchial congestion, and the limitation of the deposits to lobules, clearly show that the disease is determined by the local factor of lobular congestion.

The arguments which I have ventured to put forward in discussing the etiology of cavities at the apex derive welcome support from the rarity of *vomicæ at the base*, where the respiratory conditions are widely different. Primary phthisical excavation at the base is almost unknown in the human subject. The diaphragm is the most automatic of our respiratory muscles, and, as such, unceasingly active. Hence the base, which it can be scarcely doubted is more immediately under the influence of the contractions of the diaphragm, is also more constantly and more perfectly ventilated. This difference, noticeable in ordinary respiration, is yet more strongly marked in the exaggerated breathing which accompanies cough. It should also be noted that the relatively greater mobility of the inferior wall of the thorax often persists, even in the presence of adhesions; whilst in the upper part of the chest adhesions lead to a more rigid fixation.

Another important factor not to be overlooked, in estimating the comparative respiratory powers at various sections of the lung, is the relative bulk of spongy tissue. The upper part of the lung, which contains the bronchial tree and the large divisions of the blood-vessels, is proportionately poor in alveolar tissue. At the base, where spongy tissue makes up the great mass of the lung, the total strength of the bronchial air-current is likely to be increased, and the respiratory excursions of every constituent part are decidedly amplified.

So rare is the occurrence of primary phthisis at the base, that the evidence pointing to excavation in this situation must be weighed with extreme caution; a searching examination not infrequently proves that cavernous sounds are merely conducted to the base, which at first were deemed strictly basic. When the existence of excavation limited to the base is capable of demonstration, its origin will generally be found to be distinct from phthisis.

Among the causes leading to cavernous sounds in this situation, bronchial dilatation probably holds the first rank; in suspected bronchiectasis, we should never fail to inspect the region immediately below the angle of the scapula, as one specially obnoxious to the disease. Gangrene as a source of excavation is especially common at the base in connection with the relative frequency of basic pneumonia; and empyema leading to pulmonary cavity is equally prone to affect the lower part of the chest.

Syphilis should not be omitted as an occasional cause of basic disease; vomicæ due to this affection may be the result of the softening of a gumma or the secondary consequence of ulceration within the bronchi. The relative frequency with which syphilitic lesions are described at the base is doubtless due to the difficulty which commonly attends a distinction between a specific affection at the apex and the ordinary results of phthisis. It is not improbable that vomicæ due to syphilis are as often apicial as basic. Schnitzler, however, regards the middle and lower lobes as the seat of election for this disease.

Among the many causes which may be classed as accidental, the most important in respect of frequency is the extension of abscesses from neighbouring regions, from the peritoneum, from the liver, from the spleen, or the kidney. Hydatids constitute a separate group of great interest; they may originate within the thorax, or more commonly they make their way upwards from the liver. The impaction of foreign bodies in the lower bronchial divisions occasionally leads to excavation, as in a remarkable case narrated by my friend Dr. Mitchell Bruce in his instructive lectures on Basic Cavities, at present in course of publication in the *Practitioner*. Lastly should be mentioned, although not least important, the softening of the hæmorrhagic nodules, described by Dr. Reginald E. Thompson, which will form the subject of some further description in my next lecture.

With the exception of the last, the diseases which I have enumerated do not strictly fall within the territory of phthisis, although phthisis too often becomes developed in the later stages, and for this reason I reluctantly refrain from any further comments concerning them. This deficiency will be amply supplemented by Dr. Bruce's lectures, which contain a more practical treatment of the whole subject than could have been attempted by me.

Beyond a recognition of the frequency of cavities at the apex and of their rare occurrence at the base, the *topography* of cavities does not appear to have been hitherto specially studied. With a view to supplying some material towards a better knowledge of this subject, I have made careful *post mortem* observations in a series of 152 consecutive cases of phthisis, including five cases of bronchiectasis, and I propose bringing this lecture to a close with a review of the results which I have obtained in connection, first, with the size; and, secondly, with the position of cavities.

(1.) In respect of size the following gradations were noted:—The transformation of a whole lung (with the exception of very small surviving portions) into a single cavity was observed in five cases (three on the right side, two on the left). In addition to these, the left side furnished three other instances of very considerable disease, both lobes being converted into very large cavities which intercommunicated through a perforation in the septum, thus very closely approaching a condition of total excavation.

Excavation of the whole upper lobe occurred in 26 cases. These lobar cavities were situated :

On the right side :	On the left side :
12 times ;	14 times = 26.

Including the 5 cases of total destruction of a whole lung which I have mentioned, the interlobular septum was perforated by ulceration in 23 cases, the lesion occurring :

On the right side :	On the left side :
10 times ;	13 times = 23.

The size of the perforations varied considerably, between the diameter of a goose-quill and that of the lung itself. In all these cases, the excavations were large, and in most the ulceration appeared to have been induced by the downward extension of the cavity from the apex.

For the great bulk of the remaining cases, where excavation did not implicate an entire lobe, standards of comparative measurement were selected in the average-sized Seville orange, in the Tangerine orange, and in the ordinary walnut; and the cavities were arranged in three corresponding groups.

To the first group, comprising cavities as large as, or larger than, the ordinary orange, belonged 79 of the cases; the position of the cavities was as follows :

On the right side :	On the left side :
53 times ;	54 times = 107.

Large cavities existed, therefore, simultaneously on both sides in 28 of the cases.

In the second series, numbering 52 cases, the cavities ranged between the size of a Tangerine orange and that of a walnut. They were found respectively :

On the right side :	On the left side :
42 times ;	38 times = 80.

Thus, in 28 cases, both sides were simultaneously excavated (not including several cases in which simple softening existed in the lung least diseased). The usual site of these cavities was the upper lobe; this, however, was not invariably the case; for, in 9 instances, the larger cavity was situated in the middle third of the lung.

In a third series of 19 cases, the cavities did not exceed the size of a walnut; with 4 exceptions, they acquired a larger size at the apex than in the lower lobes. In most of these instances, although the vomicæ were comparatively small, the extent of the softening was considerable, and the disease implicated larger portions of the lung than in cases where the cavities attained more important dimensions.

It is unnecessary that I should add any comment to the simple statements which I have enumerated. The figures speak for themselves; they bring into relief the remarkable evenness with which right and left sides are affected. They also point to a great tendency in the cavities of chronic phthisis towards a progressive enlargement; and they show plainly that the severity of the disease cannot be estimated by the magnitude of the vomicæ.

2. If we pass to a consideration of the topography of cavities, we find, in corroboration of the results of other observers, a great predominance of disease in the upper part of the lung. Thus in the whole series, the *apex* presented :

Complete absence of disease	in 4 cases.
Pneumonia or blood-deposits (without excavation)	,, 3 ,,
Tubercular masses (without excavation)	,, 3 ,,
Tubercle and pneumonic masses (without excavation)	,, 1 ,,

In all the remaining instances, excavations existed at the upper part of the lung. I have abstained from a more elaborate analysis of this region, partly having regard to the uncertainty which exists as to the real limits of what is termed the apex, and partly also from a consideration of the fact that, in chronic cases, the upper part of the lung rarely fails to become finally involved, although not always diseased from the first. It should, however, be stated that the outer region of the apex is found far more frequently than the inner region to be the seat of late excavation.

The *base* afforded a remarkable contrast to this frequency of the apex disease. In the aggregate of 304 lungs, 32 only presented the features of basic excavation; and at least one-third of these cavities were mere extensions of cavities beginning in other regions, especially in the axilla. Tubercle, both of the sporadic and of the grouped variety, occurred with tolerable frequency. But the deposits more specially characteristic of the base were of non-tubercular nature. They consisted either of hard nodules, such as those described by Dr. Reginald E. Thompson as hæmorrhagic, or of the softer masses which are so commonly found at the fringe of the lung as one of the latest results of phthisis. It may be incidentally stated that both the hard nodules and the soft masses are liable to break down; and, if surrounded by the pneumonic œdema which is habitually induced at the base during the last few days of life, they may become the starting-point of extensive disorganisation.

The great frequency with which the sternal region escapes disease will be gathered from an inspection of the following table :

Sternal Region.

	On the Right.		On the Left.		Total.
Absence of lesions ...	71		66		137
Excavation by extension ...	9	30	16	31	
Separate cavities	21		15		61
Bronchiectasis	6		3		9
Fibrous changes (only) ...	12		16		28
Pneumonia (only)	6		7		13
Tubercle (only)	6		5		11
Hæmorrhagic nodules (only) ...	4		9		13
Other nodules (only) ...	17		15		32
	152		152		304

The sternal region in its lower portions closely emulates the immunity of the base, but in its upper part it is liable to suffer from the extension of vomicæ from the apex and from the mammary region. It further resembles the base in preserving its spongy nature to a late period (thus acting as a reserve of breathing tissue), and in showing a liability to the late nodular deposits which I have mentioned above; but probably owing to its position in the chest and to its vascular relations it is less subject to the thrombosis and to the pneumonia which so commonly overtake the base.

The *mammary region* forms the subject of the next table to which I would direct your attention.

Mammary Region.

	On the Right.		On the Left.		Total.
Absence of lesions ...	14		20		34
Excavation by extension ...	38	95	45	94	
Separate cavities	57		49		189
Fibroid condensation (only) ...	18		18		36
Bronchiectasis (only)	3		2		5
Tubercular and nodular deposit in the absence of excavation ...	22		18		40
	152		152		304

The facts expressed by these numbers are, briefly, the following.

The mammary region escapes disease but rarely (in a proportion closely approaching 1 to 9) in cases of advanced phthisis. Excavation, on the other hand, does not occur in more than one-third of the cases. Whether taken separately or in their aggregate, the various figures relating to this region show once more very strikingly the uniformity with which disease affects both sides of the chest. It will be noticed that cavities are more apt to be formed in the left mammary region than in the right, but the latter is more frequently the seat of separate excavation. This difference is partly to be explained by the smaller size of the left lung, and by its anatomical relations, which restrict its expansibility. The greater respiratory surface possessed by the same region in the right lung finds another demonstration in the relative frequency of nodular and tubercular deposits as compared with the left.

A more exact localisation of the vomicæ in the mammary region was attempted in fifty-three of the cases only. The central mammary region yielded thirty-one cavities, and the outer nineteen, against three cavities referable to the inner portion of the same district. These numbers are too small to warrant any conclusion beyond the fact that the inner pectoral region is not favourable to excavation.

The *dorsal aspect* of the lung, owing to the space occupied by the vertebral column and mediastinal structures on the one hand, and by the root of the lung on the other, is comparatively of less extent than the anterior surface. The portion corresponding to the vertebral groove is not specially prone to disease; it is commonly found yet spongy when the mass of the organ is disabled. Excavation in this situation is one of the latest events, and not infrequently it is due to the softening of loose masses of irritative pneumonia, such as I have described at the base. Of the remaining portions of the posterior pulmonary surface, the upper and the lower have been included respectively in the description of the apex and of the base; and the *mid-dorsal region* I would now propose to consider in conjunction with the *axillary district*, with which it is closely connected in the march of the disease.

In this section of the lung, the following results were obtained from a study of my 152 cases.

Dorso-Axillary Region.

	Right.	Left.	Total.
Absence of lesions	14	15	29
Excavation	111	116	227
Fibroid changes (only)	1	2	3
Compression (only)	—	1	1
Pneumonia or caseation (only) ...	2	1	3
Œdema (only)	1	—	1
Caseating tubercle (only)	—	3	3
Dry tubercle (only)	18	7	25
Nodules (including hæmorrhagic deposits)	5	7	12
	152	152	304

We gather from this table a knowledge of the remarkable proneness to disease peculiar to this region, and of the yet greater proneness to excavation. As in the other parts of the lung, the two sides show but little difference. The excess in the number of cavities in the left axilla, and of tubercle in the right, is probably correlated with the relatively larger extent of breathing-surface at this section of the chest, on the right than on the left side, whereby the secondary excavation is comparatively delayed in the right lung.

In conclusion, I have prepared for your consideration a tabular statement of the frequency of excavation in the various pulmonary regions, derived from the tables given above.

Regional Frequencies of Excavation in 304 Lungs examined.

Excavation at the apices	282
,, ,, dorso-axillary region ...	227
,, ,, mammary ,, ...	189
,, ,, sternal ,, ...	61
,, ,, base	32

The most striking fact revealed by this table is the high proportion which the dorso-axillary excavation bears to the total number of cases of chronic phthisis. I doubt whether clinical observations have hitherto led to so high an estimate of the frequency of the lesion. A knowledge of this pathological fact cannot fail to stimulate a more searching clinical exploration of a region so liable to disease, and to strengthen the conclusions which our diagnosis may derive from physical methods of examination. I will defer until my next lecture a discussion of the pathological meaning, and of the etiology of excavation in this district. My present object was merely to call attention to the existence in the dorso-axillary region of a special tendency to excavation, to point to the clinical value of a due appreciation of this peculiarity, and to submit to you, as an apology for the dry facts with which your patience has been tried, a practical proof of the assistance which anatomical study may render to diagnosis.

ABSTRACT OF LECTURES
ON THE
MORPHOLOGY OF THE MAMMALIAN SKULL.

Delivered at the Royal College of Surgeons of England.

By W. K. PARKER, F.R.S.,
Hunterian Professor of Anatomy in the College.

Lecture IV.—The Endocranium Proper in its Gradation and Development throughout the Vertebrate Series.

The notochord is common to both cranial and spinal regions; its proper sheath, as well as the membrana elastica externa and a certain amount of indifferent tissue and embryonic cartilage, also extend into the head. The notochord itself ends in the skull beneath the fold of the mid-brain, the form of which it in some degree takes. The primary condition in which both skull and spine are indistinguishable is very transitory; moreover, the fore part of the skull is deficient as to notochord, and thus, even now, there is this distinguishing character between them. The differentiation between these two regions now goes on rapidly; and one cannot be said to be a modification of the other, for their morphological relations diverge from the first.

Whilst the tissue on either side of the notochord in the spinal region is still quite embryonic, two tracts of cartilage—the trabeculæ—appear near the cephalic end of the notochord, which they embrace by their hinder attenuated parts. From the apex of the notochord they pass forwards round the base of the fore brain, thus enclosing the pituitary region, in front of which, however, they do not at first unite. This is best seen in the larvæ of the lamprey and axolotl. In these forms, the trabeculæ soon meet in front of the pituitary body, in that which will be the ethmoidal region, and then grow still further forwards, united as a single plate—the internasal plate. This gives off either one broad shield-like plate—as in the lamprey, or two crescentic horns—the cornua trabeculæ—as in the axolotl. In the lamprey, the prochordal trabeculæ are united by a median cartilage—the intertrabecula.

At first, there is no upward growth to form the side walls of this membranous skull. The rest of the basis cranii in the larval lamprey is apparently finished up to the spinal region by a continuous growth backwards of the two bars. In the axolotl, however, there are two new plates of cartilage which finish the basi-occipital region.

Properly speaking, the *prochordal* part of the trabeculæ only receives the name of trabeculæ; the *parachordal* part, whether developed separately or continuously with them, should be spoken of as the investing mass.

The primary skull of the axolotl is more simple than that of the embryo and larva of the lamprey; for the visceral arches in the former are developed independently, whilst, as soon as cartilage can be traced in the larval lamprey, a bar grows out under the emerging fifth nerve, which is the commencement of the great subocular arcade—the counterpart of the suspensorium of the tadpole, of which we shall treat next. In both these cases, the basis cranii in early embryos is very flat, being but little affected by the mesocephalic flexure—a state of things very unlike that which we shall find in the higher types. In the lamprey, after metamorphosis, outgrowths of the basis cranii appear, which are evidently the scarcely differentiated representatives of the mandibular and hyoid arches; there is also a basal bar corresponding in a very generalised form to the basi-hyo-branchials.

In the axolotl, on the contrary, six pairs of visceral arches are developed, besides some small cartilages in the ethmoidal region which become part of the face. As the skull develops, the upper part of the mandibular arch coalesces with the skull-wall close in front of the auditory capsule.

The next important type of primordial skull is found in the Anura. In these, as in the axolotl, two pairs of muscle segments can be seen at the base of the skull; but cartilaginous tissue only appears at first near the end of the notochord, in the postclinoid region. There, the rounded ends of the trabeculæ abut against the apex of the notochord, and then diverge suddenly outwards, approximating again in the ethmoidal region, and again diverging in the front part of the face as the cornua trabeculæ; still, at this stage, they are quite separate from one another. There is afterwards an intertrabecular tract, both in the ethmoidal and cranial regions. Each trabecula is continuous at its hinder end with a bar of cartilage, which encloses an oval subocular space outside the floor of the fore-brain by growing into the trabecular region where it bends inward in front. This suspensorium, or undifferentiated mandibular pier, ends in front in a short blunt process—the quadrate region—with which is articulated a short mandibular or Meckel's cartilage. Only inferior rudiments, representing the hyoid and branchial arches, are developed at first.

In the case of the sharks and skates, the trabeculæ are half parachordal and half prochordal. They chondrify at first, as in the cases mentioned; but the parachordal tracts chondrify later, and run far into the spine, without any subdivision into cephalic and spinal regions. Afterwards, the two trabeculæ become united together under the fore part of the brain; a styliform intertrabecula appears, and cornua grow forwards on each side. The visceral arches are all developed independently of the basis cranii.

The primordial skull of the sturgeon is very similar to that of a shark or skate; and there is no difference of time as to the chondrification of the prochordal and parachordal tracts: the latter run far into the spine without segmentation, and appear never to acquire an atlanto-occipital articulation. In a bony ganoid, such as Lepidosteus, the chondrification of the basicranial tract is continuous from the occipital to the ethmoidal region: thus the parachordals do not extend into the spinal region, and there is no distinction between parachordal and trabecular regions, except that the latter are continued in front of the notochord. A remnant of an archaic condition of the skull, seen also in the early frog or toad, as already mentioned, is that the subocular bar or suspensorium is continuous with the ethmoidal end of the trabeculæ. In the lamprey, it is continuous posteriorly; in later stages of Anura in both places; and in the Urodeles in neither. The upper part of the hyoid arch is chondrified continuously with the skull.

In the Teleostei (salmon), the chondrification of the basicranial bands takes place in a manner quite similar to that of Lepidosteus; but the fore part of the subocular bar is developed independently from the hinder part, and both, as well as the hyoid arch, separately from the skull.

In the simplest form of the reptilian skull—viz., that of the common snake—the trabeculæ are direct continuations, in an attenuated rounded form, of the broad parachordal plates. They meet and unite in front without a median piece, and retain their embryonic condition throughout life. Two pairs of visceral arches are developed independently of the skull.

The development of the trabeculæ as direct continuations primarily of the parachordals, is seen also in lizards, turtles, and crocodiles; but in the two latter, the trabeculæ, as in the salmon, are segmented from the investing mass. Almost at the same time that the trabeculæ are chondrified, an intertrabecula is developed as a rounded rod, and all three have the rounded form of the permanent trabeculæ of the snake.

In the Amniota, unlike the low ichthyic forms, the investing mass rises high into the fold of the mid-brain, and the notochord with it. Thus is formed the large postclinoid wall.

The chondro-cranium of birds is developed in a manner quite similar to that of the crocodile and the turtle. This is especially to be seen in the Struthionidæ; but that of the common fowl differs only in non-essentials. In all the Sauropsida, the visceral arches are developed independently of the cranium.

The difference between the early chondro-cranium of a mammal and that of the Sauropsida arises from the fact that the tissue which forms the whole of it, including the walls of the nasal and auditory capsules, chondrifies nearly at the same time, so that they can only be studied as separate parts before the tissue becomes cartilaginous. Afterwards, however, in the last stage of the skull, the ossification of the two sense capsules separately from that of the endocranium gives to their various parts a distinction which could not be seen even in the earliest stage of the skull. In mammals, as well as in Sauropsida, the visceral arches are developed independently of the basis cranii.

NOTE ON THE SANITARY CONDITION OF BAGSHOT PARK.

By W. S. PLAYFAIR, M.D., F.R.C.P.,
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It has been suggested to me by his Royal Highness the Duke of Connaught, that, as a matter of general interest to the medical profession, I should communicate a brief notice of the results of the careful investigation and reports made by Mr. Rogers Field into the sanitary condition of Bagshot Park, the defects in which are believed to have led directly to the Duchess of Connaught's late serious illness, from which she is now happily entirely convalescent. This is a suggestion I willingly comply with, in the hope that so prominent an instance of the danger that may arise from such faults of construction and workmanship as have been proved to exist may have the effect of directing attention to the paramount importance of questions of this kind.

It may be well to premise that the present house at Bagshot Park is not that long occupied by the late Sir James Clark, but an entirely new building, recently erected at a cost of from thirty to forty thousand pounds. As a matter of course, considerable pains were taken in the arrangements and ventilation of the drains; but it appears that, not only was the system adopted in itself defective, as was pointed out at the time of construction by Sir Howard Elphinstone, R.E., the Comptroller of His Royal Highness's household, but that the work was in many instances so carelessly carried out, that it is a matter of astonishment that more grave results have not followed. It is impossible to describe the whole system of drainage without reference to plans, but a few examples of the faults will show how readily, even in a new and costly mansion, the inhabitants may, without suspicion, be exposed to risks, the extent and subtlety of which it is difficult to estimate. For this purpose, I quote from Mr. Field's report, which has been placed in my hands. This was made after a thorough investigation conducted subsequently to Her Royal Highness's removal to Windsor, and it reveals a state of things which renders it astonishing that much more serious consequences did not long since arise. As a matter of fact, offensive smells had long been perceived about the house, and had been a common topic of conversation, but no one had suspected their origin, or had realised the dangers they were likely to cause. Many of the inmates, however, had suffered from various forms of indisposition, such as sore-throat, diarrhœa, and a general sense of heaviness and *malaise;* and these chiefly affected newcomers. Of all this, it is needless to say I knew nothing until after the Duchess's accouchement; neither did Dr. Laking nor I think much of it until serious symptoms had shown themselves.

A few examples of the defects discovered will suffice to show what was really the state of the sanitary arrangements. "The drains, taking certain baths and sinks, run underneath the house, with two chambers in their course, likewise underneath the house. Connected with these bath-drains are several land-drains, constructed of ordinary jointed pipes. This, I need hardly point out, is a very objectionable arrangement, as the bath-drains are in unbroken connection with soil-drains, the unventilated trap forming no reliable security against the passage of foul air."

All the drains inside the house, and immediately around the house, "were found, without exception, to be leaky, some of them exceedingly so."

On testing the drains, taking the soil-pipe from one closet, "water ran out of the pipe through the wall into the basement, and, on opening up the pipe just outside the wall, it was found to be not only badly jointed, but broken, and there was an accumulation of filth which had run from it into the ground."

"The bath and sink-drain under the house was so completely stopped up with a slimy deposit, that it was some time before any water could pass down it."

"On examining the basement on his first visit, my assistant noticed a vertical lead-pipe communicating directly with the soil-drains. On inquiry, he was informed that this pipe was intended for a sink which had not been fixed; and he was assured by the clerk of the works that the upper end of the pipe had been cut off and carefully sealed up. It was afterwards discovered that there had been no attempt at sealing up the pipe, but that the upper end had been left open immediately under the floor of the vestibule, and thus afforded a free passage for foul air into the house."

"All the closets had a disagreeable smell, and some of them were excessively offensive."

"The waste-pipes of the baths are in unbroken communication with the drains, instead of discharging with open ends outside the house, as they should do."

"The waste-pipes of two of the sinks have unbroken connections with the drains in the basement."

The following is specially interesting under the circumstances which led to this investigation. "In order to ascertain how far the smell from the leaky drains and rain-water overflow in the basements would penetrate, I applied the smoke-test, by burning specially prepared paper in the basements under the central saloon, study, waiting-room, and vestibule. The smoke was seen to issue in great volume from the hot-water coils in the saloon, and a strong smell of smoke was perceived in the study, waiting-room, and vestibule. It was also proved that the smoke passed from the saloon into the Duchess's bedroom. Again, on burning the special paper in the hollow wall at the back of the heating furnace, the smoke found its way into the dining-room, up the casing of the soil-pipe into the Duke's dressing-room, and thence into the Duchess's bedroom. From the foregoing tests, it will be seen that there were two distinct and easy ways by which the foul gases from the drains in the basement could find their way into the Duchess's bedroom."

I have quoted a few only of Mr. Field's discoveries, but these, I think, will amply justify his general conclusions that "the construction of the drainage both round and inside the house is very defective. This faulty work is undoubtedly the cause of the offensive smells that have been noticed; and the defects are so grave, that I consider the house, in its present condition, unsafe for habitation from a sanitary point of view."

The whole question of the effects of defective sanitary condition on the puerperal state is one which deserves much more serious study than it has ever yet received. I have long been satisfied that they have often much to do with grave forms of illness in the lying-in state, the origin of which cannot otherwise be traced. In the chapter on "Puerperal Septicæmia" in the third edition of my work on *The Science and Practice of Midwifery*, I wrote as follows: "Exposure to sewer-gas may, I feel sure, produce the disease. In two cases of the kind I had the opportunity of closely watching, an untrapped drain opened directly into the bedroom, in one instance into a bath, in the other into a water-closet. Both cases were indistinguishable from the ordinary form of the disease, and in both improvement commenced as soon as the patient was removed into another room."

The two cases here mentioned are by no means the only ones I have had an opportunity of observing; and I have long had it in my mind

to direct more marked attention to this topic. In a case I saw some years ago in Notting Hill, which I referred to in the discussion on puerperal fever at the Obstetrical Society, the patient, who had been confined within a week, had all the symptoms of a most intense attack of puerperal septicæmia, but none of a diphtheritic character, while her husband lay in an adjoining room suffering from a diphtheritic sore-throat. Here, the waste-pipe from the bath was found to communicate directly with the sewer. In spite of her intense illness, I had the patient removed to her mother's house in Holland Park, and from that moment she began to improve. In August of last year, I saw, with Dr. Parsons of Notting Hill, another similar case, in which the same source of disease was detected. Here, again, we had the patient taken away from the infected atmosphere, into apartments in the next street, a step which was instantly followed by an amelioration in her symptoms. Besides these cases, I know of three others, which ended fatally, in which I have every reason to believe that the cause of the disease was poisoning by sewer-gas.

On the case of Her Royal Highness, it is impossible for me, for obvious reasons, to comment; this much, however, I may say, that, very fortunately, her symptoms did not commence for more than a fortnight after her confinement, when the influence of the puerperium was happily much lessened; and that her removal was, as in the cases above mentioned, immediately followed by a most remarkable and instructive change for the better.

ARE HOMES FOR CONVALESCENTS FROM SCARLATINA DESIRABLE? AND, IF SO, AT WHAT PERIOD CAN THE PATIENTS BE SAFELY REMOVED TO THEM?*

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My answer to the first question in the title of this brief paper, which is written merely with the view of provoking, or rather of keeping up, the discussion of a subject of great importance in public hygiene, shall be mainly in the form of a narrative of the endeavours that have been made in the metropolis, during the last two years, to provide a practical solution of a problem which does not now for the first time occupy the attention of the British Medical Association. Two years ago, at Cork, it was the chief subject of interest in the Public Medicine Section, and was introduced in two very able and thoughtful papers by Dr. J. W. Moore of Dublin and Mr. Vacher of Birkenhead, on the provision of homes for convalescents from acute infective diseases. Those papers, and the animated discussion they awakened, showed that there existed a deep and general conviction of the need of such establishments, though the very comprehensiveness of the survey taken of the extent of the evil, of the measures required to meet what was felt to be an acknowledged defect in our public sanitary arrangements, and of the funds requisite for their execution, rather damped the ardour of the most sanguine, and suggested the fear that the adoption of the plan propounded by Dr. Moore was a vision of a somewhat distant future. It so happened that, on the morning of the day on which the discussion took place, I received from a lady in London, who was not then personally known to me, a letter requesting my counsel and aid in carrying out a project she had herself devised for providing a home for convalescents from scarlatina. On my return to town, I acquainted myself thoroughly with her views; and believing them to be sound and practicable, I advised her to enlist the sympathy, and obtain a public declaration of the collective opinions, of the leading members of the medical profession in the metropolis and its neighbourhood. To many of these I gave her notes of introduction; and the result of Miss Wardell's earnest efforts was that, in the course of a few weeks, the following declaration was signed by eighty-five medical men, including the Presidents of the Colleges of Physicians and Surgeons, Sir Thomas Watson, Sir George Burrows, Dr. Acland, and a large number of the most eminent physicians in London.

"We, the undersigned, cordially approve of Miss Mary Wardell's proposal to establish an institution for the reception and isolation of convalescents from scarlet fever, as likely to promote their more complete recovery, and also to check the spread of that formidable disease. And trusting, as we do, that its success will lead to its general adoption, we earnestly recommend this first attempt to supply a great and acknowledged want in the sanitary arrangements of the metropolis to the large and liberal support of the public, especially as the attempt will be made to render the institution partially self-supporting."

* Read before the British Medical Association at Ryde, August 1881.

Such an emphatic declaration of opinion, made deliberately and after full consideration by so large a number of eminent and experienced medical men, may be fairly taken, it appears to me, as the decisive answer of our profession to the question, Are homes for convalescents from scarlatina desirable? Yet there was not complete unanimity among those who were applied to, for two physicians in the highest position declined to sign the document presented to them; and one whose opinion on most sanitary questions is of great weight, also declined, on the ground that there would be no demand for the advantages of the home, supposing it were established. On the other hand, several, who were deeply interested in the subject, expressed their doubts of Miss Wardell's being able to carry out her project effectively by her unaided efforts, and wished her to co-operate with others who have associated themselves together to promote the establishment, on the large scale, of convalescent institutions for various infective diseases. While it is interesting to observe this substantial unanimity of professional opinion, and the desire of some to grapple at once with the intricacies and difficulties of the whole question, as was attempted two years ago by Dr. Moore and Mr. Vacher, I believe it is wiser to try the experiment with a single disease, so as to test practically the two questions of demand on the part of the public, and of the mixture of class, sex, paying, and gratuitous. In the draft regulations, as drawn up by Miss Wardell and amended by Dr. Buchanan, the tentative character of the institution which it is sought to establish is clearly set forth, when it is said that it is to be *at present* "for scarlet fever convalescents only." The smaller experiment will show the weak points in the working of the organisation, and will prepare the way for the extension of the system.

That the need of such institutions is felt by others than medical men is very plain, from the following statement of the honorary secretary of the London Fever Hospital, quoted by Sir Rutherford Alcock in the memorial addressed to the President of the Local Government Board. "There are no special homes to which convalescent patients from the London Fever Hospital are sent. Indeed, I am not aware that there is any home to which such patients can with safety be sent from any London hospital. The Committee of the London Fever Hospital have long been anxious to establish such a home; but they have hitherto been deterred from the attempt, in consequence of the heavy outlay which it would entail. The course now adopted is to keep the patients in the convalescent wards of the hospital until they can be discharged without the risk of communicating the infection to others. If the committee had a convalescent home, the stay of the patients in hospital might be considerably shortened." This implies more room for, and a more rapid admission of, acute cases into the Fever Hospital, and, if such convalescent institutions were multiplied, also into the Metropolitan Asylums. This is another, and a very practical answer, to the question: Are convalescent homes desirable? The high probability, amounting almost to certainty, that removal to pure country air would render convalescence much more rapid and complete, is another economical argument which tells powerfully in favour of convalescent homes.

With the view of helping forward Miss Wardell's beneficent project, a committee was formed some time ago, which approved and adopted the general principles and regulations which are to govern the institution when it is established. Its site is, if possible, to be within easy reach of London, but in a rural district not likely to become urban. The transport is to be by carriage, or ambulance, belonging to the home; and this, if it goes by rail, shall be put upon a truck, which may be disinfected if thought necessary, as shall also the ambulance itself. The management shall be by a small lay committee, with one medical member, whose time and engagements will permit of his attending every meeting, and who shall be the medium of communication with the Medical Council, which, being composed of seniors of high standing in the profession, shall be the ultimate authority in all questions of a medical or sanitary nature.

Probably the most effective argument for such an institution, and that which will be most readily and thoroughly appreciated by the mass of the community, is that drawn from the rapid increase of this, amongst us, formidable and fatal malady, which was so ably handled by Sir Rutherford Alcock at the Mansion House meeting, presided over by the Lord Mayor, on the 27th of last June. It appears from the Registrar-General's returns, that the deaths from scarlet fever in London were, in 1877, 1576; 1878, 1,792; 1879, 2,706; 1880, 3,073; showing a mortality that has nearly doubled in the course of four years. To this it may be objected that the years 1879 and 1880 were years of "epidemic prevalence", and that the mortality for this year may not exceed a few scores. But the experience of many years proves that what *may* happen *does not* happen in the case of scarlatina. Only in two years out of eleven has the annual mortality fallen below 1,576, which is the minimum mortality since 1873. While the victims of

small-pox in the metropolis during three successive years amounted respectively to 115, 56, and 75, or 246 in all, the lowest tribute levied by scarlatina in a single year was 652. The whole mortality from small-pox in the five years 1873, 1874, 1875, 1879, and 1880 amounted to only 704, or 52 in excess of the smallest annual mortality from scarlatina. Small-pox, no doubt, has from time to time its epidemic outbursts, accompanied by a frightful mortality, as, for instance, 7,876 in 1871; but, notwithstanding this memorable year, the annual average of deaths from small-pox during the ten years 1870-79 was only 1708.0, while that from scarlatina was 2574.1. Surely this startling fact, coupled with the other fact, that the years 1877 and 1878, with their respective mortalities of 1,576 and 1,792, are considered years of "average prevalence", should lead us to inquire with some earnestness whether this decennial holocaust of more than 27,000 human beings is indeed a necessary condition of our modern civilisation, which must be endured without an effort to mitigate its pitiless severity?

So much for the *deaths*. Can we from them discover a clue to the number of *cases* that occur annually in the metropolis? In default of those returns of cases of sickness, which we have so often asked from the Government during the last thirteen years, and which, seven or eight years ago, our distinguished associate, Dr. William Farr, saw no difficulty in obtaining weekly, it is in our power to make an approximate estimate of the number of cases or attacks represented by the figures cited above from the Registrar-General's summary. It so happens that a return furnished by Dr. Brewer to Sir Rutherford Alcock, and by him kindly lent to me, supplies the key that unlocks, in part at least, this mystery. It gives the total admissions of scarlatina patients into the Homerton and Stockwell Fever Hospitals, and the total deaths in them, during the years 1877, 1878, and 1879; also, by calculation, the number of deaths per 100 cases varying from 3.77 to 14.39, the average rate for the three years being 12.40 per cent. So that, from this average mortality of the Metropolitan Asylum Board's hospitals, and the total deaths for each year in the returns of the Registrar General, we obtain the following table:

Year.	Total Deaths.	Average Per Cent.	Estimated Total Cases.
1870	5,998	12.40	48,370
1871	1,896	,,	15,290
1872	904	,,	7,290
1873	652	,,	5,258
1874	2,662	,,	21,467
1875	3,651	,,	29,443
1876	2,297	,,	18,524
1877	1,576	,,	12,709
1878	1,792	,,	14,451
1879	2,706	,,	23,435
1880	3,073	,,	24,782

Hence, the eleven years' average of cases annually occurring in London is about 20,100. Of these, we know, from Dr. Brewer's return, that the Homerton and Stockwell Hospitals received a yearly average of 876 cases during 1877, 1878, and 1879. And if, in the absence of any precise information regarding all the other hospitals for the treatment of infectious disorders, we allow that 3,000 patients suffering from scarlatina are admitted yearly into all the public institutions within the Parliamentary boundaries, there still remains unprovided for a huge mass of infection free to propagate itself on every hand, with scarce an effort being made to limit its ravages. From all these considerations, we conclude that the provision of homes for convalescents from scarlatina, with the view of enabling the patients to be discharged more rapidly from the hospitals, where they are now detained nearly eight weeks, and to make room for fresh relays of patients in the acute stage of the disease, is not only desirable, but a matter of urgent public importance.

But can this removal be effected with due regard to the safety of the patients? Some medical authorities, whose opinion carries great weight, hold very decidedly that scarlatina convalescents cannot, without great risk, be removed to a convalescent home till desquamation is complete, and all fear of infection has disappeared. In that case, the need of convalescent institutions would be comparatively small; "comparatively", I say, for they would still be welcome refuges to not a few whom prejudice or panic would exclude from all uninfected circles. But, as a measure of great sanitary moment, this effort would sink into a secondary place. I have therefore made inquiries in various quarters with a view to ascertain the mind of those whose experience in this class of diseases is exceptionally large. And I find that Dr. J. W. Moore is unhesitatingly of opinion that convalescents from scarlatina may be removed with but little risk long before the expiry of the six or eight weeks necessary for their complete disinfection. And through the kindness of my friend Dr. Buchanan, of the Local Government Board, I have been furnished with the following very important statement by Dr. Alexander Collie of the Homerton Fever Asylum, in transmitting which Dr. Buchanan writes: "I do not know how my own opinions about the period most advantageous to scarlatina convalescents for getting a breath of country air could be better stated than by repeating what Dr. Collie says in the enclosed letter." Here it is.

"The end of the third week, or during the course of the fourth, is, in my opinion, the most advantageous for the sending of scarlet fever cases to a convalescent hospital. The minimum stay in hospital of cases of this disease (treated to recovery) may be taken at six weeks for the Homerton Fever Hospital. For the first three weeks, it has been the rule to treat them as acute cases, and they are generally not allowed out of bed; but at the end of three weeks, or during the course of the fourth, the patients are usually put up, and from that time onward treated as convalescents. They spend the day in the day-rooms and the airing-courts. The hospital for them is thus a convalescent hospital, with the disadvantage to the hospital of occupying space that would be more fitly occupied by acute cases, and to themselves of wanting many of the special advantages of a strictly convalescent hospital.....Complications occur during the convalescent period, but not commonly; and one or two small acute wards attached to the convalescent hospital would provide for these cases. The convalescents would, of course, require continuous medical attendance."

This statement, not of opinions, but of facts, made by one whose experience is extensive, and whose thorough competency, both as an accurate observer and as a skilful practitioner, is admitted on all hands, goes far to settle the moot question of the removability of the convalescent, without much risk, at a comparatively early period; and encourages us to expect that, if complications are not common in fever hospitals among convalescents, who are permitted to spend the day in "the airing courts" during and after the fourth week, they will not be more frequent among those who may be removed at the same period, and with all needful precautions, to a convalescent home. One of the most important of these precautions is, that no one shall be admitted into the home without a medical certificate that removal does not involve extraordinary risk. And not only as regards the state of the patients themselves, but as regards external circumstances, as of clothing, temperature, weather, etc., care will be taken to reduce the risk to a minimum, so that the forebodings of those who maintain that our convalescent home will be turned into an hospital by the frequency and gravity of the sequelæ, may, by God's blessing, be disappointed, and the success of this interesting experiment secured. It appears very clear, however, that a resident medical officer, with a moderate salary, in addition to board and lodgings, cannot be dispensed with, unless there should fortunately be a thoroughly qualified medical practitioner in the near neighbourhood of the home, who could make frequent and regular visits, and be readily summoned on emergency.

But we have as yet touched only the fringe of this great subject. We have been involuntarily thinking of those who are well cared for in comfortable hospitals, and anxiously seeking to provide for their safe removal. But what of those for whose treatment no hospital accommodation is provided? We have been caring for the 3000, but where are the 17,000, and who is caring for them? Surely, in the case of by far the greater number, any change must be a change for the better. In their solicitude lest the fortunate minority should incur any risk, however small, those who oppose their early removal seem altogether to lose sight of the vast majority, who are actually incurring far greater risk as regards themselves, and, by their presence in their homes and in the streets, are endangering the health and the lives of the multitudes with whom they are brought in contact, spreading far and wide that subtle poison which carries suffering and sorrow into thousands of families, and fills our graveyards with victims who are gleaned in overwhelming proportion from among the youthful and most promising portion of the population. To arrest, in some measure, this fearful waste of precious life, to lessen to some extent this unknown mass of human misery, and, by setting an example before the world, to awaken a sense of the need of earnest effort, these are the objects of this humble endeavour to grapple with a formidable evil. The work is great, but it is also good, and though the beginning is small, we believe that it will prosper and have good success.

It was announced, at the last German Hospital Court, that the managers had determined to establish a convalescent home. It may be mentioned, as an illustration of the need of such a step, that twenty patients stayed in the hospital during last year for a period of time representing 125 months, and thus closed the wards of the hospital to a number of applicants greatly in want of accommodation in them. Most of these patients had been kept in the hospital when they might with safety have been treated as convalescents.

THE CASE OF COMMANDER SELBY, R.N.

By R. SARELL, M.D., M.R.C.P.,
Professor of Clinical Surgery in the Imperial School of Medicine, Constantinople.

At about 7 P.M. on Tuesday, February 14th, I was called on board H.M.S. *Falcon*, which had just returned from the Marmora, to see her captain, Selby, who had been severely wounded at about 3.30 P.M. on the previous day by Albanians, while out shooting near Artaki. I saw him in consultation with Staff-Surgeon Kellett of the *Falcon*, and Surgeon Drew of the *Cockatrice;* the latter, having replaced Dr. Kellett, absent on leave, had had charge of the sufferer ever since the accident. Captain Selby was lying in his berth, his head bandaged; he did not complain of pain; his pupils were normal, and his countenance bright and intelligent. When questioned, he said "yes" to everything, and repeated "yes" over and over again; although showing by his manner that he knew it was not what he wanted to say, until by a final effort he was able to say "no".

As in the berth where he was lying he could not be conveniently approached, we caused a bed to be placed on the floor of the cabin, and Captain Selby was moved to it quite easily with a little help. On removing the bandages, I discovered a large gash with gaping sides right over the vertex in the middle line, slightly oblique from behind forwards and from left to right; the margins of the wound were distant nearly a quarter of an inch at its centre, the intervening space being filled with clot; the right border was raised, while the left seemed depressed; but this depression was only apparent, and due to the displacement upwards of a large fragment of the left parietal bone; this fragment had not only been broken off at its attachments, but also broken transversely into several fragments; the fragment at the posterior angle of the wound was the smallest and presented the greatest mobility, and its edge was tilted upwards. At this point, on dropping gently a probe into the wound, I found that it penetrated more than an inch.

Notwithstanding the severity of the blow, and the injuries it inflicted, Captain Selby had neither been knocked down nor stunned; he had been able to escape from his assailant, to walk and to run, to undergo even further ill-treatment from other Albanians who garotted him, to travel on foot a considerable distance to the seashore, where he took some refreshment, and even smoked a cigarette, and finally to climb up unassisted the ship's side, which he reached at about 9 P.M. At this time, nearly six hours after the accident, Dr. Drew washed and cleaned the wound, applying a weak solution of tannin to check the oozing, which was still going on, and a light bandage. Up to this moment, the power of speech was perfect, and there was no intellectual dullness. During the night, at about 1 A.M., ten hours after the accident, Captain Selby became aphasic, and when I saw him, at 7 P.M. on the 14th, about twenty-seven hours after the accident, he was still aphasic, but no other bad symptom had shown itself. He had slept several times very quietly, taken a good deal of nourishment, and accomplished unaided all the natural functions. Under these circumstances, we ordered the application over the wound of lint steeped in a weak solution of carbolic acid, to be frequently changed, and left till the following morning, when we were to meet again, for consideration of the indications which the circumstances presented.

On February 15th, I again saw Captain Selby at 10 A.M., with Drs. Kellett and Drew, and found that during the night motor paralysis of the right arm had set in. In other respects, the condition was the same; the pulse was 72, the temperature normal, and the pupils also. The question of operating to relieve the brain was considered, but, as the broken fragments of bone were evidently uplifted and raised, rather than depressed, my colleagues did not consider an operation immediately indicated, and it was consequently adjourned.

On February 16th and 17th, Captain Selby passed the days very quietly, without anything new supervening. There was good appetite; regularity in functions; no abatement of intelligence; the power of utterance seemed to return, and he was able to associate several words together; his answers were more generally correct at once. But still, locally, the conditions were unaltered, and recovery did not seem possible without operative interference. My colleagues having concurred in this view, it was decided to operate the following morning, Friday, at 10 A.M.

February 18th, 10 A.M.—On arriving on board, I found that Captain Selby had been seized, at 8 A.M., by a convulsion, lasting about half an hour and occupying chiefly the right side, and more especially the paralysed right arm. The convulsion, however, on ceasing, appeared to have left him in much the same general state. This new symptom evidently did not contra-indicate the operation, but only further showed its urgency. We administered chloroform, which rapidly induced anæsthesia without any period of excitement, and then made an incision across the vertex, from left to right, intersecting at right angles the wound at its centre. The flaps being detached and thrown back, a small fragment of bone presented itself, which had been tilted up almost perpendicularly, one end being driven inwards; this was easily detached, and removed; it measured about one inch by half an inch, and was oval in shape. The larger fragments of the left parietal bone, which had been broken and raised, lay over a clot effused between the bone and the membranes, but were not exercising any pressure on the right side. The axe had cut clean through the bone, producing no fracture; one or two sharp spicula of bone, which protruded, were broken off with the elevator. Under these circumstances, no trephining was needed, and it was not thought necessary to do anything further—the solution of continuity left by the fragment of bone removed more than corresponding in size to that which would have been made by the application of the trephine. The flaps were replaced in position, and the carbolic acid dressing, with occasional spraying of the wound with carbolic acid, ordered. The operation was borne very well, and did not occasion much loss of blood. Captain Selby continued in the same state after it; the pulse and temperature were nearly normal; all the functions were performed with regularity, he had a good appetite, and slept at intervals; there was no pain nor restlessness; the power of utterance was apparently improving.

February 19th. There was another convulsion at 8 A.M., which was relieved in intensity and shortened in duration by the inhalation of chloroform. Ten grains of bromide of potassium, every three hours, were ordered. In the afternoon, at about 4.30, there was another convulsion, very slight; and we noticed a slight degree of strabismus of the right eye, due to paralysis of the external rectus, and also a puffy œdema of the eyelids, and also ecchymotic discoloration of the lower eyelid. In other respects, there was no change. His appetite was good; he ate a beef-steak with relish at his dinner in the middle of the day.

On February 20th, there was no return of the convulsions in the morning; but the strabismus had increased, and the œdema of the right eyelid was now marked. The appetite, however, was still good, and Captain Selby again ate with pleasure a beef-steak at 12 o'clock. At 2.30 P.M., he complained of intense headache, lasting nearly two hours; after which he was again quiet. At 7.30, he was seized with vomiting, which yielded to four minims of dilute hydrocyanic acid, in half a wine glass of water; after this he dozed till 9.30 P.M., when a slight spasm set in, followed by coma, ending in death at 11 P.M.

Necropsy.—On the following day, at 3 P.M., an examination of the head was made. On throwing back the scalp, and removing the calvarium, it was found that the axe had made a clean cut, about four inches long, quite through the bone, leaving a clean bevelled margin on the right side, and tilting up on the left side a fragment of the left parietal bone, almost rectangular in shape (four inches by three), which was transversely broken into three fragments. The two anterior fragments (larger and almost equal in size) had not been dissociated from each other, but were kept together by a semi-organised clot, which lay between the bone and the dura mater. The posterior fragment (smaller, ovoid in shape), which had been driven in, penetrating the membranes and the brain, had already been removed by operation; a hole through the membranes and the brain corresponded to its position, and the finger entering this hole penetrated into a cavity to a considerable depth. On removing the brain and slicing it, this cavity, due to secondary inflammation and softening, was found to extend to the left lateral ventricle; it was filled with coagula and detritus. A considerable amount of blood was also found effused in the subarachnoid spaces at the base of the brain on each side.

It is scarcely probable that recovery could have taken place after an amount of injury such as that which is shown to have existed here; but it certainly is remarkable that the immediate effects of such a wound should have been so slight; and that Captain Selby should have been able to do all he did for so many hours after being struck.

Ladies' Dresses.—An exhibition of ladies' hygienic wearing apparel, including specimens of Greek dresses, divided skirts, tennis dresses, æsthetic dresses, and many other costumes, sanitary boots, stockings, petticoats, bodices, corsets, and underclothing, will be opened, under the auspices of the National Health Society, at the Cavendish Rooms, 51, Mortimer Street, Regent Street, on Tuesday, March 21st, 2 till 5, and will remain open till Saturday of the same week. The price of admission will be one shilling.

HOUR-GLASS CONTRACTION OF THE UTERUS TREATED WITH NITRITE OF AMYL.

By FANCOURT BARNES, M.D., M.R.C.P.,
Physician to the British Lying-in Hospital; Assistant Physician to the Royal Maternity Charity.

I WAS called, at ten o'clock in the morning on February 28th last, by one of the midwives of the Royal Maternity Charity, to a patient with retained placenta. On my arrival, I found that the patient, a secundipara, aged 22, had been delivered naturally at three o'clock in the morning of a living female child. The midwife stated that she sent for me, because she had been unable to deliver the placenta. On examination, I found that the umbilical cord had been separated from the placenta. The external os uteri was quite dilated, as was the cervical cavity; but the os internum and the circle of muscular fibres above it, called Bandl's ring, the chief seat of hour-glass contraction, were firmly contracted, and only admitted a finger, by which the placenta could be felt in the uterus. I now learnt that the midwife, hoping to accelerate the third stage of labour, had given the patient a dose of ergot as soon as the child was born. I found it impossible to get my hand into the uterus to deliver the placenta. Bearing in mind the remarkable power which nitrite of amyl possesses in relaxing tension in the blood-vessels, I determined to test its action on the uterine spasm. The patient had three drops of the nitrite of amyl given her on a handkerchief to inhale, by Mr. Lingard. During the inhalation, the ring of muscular fibres round the os internum, which had been so rigid as to be absolutely undilatable, steadily yielded, until I could pass the whole hand into the uterus and detach the placenta, which was universally adherent. There was no hæmorrhage whatever, and the placenta itself presented a remarkably exsanguine appearance. On referring to the third edition of my father's work on *Obstetric Operations*, I found the following. "We possess in ergot a great, a dangerous power of augmenting the force of the uterus. We want an agent endowed with the opposite effect, that will control and suppress uterine action. I consulted Dr. Richardson on this point. He tells me the desired power exists in the nitrite of amyl. Three minims of this added to one drachm of ether taken by inhalation is the form he recommends. It does not produce unconsciousness; but it is an anæsthetic as well as a sedative of muscular action. It is the antidote or opposite force to ergot. In it we have the desiderated 'epechontocic agent'." In the case in question, the drug certainly acted admirably. It relaxed the irregular contraction of the uterus, and acted as a sedative and anæsthetic without producing unconsciousness. The case is also instructive as an example of the dangers which may result from the administration of ergot before the expulsion of the placenta. The tetanic action was no doubt increased by the traction which had been made on the cord. It is well known that ergot, when given before the birth of the child, may cause its death. I believe this results from the blood being squeezed out of the placenta by the uterus. Although in cases of irregular contraction of the uterus that organ is firmly contracted, the contraction does not separate the placenta. On the contrary, in the cases I have seen, the placenta has been firmly adherent, as it was in this case. I am not aware that nitrite of amyl has been used to relax uterine spasm before. In it we possess, I think, a new and trustworthy addition to the resources at command for overcoming spasmodic or trismic contractions, which will not always yield to other remedies.

ON THE EARLY TREATMENT OF PROSTATIC OBSTRUCTION.*

By REGINALD HARRISON, F.R.C.S.,
Surgeon to the Liverpool Royal Infirmary.

IT may be generally stated that, of males who have passed fifty-five years of age, about one-third sooner or later have enlargement of the prostate; of these, about one-half suffer therefrom, though, so long as micturition is efficiently and painlessly performed, there are seldom grounds for complaint.

It is exceedingly interesting, as indicating how relief may be afforded, to analyse the cases where the prostate is large but does not obstruct. There are at least two conditions explanatory of non-interference with micturition under these circumstances: first, where the hypertrophy is towards the rectum and the relations of the prostatic urethra are not altered; and, second, where the hypertrophied gland is lobulated, and channels are left between the masses, along which urine flows without interruption. A careful consideration of these conditions has suggested that they are capable of artificial production, to an useful extent.

The teaching of the present day is, however, to the effect that mechanical treatment is not to be employed until either retention occurs or the bladder becomes inflamed; then such means may be resorted to. It may be asked, why the same treatment should not be applied as in the case of urethral stricture? The objection generally advanced is, that irritation will be produced. There is however, no evidence in support of this objection. On the contrary, the prostate is about the most long suffering organ in the body, and though it is subjected to a great variety of mechanical expedients, in lithotomy and other operations, it rarely becomes inflamed. It may just as well be said that, because strictures are found occasionally to be exceedingly irritable, treatment must be postponed until retention of urine or cystitis is provoked. But if intolerance to early mechanical treatment be proved, it is only postponing the day until the necessity becomes greater and the difficulty more apparent. If there be danger of irritating the prostate, it is none the less because its size is larger.

With the view of obtaining similar conditions to those occurring naturally in large prostates, where there is no interference with micturition, Ihave adopted a mode of treatment with specially-adapted bougies. The instruments are gum-elastic, two to four inches longer in the stem than usual, with an expanded portion an inch from the tip, which is made to enter the bladder. In this way the prostatic urethra is subjected to pressure on the insertion and withdrawal of the instrument.

As a rule, if dilatation be not too rapidly proceeded with, no irritation is aroused. On the contrary, greater toleration of urine follows, owing to the ease and completeness with which the bladder is then emptied.

In a few persons, it becomes necessary to establish a state of instrumental toleration, the frequency for doing this, as a rule, depending more on the manipulator than on the instrument. In some individuals intolerance of urethral interference is entirely due to the conditions of the urine. Such sensitiveness has been traced to the presence of uric acid in unnatural quantities and form. On the correction of this, patients previously intolerant of instruments have been found capable of undergoing the necessary mechanical treatment with the greatest advantage.

In advocating the early treatment of prostatic obstruction by the means referred to, I would say that I have already had sufficient proof of its efficacy. I have ascertained that the regular use of the dilators is capable of so moulding the enlargement as to prevent obstruction. Cases are under my observation where the symptoms indicated that an impediment to micturition was commencing to form. Such patients in this way have regained the power they were beginning to lose. In bringing forward my views on the subject, I do so with the feeling that little has been yet done towards preventing the progressive development of a condition which is often followed by very distressing, and sometimes embarrassing, results—results of which we are aware and which we desire to palliate, though we have hitherto been helpless in preventing them.

* Abstract of paper read at the Medical Society of London.

THERAPEUTIC MEMORANDA.

RHEUMATIC CHOREA TREATED BY SALICYLATE OF SODA AND CONIUM.

A GIRL, aged 19, had a slight attack of chorea in 1878. In the first week of January 1882, after exposure to cold and wet, she suffered for a day or two from pains in various joints; chorea then came on, and the pains ceased. I saw the patient on February 14th. Up to this time, she had taken arsenic with citrate of iron and quinine thrice daily, and thirty grains of potassium-bromide with twenty grains of chloral-hydrate every night at bedtime. She had, however, become gradually worse; and it was stated that she had not slept for the last fourteen nights. Her movements were violent and incessant. The left side was decidedly the more affected. Taking into consideration the assigned cause of this attack—namely, the exposure to wet and cold—the rheumatic pains at the onset, the existence of a febrile temperature (101°) and of a cardiac *bruit*, and the failure of the arsenical and sedative treatment, I ordered twenty grains of sodium salicylate with half a drachm of succus conii to be given every four hours. A black draught was given an hour or two before the first dose of the mixture. After the second dose of the salicylate and conium, the patient slept for more than three hours. The next night, she slept six hours. She continued to take the mixture every four hours for seven days; afterwards, every six hours. In twelve days, all choreic movements had ceased, and she was able to walk quite well. Aphonia and

a slight apex-*bruit* persisted. The aphonia began during the worst part of the acute attack. Half-drachm doses of conium-juice are not known to have much power over choreic movements. Twenty-grain doses of salicylate of soda are known to very speedily allay rheumatic pains and other rheumatic effects, whereof chorea is sometimes one. Hence the rapid subsidence of the movements in this case may with but little hesitation be attributed to the influence of the latter drug chiefly, if not to it alone. For cases not rheumatic, this treatment would probably be of no avail.

T. CHURTON, M.D., Physician to the Leeds Infirmary.

SURGICAL MEMORANDA.

DISLOCATIONS OF THE ELBOW IN CHILDREN.

THERE is a common dislocation in children up to about five years of age of the upper end of the radius forwards. In Heath's *Minor Surgery*, there is mentioned an injury of this kind, first noticed by Mr. McNab of Epping. It is described as rare. The child has had either a slight fall or has been saved from falling by someone taking hold of the hand. The arm is not quite extended, with the forearm midway between pronation and supination, or completely pronated. A slight prominence at the outer side of the elbow-joint may be felt. A moderate degree of supination, complete pronation, and flexion are allowed. The movements of the wrist are free; but the hand is not used to grasp anything. Complete supination causes great pain. Reduction is effected thus. Take the hand of the injured limb in your own; then place the thumb of the other hand on the head of the radius, and strongly supinate. A distinct "thud" will be heard, and the radius will be felt to slip into its place. It has a great tendency to recur. I have seen ten examples of this injury within the last twelve months.

SIDNEY HERBERT LINDEMAN, King's Lynn.

TONSILLOTOME *versus* THE BISTOURY AND VULSELLUM.

IN the BRITISH MEDICAL JOURNAL of February 2nd, 1882, in an article entitled "On the Treatment of Hypertrophy of the Tonsils", we are told that the operation for the removal of the tonsils with the tonsillotome compares unfavourably with that performed with the bistoury and vulsellum.

It is true that the former operation may not usually be performed in Edinburgh, but is largely practised elsewhere, and is highly recommended by many competent authorities—viz., Morell Mackenzie, Chassaignac, Bryant, etc. It is by far the quicker and easier operation of the two; but one assistant is necessary to steady the patient's head; no assistance is necessary to depress the tongue; the cutting is done by one action of the thumb; and the performance of the operation usually occupies ten or fifteen seconds. It is erroneous to suppose that it is a more dangerous operation owing to the supervention of hæmorrhage from wounding the internal carotid artery. Except in abnormal cases, there is usually a distance of nearly half an inch between the artery and the gland. As a matter of fact, the four cases of fatal hæmorrhage from that vessel, noted by Velpeau, all occurred in cases where the operation was performed with the bistoury and vulsellum.

The experiments of Chassaignac on the dead subject go to prove that not only the *whole* gland, but also the floor of the fossa in which it lies, may be included in the ring of the tonsillotome, and the blade "driven home" without wounding the internal carotid artery.

Again, with the tonsillotome, it is only possible to cut the tissues included within the ring of the instrument. Now, with a struggling child, it is easy to conceive how some unexpected movement of the patient might "jog" the arm or hand of the operator and drive the bistoury in a direction that was not intended, and thus give rise to the fatal complication recorded by Velpeau. As, I believe, a large percentage of the cases in which the operation is performed occur in children of comparatively tender age, this is a point of the utmost practical importance, and is especially referred to by Dr. Solis Cohen in his work on *Diseases of the Throat and Nasal Passages*, p. 231. No doubt Celsus did recommend removal of the gland, and with the bistoury, and does not mention the tonsillotome: probably for the same and obvious reason that he makes no allusion to "Listerism" or "Esmarch's bandage".

At the Throat Hospital, I believe hundreds of tonsils are removed every year; and, as far as I can learn, there is no record of a case of fatal hæmorrhage having occurred—the tonsillotome being invariably used. Dr. Solis Cohen states in his work: "There are several records of more than a thousand operations at the hands of the same surgeon without the occurrence of any serious hæmorrhage."

GEORGE STOKER, L.R.C.S.I.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.

CASE OF TABES DORSALIS, BEGINNING WITH PARALYSIS OF RIGHT FIFTH NERVE, FOLLOWED BY PARALYSIS OF LEFT THIRD NERVE: ABSENCE OF MARKED ATAXY.

(Under the care of Dr. RAMSKILL.)

[From notes by C. E. BEEVOR, M.D.Lond., M.R.C.P., late Resident Medical Officer.]

E. W., who had been a seaman for forty years, was admitted on November 3rd, 1880. He was married, and had five children, all of whom were healthy. His wife had had no miscarriages. There was no hereditary neurosis. He had had no previous illness, and denied ever having had syphilis or gonorrhœa. Five months ago, he began to have numbness of the right side of the face, and of the gums and inside of the mouth on the right side, but not of the tongue or of the roof of his mouth. He also bit the inside of the right cheek. The mucous membrane of the right nostril became numb; and he noticed that he could not bite so well on the right side, food collecting between his right gum and cheek.

Four months before admission—a month from the onset—he noticed that he had some slight difficulty in walking, and especially in the dark, and after this he began to have sharp, shooting, lightning pains about the ankles, knees, and hips, and along the shins. For three months he had passed urine during his sleep, and for about the same period he had noticed that his left eye was turning outwards, that the left eyelid drooped, and that at the same time he was becoming deaf in the right ear. He became deaf in the left ear ten years earlier (cause not known). For two months he had noticed some numbness of the left gluteal region and the outer side of the left thigh. During the fortnight previous to admission, he had numbness and stiffness of the left side of the mouth; and, to use his own words, he "lost a small morsel of food in his mouth". For three weeks, he had noticed some numbness in the soles of his feet.

On admission, the patient was a strongly built man; he had some paralysis of the left third nerve (partial ptosis and external strabismus), but was still able to elevate the upper eyelid a little, and turn the left eye inwards to the middle line. He could not, however, converge the left eye to a near object, as, on trying to converge the eyes, the left eye turned still more to the left, and kept parallel with the right eye. The other ocular muscles were not affected. The fifth nerve was extensively affected. The whole of the right side of the face and the mucous membrane of the right half of the cavity of the mouth, excepting the tongue, were anæsthetic to slight tactile impressions, though he could feel the prick of a pin as such. The mucous membrane of the right nostril and the right conjunctiva were also less sensitive than on the left. In opening the mouth, the lower jaw was inclined to the right; and the right masseter contracted less strongly than the left in closing the jaws. On the left side, the cheek felt stiff, and he could not bite so well; but he had no numbness of the left side of the face, or of the mucous membrane on that side. The seventh and other cranial nerves were not affected. The pupils were very small, and reacted to accommodation, but not to light. In walking, he staggered somewhat, but did not reel much when the eyes were closed, and the staggering would escape casual observation. He had the pains mentioned above, but only in the legs, not elsewhere. The knee-reaction (patellar tendon-reflex) was absent. The plantar reflex was normal. The sensibility of the limbs was not affected; he localised correctly the slightest touch, but complained of some numbness in the soles of his feet. His vision was presbyopic, but otherwise not affected; and he said that he did not see double unless an object was brought near to his eyes. Ophthalmoscopic examination showed the discs whiter than natural, with commencing atrophy. His taste was so far affected that he could only feel glycerine of tannin placed on the right side of his tongue at the fore part; he could not taste it. The power of smelling was also affected. He recognised assafœtida on each side, but twice as well on the left as on the right, he said. He could not hear a watch in either ear, whether put close to his ear or placed on the skull. There was no cardiac disease, nor albuminuria.

REMARKS BY DR. BEEVOR.—This case is a good example of loco-

motor ataxy which does not begin in the usual way; the first symptom being the paralysis of the right fifth nerve, which preceded by a month the commoner symptoms—lightning pains and difficulty in walking. The latter was never at all marked, and would hardly be noticed. The absence of patellar tendon-reflex, the optic atrophy, lightning pains, the irregular paralysis of the cranial nerves, and the Argyll-Robertson pupils, were the chief symptoms present characteristic of tabes dorsalis. The deficient hearing was probably due to an atrophy of the auditory nerves similar to that affecting the optic nerves, as he was unable to hear any better when sounds were transmitted through the bones of the skull. Numbness of the feet, which is frequently one of the first symptoms of tabes, in this case followed after the other symptoms, and, on admission, was very slight, and unattended with anæsthesia. Smell and taste were also affected on the right side.

FUNCTIONAL PARAPLEGIA LASTING TWO YEARS, WITH ANKLE-CLONUS AND VIOLENT CLONIC SPASMS OF THE LEGS: CURED.

(Under the care of DR. RAMSKILL.)

[From notes of C. E. BEEVOR, M.D.Lond., M.R.C.P.]

F. M. was admitted on August 29th, 1881. Her age was 34. She was unmarried, and had been in domestic service. A younger brother had fits, and was insane; and her mother's brother was insane. The patient always had good health, but was very nervous and excitable. In June 1874, she fainted and fell down some steps, hurting her back; and after this had various subjective sensations, and was in bed for five months. She recovered partially from this, but never completely. In 1875, she had two shocks. First, she was upset out of a tramcar; and some months later she saw a man commit suicide; after this, she took to her bed for six weeks, and lost speech for some time. In 1879, she suddenly heard the news of the death of a friend, took to her bed, and had not been able to walk since.

When admitted, she was very nervous and excited, and could talk incessantly of her various subjective feelings; she became giddy from reading and looking at strong lights, and on hearing music. The least attempt at thinking upset her very much. She was fresh-coloured, healthy-looking, and of very fair complexion. She could not move the legs when lying down in bed; and, when she tried to do so, the legs were thrown into violent tetanic spasms. She could not stand, or even sit up in bed. The least exertion, as squeezing the dynamometer, gave her pain in the head and back, although her grasp registered on the scale twenty and thirty pounds for the left and right hands respectively. The knee-reaction (patellar tendon-reflex) and ankle-clonus were very readily obtained, and were excessive in degree. The plantar reflex was absent. When she was raised into a sitting posture in bed, the legs passed into rigid contracture, with the feet in the position of talipes equino-varus. The general cutaneous sensibility was not affected, and sight and hearing were good. There was no cardiac disease, and no albuminuria.

She was treated by applying very strong faradisation to the calves, and telling her at the same time to try to raise her legs off the bed herself. This was done every morning, and she was got out of bed for a few hours every day. On September 21st, and on September 29th, she could raise both legs two feet high off the bed. Ankle-clonus could not be obtained now on the left leg, and on the right leg much less readily. On testing the plantar reflex on September 29th, there was some very slight movement on tickling the feet, and she said she felt more ticklish. On October 4th, she could stand with someone on each side of her, and walk a little by herself. The patellar tendon-reflex was still excessive, but more on the right than on the left. There was no ankle-clonus. The plantar reflex was more marked on the right than on the left. She gradually improved by getting her to exercise herself as much as possible. On December 30th, she walked up and down stairs; and, after that, was sent for a walk every morning round Queen Square. She moved about almost as well as a person in natural health.

REMARKS BY DR. BEEVOR.—This was evidently a case of functional, or, as it is called, hysterical paraplegia. The ankle-clonus and tetanic spasms of the legs, while simulating the same conditions produced by organic disease, differed in being more variable and less persistent, and in being so much increased by emotional causes. The absence of the plantar reflex—a frequent condition in functional paralysis—helped the diagnosis from long-standing true organic cases, in which the plantar reflex is usually excessive, especially as the abdominal and epigastric reflexes are at the same time often present in the former and absent in the latter. Treatment by powerful faradisation to the under part of the legs, aids the latent voluntary power much more than when it is indiscriminately applied all over the legs; and these cases require to be treated gradually. For instance, vigorous attempts to make her walk, and excruciatingly powerful faradisation applied all over the legs, failed, she said, after being applied for three months. She also had Sayre's jacket and steel supports applied without benefit, as far as making her walk was concerned. The whole treatment seems to depend on a right diagnosis, and also in being applied patiently and methodically. It is also worthy of note that, as the ankle-clonus disappeared, the plantar reflex began to be obtained; and, notwithstanding the excessive presence of the former, the diagnosis of organic disease could hardly be held, though she evidently seems to have been treated for this, but unsuccessfully.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.

HYSTERO-EPILEPSY: EXTENSIVE ANÆSTHESIA: PARAPLEGIA: RECOVERY.

(Under the care of Dr. JAMES Y. TOTHERICK.)

[From notes by JOHN MORTIMER, M.B.Lond., House-Physician.]

THE patient, Mary M., was a domestic servant, who had for some months been engaged in nursing her master and mistress through serious illness. Her family history was good. The catamenia had only been present for about three years, and had never been regular. From their first appearance, she had suffered from fits; and these, during the previous twelve months, had been more violent and more frequent. Five or six weeks before admission, she had frequent attacks of giddiness; and since then the fits had been worse. At first, after each fit, she had for a short time loss of power in the arms; but for the previous month there had been occasional loss of power and sensation and some rigidity in the legs. This stiffness increased so much during the fortnight before admission, that she was unable to walk, and was carried into the out-patients' room with the lower limbs rigidly extended.

She was admitted on July 9th, 1880. She was a well-nourished girl, with fair complexion and pale blue eyes. The temperature was normal. The mental faculties were acute, and her temper appeared placid. There was marked anæsthesia in the area of the fifth pair of cranial nerves, with loss of conjunctival reflex, but no other affection of the cranial nerves. Over the whole surface of the body there was complete loss of sensation, so that a pin could be inserted deeply into the muscles. In the fingers only, tactile sensation was normal. There was slight spinal tenderness in the mid-dorsal, lumbar, and sacral regions. The joints of the lower limbs were all rigidly extended, and there was complete loss of voluntary power. There was no tremor. The upper limbs were unaffected. The plantar and patellar reflexes were absent. The abdomen was very prominent and tense, forming a phantom tumour. Muscular irritability was very much diminished in the arms and legs to the faradic current. The current produced no sensation; but the patient passed for about fifteen minutes into a cataleptic condition; the breathing became heavy and sighing; the limbs were firmly maintained in whatever position they were placed; and there was apparent total unconsciousness. The pulse was 80, full and regular. The specific gravity of the urine, which contained a trace of albumen, was 1020°. Deep pressure over the ovarian regions produced no effect. When chloroform was administered to complete anæsthesia, the abdominal prominence and the rigidity of the legs disappeared. During recovery, but while still deeply under the influence of the anæsthetic, the plantar and conjunctival reflexes reappeared, but, before complete recovery, again disappeared. Gold and silver applied to the legs produced no alteration.

On July 13th, cold water was allowed to trickle, at the rate of eight or ten drops a minute, on each leg which was exposed. This was continued for twelve hours, and caused a glowing sensation in the back and arms. She slept well afterwards; and on the following morning sensation over the whole surface to the level of the knees was much improved, and there was slight voluntary power in the right leg. The water-dropping was used for eight hours on this day. On July 16th, there was marked improvement in the voluntary power in the left leg. Sensation had completely returned in the left, and was slightly increased over the upper third of the right leg. The water was now dropped on the right leg only; and on the following day the patient could walk a few steps. On July 19th, she could walk well; but the phantom tumour, which had almost entirely disappeared, had begun to return. On the following day, it was very much larger. Water was dropped on both feet and on the abdomen for twelve hours. On July 24th, it is noted that there was no improvement, and that there were anæsthesia and analgesia of the region supplied by the dorsal nerves,

from the seventh to the eleventh. On August 1st, she was able to take walking exercise; but the phantom tumour and the anæsthesia persisted. On this and the preceding day, a cork, from which numerous pins projected, was applied to the skin of the abdomen without producing any sensation or other effect. Subsequently, blisters, the faradic current, and a galvanic chain belt were applied at various times. Finally, while wearing the latter (which caused numerous sores when applied next the skin), the sensation began to improve. On September 14th, she was discharged cured.

CUMBERLAND INFIRMARY, CARLISLE.

BRONCHOCELE: DEATH AFTER THE ADMINISTRATION OF CHLOROFORM.

(Under the care of Dr. MACLAREN.)

[Reported by Mr. WILFRID WILSON, House-Surgeon.]

W. H. N., aged 9, was admitted on February 1st, 1882. He was first under the care of Dr. Barnes, physician to the infirmary, but was afterwards transferred to Dr. Maclaren, as being more suitable for surgical treatment. He suffered from a tumour which lay across the trachea, extending from the cricoid cartilage to a little below and behind the top of the sternum. Its vertical measurement was two inches, and its transverse three inches. It was hard, and moved with the trachea. Respiration was laboured and stridulous, and the boy's lips were occasionally blue. The swelling was first noticed three years ago; since then it has steadily increased in size. Breathing had become difficult for a month before admission. Medicinal treatment was tried for a month with no improvement. It consisted of complete rest in bed, the iodide of potassium and the iodide of iron internally, and ointment of biniodide of mercury vigorously applied to the skin over the tumour. During the nights of March 2nd and 3rd, breathing was difficult; and it was determined to do what had been contemplated for some time—namely, to pass a seton through the tumour. On March 4th, chloroform was administered for this purpose in the ward by the house-surgeon, Dr. Maclaren and Dr. Barnes being present. He struggled at first, but afterwards took the chloroform more kindly. When nearly, but not fully under its influence, his breathing became worse, and the administration was stopped. Dr. Maclaren made the small incision necessary, when the boy quickly became livid; he was making great respiratory efforts, but no air was entering the chest. The tongue was at once drawn forward, and the position of the head and neck changed, but with no advantage. Dr. Maclaren then enlarged the incision with a view of performing tracheotomy, but found that the tumour made this impossible. Artificial respiration was now commenced, and in a few minutes a flexible catheter was procured and passed through the glottis and beyond the obstruction. The boy had now ceased to make voluntary efforts at respiration; but the artificial respiration caused air to pass freely in and out of the chest. It was kept up for half an hour. Dr. Barnes kept his finger on the radial artery until artificial respiration was begun, and found that the pulse continued good.

NECROPSY.—The tumour was found to be an enlargement of the thyroid. The left half was solid, consisting of hypertrophied gland-structure; the right half consisted of a single cyst surrounded by fibrous tissue, which was half an inch thick in front, and about a quarter of an inch thick behind. The passage of the trachea, where it was pressed on by the tumour, was contracted to a mere chink by a solid projection from the tumour, and very slight pressure was sufficient to close it entirely. The mucous membrane was a little swollen. The heart was healthy, the right side full of liquid blood. The lungs were congested, and there were numerous bullæ under the visceral pleuræ. In short, the chest showed the usual signs of death from suffocation. This case differed from ordinary cases of death under chloroform, inasmuch as the death was evidently caused by suffocation. There seems no reason to suppose that any other anæsthetic would have been safer. The case was reported to the coroner, Dr. Elliot, and an inquest was held two days after death. The medical facts were carefully and lucidly explained by the coroner to the jury, who returned a verdict of death from natural causes.

THE sudden death of Surgeon-General Fasson, principal medical officer in charge of the Aldershot division, is announced. It is stated that he was as usual at half-past eight o'clock, and was taking his breakfast, when he complained of feeling ill, and died immediately in his wife's arms. The deceased had been suffering from heart-disease for many years, and had sought the advice of Sir Joseph Fayrer.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MARCH 14TH, 1882.

JOHN MARSHALL, F.R.C.S., F.R.S., President, in the Chair.

THE PRESIDENT, on taking the chair, said he had first to discharge an obligation, which it was not displeasing to retain, but of which he must disburden himself. He had to return his sincere thanks to the Fellows of the Society for the honourable and distinguished position in which they had placed him. A prospective view of the work of the Society would perhaps best answer the question, why he had been appointed President; for he had been put in the chair to do his duty. How this was to be done, depended on the view taken of the constitution and character of the Society. It was composed of busy and industrious members of the profession; and was practical to its objects, while it sought to promote the science of medicine. As an old Society, its traditions should be preserved, and its reputation increased. Being democratic in its constitution, all the members had equal rights, and at the same time equal duties, in the performance of which he called on all to co-operate. On the other hand, the fact that the Society was conservative in its traditions did not mean that it had fallen into the "sere and yellow leaf." Whether called on to act for itself, or in combination with other societies, it had in itself the germs of great utility and great activity, if they were only cultivated in the proper way. As practical men, the Fellows should act punctually and practically. As scientific men, they must aim at accuracy in all that they did; and they must also do all in their power to maintain the dignity of the medical profession. His duty, as President, was an arduous one; but, assisted as he would be by the officers and Fellows, he trusted that the history of the Society in the coming term would be, at least, as successful as in any previous period; and that the friendship of kindred societies would be extended, and the bonds of friendship among the Fellows of the Society strengthened.

Address to the Queen.—The PRESIDENT reported that the Council had decided on sending an address to Her Majesty the Queen, with respect to the recent attempt on her life. He read the address, which received the unanimous approval of the members present. It was as follows.

"*To the Queen's Most Excellent Majesty, our Royal Patron.*—Madam—We, the President and Council, on behalf of the Fellows of the Royal Medical and Chirurgical Society of London, ask permission to declare our sorrow and indignation at the recent alarming outrage committed against your Most Gracious Majesty; and we desire to express our heartfelt thankfulness at your Majesty's providential escape from great peril, and our loyal and fervent wishes for your Majesty's continued safety and welfare.—Signed, on behalf of the Society, JOHN MARSHALL, President."

The Influence of Albuminuria on the Temperature of Phthisis Pulmonalis. By C. THEODORE WILLIAMS, M.A., M.D., F.R.C.P.—The author drew attention to the frequency of albuminuria as a complication of phthisis, to the insidious character of its approach, and to the grave prognosis which it imparted to otherwise hopeful cases. Its influence on the clinical history of phthisis, and especially on the temperature course, was then considered, and 16 illustrative cases were given. The patients were twelve males and four females, of ages varying from 16 to 46. In all, excavation of the lungs had taken place, and extension of disease either in the form of excavation or of tuberculisation was actively proceeding. In some there was in addition ulceration of the larnyx or intestines; eleven out of sixteen had diarrhœa more or less profuse. Albuminuria was present in all, and was generally accompanied by anasarca or by ascites or by both. The observations on temperature were made in the mouth five times a day, for periods varying from five days to six weeks. The effect of the renal disease was to mask the usual phthisical symptoms, and especially to lower the temperature. This was demonstrated by (1) temperature-charts in a case of acute phthisis before and after the supervention of albuminuria; and (2) by comparing the sixteen cases with the temperatures of forty-eight similar third stage active cases, free from the complication, showing that, while the courses under ordinary circumstances would be highly pyrexial, in the albuminuric patients it was subfebrile; and the postmeridian point from 2 p.m. to 8 p.m., although present, was carried on at one degree lower in the scale. The maxima and minima showed the ordinary extremes of ordinary third stage cases. Thirteen of the patients died; and from twelve necropsies it appeared that the tubercular changes were proceeding up to death, uninfluenced by the uræmia. The kidneys were found to be distinctly lardaceous in seven

cases, large white and mottled in three, granular or affected with interstitial nephritis in two. Lardaceous disease affected other organs besides the kidneys in six out of seven cases. These results were confirmed by *post mortem* records of the Brompton Hospital, which showed the existence of lardaceous disease of the kidneys in fifty-two per cent. of deaths from phthisis. Microscopic examination demonstrated the lardaceous change to generally begin in the vessels of the Malpighian tufts, and later on to involve the epithelium of the tubuli contorti. This evidence was contrasted with the statistics of Bamberger, Echorché, and Southey, which gave lower percentages of lardaceous disease in phthisis. The urine of the patients was as a rule scanty, the quantity falling in one case to seven ounces, and in another to two and a half ounces. The specific gravity in the lardaceous cases was high; in one instance reaching 1047. The daily excretion of urea varied from 337 grains to 54 grains; in the last instance it was accompanied by diarrhœa, and gave rise to no symptoms of coma. The rate of urea excreted daily, compared with the patients' weight, estimated by Parkes at three and a half grains per pound in a healthy man, in these cases fell to two grains and under, in one case reaching 0.9, a very small percentage. The albumen was very abundant, even sufficient on boiling to cause the urine to become solid. The reason of the lowering of the temperature was then discussed, and the author concluded that it was not due to decrease or disorganisation of the red corpuscles, but to diminution of the albumen in the blood; but, judging from the experiments of Hammond, Stolnikow, Bernard, and Barreswil, that it arose probably from the toxic effects on the nervous system caused by the retention within the blood of the constituents of the urine, though not of the urea alone. That coma did not oftener occur was probably due to the excretory influence of the diarrhœa, generally present. The prognosis of phthisis and albuminuria was very unfavourable, most hospital cases only surviving a few months after the appearance of albumen in the urine. In private practice, patients had been known to last for several years; but in the majority, albuminuria must be reckoned as of fatal import; and the ordinary duration of chronic phthisis, as extended by modern treatment, was much curtailed by this complication.—Dr. MARCET said that albuminuria was a common symptom in phthisis, but had hitherto received little attention. The most important point was, perhaps, its relation to the temperature. The cases in Dr. Williams's paper had been analysed with great care; but no definite result had been arrived at with regard to urea, which varied greatly in quantity under different circumstances, and which, when it could not be eliminated in the usual way, was often discharged by the intestines. Albuminuria was frequently associated with diarrhœa in phthisis. Was the fall of temperature due to the diarrhœa or to the albuminuria? He had looked into the literature of temperature, and could find nothing directly bearing on the subject. In phthisis, there was increase of temperature in the after part of the day, gradually passing off. One way in which the high temperature was reduced was by an excess of perspiration, heat being converted into motion. The elimination of urea and the urinary crystalloid constituents of urine required very little heat for their passage through the membranes in the kidneys; but albumen would not pass through these membranes without considerable increase of heat; and if it were the case that a conversion of heat took place in the passage of albumen, it would account in great measure for the reduction of the temperature of the body.—Dr. ANDREW asked whether there was any reason to suppose that the different forms of phthisis were each associated with a special form of renal disease. He had seen cases which seemed to show that phthisis might be the result of albuminuria.—Dr. J. E. POLLOCK thought that albuminuria and phthisis were not associated in a large number of cases; but the meeting was indebted to Dr. Williams for having observed his sixteen cases with so much care. There were two important questions: What was the cause of the high temperature in phthisis? and what were the means of reducing that high temperature? He believed the high temperature to be due to the burning in the blood with the detritus of tissues, so that caloric continually escaped. High temperature and waste of tissue were one the measure of the other. He could scarcely regard albuminuria as a cause of reduction of temperature; it was rather a coincidence. The cause of the fall of temperature was probably rather an arrest in the formation of the waste products.—Dr. GREEN thought that small quantities of albumen occurred in the urine in phthisis, often without lardaceous disease of the kidneys.—Dr. REGINALD THOMPSON asked whether the weight of the patients had been taken before death.—Dr. BERNARD O'CONNOR had noticed three cases of phthisis without marked elevation of temperature, in which there was no albumen in the urine. In one of these, there was renal disease, probably separate from the pulmonary affection. He asked whether tube-casts had been observed in Dr. Williams's cases, and whether it was really albumen that was eliminated in such large quantity.—Dr. C. T. WILLIAMS, referring to Dr. Marcet's observations, said that the patients had all been fed on nearly the same kind of food; in one only was the diet so regulated as to reduce the amount of urea. Diarrhœa reduced the temperature in some cases; but in some cases—as where there was ulceration of the bowels—there was an increase of temperature. He had not noticed any special connection of various forms of kidney-disease with various forms of phthisis. As to the relation of high temperature to waste of tissue, these did not always coincide; something depended on the appetite. If a patient were well fed, he would not lose weight, although he had a high temperature. His patients had not been weighed, in consequence of the difficulty of doing so when they were confined to bed; and the difficulty was increased where there was dropsy. Many of the cases were associated with lardaceous disease of the kidney.

OPHTHALMOLOGICAL SOCIETY OF GREAT BRITAIN.

THURSDAY, MARCH 9TH, 1882.

WILLIAM BOWMAN, F.R.S., President, in the Chair.

Atrophy of Optic Disc after Phlegmonous Erysipelas of Orbit.—Mr. NETTLESHIP exhibited a patient who presented this condition. The erysipelas set in a few days before Christmas, 1881, and affected the upper eyelid to so intense a degree as to cause a large slough; when he tried to use his eye after the erysipelatous swelling disappeared, the patient found that it had become quite blind; when shown, he had no perception of light in the affected eye, and the disc was very pale.—Mr. H. POWER wished to know whether there was any evidence of disease of the bone in the neighbourhood of the orbit.—The PRESIDENT observed that the eye itself had not suffered, with the single exception of the optic nerve; probably the nerve was compressed throughout its orbital course by the inflammatory effusion, and the atrophy was secondary to this pressure.—Dr. STEPHEN MACKENZIE asked whether it was thus produced by pressure, or rather by extension of inflammation to the optic nerve.—Mr. NETTLESHIP said that he had been able to find no evidence of disease of the bones, but there had been some antecedent discharge from the nose, which, however, had stopped about two months before the onset of the erysipelas. The patient himself attributed the attack to getting some brass filings in the eye near the inner canthus. He had not seen the patient until too late to decide whether the atrophy was primary or postneurotic. In one similar case, where he had an opportunity of examining the nerve, there appeared to be extensive degeneration of the nerve close behind the orbit, almost amounting to necrosis.

Suppurative Panophthalmitis following Ligature of Common Carotid Artery.—Dr. WALTER EDMUNDS described a case where the left common carotid artery was ligatured for secondary hæmorrhage, following a self-inflicted wound of the throat; a few days after the ligature, changes in the left eye occurred, the eyelids became swollen, the globe somewhat protruded, chemosis of conjunctiva, cornea steamy, aqueous humour very muddy; the pupil was of moderate size, but did not dilate with atropine. With the ophthalmoscope, only a faint reflex could be seen. The patient died a month after the injury with right hemiplegia. At the *post mortem* examination, three abscesses were found in the left side of the cerebrum, and suppuration had occurred in the left vitreous body. Microscopic examination of the eye showed great inflammation in the space between the two sheaths of the optic nerve, some slight inflammation of the nerve itself, swelling of the retina, and some choroiditis. Three cases were on record, in which affection of the corresponding eye followed ligature of the common carotid. In one, loss of vision only was noted; in the second, complete loss of sight, which recovered in six months; and in the third, there was disorganisation of the eye.—Mr. JAMES E. ADAMS said that this case resembled in some respects those cases of suppurative panophthalmitis which occurred in the course of ulcerative endocarditis, and suggested that the occurrence of the disease in this case might be due to some septic embola, which might have had their origin in the operation-wound.—Dr. WALTER EDMUNDS said that very deficient blood-supply to the brain might be followed by cerebral abscess, and supposed it possible that the ocular suppuration might have the same cause.—Dr. STEPHEN MACKENZIE observed that deficient blood-supply was a very unusual cause for an abscess, and suggested that the panophthalmitis was due to some extension either of cellulitis or of thrombosis from the wound.

A Case of Choroido-Retinitis in Inherited Syphilis was shown by Mr. NETTLESHIP, in which there were large areas of exudation between the retina and choroid, best marked in the left eye; these areas were white and uniform, with a soft edge, and were evidently recent. There were no other manifestations of hereditary syphilis, but there was a

full history of syphilis in the mother during the pregnancy with the patient.

Choroidal Hæmorrhage from External Injury, without Perforation of Eyeball.—Mr. J. B. LAWFORD brought forward the case of a man, aged 57, who was admitted into St. Thomas's Hospital (under the care of Mr. Nettleship) on December 9th, 1881. About a month earlier, he had been struck on the right side of the face by a charge of shot (No. 5). The side of the face was much lacerated, and became so much swollen that the patient was unable to open his eye for a week, when he found the eye very defective. When admitted, vision with the right eye was very imperfect ($\frac{2.0}{0}$; +4 D letters of 20 J.). The field of vision was limited. Ophthalmoscopic examination showed hazy atrophy of the right disc, and in the yellow spot region abundant mottled hæmorrhages; the appearances were to be accounted for either by retinal blood-staining or by blood upon the choroid covered by hazy retina. The left eye was healthy. The special point of interest in the case was the source of the blood seen by the ophthalmoscope. There was good reason to suppose that one or more shot passed around the outer surface of the globe through a wound on the conjunctiva; but there was nothing to show any penetration of the globe. It was possible that the shot had, after perhaps deeply grooving the sclerotic, wounded some of the posterior ciliary arteries; the extravasated blood might have found its way into the choroid along the sheaths of these ciliary arteries. Another suggestion made was, that the blood was effused between the sheaths of the optic nerve, and thence found its way into the retina, but the absence of blood at the optic disc and the considerable degree of sight remaining were thought to negative this.—The PRESIDENT observed that the case was one of considerable interest. It was known that sometimes the force of a blow seemed to spend itself on the back of the eye, just as in cerebral concussion the maximum of injury was often found at the opposite side of the brain to the side struck.—Mr. NETTLESHIP said that there was no evidence of any direct blow on the eye, and no rupture of the choroid such as might occur from direct violence. The question he would like to have answered was: How did the blood get into the interior of the eye? He thought, both from the present case and from other analogous cases he had seen, that there was some evidence that it might pass along the sheaths of the ciliary arteries, either anterior or posterior.—Mr. ADAMS FROST said that he had seen a case which bore on the point under discussion. The patient was a woman in whom the optic nerve was divided to prevent sympathetic ophthalmia; the affection of the eye for which the operation was performed was the irritation caused by a dislocated lens, the patient refusing to permit enucleation. About three weeks later, blood was noticed on the anterior surface of the lens.

Double Optic Neuritis after Head-Injury.—Two cases of double optic neuritis, without impairment of vision and without atrophy, resulting after injury to the head, were narrated by Mr. WAREN TAY. Case I was that of a young man, admitted into the London Hospital under the care of Mr. Hutchinson, October 26th, 1878, after a fall on the head. There were slight symptoms of concussion, and there was bleeding from the left ear. During the next few days, slight ptosis and weakness of the internal rectus on the left side were noticed. On the sixth day, the vessels on each disc were tortuous, and had a glistening, streaky, whitish appearance. There was considerable hypermetropia; the changes were thought to be old. He was found to be deaf in the left ear. On the tenth day, the ophthalmoscopic conditions were unchanged. On the twentieth day, well marked neuro-retinitis was formed, with appearances at each yellow spot region resembling those of embolism; his sight was not affected. During the next week, the neuritis increased and then diminished. The ptosis and the weakness of the internal rectus disappeared; the deafness remained. At the end of five weeks, the ocular changes had disappeared almost entirely. At the end of four months, his sight was as good as ever it was. At the end of three years, when last seen, he was well and had good sight. Case II was that of a young man, admitted under the care of Mr. Hutchinson on November 16th, 1881. He had been thrown out of a carriage on to his head, and presented well marked symptoms of concussion. He had evidently been injured on the left side of the occiput. Subsequently, the chief symptom was headache. On the twentieth day, his sight was unaffected, but well marked double optic neuritis was discovered; mercury was ordered. The evidences of neuritis increased for a week, and then disappeared; his headache subsided, and at the end of a month the mercury was stopped. At the end of seven weeks, vision was normal (he had two dioptrics of manifest hypermetropia). Mr. Tay thought these cases of interest, inasmuch as the neuritis was noticed while the patients were actually under care for injury to the head. In his experience, such cases were rare. He suggested that probably there had been meningitis setting up the neuritis, and alluded to the specimens of "perineuritis optica" shown by Dr. Edmunds at a former meeting. [Mr. Tay informed us subsequently that he had accidentally omitted reference to a case recorded by Professor Leher, which closely resembled that reported by Dr. Coupland to the Society at this meeting, *vide infra*.]

Double Neuro-neuritis after Contusion of the Brain.—Dr. COUPLAND read the notes of the case. The patient, a boy, aged 5 years, was admitted into the Middlesex Hospital on December 14th, 1880, with symptoms pointing to the diagnosis of cerebral tumour and meningitis. There was headache, vomiting, at times retraction of head, rigidity and flexion of legs, rapid pulse, complete amaurosis. In each eye, the disc was concealed by whitish exudation studded with bright spots (fatty degeneration?), with dwindling of retinal arteries and marked tortuosity of veins. There was no otorrhœa, no signs of injury to the head, but his symptoms all dated from a fall on the head from another boy's back three months before. He was unconscious for a short time after the fall, and later vomited; the next day, he was attacked by convulsions followed by insensibility. Other fits followed, and his mental condition became impaired; he began to lose his sight, but at the end of four weeks improved in other respects, until four days before admission, when vomiting and headache returned. He had lost much flesh during the period, and his intellect was quite altered. Two days after admission, he had a convulsion commencing in the right leg, followed by another of the same kind, intense pain in the head, and screaming. The vomiting was very persistent for some days, and he became very fretful. A temporary improvement on the 20th to the 22nd was followed by a return of vomiting on the 22nd and on the 27th, on which day he had another fit, beginning like the others in the right leg. The fits recurred on the 28th and on the following days; vomiting occurred at intervals. Again improvement took place, with occasional relapses of severe headache and vomiting. From January 19th to 21st, he had a slight attack of erysipelas of the nose, and fell into a low condition, from which he rallied; and when he left the hospital on February 1st, his cerebral condition seemed slightly improved, the retinal changes remaining much as before. He was readmitted on the following day, having had several "fits" since his return home, and he died comatose in a few hours. At the necropsy, there was no trace of injury to the skull. There was basic meningitis, especially about the optic commissures, and much ventricular effusion. A film of yellow pigment covered the convexity of the hemispheres, and the left inferior temporo-sphenoidal lobe was the seat of a patch of softening and hæmorrhage of old date. A softening orange-coloured clot, of the size of a hazel-nut, occurred in the substance of the right hemisphere, and another smaller focus of the same date between the thalamus and caudate nucleus of the same side. All these changes were attributed to the fall five months before death, and sufficed to produce the intense neuro-retinitis and atrophy, as well as the other cerebral symptoms. It was pointed out that the result of "concussion" in this case, without fracture, substantiated the researches of Durch and statements of Duplay, the course of events being, contusion of brain with hæmorrhages into substance as result of the concussion, followed by basic meningitis; but whether the ocular condition depended on the hæmorrhages or the meningitis was uncertain, probably the latter.

Extensive Retinitis following Injury to the Head.—Mr. MCHARDY described the case of a woman, aged 25, who, on December 4th, 1881, struck the back of her head in falling. Subsequently, she had constant headache and vomiting, and at the end of a week was obliged to take to her bed, where she remained for four weeks. On January 8th, 1882, she was admitted, complaining of failing vision and constant headache. The urine, carefully and repeatedly examined, was throughout free from albumen and sugar. On February 23rd, vision was imperfect on both sides; headache was still severe, but vomiting had ceased for two months; there was no marked anæmia. Ophthalmoscopic examination showed retinal changes resembling those seen in advanced renal and plumbic retinitis, but without hæmorrhages.—Mr. HIGGENS remarked that perhaps cases of this nature were less uncommon than was supposed; he was led to this conclusion partially by a case he had lately seen; it was that of a little boy who came for strabismus. On examining the eyes with the ophthalmoscope, well marked optic neuritis was discovered; it was then ascertained that he had fallen down an area some months before. The optic neuritis persisted for some months, during the whole time he was under observation.—In reply to Mr. ADAMS FROST, Mr. HIGGENS said that there was a high degree of hypermetropia.—Dr. STEPHEN MACKENZIE inquired whether the blood was examined in Mr. McHardy's case. It was very desirable that, in such a case, no possible condition of altered blood-state should be overlooked. With reference to Dr. Coupland's case, he pointed out the frequency with which a severe blow played a prominent part in the history of cases of tumor cerebri.—Mr. HENRY POWER men-

tioned a case of damage to one optic nerve following injury to the head, which he had recently met with. A young man, about seven days earlier, had been thrown violently from a bicycle; when the swelling of eyelids which followed had subsided, great defect of one eye was discovered. Mr. Power found marked pallor of the disc; this passed on into complete atrophy. In this case, he imagined there was some damage to the foramen opticum. Such damage at the foramen was, it was said, followed by atrophy, and not by neuritis; and this case seemed to support that statement, for when first seen, seven days after the accident, the disc was not inflamed, but pale, so that if any neuritis ever existed, it must have been of very short duration.—Dr. BUZZARD was inclined to suspect, with Dr. Mackenzie, that there was some constitutional cause at the bottom of Mr. McHardy's case. He inquired whether any sphygmographic tracings had been made. In a case of a young woman who had recently been sent to him, there was said to be no albuminuria; there was, however, well marked renal retinitis, and the pulse grave a tracing of very great arterial tension. More careful examination showed that the urine did contain albumen. In other cases he had met with, though there was no albuminuria, yet there was high arterial tension.—Dr. BRAILEY said that he believed the connection between the brain-lesion due to the injury and the optic papillitis was to be found in meningitis; that, in fact, the papillitis was an extension from meningitis caused by the blow. As to the other point raised, the occurrence of atrophy without antecedent neuritis, there were several analogous cases; in glaucoma, for instance, atrophy might thus occur, and in tobacco-atrophy there was not at any time any conspicuous swelling of the disc.—Mr. WAREN TAY said, in reply, that the point to which he wished to draw attention was the extreme unfrequency with which any changes occurred in these cases at an early period. It was important to make sure that the case was not of old standing; in one case of a man suffering from concussion, in which he found atrophy, apparently due to the pressure of a large hæmorrhage into the orbit, it turned out that the changes were old.—Mr. MCHARDY said, in reply to questions, that there had been no examination of the blood made in his case, but the chlorosis which had existed was rapidly disappearing, and that, too, under the exhibition of mercury and iodide of potassium, while the retinitis had advanced. There was no tension of the pulse. In one case of atrophy following severe injury, which he had been able to watch, there was no papillitis.

A Case of Remarkable Deficiency of Visual Acuteness in a Seaman.—Dr. C. E. FITZGERALD (Dublin) drew attention to a case which had brought to his notice an imperfection in the present system of examining seamen. On January 24th, 1882, he had been consulted with reference to the visual acuteness of a young sailor aged 25, who was about to be promoted from the rank of third officer. He had served for eight years on foreign service, but had been in the employment of a home company for about three years. His colour-sense was perfect; but his visual acuteness was very deficient in both eyes (the right eye could count fingers at 3.5 m., and the left eye V = $\frac{6}{36}$). There was well-marked convergent strabismus of the right eye, and a high degree of hypermetropia. No lens or any combination of lenses could effect any improvement in the visual acuteness of the right eye; but with *plus* 4.5 D the vision of the right eye rose to $\frac{6}{18}$. The ophthalmoscope revealed no changes. This vision was, of course, quite inadequate for a seaman; and it was difficult to understand how he had discharged his duties or satisfied the tests of the Board of Trade.—Dr. BRAILEY observed that the examination into the vision of seamen made by the Board of Trade was chiefly confined to the question of the existence of colour-blindness. In some instances which had come under his notice, the examination seemed to be imperfect even in this particular.—Mr. SHADFORD WALKER (Liverpool) said that he had recently examined the vision of a seaman (third mate), and had found it very imperfect. He was acquainted with several other instances in which seamen holding positions of varying responsibilities suffered from imperfections of vision which must seriously diminish their effectiveness.—The PRESIDENT said that the Society was indebted to Dr. Fitzgerald for raising a question of some importance. The question already engaged the attention of the Board of Trade, and the officials of the department had shown themselves most ready to receive and act upon suggestions. Recent advances in ophthalmic science had placed in the hands of surgeons methods of testing visual acuteness far more exact and searching than any before in use; it remained to find some means of applying these improvements in ophthalmic procedure to the practice of the Board examination. The subject was not one which could be easily dealt with, as many interests had to be considered, and as little interference made with private enterprise as possible.

PADDINGTON PARK.—The Mercers' Company have promised £250 towards the £100,000 Voluntary Subscription Fund.

HARVEIAN SOCIETY.

FEBRUARY 16TH, 1882.

WILLIAM HICKMAN, M.B., President, in the Chair.

Peliosis Rheumatica.—Dr. STEPHEN MACKENZIE read a paper on this subject. He mentioned that the disease was variously regarded by different writers; that it had characters sufficiently distinctive to enable us to separate it from other forms of purpura; and then sketched the disease as generally seen. It occurred in both sexes, but, in his experience, more frequently in women than in men. Though generally stated to be more common between the ages of twenty and thirty, he had seen several cases at a younger age than the former. One of its most characteristic features was, that the purpuric spots usually made their appearance in the afternoon or evening, often with great regularity; sometimes each day, sometimes with several days' interval, accompanied by pain and stiffness, and sometimes with swelling of the joints; the spots were bright when first seen, but became of a dull purple by the next day. The favourite seats of the eruption were the extremities; in some cases, they were much more general. They had this amount of symmetry: if they occurred on one extremity, upper or lower, they would generally be found on the other. As a rule, there were not profuse sweats, unless the attack occurred with rheumatic fever; the joint-affections and pyrexia, though distinct, were not severe. Sometimes there was a certain amount of erythema accompanying the hæmorrhages; often the eruption was purely hæmorrhagic. The attacks were frequently very protracted, lasting even some months, and were liable to recur. Sometimes the disease appeared to yield to salicylate of soda; at others to quinine and ergot; more often it was uninfluenced by treatment, and gradually wore itself out. In some cases it occurred during an attack of rheumatic fever; also in persons who were obviously rheumatic. After considering its alliance with some forms of erythema, Dr. Mackenzie narrated the following cases. 1. A lad, aged 18, had had one attack of rheumatic fever, and subsequent attacks of subacute rheumatism; he had rheumatic heart-disease. The present was the fourth attack; purpuric spots occurred on the arms and legs, and were accompanied by moderate arthritis and pyrexia. Many outbursts of the eruption were noticed whilst under observation; they always occurred in the evening; the attack extended for about ten weeks. 2. A woman, aged 27, was under treatment for exophthalmic goître, during the course of which rheumatic fever had developed, and two or three crops of purpuric spots occurred on the trunk and lower extremities, and extended over ten days. 3. A middle-aged woman, who had previously had acute rheumatism, had purpura accompanied by a certain degree of erythema, and the attacks occurred each afternoon. 4. A girl, aged 13, had repeated attacks, always recurring in the evening; the disease extended over ten months; she had a similar affection seven years previously.—Mr. MALCOLM MORRIS considered the disease very rare; it was difficult to assign the extent of the purpuric and rheumatic elements in it; and it must be distinguished from erythema with effusion of blood.—Mr. CRIPPS LAWRENCE narrated the case of a boy who suffered from purpura, accompanied with anæmia.

Treatment of the more Common Diseases of the Skin.—Dr. THIN read a paper on this subject, illustrating his views by remarks on the treatment of eczema, which, he showed, was most successful when conducted in accordance with the ordinary principles by which acute and chronic inflammations of other parts are treated. In acute eczema, the principle of rest to the inflamed part was secured by the free application of absorbent powders; by this means the inflamed rete mucosum was protected until the inflammation terminated by resolution. In subacute and chronic eczema, the diseased condition was kept up by a new substance, which was found amongst the products of inflammation, and the rational plan of treatment was to destroy this unknown *tertium quid*. When the symptoms were urgent in this stage, good results were obtained by using the benzoated zinc ointment of Wilson, the diachylon ointment of Hebra, and the starch poultices of Hardy. These methods of treatment protected the inflamed epidermis, and allowed the *vis medicatrix naturæ* to come into play, and resolution might thus be obtained. Frequently these means failed, and it became necessary to apply escharotics to the rete, the purely escharotic effect being modified by dilution. The substances generally used for this purpose were ointments, containing the salts or oxides of mercury, or potash soap. Their action was twofold; they destroyed chemically the diseased epithelial cells, among which the *materies morbi* presumably existed; and they stimulated, by the influence which they exerted on the subjacent blood-vessels, an effusion of blood-plasma, in which the elements of a healthy reparative action were to be found. The more inveterate forms of chronic eczema were most successfully treated by concentrated solution of caustic potash. In eczema of the scalp, diluted mercurial ointments had been

found most useful; in certain painful forms of moist eczema, starch poultices.—Dr. S. MACKENZIE considered special attention should be paid to constitutional treatment.—Mr. MALCOLM MORRIS considered Dr. Thin might have given other methods of treatment.—After some remarks from the PRESIDENT, Dr. THIN replied.

MANCHESTER MEDICAL SOCIETY.

WEDNESDAY, FEBRUARY 17TH, 1882.

EDWARD LUND, F.R.C.S., President, in the Chair.

Sarcoma of Lower Jaw.—Mr. F. A. SOUTHAM showed a sarcomatous tumour, removed (along with almost the whole of the body of the lower jaw) from a boy nine years of age. The tumour, which sprang from the periosteum and was about the size of an orange, was of four months' growth, and caused considerable deformity—projecting forwards on the chin, and upwards and backwards on the floor of the mouth. The patient made a good recovery from the operation, and left the hospital five weeks after its performance, but died at home about four months subsequently. On *post mortem* examination, it was found that no local recurrence had taken place, either in the soft parts about the jaw, or in the portions of bone which had been left at the time of operation. All the internal organs were healthy, with the exception of the kidneys, which were extensively infiltrated with secondary deposits, each weighing upwards of two pounds. The primary tumour of the jaw, as well as the secondary deposits in the kidneys, examined microscopically, were found to consist almost entirely of small round-celled growth.

Retinal Periarteritis.—Dr. MULES showed a patient suffering from general retinal periarteritis, a further account of which will appear in the *Transactions of the Ophthalmological Society*.

Transfusion-Apparatus.—Dr. WALTER exhibited McDonnell's transfusion-apparatus, and explained the manner in which it was used; he also showed a portable form of the same instrument, made for him recently by Messrs. Fannin and Co., of Dublin. He considered that, if obstetricians habituated themselves to the custom of always carrying an instrument of this kind in their obstetric bags, they would be enabled, by resorting early to transfusion of blood, to save some cases of severe *post partum* hæmorrhage from a fatal termination.

Solid Tumour of both Ovaries: Ovariotomy.—Dr. CULLINGWORTH exhibited two solid lobulated ovarian tumours, one of which weighed five pounds, the other four pounds ten ounces, removed from a hospital patient, aged 46, four days previously, with full antiseptic precautions. They had been only noticed for two or three months. Ascites was present to the extent of a pint and a half. Both tumours were extensively adherent, and the left one dipped deeply into Douglas's pouch, requiring some force to detach it. The pedicle in each case was tied, and returned. Sutures of silk-worm gut were used, and a Keith's drainage-tube was placed at the lower end of the wound for the first two days. The dressings employed were Southall's dry antiseptic pads, tenax, and a many-tailed flannel bandage. The temperature had in no instance reached 100° Fahr.; and recovery was, in fact, taking place without a bad symptom.

Goyder's Stencil Plates.—Dr. CULLINGWORTH also showed a set of Goyder's stencil plates, for recording clinical observations in a diagrammatic form.

Simulated Fracture of the Neck of the Femur.—Dr. MARCH (Rochdale) showed a fractured pelvis, from a man who died eight days after the accident from injuries to the liver, right kidney, and colon. On admission, attention was chiefly directed to a severe compound fracture of the left elbow, fracture of several carpal bones, and some injury to the hip. The limb was shortened about an inch, and markedly everted; there was no restriction to passive movement. It was considered probable that the neck of the femur was broken; but suspicion was aroused as to pelvic mischief, by complaint being made the same evening of pain and tenderness in the groin, and inability to pass urine. The urine did not contain blood or albumen; and the next day it could be voided without assistance. On the third day, the pain in the groin had gone. A *post mortem* examination showed that the femur was uninjured; and that the cause of the eversion and shortening was a fracture of the acetabulum; and that extension could have done little, and rectification of the foot-line nothing, to bring the fractured surfaces into apposition. No bruising had shown itself on the hip or abdomen, and the patient was too stout for any accurate measurement to be taken of the angular distance between the trochanter and the pelvis. Had the patient survived, the case would, doubtless, have proved most troublesome and vexatious to all concerned.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.

TUESDAY, JANUARY 10TH, 1882.

HECTOR CAMERON, M.D., President, in the chair.

Tumour of Eyeball.—Dr. THOMAS REID showed an eyeball, with a tumour springing from the choroid, protruding through the sclerotic. The patient had separation of the retina six years ago, but swelling could only be detected outside of the eyeball about a year ago. The patient's age was about forty-five.

Resection of Os Calcis.—Dr. CAMERON showed a patient, aged 16, from whose foot the os calcis had been removed subperiosteally five years ago. The bone was partially restored, the shape of the heel was well preserved, and the patient could walk several miles with ease.

Congenital Tumour of Forehead.—Dr. CAMERON showed a tumour, removed from the root of the nose of an infant, two months old. The left ala nasi was cleft; and there was a fissure in the nasal bone running up to the pedicle of the tumour, and suggesting an intracranial origin for the tumour. The tumour was pink, slightly translucent, but did not pulsate, nor could it be reduced by pressure. It was of firm consistence; and, on microscopic examination, was seen to be made up of fibrous tissue, with an excessive hypertrophy of the normal glands of the skin.

Restoration of Lower Lip.—Dr. RENTON showed a patient, whose lower lip had been drawn down towards the sternum by cicatricial contraction after a burn. Teale's operation for the restoration of the lip was performed with great success.

New Midwifery Forceps.—Dr. W. L. REID showed a new form of long forceps, intended for use in all positions of the head, and in any part of the pelvic cavity. It was short (thirteen inches), light (fifteen and a half ounces), and easily applied. It grasped the head at the brim in the biparietal diameter; permitted traction in the axis of the inlet; and also permitted rotation from the occipito-posterior to the occipito-anterior positions; and might then be used as a straight forceps.

Parametritis, etc.—Dr. MACKELLAR showed several illustrative specimens. The first was the uterus and appendages of a woman, who had aborted about the fourth month of pregnancy, and died six weeks afterwards from pelvic cellulitis. There was great matting together of the pelvic organs, an abscess at the junction of each Fallopian tube, and the right ovary was converted into an abscess. There was also purulent infiltration between the rectum and uterus, and perforation of the rectum. The second specimen was the enlarged uterus of a woman who died three weeks after delivery. The left leg was much swollen, and there was an abscess in the left broad ligament. The third uterus showed loose bands of adhesion between the uterus and the rectum; and the left Fallopian tube was elongated, twisted, and adherent to the back of the uterus. In the recto-uterine pouch was a small tumour, like an altered gland. The fourth uterus showed the left Fallopian tube dilated, and filled with a reddish turbid fluid. Two small yellow tumours were seen on the fundus, beneath the peritoneum. There was no clinical history.

Specimens shown by Card.—The following specimens were shown by card: Glioma in Floor of Fourth Ventricle; Twisting of Sigmoid Flexure of Colon; Papilloma of Bladder; Scapula with Sarcomatous Tumour, occupying the Supraspinous, Infraspinous, and Subscapular Regions; Superior Maxilla, with Tumour growing from the Base of the Skull.

SURGICAL SOCIETY OF IRELAND.

FRIDAY, JANUARY 27TH, 1882.

J. K. BARTON, M.D., Vice-President, in the Chair.

Fracture of Astragalus.—Mr. H. G. CROLY exhibited the pieces of an astragalus fractured by a fall from a horse. The man from whom they were taken had sustained a compound fracture which penetrated the joint, caused by his foot catching in the stirrup when he was thrown. The fracture was a rare one, there being only one such specimen in the museum of the Irish College of Surgeons.

The Radical Cure of Inguinal Hernia.—Mr. THORNLEY STOKER read a paper on this subject in which he traced, in historical order, the various modes which had from time to time been suggested of treating hernia with a view to its radical cure. He classified them, after Mr. Spanton, under four heads: 1. Operations designed to cause contraction of the sac; 2. Those designed to obliterate it by adhesion of its walls; 3. Those attempting a cure by plugging the inguinal canal; 4. Those which, in addition to this last, seek to draw the walls of the canal together. All these, with the exception of some in the last division, he only mentioned to condemn. Wood's operation was the first which attempted a radical cure based on sound reasoning, and a truthful comprehension of the surgical anatomy of the parts. It fulfilled

every requisite indication for a cure, by affording a substance to invaginate, by retaining it in its position in the canal, by drawing the walls of the canal together so as to close it, by engaging the posterior or movable boundary of the inguinal passage, as well as its more fixed anterior one, and by exciting enough inflammation to ensure a copious lymph-exudation and a subsequent cementing of the parts together. The notes of two cases in which Mr. Stoker had operated successfully in the Richmond Hospital were then read. T. F., aged 23, a healthy muscular labourer, had a small complete oblique reducible right inguinal hernia, which he had only noticed for some weeks before admission. Chloroform was used. The wire was untwisted on the tenth day, and removed on the fourteenth. The wound healed completely in twelve days afterwards. He was kept under observation for some months; the cure seemed to promise permanently.—J. C., aged 22, a butcher, tall, slender, but muscular, suffered from a reducible oblique scrotal hernia of considerable size on the right side; he was operated on under ether, in August last. The wires were untwisted on the ninth day, and removed on the sixteenth; ten days afterwards the wound was completely healed. In the first case, the operation was done without antiseptic measures; in the second, they were strictly observed. In both cases, the ordinary subcutaneous wire operation of Wood was performed. Both were followed by some swelling of the testis for a few days. A very light truss with a flat pad was worn subsequently, when any exertion was required, for some months. A strong truss, or one with a convex pad, was very objectionable, as being liable to press in and separate the newly adherent structures. Mr. Spanton had devised an ingenious instrument (which was exhibited), like a corkscrew with a flat point, with which he operated instead of using sutures. The advantages claimed for it were that, instead of catching the boundaries of the canal in only two or three places, it seized them in a great number; and the traction and adhesive inflammation were more complete and uniform in consequence. It seemed to be more easy of employment than the wire sutures. Wood's operation, on the other hand, afforded the surgeon more certainty as to what he was securing. A letter from Mr. Wood was read, in which he stated his results up to the present time. "The proportion of cures out of upwards of three hundred cases of operation has been seventy-five to eighty per cent. in favourable cases, and from fifty to sixty in large and severe cases." "In no case have serious symptoms of peritonitis occurred, and I have had no death in the last two hundred cases of subcutaneous wire operation."—Mr. CROLY had been curing hernia by dissection, having performed four radical cures by that means lately in the City of Dublin Hospital, one of the cases being that of a child eighteen months old, with a very large hernia. He had the hernia reduced, and kept in the abdomen; then, under the spray, he dissected down, as in operations for strangulated hernia, and invaginated the sac into the ring, stitching the pillars of the ring together in such a way as entirely to close it. The result was perfect. The advantages he claimed for this method over Wood's operation was, that the surgeon cut down from the external ring directly over the tumour, and could thus see every step of the operation.—Mr. CORLEY agreed with Mr. Croly, from what he had seen, that under modern scientific, and especially antiseptic, precautions, the operation of dissection offered a better chance of a more complete cure, and less uncertainty, than Wood's operation.—Mr. WHEELER mentioned that the operation by dissection was not a new one, having been performed many years ago by Mr. Walsh of this city.—Mr. STOKER replied.

MEDICAL SOCIETY OF THE COLLEGE OF PHYSICIANS IN IRELAND.

WEDNESDAY, FEBUARY 1st, 1882.

J. W. MOORE, M.D., Vice-President, in the Chair.

Coloboma of the Chorioid and of the Sheath of the Optic Nerve.—Dr. ARTHUR BENSON made a communication on this subject, and exhibited a boy (J. H.) and a girl (B. M.) both of whom were deaf and dumb, subjects of these defects in the internal tunics of the eye. The cases were discovered by Dr. Benson whilst he was assisting Dr. Fox of Philadelphia, to examine for statistical purposes the eyes of the deaf mutes in the institutions about Dublin. Dr. Benson also showed a drawing, taken by Dr. Samuel Knaggs of Sydney, of a case (M. D.) of double coloboma of the chorioid and iris, which was under Mr. Story's care in St. Mark's Ophthalmic Hospital, Dublin, last year. He summarised the cases as follows. (1). In M. D. there was a double coloboma of the chorioid and iris of enormous size, embracing also the optic disc. 2. In J. H. there was a double coloboma of the chorioid without implication of disc or iris. (3). In the right eye of B. M. was an enormous (by far the largest on record) coloboma of the optic nerve associated with, but separate from; a very small coloboma of the chorioid. (4). In her left eye a smaller coloboma of the optic nerve, without coloboma of either chorioid or iris, but in the position of the junction of the lips of the fœtal fissure a disturbance of the pigment-layer, suggesting the idea of a raphe, where the trouble just stopped short of the production of a coloboma. From these conditions Dr. Benson thought the following conclusions might be drawn. 1. Coloboma of the chorioid may exist without corresponding coloboma of the iris, though Nettleship in his work (on *Diseases of the Eye*) seems to doubt this, for he says (page 166) "Coloboma of the chorioid is seldom, if ever, seen without coloboma of the iris, though the two are not always of proportionate size." 2. The closure of the fissure or furrow in the pedicle (optic nerve) takes place independently of the fœtal fissure in the optic cup. (3). The fissure may (1) close in the optic nerve and remain open in the bulb, as seen in the case of J. H; or (2) may close in the bulb and remain open in the nerve, as in B. M.'s left eye; or (3) may remain open in both bulb and nerve, closure having taken place in the interval between the two colobomata, as in the right eye of B. M.—Dr. PURSER suggested that different conditions had been grouped together under the term coloboma, and that in those cases where the retinal vessels ran over the abnormal part, and where, consequently, the retina itself must have been present, there was no evidence of an arrest of development. He also made some remarks on the development of the eye, and thought that the invariable position of coloboma of the iris at the lower part of the eye, corresponding to the position of the fœtal fissure of the retina, pointed to the development of the iris previous to the complete closure of this fissure.—Mr. STORY had brought a picture of a coloboma which had been observed in the eye of a rabbit by Professor Deutschmann. In this case the retina was broken off suddenly at each side of the coloboma, and curled up back on itself, and the retinal epithelium also ceased at the same spot, so that there was an absence of both the outer and inner layers of the secondary optic vesicle at the place of the coloboma. Between the retina and the chorioid there was some inflammatory matter effused, which had pushed the retina away from the chorioid. The theory proposed by Professor Deutschmann might meet a great number of cases; it was that the fissure of the optic vesicle did close in those colobomatous globes, but that some inflammatory process subsequently occurred which broke it open again.—Dr. HENRY KENNEDY asked whether this form of disease was confined to young deaf and dumb persons, or did it occur in adult life?—Dr. ARTHUR BENSON, in reply, said he was unable to say whether it was more frequent in the deaf and dumb than in any other class of persons. Out of somewhat under five-hundred individuals examined in the institutions about Dublin, they found two cases of double coloboma, and that was a much larger proportion than existed in the entire population of the country; but the number of cases examined as yet was small. Coloboma was undoubtedly a congenital defect—at least, it was not formed after birth.

Peculiarity in the Urine of Acute Pneumonia.—Dr. WALTER SMITH made a communication relative to a peculiarity observed in the urine of a patient suffering from acute pneumonia. A young gentleman, aged 22, who previously had not been in very robust health, caught cold on the evening of January 20th, 1882. That night he was seized with rigors, headache, and vomiting, and the temperature ran up to 105°. He complained of intense pain over the precordial region. Marked irritability of stomach, with frequent vomiting, continued for several days. On the 24th January—*i.e.*, the fifth day of his illness—the physical signs were detected of early consolidation in the base of the left lung. The pneumonia extended, involved the other lung, and the constitutional symptoms became very grave. The young man never rallied, and sank early in the morning of January 28th. The temperature-curve exhibited considerable remissions, and, tested upon numerous occasions, the temperature in the *right* axilla was higher than in the left, sometimes by more than 1° F. Some of the urine passed on the 24th and 25th, was examined. That of the 24th was very turbid with lithates; that of the 25th was nearly clear. Each specimen was bright coloured and acid; chlorides were markedly deficient. (1). *Serum-albumen.*—Tested by the usual methods, a very moderate amount could be precipitated; no distinct flocculi. (2). *Serum-globulin.*—Saturation of the urine with sulphate of magnesium threw down an abundant precipitate of globulin. (3). The urine, freed from albumen, *yielded an opaque white precipitate with tannic acid*, and also with phospho-tungstic acid, and it was rendered turbid by alcohol. The tannic precipitate dissolved by heat, and was reprecipitated on cooling. These reactions suggested the presence of peptone; but since the urine, when freed from mucus (by acetate of lead) and albumen (by precipitation along with basic acetate of iron), yielded no colour with Millon's test, and failed to give the xantho-proteic reaction, the presence of any albuminoid

seems to be negatived. Moreover, all attempts to get the characteristic biuret-reaction for peptone ended in failure. The patient had been treated with sulphate of quinia, but direct testing of the urine for that alkaloid gave a negative result.—Dr. HENRY KENNEDY observed that it was the rule for some time to elapse before the physical signs of pneumonia developed. According to his observations, the thermometer invariably stood from one to two degrees higher on the diseased side.—Dr. PURSER thought that the substance described by Professor Smith could not be peptone or any proteid, as it failed to give the fundamental reactions of such bodies—namely, the xantho-proteic, Millon's, and the biuret reactions.—Dr. FITZPATRICK said pneumonia had been very prevalent in Dublin within the last six months; and a characteristic of the disease had been its stealthy, silent onset, without symptoms or physical signs. He saw two cases in which there was no cough, or hurried circulation, or increased temperature: the only symptom being *malaise*, or influenza.—The CHAIRMAN remarked that the outcome of the case from a clinical stand-point was that it afforded another proof that pneumonia is an essential continued fever manifesting itself in connection with the lungs only after the lapse of a certain period of invasion. In fact, the lesion of the lungs was analogous to the condition of the ntestines in typhoid fever, or to the condition of the skin in the exanthemata or eruptive fevers.—Dr. SMITH, replying, said that we were still in want of a definite test for peptone. If albuminous urine were kept, peptone might be formed and found in the urine, although it had not been really excreted as peptone by the patient. Under all circumstances therefore, the assertion of the existence of peptone in urine should be received with caution. He thought the case in its clinical aspects entirely bore out the view that pneumonia was essentially a constitutional malady, with a local development in the lungs.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, FEBRUARY 11TH, 1882.

WILLIAM STOKES, M.D., President, in the Chair.

Report of the Committee of Reference.—The following report was presented. In Brigade-Surgeon JACKSON'S case of disease of the bladder, the question arose: whether the cyst which communicated with the bladder was the sac of an abscess, or a sacculus of the bladder. The former appears to be the correct view, while the latter is untenable: for the walls of the cyst are formed of the condensed pelvic areolar tissue and fasciæ only, and no trace of a mucous membrane or of any muscular fibres of the bladder is discoverable in its structure. [Specimen exhibited January 14th, 1882.]—With regard to the PRESIDENT'S specimen of a foreign body, found in immediate relation to an ulcerated opening in the vermiform appendix, the committee is of opinion that, although at first sight the shape of the body, its size, and external structure, suggested that it might be a vegetable seed, a damson-stone, or the like, the section of the body proved, by its brittleness, its evident concentric lamination, and its microscopic structure, that it had been formed as a calculus of the vermiform appendix. [Specimen exhibited January 21st, 1882.]

Chronic Bright's Disease.—Dr. WALTER SMITH showed the kidneys of a woman, aged sixty years, in whom Dr. William Moore detected albuminuria ten years previously. The patient was admitted to Sir P. Dun's Hospital about a fortnight ago, being then anasarcous for the first time. The urine contained albumen, tube-casts, and blood-corpuscles. Epileptiform fits occurred once or twice daily from the 4th of February, and in one of these fits she died on the 8th. The right kidney was granular on the surface, and in a state of extreme cirrhotic atrophy, with minute hæmorrhagic puncta in the pelvis. The left kidney was of normal size, dense, tough, and highly granular. Its capsule was thickened. There was a hæmorrhagic spot at the apex of one of the Malpighian pyramids.

Stricture of Sigmoid Flexure of Colon.—The SECRETARY (Dr. Bennett) presented, on behalf of Dr. RINGROSE ATKINS of Waterford, a specimen, consisting of a portion of the intestine—the junction of the colon with the rectum—taken from the body of a man aged fifty years, who died in hospital, having suffered for about thirty-eight days previously from almost complete obstruction of the bowels. When the abdomen was opened, a small quantity of greenish serous fluid was found in the peritoneal cavity; the intestines were filled with soft yellow fæces; the ascending, transverse, and descending colon being distended almost to bursting. At the sigmoid flexure the stricture was met with, so tightly contracting the lumen of the gut, that the tip of the little finger could scarcely be inserted. The gut seemed to be drawn in annularly at the spot indicated, and there were no inflammatory adhesions anywhere, nor any discolorations of the tissues of the intestine.

Needle from a Fowl.—The SECRETARY presented, on behalf of Dr. TUCKEY of Tywardreath, Cornwall, a curious specimen, taken from the body of a well-bred "Spanish" fowl. It was a needle, which had been attached by a pedicle to the side of the pelvis. The fowl was in perfect health up to the time of its violent death at the hands of Dr. Tuckey's cook.

Necrosis of Lower Jaw from Cancrum Oris.—Mr. H. G. CROLY exhibited the right half of the lower jaw of a boy aged nine, who was attacked by cancrum oris when convalescent from a "low" fever. A sinus formed a little above the angle of the jaw, and ultimately nearly all the right side of the lower maxilla came away spontaneously through the mouth. There was perfect formation of a new jawbone—a fact which forcibly illustrated the osteogenetic properties of periosteum.

Malignant Disease of the Bladder.—Dr. C. B. BALL showed a specimen of cancer of the bladder, from a man aged fifty-four, who had, eight months before his death, fallen a depth of twenty feet, alighting feet foremost. About two months after the fall, he began to pass blood in his urine, and the hæmaturia continued, with intermissions, until his death. Latterly, the urine had been loaded with blood, alkaline, offensive, and it deposited much vesical mucus. Under the microscope were seen immense numbers of active bacteria, with epithelium and crystalline phosphates, but no portions of new growth were ever found. After death, a large mass was found in the greatly diseased bladder, the walls of which were infiltrated by the neoplasm, thus distinguishing it from a villous tumour. Portions of the new growth were pediculated, others were sessile. The ureters were dilated. The right kidney was embedded in firmly adherent fat, and was itself very fatty. The calyces of the left kidney were dilated, and its pyramids had disappeared.

SATURDAY, FEBRUARY 18TH, 1882.

WILLIAM STOKES, M.D., President, in the Chair.

Disease of the Suprarenal Capsules.—Dr. KENDAL FRANKS showed the kidneys and suprarenal capsules of a girl, aged 14, who had died in the Adelaide Hospital of Addison's disease. The patient had only complained of feeling ill two months previously, up to which time she had enjoyed good health. The first symptom noticed was disinclination to take exercise; and as this increased, a darkening of the cutaneous surface became apparent. It was attributed to the effects of the sun. On admission, her condition was one of profound asthenia. She could not stand, or even sit in the upright position; seemed incapable of supporting the head, or of keeping the eyes open. The voice rose only to a whisper, and she seemed greatly disinclined to answer questions. The heart-sounds could only be heard, and that very faintly, when the ear was applied immediately to the chest-wall. The pulse was almost imperceptible, and ranged about 120. She suffered much from constant retching. Three days after admission, she died suddenly. The *post mortem* examination, made thirteen hours after death, showed the body to be well nourished and plump; a very good proportion of adipose tissue was present. The skin was uniformly darkened to a coppery hue; that on the sides of the neck, face, backs of the hands, and knees, being most deeply pigmented. Both lungs showed a small patch of lobular pneumonia at the apex, of the size of a small hen's egg, which exhibited on section nodules of cheesy matter, but no softening or abscess. A similar piece of consolidation was found on the axillary surface of the upper lobe of the left lung. Otherwise, all the viscera, thoracic and abdominal, were healthy, with the exception of the suprarenal capsules. Both were diseased. The left organ was very much enlarged, and quite hard. On section, it showed near the centre large masses of caseation, around these being smaller nodules, the whole organ being destroyed. The right capsule showed a similar state of affairs, but it was not so large, and evidently was not so completely disintegrated. Section of these masses had been made by Mr. Abraham, who reported that the central parts had the granular, almost structureless, appearance of a mass of caseation. This substance, however, was in parts more or less broken up into small and large masses, some of which seemed to possess faint nuclei, and a few of the larger ones were apparently multinucleated. At the periphery the tissue becomes more cellular, the cells being distinct, of different sizes, some very large, with one or more nuclei, or even of the giant-cell type, and more or less granular in texture. Outside this came the capsule, much altered; the cells and the bundles of connective tissue were separated by a somewhat similar cell-growth, sometimes around foci, and by large development of adipose tissue. A drawing was exhibited of one of these giant-cells, with its ramifying processes, multinucleated, showing "epithelioid cells" around it, and the whole surrounded with lymphoid corpuscles, resembling the arrangement seen in tubercle. The girl's parents were both stated to have died of phthisis.

Diffuse Aneurysm of the Abdominal Aorta.—Dr. J. M. REDMOND presented the abdominal viscera of a woman, aged 54 years, who was said to have been suffering from obstruction of the bowels for the last

two years, accompanied with pain. On Monday, February 6th, 1882, she began to vomit, and this symptom persisted for several days; she was not at all anæmic. There was severe paroxysmal pain in the left lumbar region and iliac fossa. There was dulness on percussion in the same situation. No abnormal pulsation or *bruit* could be detected, although a dilatation of the femoral arteries suggested an aneurysmal diathesis. She died suddenly on February 11th. A large diffuse or false aneurysm, twelve inches in length and fifteen inches in circumference, occupied the left side of the abdomen. The anterior wall of the sac was formed by the peritoneum, descending colon, and sigmoid flexure; the posterior wall by the iliac fascia and the left kidney at the upper and back part. The descending colon was much narrowed. An irregular opening was found in the abdominal aorta, about one inch above the bifurcation. This was caused by the rupture of a dissecting aneurysm, as large as a hen's egg, extending upwards between the coats of the aorta to the superior mesenteric artery. Two symmetrical aneurysms engaged the common iliac arteries; they were as large as walnuts. The femoral arteries were also dilated.

Carcinoma Gastri fatal through Hæmorrhage.—Dr. J. W. MOORE showed, for his colleague Dr. A. W. Foot and himself, the stomach and neighbouring parts of a man, aged 50, who became anæmic after an attack of pneumonia last spring. In December, a hard irregular tumour was detected in the epigastric and umbilical regions to the right of the mesial line. The inguinal glands were also enlarged; and from these facts and his symptoms, a diagnosis of carcinoma of the pyloric end of the stomach was made. The patient lived until the middle of February. At the necropsy, an extensive ulcerated mass of carcinoma was found, engaging the pylorus, duodenum, and retroperitoneal glands. An immense clot of blood, recently effused, filled the stomach, and a second clot had taken a cast of the duodenum.

Sarcoma (?) of the Breast.—The PRESIDENT exhibited a large mammary tumour of rapid growth (twelve months), which he had removed from a woman aged 45 years. It was probably sarcomatous, being in parts of cartilaginous hardness, and in parts soft. Hæmorrhagic extravasations had taken place here and there throughout the mass.

Primary Chronic Rheumatic Arthritis of Bursæ.—Dr. E. H. BENNETT showed the structures, which formed the immediate relations of the bursa of the lesser sciatic notch and internal obturator tendor, affected by this disease. He directed attention to the fact that hitherto, in the writings of Monro, Adams, and others, the implication of the bursæ mucosæ by chronic rheumatic arthritis had been described as an affection secondary to the joint-disease affecting the neighbouring articulation, and as existing in bursæ which normally communicated with the joint. His object in presenting the specimen was to show that, in bursæ remote from the joints and devoid of connection with them, the disease occurred as a primary affection; notably in the particular bursa submitted, and in that which facilitated the motions of the great gluteal tendon over the great trochanter of the femur. In the specimen submitted, as in many he had observed, the obturator tendon was frayed, as the biceps tendon is in the shoulder, and the bone was absorbed, its surface disfigured as in arthritis of joints; while the bursa showed, by its irregular extensions into and between the origins of the hamstrings from the tuber ischii, that it had long been the seat of effusion. The disease in these cases, as in the example exhibited, was symmetrical, occurring on each side of the body, and the hip-joint on both sides exhibited only the most trivial traces of the disease—a character of importance in chronic rheumatic disease; for, whatever be the reason, it was its habit to strip a joint, in its attack on the row of articulations in a limb, attacking only every second one, among which the bursæ mentioned might fairly be included.

OBSTETRICAL SOCIETY OF DUBLIN.

SATURDAY, FEBRUARY 4TH, 1882.

A. V. MACAN, M.B., in the Chair.

Craniotomy.—Dr. ATTHILL exhibited a fœtus on whom the operation of craniotomy had been performed under somewhat unusual circumstances. The antero-posterior diameter of the mother's brim did not exceed three inches and a quarter. As soon as the os uteri had dilated sufficiently to allow it, a leg came down into the vagina, but was not followed by the breech. Dr. Atthill, therefore, the woman being under chloroform, introduced his hand into the uterus, and found the child's body lying in a half circle, the breech being over the right sacro-iliac synchondrosis, and the face to the left of and overhanging the pubes. Cephalic version being found impossible, he perforated through the forehead, the head still lying above and chiefly outside the pubes. Traction was then made on the leg, the breech was delivered, and the arms brought down by means of a blunt hook. The cephalotribe was then applied over the occiput, and delivery effected.

Supernumerary Fingers and Toes.—Dr. HORNE exhibited the hands and feet of a child born in the Rotunda Hospital on January 4th, with six fingers on each hand, and six toes on each foot, all nail-bearing. Dissection showed that the fifth metacarpal bone in each case bifurcated into two heads bearing the fifth and sixth fingers. It was at times difficult, at birth, to say which finger was the supernumerary one; but dissection showed the sixth to be the one to be removed. Heredity might have had an influence in the production of this case, as the paternal grandmother had given birth to three monsters, the exact nature, however, of which could not be ascertained.

Mucous Growth of Fundus Uteri.—Dr. ATTHILL exhibited a growth removed, in the Rotunda Hospital, from the uterus of a woman who, three years before, had come under his care suffering from profuse uterine hæmorrhage, having been confined a year previously. At that time, nothing more than a thickened condition of the uterine mucous membrane was discovered. Since then, the hæmorrhage had occurred at intervals until a week ago, when she was again admitted into hospital. On examination, the uterus was found to be elongated to the extent of half an inch, and the fundus was anteflexed. The uterus having been dilated with Hegar's dilators up to No. 20, a soft mass could be felt at the upper extremity of the uterus, which was scraped off with a curette used in a rotatory manner. The specimen consisted of nothing but vascular and hypertrophied mucous membrane. Nitric acid was applied to the raw surface of the uterus, and next day the woman was free from pain and discomfort. Dr. Atthill considered the case to be one of non-malignant recurrent growth from the uterine mucous membrane—one, therefore, of some rarity.

Four Cases of Convulsions occurring in the Rotunda Hospital.—Dr. R. HENRY detailed the cases, which had occurred as complications of labour, and described the treatment with special reference to the therapeutic value of bloodletting. Case I. M. O. T., in her sixth pregnancy, was delivered of a healthy child after an easy and rapid labour. Thirty hours later, she suddenly had an epileptic fit, from which she had quite recovered in ten minutes. She remained quite unconscious of having had the fit. She had a draught of syrup of chloral and bromide of potassium. Similar fits (which were single) recurred at the same hour on the two following mornings. On inquiry, it was found that she had been in an asylum for three months after her fourth confinement, and since then had been liable to such fits at her menstrual periods. She made a rapid and good recovery from her confinement. —Case II. C. M., a primipara, just as the second stage of labour was commencing, had an epileptiform fit. Her pains had been severe, but suddenly ceased a moment before the fit, and her face became pale. Delivery was at once effected under chloroform. She had general anasarca, and her urine, drawn off by catheter, turned nearly solid on boiling. Similar fits recurred at intervals of two hours for the following eight or nine hours. During each fit, chloroform was administered. The bowels could not be moved, even with enemata, croton-oil, etc. The patient remained unconscious for two days, the fits increasing in frequency and severity. Her condition being critical, Dr. Atthill decided to bleed her freely, and removed twenty-four ounces of blood from the arm. She had no fit for three hours, when the seventeenth and last occurred. Four hours afterwards, the bowels acted, and consciousness slowly returned. The anasarca and albuminuria rapidly disappeared, and recovery became complete.—Case III. M. S., a primipara, between the second and third stages of labour, suddenly complained of becoming blind, and had a convulsive fit. Chloroform was administered, but not pressed. Consciousness was soon recovered, and purgatives administered. Four hours later, the second fit occurred. Two drops of croton-oil and an enema were administered. The urine was strongly albuminous. Six hours later, the bowels acted five times; and in four days the patient was convalescent.—Case IV. E. B., pregnant for the sixth time, sixteen hours after delivery, was seized with an epileptic fit. Chloroform and purgatives were used. There was a history of epilepsy with aura. There was no recurrence of the fit.—Another case was mentioned which Dr. Henry had seen eleven years ago, in which the patient was bled to forty ounces before the fits ceased. No chloroform was used, and the patient made a good recovery.—Dr. KIDD had not always obtained such good effects from bleeding, nor did he think chloroform advisable while the convulsions were going on; purgatives were the remedies on which he relied. It was excessively difficult to get the bowels in such cases to act; and he did not hesitate to give as much as twenty grains of calomel combined with some croton-oil.—Dr. MORE MADDEN considered that in apoplectiform convulsions bleeding was the only reliable remedy; and had no doubt that, to save the life of a plethoric patient suffering from apoplectiform convulsions, it was necessary to bleed as freely as our ancestors

did a hundred years ago.—Dr. PUREFOY said that the only case of recovery from true puerperal convulsions which he had seen was one in which the woman was freely bled. He believed that good results had, in his hands, followed the injection of chloral-hydrate; and, in America, the injection of large doses of morphia had acted beneficially.—Dr. ATTHILL had never seen bleeding do harm, but had often seen it do good. In the second case recorded by Dr. Henry, the effect was well marked. There was no indication of the bowels acting until after the bleeding. Chloroform he considered as more likely to stop or retard the convulsions than to cure them; when coma had become permanent, it ceased to be indicated, and was injurious.—The CHAIRMAN thought that, as regards curative treatment, a distinction should be observed between convulsions occurring before, during, and after labour. As long as there was a child in the uterus, efforts should be principally directed to removing it; and, until that was done, it would, he thought, be premature to bleed. The treatment of ordinary uræmic puerperal convulsions was the same as of convulsions occurring in Bright's disease; whilst apoplectiform convulsions should be treated according to the principles applicable to apoplexy generally. It was therefore of prime importance to keep the different forms of convulsions clearly separate. Bleeding lessened the tension, but, on the other hand, it rendered the blood more watery, and so increased the probability of the convulsions being repeated.—Dr. H. KENNEDY also took part in the debate, and Dr. HENRY replied.

REVIEWS AND NOTICES.

NAVAL HYGIENE. By J. D. MACDONALD, M.D., F.R.S., R.N., ex-Professor at Netley. London: Smith, Elder and Co. 1881.
[SECOND NOTICE.]

ONE great cause of obstruction in the last century lay in the disregard of sanitary measures suggested or approved of by medical officers. Thus, scientific ventilation was long opposed by the executive officers of ships; the efficacy of the juice of the Citronaceæ was held by the College of Physicians to be inferior to sulphuric acid in preventing or in curing scurvy; various plans to provide pure water for drinking were objected to on the score of the cost of distilling it, and the inconvenience in ships.

The earliest instance of doing all that science suggested to be done with hygienic views, was in the fitting out the Niger expedition in 1840, when an excellent mode of ventilating was followed, and quinine was taken prophylactically; but water was not distilled. After that costly failure, a new departure was taken, with satisfactory results, mainly due to the representation of medical officers familiar with the coast of Africa and its prevalent diseases. Certainly, the naval authorities of this day cannot be charged with indifference to furnishing all reasonable means for preserving health; and, in truth, great praise is due on this head; but the grand sanitary factor has been the steam-engine, not only in the directions already glanced at, but in the shortening of voyages. This is well exemplified, at p. 235, by quotation as follows.

In December 1859, an overcrowded mixed force of 12,000 men left France, and, after seven months, reached China. The sailing vessels dropped anchor only once, but the steamers called at from three to seven ports. The gross numbers, with comparative ratios of mortality, in the two divisions, stood as follows:

Total force (about)	12,000.....	Deaths	109.....	Ratios per	1,000 9.
In sailing ships.....	3,765.....	,,	45.....	,,	12.
In steam-vessels ...	8,117.....	,,	64.....	,,	7·5

This shows one-third in favour of the men carried in steam-ships over those carried in sailing vessels. It may be inferred that, if the entire force had been conveyed in the former class of ships (sailing), there would have been, by ratio, 143 deaths; and, if by the latter class, only 93 deaths; being a saving of 48 lives, at the rate of four per thousand in a voyage of seven months. Even a wider deduction may be drawn: that this amount of sanitary benefit is proper to the use of steam-power of propulsion. And a still larger loss might have accrued to the men crowded in the sailing ships, if there had been no steamers to fetch fresh food from the ports they visited. Such facts are instructive to naval hygienists, as showing that grand improvements in their main objects are sometimes brought about by changes or by means foreign to their special science; since this change alone will account for much in the statistical improvement of naval health between 1860 and 1880.

With regard to food, Dr. MACDONALD advocates a system of "adaptation of diet to climate", so as not to compel sailors to consume daily the same sort of food, whether they be in the British Channel or among the Esquimaux, who thrive on animal fat without vegetables, and escape scurvy, or under a tropical sun, where the natives—black or yellow—subsist on fish, rice, fruits, and oils, and do not suffer dysentery. He does not disparage the naval ration as insufficiently nutrient; and affirms, on the authority of Professor de Chaumont, that the daily amount of albuminates, fats, and carbo-hydrates imparts a potential energy equal to 5929.26 foot-tons, being 1927.74 foot-tons in excess of that demanded "for the daily work of an adult". It may be suspected that the potential energy, regulated by the chemical constituents of food, must vary essentially at sea from its standard ashore; as it is shown that, in the first half of the last century, when the health of the navy stood at its nadir, when a diet of maggoty cheese, weevily biscuit, and rancid salt meats was mitigated by no meat ration on two days of the week, yet its chemical value is said to have been equal to producing potential energy of 4238.34 foot-tons, being 316.82 foot-tons in excess of the ordinary work of an adult in normal health; so that there must then have been some strongly counteracting agencies to which the sailors were exposed. These agencies may be assigned to defective nutriment in quality as well as in quantity. Dr. Lind states that, between July 1758 and July 1760, the admissions to Haslar were, for disease, 5,743 cases, of which 2,174 were fever, 1,146 scurvy, 360 consumption, and 350 rheumatism, etc., showing the great preponderance of diseases obviously those of defective nutrition; and yet, within that period, there was one most remarkable instance, on the largest scale, of a whole fleet being kept in "excellent health" at sea through an unusually protracted period, which Dr. Lind attributed to the frequency of supply of fresh provisions taken out to them from our ports. He relates that the grand fleet under Sir E. Hawke left Spithead on the 17th May 1759, and returned on the 18th January 1760, having beaten the French fleet under M. Conflans, on the 20th November. "It was hardly ever known before that ships could cruise in the Bay of Biscay much above three or four months at a time without having their men afflicted with the scurvy, an exemption from which was entirely owing to this fleet having been supplied with fresh meat and greens. It is an observation, I think, worthy of record, that 14,000 persons pent up in ships should continue, for six or seven months, to enjoy a better state of health upon the watery element, than it can be managed so great a number of people would enjoy on the most healthful spot in the world."

Here, then, is a great example, like an oasis, of how much might have been done in the naval hygienic desert of the last century. It was reprinted in a second edition, 1774; and yet we learn, from the same authority, that in 1780 the Channel fleet, under Admiral Geary, returned to Spithead with 2,400 sick of scurvy, after a summer cruise of ten weeks, and sent in one day to Haslar over six hundred men diseased with scurvy. Again, in 1794, scurvy broke out in Earl Howe's fleet, and endangered the safety of the whole fleet, in the year of the great battle of the first of June.

To *cleanliness of person and of clothing and bedding*, a high position is assigned amongst sanitary means, and likewise to the cleanliness and dryness of the decks and the recesses of ships. Dr. Macdonald refers to the "Black Assizes" at the Old Bailey in 1750, when judges, jury, barristers, and spectators were infected by the deadly effluvia issuing from the criminals, who were not themselves suffering obviously from the typhus, the germs of which were disseminated by them. At that time, it happened frequently that the same form of fever broke out amongst healthy crews of ships into which drafts of criminals were received from the gaols, and also amongst the prisoners of war confined in prison-ships and in inland places of detention. It was to the philanthropic researches of John Howard, which ultimately cost him his life, in 1790, that we are indebted mainly for the greatest of sanitary reforms effected in the last century; but Dr. Lind contributed very much to it in the case of ships and the gaols for prisoners of war; on which, and the modes of disinfection practised by him, a report was laid before Parliament in 1774. It is gratifying to read the exactness and the minutiæ of the Naval Instructions on these heads, for the guidance of commanding and medical officers. The "spotless decks" of ships of war have long been proverbial; and we fully believe that it would be difficult to find anywhere a body of men, in receipt of equal wages, so attentive, generally speaking, to cleanliness of person and the decencies of life as are the seamen of our fleet.

Full details are given for the authorised issuings of lime-juice and of quinine as preventives of scurvy and of malarious fevers; and it is shown to be under exceptional conditions that those diseases now occur in the navy; as, for instance, in the last Arctic expedition, where the scorbutic diathesis had crept in previously to unusual calls to muscular exertion and terrible hardships of every kind, combined with abstinence from lime-juice, which intensified the diathesis; and as regards re-

mittent fever, as reported in the official blue-book on the Health of the Navy, in 1880, when twenty-four men, who, it seems, were not protected with quinine, were attacked by it while detached and sleeping on board their ship in dock in a notoriously malarious season even for the locality of Hong Kong; the safety rule being to take the prophylactics as soon as men are about to be exposed to the exciting causes of those diseases, and to continue to take them throughout the exposure to them. But it should not be dogmatically assumed that the supply of these prophylactics shall always prevent an outbreak of those diseases, as was experienced in Anson's memorable voyage, where there was no lack of them; nor, on the other hand, that scurvy will inevitably appear with abstinence from vegetable food, for the Esquimaux and Laplanders, who subsist entirely on fresh animal food, are exempt, and comparative exemption from it has belonged to those Arctic expeditions that have obtained a fair supply of fresh meat, even though that has been the flesh of the musk-ox (as in the *Investigator*), or of the whale (as in the case of the *Polaris*), or of the salmon (as in Sir John Ross's expedition). Again, in the case of malarious fevers, there will always be found some insusceptible, as well as others whom no antidotes will save. Yet there are no sufficient reasons why the reputed prophylactics, so far as they go, should not be used on all appropriate occasions; but rather that the rule of safety should be the mode strenuously followed with exact relation to the degree of risk about to be incurred.

The prophylaxis from small-pox by vaccination and by revaccination is strictly attended to in the navy, in which the highest danger of infection is in foreign ports, where vaccination is not enforced, and revaccination is but little attended to, especially in China and Japan. It argues well for the system adopted in the navy that, in 1880, when the total force was 44,700 men, there occurred, in all parts of the world, only six cases, of which the Cape of Good Hope and East Indian stations presented each two cases, and the China and Pacific stations one each. It is remarkable that at the Cape the infected men were both blacks, of whom one had not been vaccinated, and the other was said to have had previously a mild attack of small-pox; of the two in the East Indies, both bore marks of vaccination without revaccination; on the Pacific station, the case ran a modified course, most probably from revaccination; in China, the sufferer had been revaccinated unsuccessfully nine years before. In China, inoculation is preferred to vaccination, and is universally practised.

On the fumigation of infected ships, needful when infected with yellow fever, there is a section of much interest. In the days of Hawkins and Drake, it was done by the burning of damp brush-wood in the holds, and later by burning pitch and tar, and by exploding firearms in the holds and between decks, and later still by evolving the fumes of sulphur, as advised by Dr. Lind. It is shown herein how Sir Roger Curtis systematised this plan in the case of his own infected ship, leaving a formula for all similar occasions, never to be forgotten whatever may be the disinfectant used. In 1796, nitrous acid fumes were substituted for those of sulphurous acid, without advantage; and in the present century that gave place to chlorine gas, chlorides of zinc and calcium, carbolate of lime, and lastly carbolic acid; but, perhaps, nothing has proved more efficacious than the searching fumes of sulphur, as the author leads us to infer.

The opposite conditions of dryness or dampness of the decks, and of the atmosphere between them, as conducive respectively to the healthiness or to the sickliness of the crew, are well exemplified by what happened in, as it were, twin ships, in one of which a good state of health prevailed through attention to the dryness of the decks, while in the other there were sickness and mortality from no other apparent cause than from inattention to that point.

The appendix is a large one, replete with matter of value to the service, such as advice to seamen, the routine of life in ships, the duties of medical officers, with their official instructions; the scales of diet for the healthy and for the sick; the code on clothing, cleanliness, and preservation of health, to be observed by commanding officers; quarantine regulations; and the regulations for army surgeons when in charge of troops embarked; and the United States' Passenger Act, passed in 1880.

Thus it may be said that this little volume is very comprehensive on all medical matters relating to life and health at sea, as it presents, for the guidance of medical men in charge of ships, a fair detail of their office and its general duties, which will be found to be of great value, at least to beginners, so that each may know what he has to do, and none need feel himself adrift if he has it to refer to. We may safely recommend it to the medical officers of the mercantile, as well as those of the Royal, navy; and we think that the study of it, when necessity demands, will be advantageous to the executive officers commanding communities afloat; also that it will be conducive to the efficiency of this public service to distribute copies, gratuitously, to the commanders as well as to the principal medical officers of all ships on foreign service in the Royal Navy.

PROCEEDINGS OF THE SOUTH AUSTRALIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION FOR THE YEAR ENDING JUNE 30th, 1881. Adelaide: Frearson and Brother. 1881.

WE welcome with real pleasure these *Proceedings* of one of our youngest Branches, which bear abundant evidence to the earnestness with which our fellow-members at the other side of the globe have set themselves to work to carry out the common objects which bind us together in one great Association—the advancement of medical and surgical science, and of the general amd social interests of the profession.

It was on July 7th, 1880, that the Branch for Adelaide and South Australia was recognised by the Committee of Council; and, with the exception of the hot months of December, January, February, and March, monthly meetings for the reading and discussion of original papers have since been held regularly, while special meetings for discussing subjects connected with medical ethics have also on several occasions been held, and been well attended. Some of the members have travelled to these meetings from distant parts of the colony—from Port Augusta, 200 miles to the north, and from Glenelg, at least an equal distance to the south, of Adelaide, where the meetings are held. To realise what this means, let us suppose that monthly meetings of an All England Branch were held at Birmingham, and that members from Berwick-on-Tweed or Penzance were in the habit of dropping in whenever any subject in which they were interested was on the *tapis*. Even then, the difference in means of locomotion between the two countries would make the difficulties in the way of holding meetings hardly comparable. It is then, we think, extremely creditable to the members of the South Australian Branch to have kept up their meetings during the year as they have done; and it is all the more commendable, because the tendency of almost all their surroundings points to the making of money as the thing to be aimed at, and because, in the struggle for a livelihood, they have to contend not only with fresh importations of qualified men from all parts of the world, but even with ambitious storekeepers and teamsters, imbued with the idea that Providence never meant them to soil their fingers with sugar or cheese, or to pass their lives in the company of oxen and horses, and who, having adopted medicine as their profession, are to be seen enjoying snatches of *otium cum dignitate* behind a liveried coachman, or bringing themselves prominently before the public in the advertising columns of the daily press.

All honour to the men who, in the midst of such difficulties, and in the face of such opposition, endeavour not unsuccessfully to practise their profession in an honourable manner, and to keep burning the lamp of science.

Among the papers read, there is one by the President of the Branch on the familiar subject of *post partum* hæmorrhage, in which the treatment by injection of hot water is approved, and illustrated by cases. From the discussion which followed, it seems clear that the occurrence of *post partum* hæmorrhage is much more frequent in South Australia than in England, and the question was raised by several speakers whether the relaxing climate had anything to do with this. Statistics, as full and complete as possible, could alone settle such a point as this; and it would be well, we think, for the Council of the Branch to appoint a committee to collect evidence on the subject. The only other matter in regard to which reference is made to the climate of Australia as predisposing to disease, is that of a change of colour of the irides occurring and remaining permanent in an insane adult. This man's eyes it seems were decidedly black, but changed to a light grey with tinge of green. One of his favourite amusements was staring at the sun with wide open eyes, and it is suggested that atrophy of the pigment cells of the iris had taken place from exposure to the intense heat and light of an Australian summer sun. Cases of radical cure of hydrocele and of ablation of the tarsus which are published, show that the antiseptic system is being fully carried out in South Australia, both in hospital and private practice; while some remarks occurring in a paper on expeditious delivery show how well this JOURNAL serves to keep our members *au courant* with what is going on in the medical world, statements made at Cambridge in August, being criticised at Adelaide in November.

Ethical matters have, as we learn from the report of the Council, occupied a considerable share of time and attention during the year. Of these, the case of Mr. Hartley Dixon, which gave rise to an action for slander in the colonial courts, and led to correspondence with the Medical Council at home, seems to have been by far the most important. Arising out of the above lawsuit, a charge was made against

one of the members of the Branch, Dr. Gaze, of abusing the confidence of a fellow-member by repeating a private conversation, and he was thereupon censured, and a proposal made for expelling him from the Association. Fortunately, it was not found necessary to do this, as the offender had refused to pay his subscription, and had thus of his own accord severed his connection with the Association, under one of the Branch by-laws; but, under any circumstances, it is beyond the right of this or any other Branch to expel a member from the Association—the power of putting in force that extreme penalty for grave offences being reserved to the Committee of Council alone, subject even then to confirmation at the next annual meeting of the Association.

Mr. Hartley Dixon's case is one of special interest at the present moment, when the subject of medical reform seems to be trembling in the balance. It is said that Mr. Dixon, after practising in Australia without a diploma for eight or nine years, proceeded to Edinburgh in June or July 1876, passed a preliminary examination, and studied for one winter session there, and for one summer session in Dublin, passed the final examination, and received the diploma of the Apothecaries' Hall of Ireland, and returned to Australia in November 1877, a fully fledged and duly registered medical practitioner. Failing to obtain from Mr. Dixon a satisfactory account of how he had obtained his diploma in so short a period of time, the authorities of the South Australian Branch communicated with the Apothecaries' Hall of Ireland and with the General Medical Council, but so far, it appears, at the time of the annual meeting in 1881, without result. It seems strange they should not have also sent a statement of the case to the authorities of the parent Association, who could, through their Medical Reform Committee, have brought the subject under the notice of the Royal Commission.

NOTES ON BOOKS.

The Sympathetic Diseases of the Eye. By L. MAUTHNER, M.D., Vienna; translated from the German by Drs. WEBSTER and SPALDING. (Wood and Co., New York.)—This book is already well known to English ophthalmologists in its original German form. We need not insist on its excellence, both in regard to observed facts, and to the wonderful acquaintance with the literature of the subject displayed by the learned author. Notwithstanding that many new contributions have been made to the subject since the date of its original issue in 1878, the work is, and will for long remain, worthy of careful study. The translation is well executed, and the book is issued in a form very creditable to its publishers.

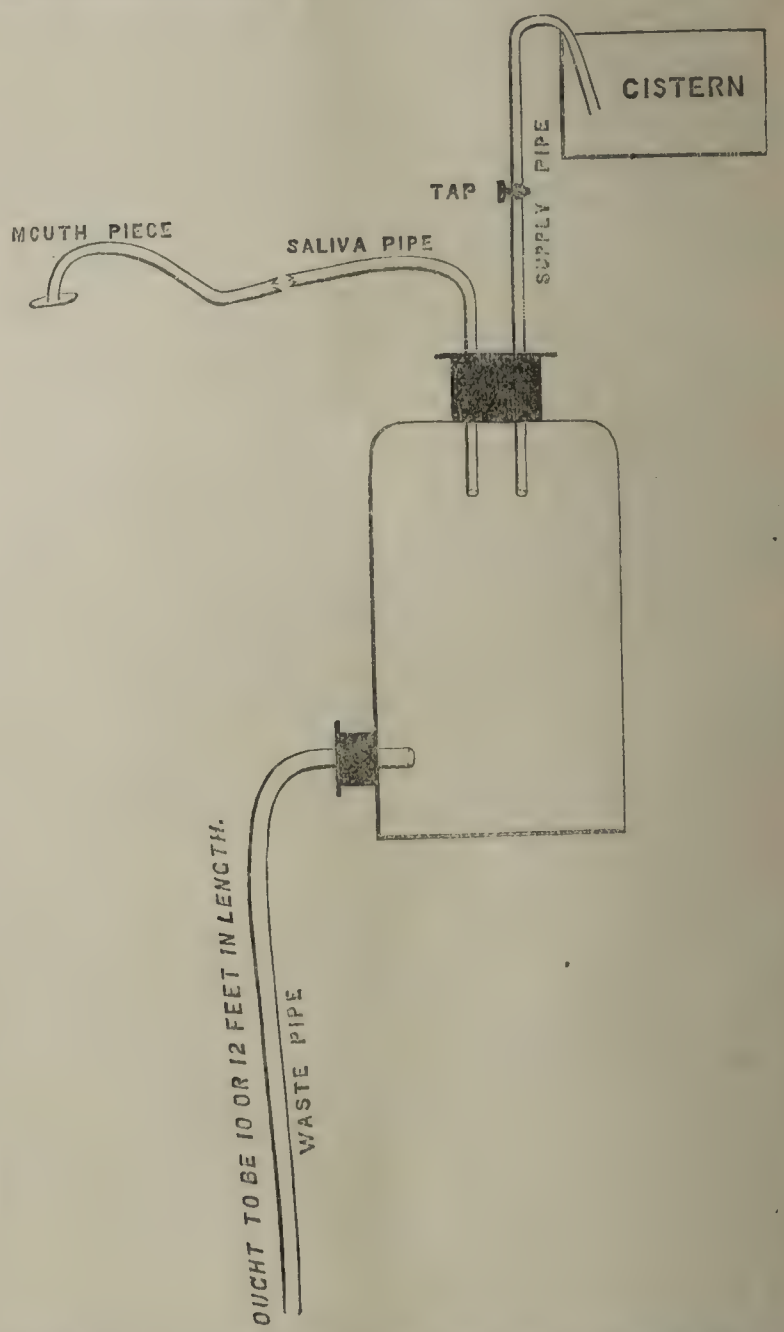
Refraction of the Eye: its Diagnosis, and the Correction of its Errors, with a Chapter on Keratoscopy. By A. STANFORD MORTON, M.B., F.R.C.S.Ed. (London: H. K. Lewis. 1881. 8vo. Pp. 57.) To those students and practitioners who are desirous of acquiring a knowledge of the diagnosis and correction of errors of refraction, we recommend Mr. Morton's manual as the one best calculated to suit their purpose. In less than sixty pages, the whole subject is thoroughly and clearly explained; and in a way, too, which leaves little doubt that Mr. Morton possesses the rare aptitude of teaching others what he himself well knows. We are especially well pleased with the chapter on Keratoscopy, as it includes by far the best description of this method of investigating errors of refraction that we have yet seen.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

SALIVA-EJECTOR.

THE accompanying diagram illustrates a very simple contrivance that I have fitted to my operating-room. Its advantages are its simplicity, it is always ready for use, occupies no space, and does the work thoroughly; and, after some months' trial, I am perfectly satisfied with it in every way. I think the suction would be sufficient to carry away blood, and would be very useful in operations in the mouth. I have not yet been able to try this, but hope to do so when next I have a long case of extraction.

The things necessary are a cistern above the operating-room, a bottle, and some tubing of two different calibres. The water coming from the cistern is regulated by a tap in the operating-room; for, when once working, very little water is necessary to keep it going. Directly the water rises above the level of the waste-pipe, it runs over into it, taking the air with it. No air can enter, save through the saliva-pipe (both corks being hermetically sealed), and consequently the suction in that tube is very great; and if the bottle be put under the floor or under a chair, gravitation, in addition to suction, helps the process. The waste-pipe must be larger than the supply-pipe, and should be about



twelve feet long. It is best to carry that tube out through the wall or window-sash, and to let it enter the water-pipe on the outside of the house. In my own case, this tube is put through the floor of the operating-room into the kitchen, and through the kitchen window, and into the water-pipe. Messrs. Smale Bros. of Marlborough Street have one fitted up, and in working order; or I shall be glad to show my own to anybody wishing to see it. I find it useful not only when stopping but also when taking impressions, or when cooling impressions with water, to run off the water from the mouth. For the idea and practical carrying it out, I am indebted to my friend Mr. Fairles.

MORTON SMALE, M.R.C.S., L.D.S.Eng., Medical Tutor to the Dental Hospital of London, and Surgeon-Dentist to the West London Hospital.

NOTE ON A NEW MATERIAL FOR SOME COMMON FORMS OF SPLINTS.

FOR the past six or eight months I have used, as occasion served, a material for splinting the upper and lower extremities, which has proved very satisfactory (especially in children), which is very cheap, and which, as far as I know, has not been previously employed. The material in question is known as "corrugated paper"; is made by

George Smyth, 47, Arlington Street; and is merely an application of the principle of giving strength, by fluting, to a material not inherently stiff, as one sees is effected in a porcupine's quill, or the feathers of a bird, or in the corrugated iron chapel. It consists, as is shown in the woodcut, of two pieces of very stout brown paper—one flat, and the

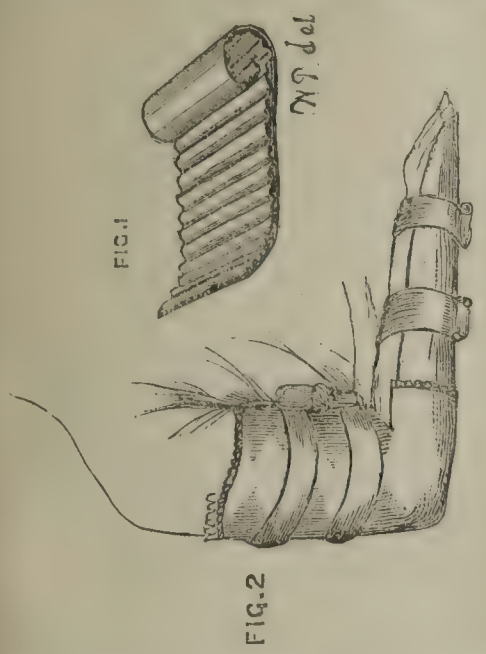


FIG. 2

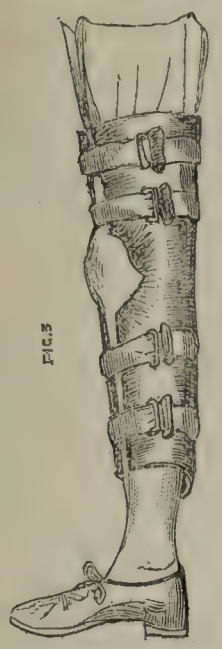


FIG. 3

other moulded into ridges and furrows. These two are glued together; and a better idea of their appearance than is given in the cut (Fig. 1), which is on too large a scale, will be gathered by comparing the surface to that of an ordinary pill-roller, with its sharp edges rounded off. I may mention that the commercial use to which this paper is put is, I believe, principally that of either packing wine-bottles in cases, or else of enabling single bottles to be wrapped up into a parcel, which shall have no external suggestion of the nature of its contents about it.

From the purely surgical point of view, however, I have found this corrugated paper extremely useful; it can be used in all those cases in which the somewhat expensive "kettle-holder" splinting may be employed, and makes about the best angular splint for the elbow I have ever seen. The tunnels of the fluted portion keep the limb cool by the circulation of air through them; and, moreover, if extra strength be needed, they will serve for the passage of wires of various thickness. It is so cheap that, for a shilling, material for about a dozen arm-splints and the same number for the leg may be procured; it is very light, and may be cut with an ordinary pair of scissors.

In the accompanying woodcut is shown the paper fashioned into an angular splint for the elbow (Fig. 2), and a stiff splint for the knee (Fig. 3). In both cases, as before-mentioned, similar support would be given by the old-fashioned kettle-holder, which weighs just six times as much, and gives about as much more trouble to fashion to the limb. But, it it is unnecessary to point out that the qualities of stiffness in one direction, combined with flexibility in the other, will enable any surgeon to adapt the splinting material to a variety of cases requiring temporary or permanent support. It is not fitted for cases where there is profuse discharge, or where very damp dressings are brought into contact with it; for it readily becomes sodden, and then furnishes no support.

I have thought it worth while to describe this material, principally because I, as well as others to whom I have recommended it, have found it very useful to have a flexible splint—the cost of which is not worth considering (so that, if one do not fit, it may be thrown away and another applied); but also, because it seems to me to be a rather pretty example of the application of a well-known mechanical principle, the credit of which belongs to the maker of the goods, whose name I have given above.

WALTER PYE, 4, Sackville Street.

HEALTH OF LONDON.—The Registrar-General's return shows that the fatal cases of small-pox in London, which had been 8 and 23 in the two preceding weeks, were 19 last week, and 11 below the corrected average number. Eleven were recorded in the Metropolitan Asylum Hospitals, 1 in the Highgate Hospital, and 7 in private dwelling-houses. In London, last week, 2,740 births and 1,793 deaths were registered. Allowing for increase of population, the births were 100 below, whereas the deaths exceeded by 2, the average numbers in the corresponding week of the last ten years. The annual death-rate from all causes, which had declined from 3.53 to 24 per 1,000 in the four preceding weeks, was again 24 last week.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1882.

SUBSCRIPTIONS to the Association for 1882 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, MARCH 18TH, 1882.

THE LAMSON TRIAL.

AFTER a patient trial, extending over a whole week, Mr. Lamson has been convicted of the murder of his brother-in-law, Percy Malcolm John, by the administration of aconitine; and another member of the medical profession has been added to the list of those who have degraded their profession, and prostituted their abilities for base, ignoble, and wicked ends. Of the righteousness of the verdict we have no doubt, believing that the poison aconitine was the cause of the poor boy's death; and, this being so, the evidence that the poison was administered by Lamson is irrefutable.

The verdict has been given at too late an hour to permit us, on this occasion, to enter into all the scientific aspects of the case at any length; this we may do on a future occasion. But we may remark that this is one of a very few known cases of poisoning by the alkaloid aconitine; and that it is the second known fatal case; the only previously recorded fatal case being the death of Dr. Carl Meyer, just two years ago, through the inadvertent administration of nitrate of aconitine in a dose which could not have exceeded one-thirteenth of a grain, and was probably less than that amount.

We are glad to observe that, in the Lamson trial, there was no painful conflict of scientific or medical testimony. The fact that the trial was watched, on behalf of the prisoner, by two such able men as Dr. Tidy and Dr. Thudichum, and that no rebutting testimony to that of Drs. Stevenson and Dupré was offered, must be accepted as conclusive that the evidence of these gentlemen was unanswerable. The scientific evidence, indeed, seems to have been singularly complete; notwithstanding the fact that the special chemical tests for aconitine, if, as was asserted, not altogether unreliable, are, at all events, inconclusive. Under these circumstances, we are glad to observe that, in fairness to the prisoner, these tests were not even introduced into the evidence given by the experts called on behalf of the Crown. The general chemical tests for an alkaloid, and physiological tests for aconitine, were alone adduced as evidence of the presence of that poison. No doubt there will be an outcry from the antivivisectionists at this, as we believe, perfectly legitimate mode of procedure. But, as was pointed out by the Solicitor-General, in his reply to the speech for the defence, Drs. Stevenson and Dupré would have been wantonly negligent in the discharge of their duty had they neglected to make use of experiments on animals. These gentlemen went, apparently, as far as was prudent in making physiological experiments upon themselves with the alkaloid extracted from the various articles submitted to them; and mice were employed for proving that the substance was fatally poisonous. We think, indeed, that the Lamson trial will tend to educate the public mind to the perception of the indispensable necessity, in the interests of the public, of physiological experiments in toxicological investigations. At the present moment, it is unphilosophical to say that vivisection-experiments are not a necessity to aid in the detection of death by certain alkaloidal poisons.

It was hardly to be expected that the question as to the existence or non-existence of cadaveric alkaloids, or ptomaïnes, as they are called, should not be raised in the course of this interesting and instructive

investigation; and, indeed, Dr. Stevenson, in conjunction with Dr. Fagge, having been one of the first to draw attention to the occasional poisonous character of alcoholic extracts made from *post mortem* gastric fluids, his attention could not fail to have been directed to this point. Dr. Tidy, too, is known to have written on the subject. When, however, it transpired, in the course of Dr. Stevenson's evidence, that the alkaloidal extracts obtained from the viscera and urine of the deceased boy were not only very minute, and barely in any case exceeding one-tenth of a grain in weight, but that they were also identical in physiological effects, it became clear that cadaveric alkaloids could have had no part in causing the deaths of the mice operated on by the analysts. Moreover, so far as we know, poisonous cadaveric alkaloids have never been met with in the urine; and the most important analytical fact, in the Lamson case, was undoubtedly the finding in the urine of a toxic alkaloid having the characteristic physiological actions of aconitine. Dr. Stevenson neither affirmed nor denied the existence of poisonous cadaveric alkaloids, and appears to keep his mind still open for more conclusive evidence as to their existence than that hitherto offered by Selmi and others. With judicial cautiousness, he stated that he had not neglected to apply a test by which it is asserted that cadaveric alkaloids may be distinguished from vegetable alkaloids; and that he obtained no evidence of the existence of the former class of bodies.

It is certainly desirable that those who have worked at the so-called poisonous ptomaïnes should publish more definite evidence of the existence of such substances than has hitherto been offered. The scientific public and the profession would be gratified to learn that ptomaïnes had been analysed as to their percentage composition, classified, and administered in definite quantities, and in a state of purity, to animals, with definite and reliable results, than has hitherto been done. Our knowledge of the ptomaïnes is at present misty and by no means satisfactory. The simple fact that the so-called poisonous ptomaïnes are singularly protean in their characters, now simulating one vegetable alkaloid, and again another, according to the circumstances under which they are formed, would probably have led to the formation of a different alkaloid in each of the substances analysed in the Lamson case; and this is, to our mind, conclusive that they were not formed in the body of Percy John.

We must congratulate Drs. Stevenson and Dupré on the able evidence which they gave in the case.

THE ORIGIN AND FORMATION OF RED CORPUSCLES IN THE RED MARROW OF BONE.

In 1868, Neumann first drew attention to certain cells in the red marrow of bone, which he considered to be an intermediate form between white and red blood-corpuscles. This new and important function of red marrow was recognised by Bizzozero, and afterwards by Rindfleisch. Notwithstanding the researches of these authorities, two important questions still remained unsolved: the origin of these cells, and the process by which they become red corpuscles. It is these two questions that M. Malassez has endeavoured to settle in his *Mémoire sur l'Origine et la Formation des Globules Rouges dans la Moëlle des Os*, the result of researches carried on in the Histological Laboratory of the College de France, and published in the *Archives de Physiologie Normale et Pathologique*. His researches are confined to normal tissues; nevertheless, they open up new paths of inquiry in pathological anatomy, especially in that particular branch which treats of the sequelæ of serious bone-affections in infancy.

The author reminds us that all those histologists who have studied the formation of red corpuscles without a nucleus at the expense of nucleated red corpuscles, have admitted that the phenomenon is a simple transformation due to the disappearance of the nucleus. There are many theories to explain this disappearance; among others Kolliker's, who says that the nucleus is slowly destroyed. Rindfleisch believes that the nucleus is expelled from the cell. M. Malassez shows that these two theories are untenable. With regard to the first, if the nucleated cells of a kid, the red corpuscles of which are very small, be examined, it is observed that they are 19.9 times smaller than the protoplastic masses of the hæmoglobic cells. The second theory is destroyed by the exact and carefully made observations of Abrastzon, who shows that the phenomenon of the nucleus leaving the cell is not physiological but physical, due to the action of reagents, to the changes that take place after death, and is analogous to the escape of the nucleus from the red corpuscle of the frog, under the influence of water. This theory receives another blow from the facts already mentioned concerning the blood of the kid; were it tenable, there ought to be present cells intermediate in bulk between the red nucleated cells and the red blood-corpuscles, but no such intermediate bodies can be found.

Gemmation is all that remains to explain this formation. This theory M. Malassez brought forward in 1878, basing it on the following observations. There are present, in the splenic pulp, cells with little rounded projections of the same volume, if not of the same colour, homogeneity, and refraction, as the red corpuscles. The author was induced to consider these small projections, still attached to the mother-cell, as red corpuscles. In red marrow, the red corpuscles discovered by Neumann present similar formations. M. Malassez believes these splenic and medullary cells to be among the productive elements of blood-corpuscles. This theory is not simply a modification of that of Rindfleisch, inasmuch as the formation of the red corpuscle results from a sort of secretion, and the mother-cell is not destroyed, but lives, and may be supposed to produce other red corpuscles.

In the red marrow of young kids are cells presenting the same aspect as those just described, the red corpuscles of which are very small, and yet each bears two or three projecting buds; whilst newly born infants and rabbits, have much larger red corpuscles with only one bud, occupying a large area of the surface of the mother-cell.

These buds of protoplasm present all the different stages, from that of a simple projection to that of a distinct corpuscle attached to the mother-cell by a thin pedicle, and attaining a volume nearly equal to that of true blood-corpuscles. They are not discoidal, but spheroidal. They resemble red corpuscles in their general aspect, the irrefractive power, and their colour. M. Malassez thinks that these corpuscles, once detached from the mother cell, become true discoidal red blood-corpuscles in consequence of losing the water they contain, and the condensation of the medullary substance. He urges in support of this theory his personal observations, also the well known fact that red discoidal corpuscles become spheroidal in the presence of water.

The author was unable to arrive at any final decision concerning the ultimate fate of these cells producing the red corpuscles, and prefers confessing his ignorance to building up hypotheses which would obscure the question rather than make it clearer. The seat of the cells with reference to the medullary vessels is also a point of interest which M. Malassez has failed to elucidate. Were it known, science would possess indications of the manner in which the newly formed corpuscles reach the circulation; though we are ignorant of this important and interesting detail, it is certain that these corpuscles contribute a part of the solid elements of the blood. Rindfleisch entertains very positive opinions on this subject. He believes that the capillaries of red marrow have no walls, excepting the cells among which they run, so that the young red corpuscle simply buds into the current of blood which breaks it off from the mother-cell. To carry on its important blood-forming function undisturbed, the marrow is protected from variations in blood-pressure. A full notice of Rindfleisch's theories will be found in the JOURNAL, vol. i, 1880, p. 789, the original contribution being in the *Archiv für Mikroskop. Anat.*, for the same year.

In the second part of his memoir, the author studies the origin of the mother-cells of red corpuscles. Here it is that the accumulation of important and interesting detail renders an analysis impossible; we therefore must rest content by noting a few of the most important conclusions, and referring those who wish to follow the author step by step to the memoir itself. M. Malassez rejects the theory of the transformation of ordinary white corpuscles into nucleated cells. Bizzozero,

more emphatically than Neumann and Osler, also discards this hypothesis.

M. Malassez considers Pouchet's theory untenable, that the red cells of the red marrow have their origin in the medullary lymph-corpuscles, similar to those of the lymphatic vessels, not to those of the blood, and that their transformation is a process similar to that of pigmentary fatty degeneration. It is unnecessary to insist on the slender foundation on which this hypothesis rests. The presence of hæmoglobin in these elements does not indicate a degeneration, but a special function; neither do these cells disappear, as M. Pouchet has affirmed they are frequently observed segmented, a proof of reproductive vitality. The mother-cells of the red corpuscles multiply by segmentation, judging from the considerable number of segmented cells observed in red marrow. This mode of reproduction is very important. There is yet another process offering three types; the first is a cell with a very large diffused nucleus enclosed in a very small quantity of protoplasm; in the second, the cell, though smaller than the first, is of considerable volume, containing a single large spherical nucleus; in the third, the cells are composed of protoplasm containing a small quantity of hæmoglobin, and a gemmated nucleus arranged in a crown-like form. The study which M. Malassez has made of the medulla of bone, induces him to conclude that the three types described are the formative elements of the mother-cells.

He does not attribute to the red mother-cells here described the exclusive production of red corpuscles. These cells he has found in the spleen, and he believes them to exist in all the blood-forming organs; he believes that the vaso-formative medullary cells also produce red corpuscles. Heitzmann has found these cells in inflamed bones. Bizzozero pointed them out in the normal medulla, and regarded them as cells destroying the red corpuscles; these cells are sometimes very large, and composed of a mass of protoplasmic matter, enclosing red corpuscles varying in number. They are isolated from the circulation, finally join it, and empty their contents of red corpuscles into the general mass of blood.

M. Malassez is of opinion that the vaso-formative medullary cells play a secondary part; the true red corpuscle producing cells are those described in the first instance; the others only take an important share in inflammation and allied pathological processes. M. Malassez and M. Monod have made some interesting researches on myeloid tumours; in the interior of these cells, they discovered cavities filled with blood, sometimes connected with the circulation, but generally unconnected. The researches of Lewischin, Wagner, König, etc., on the giant-cells of tubercles, are of similar pathological value and interest.

It will be generally admitted that the important discoveries of Neumann and Bizzozero, confirmed by M. Malassez, throw not only a new light on the origin of the blood, but also on important pathological questions associated with bone diseases in childhood, and explain the dangers of the cachexia that too often follows these affections; likewise the extreme anæmia which often renders bone-affections serious, when originally insignificant.

These researches of M. Malassez, which we have above presented to our readers in a condensed form, can hardly fail to offer to surgeons interested in bone-diseases in children a new field for clinical and pathological investigation; and we trust that M. Malassez's work will be the source of useful results.

PRIVATE IMPROVEMENT BILLS.

Mr. Hopwood will have done good service if, in drawing the attention of the House of Commons to the large deviations from general statute law which are taking place in various towns under the cloak of private improvement Bills, he helps to secure a reform in the extremely unsatisfactory manner in which local legislation is now carried on. We observe that, as a consequence of Mr. Hopwood's remarks, Sir William Harcourt proposes to move: "That the Committee of Selection do appoint a committee, not exceeding seven in number, to consider and report on any provisions in private Bills, promoted by municipal and other local authorities, by which it is proposed to create powers relating to police or sanitary regulations which deviate from, or are in extension of, or repugnant to, the general law; and that it be an instruction to such committee to make a special report to the House in respect of any such provisions as aforesaid as the committee may sanction, together with the reasons on which the grant of such powers are recommended, and the recent precedents applicable to the case."

There will now be an opportunity for the whole question of these local Bills, in their relation to sanitary law, being adequately discussed and possibly settled. No reader of the reports on this subject which have been annually presented by the Chairman of the Parliamentary Bills Committee, and published in the Journal, can fail to be struck with the very unnecessary and perplexing variations of the manner in which statutory duties are proposed to be performed in the several towns that have applied for extended powers. As has been said before, it has become the duty of the Government to prepare a measure for general adoption, which, while possessing due flexibility, shall make uniform and universal requirements which are now enforced in individual towns with every conceivable variety of method and stringency. The appointment of the committee proposed by the Home Secretary cannot fail to have an useful and appreciable influence in this direction; and we trust that their labours may result in expediting a much needed reform of our present laws relating to the public health.

MEDICAL DESERTS AND MILITARY JUSTICE.

No one belonging to the Medical Department of the army can read without feelings of pride the words of His Royal Highness Commanding-in-Chief at the distribution of prizes at Netley on the 6th instant. No higher tribute could possibly have been paid to any body of officers than that uttered by the Duke of Cambridge in allusion to the work done by medical officers in Afghanistan and South Africa during the last two years. "I have not been able to put my finger on any defect in the working of the department. It has not been only in their purely professional duties that medical officers have distinguished themselves in recent campaigns, but they have also been conspicuous for their gallantry in the field. I am aware, too, that it is not only in time of war that medical officers are called upon to risk their lives; they often do so in time of peace, on the occasions of epidemics in various climates."

We can conceive nothing more inspiriting to a body of young medical officers about to enter upon those duties, which it is their pride to have won a commission to perform. We can imagine that the ring of kind appreciation embodied in these words would live in their memories, to be in after-life a stimulus and solace in times of trial, of hardship, and of sickness. We can respect their resolutions to be themselves, as far as in them lies, individual objects of such commendation. Yet we should but deceive these young medical officers were we not, even at the risk of damping so noble a zeal, to point out that, as a matter of fact, there lie behind these flattering words of the Commander-in-Chief enforcements of regulations towards some of the very medical officers herein alluded to, which have been pronounced by the military, medical, and public press, to be harsh and indefensible; and which have been made the subject of appeal to the Secretary of State for War in the House of Commons—regulations which enact that military and medical officers, though wounded side by side in action, or sickening side by side in the epidemic of a foreign station, shall, when they return to England with life, but without health, be dealt with in the compensation for their sickness as if they were creatures of entirely different flesh and blood.

The military officer can obtain leave of absence for the recovery of his health to the extent of two years, and then will be granted a further period of one year on half pay, which will count as full-pay service towards retirement. The medical officer is allowed, as a special boon, one year of sick leave; and, after that, is placed on half pay, which he is not permitted to reckon towards retirement.

One of the medical officers whose "gallantry in the field" was doubtless in the mind of the Commander-in-Chief when he spoke, and who was shot down when in the act of dressing a wounded soldier on the field of Maiwand, is absolutely at this moment on half pay, because the consequences of that wound have rendered him for a time unfit for general service. He counts no service towards retirement, and is being superseded by his juniors, who may never have been on active service in their lives; while the military officers who were injured on the same day are still enjoying an extended sick leave, and have before them a further period of a year's half pay, which will also count towards retirement.

Other medical officers, too, whose health has been seriously injured by sickness incurred in the campaigns instanced by His Royal Highness have been placed on half pay, and denied the privilege of counting any portion of that half pay towards retirement, even though this has been accorded as a right to every military officer who may have met with an injury or illness on duty in time of peace in England.

Assuredly, then, if these gracious words of the Duke of Cambridge mean anything, they must carry with them a pledge that the cases of medical officers wounded on the field of battle, broken down by the duties of active service, or sick from the effects of tropical epidemics, shall receive the same consideration as those of military officers who fall ill in the performance of the easy services of English garrison-life.

Should these utterances be followed by no such act of justice, they must be regarded only as the empty platitudes of official formality, and can have no other effect than the production of cynicism and discontent in the minds of those who began life with a belief in their genuineness.

It would agreeably signalise the administration of the present Director-General, that the successes of his official career should be crowned at its close by the concession to his department of this boon, the withholding of which causes such obvious hardship to those who, the Commander-in-Chief publicly admits, have done their duty.

We learn with pleasure from a correspondent at Mentone, that Her Majesty the Queen arrived there on Thursday afternoon in good health and spirits.

At the annual meeting of the members and friends of the Home for Lost and Starving Dogs, Miss F. P. Cobbe raised an objection to the re-election of Mr. G. Fleming on the committee as he had published an article in favour of vivisection, but she only found ten supporters in a crowded meeting.

It has been decided by the Council of the Ophthalmological Society that a discussion shall again be held this year, and the subject chosen is sclerotomy. The meeting will probably be held on June 8th, and gentlemen who may desire to read papers are requested to communicate with one of the secretaries (Dr. Stephen Mackenzie, or Mr. Edward Nettleship) at an early date.

The celebrated evolutionist Professor Ernest Hæckel writes from Ceylon to his University at Jena, that he has now concluded his zoological work after a two months' stay on the southern coast of that island. He has forwarded no fewer than fifty boxes of specimens to Germany. During his investigation of the coral-reefs, he discovered a great number of hitherto unknown aquatic species. Notwithstanding his uninterrupted exertions he was in good health during the whole time. During February he intended to explore the virginal forests in the interior, in company with the botanist, Dr. Trome, of Peradenza. In March he will leave Ceylon, returning to Europe by way of the Suez Canal.

In another column will be found a case of death after the administration of chloroform for an operation in a case of bronchocele. For this report, we are indebted to the courtesy of Mr. Wilfrid Wilson, house-surgeon to the infirmary in which it occurred. It is always much more satisfactory to receive such reports from persons in whose practice they occur, and under whose cognisance, therefore, all the details of the case have immediately fallen. It is, we regret to say, by no means the invariable practice to forward such details, though, as we have frequently pointed out, it is an incumbent duty that such cases should be recorded in the public interest; and frequently we are left to gather them from newspaper reports of inquests and other collateral sources.

Dr. Carrick of St. Petersburg has, we hear, recently been in London with the view of making known, to persons likely to take a practical interest in the subject, the result of some experiments which he has been carrying on in Russia as to the condensation of milk from the mares in the Steppes, with the view to the introduction of such condensed mares' milk for the purpose of infant alimentation, and as a basis for the manufacture of koumiss. It is well known that the composition of mares' milk more closely resembles human milk than does cows' milk, and is therefore, it is thought, likely to be much more useful for the purpose of infant feeding than the condensed milk now so largely used for the purpose. The process which Dr. Carrick has employed furnishes condensed and desiccated mares' milk, without the addition of any foreign substance whatever. The result of Dr. Carrick's experiments having been satisfactory, both as to the process of manufacture employed and as to the favourable results attained in the nutrition of infants and invalids, he hopes to be able to find means shortly of producing this novel element of infant alimentation on so large a scale as to afford the means for introducing it into general use. The project is one of considerable interest, and will, we hope, be successfully carried out.

The Rev. Canon Scarth, rector of Gravesend, who has gone to Port Said to recruit his health, writes to say that a sailors' hospital is much needed at Port Said. At present, a sick seaman must be sent to the Egyptian hospital, where there are only Arab nurses and common rations. A mate of a ship lately sent there, begged to go back to his vessel, preferring discomfort to dirt. The British Consulate pay quite £300 a year for the use of this hospital. The Canon suggests that, if funds could be raised to put up a wooden hospital similar to those the Government have placed at Suez for sick soldiers, it would be easily maintained. The agents of shipping companies say they will do their best to arrange for a regular payment of five shillings each vessel passing through. This would realise a sum of £600 a year, and, added to the Consular £300, would support a comfortable hospital for the use of sailors who, from sickness or accident, are left behind from their ships. Admiral Inglefield, through the press, appeals to the public for some pecuniary help towards this good work.

THE QUEEN AND THE LONDON COLLEGE OF PHYSICIANS.

The following has been communicated as the text of the loyal address to the Queen from the Royal College of Physicians of London, on the recent attack on Her Majesty.

"To the Queen's Most Excellent Majesty: Most Gracious Sovereign,—We, your Majesty's most dutiful and loyal subjects, the President and College or Commonalty of the Faculty of Physicians of London, approach your Majesty most respectfully to express our abhorrence of the crime which has been committed against your Majesty's person, and to offer to your Majesty our loyal and fervent congratulations that, by the merciful dispensation of the Almighty, the hand of the assassin has been rendered powerless. We heartily join in the universal feeling of thankfulness to God that your Majesty's life has been spared, and we pray that it may please the Almighty to preserve it for many years still to be a blessing to the millions of your Majesty's subjects."

THE SANITARY STATE OF MENTONE.

We are authorised to state that the municipal authorities at Mentone have had under their official notice, and have taken into serious consideration, all the hygienic recommendations of the Society of medical men practising in that town, and have promised to carry them out as far as lies in their power. The Mayor, M. Bioves, in communicating to the President, Dr. Henry Bennet, this promise, in his own name and in those of his co-officials, expresses himself as follows:—"Sir,—I

have received the letter which you have done me the honour to forward, containing the report of the Society of medical men; and I herewith enclose you the reply of the Municipality to the demands of the Society, which I beg you will communicate to its members. You may be assured that the Municipality will neglect nothing, and will shrink from no sacrifice, in order to render a residence in our town agreeable to the Queen of England. We are all too flattered by the honour which Her Majesty does us, and we feel too deeply the value of the choice of Mentone by the Queen of England, not to make every possible effort to gratify her slightest wishes. As far as I am concerned, you may rely on my thorough devotion to Her Majesty, as I am convinced that, in devoting myself absolutely to her service, I am also furthering the interests of Mentone. I shall, therefore, be grateful to all who can point out to me any measures calculated to secure the public good which may have escaped my notice. This remark applies especially to yourself, who, by your experience and position, are better able than anyone to help me by your advice.—I remain, sir, yours, etc., G. BIOVES, Maire." The sentiments expressed in the above letter by the Mayor, a young and energetic Mentone proprietor, seem to be those of the entire population. Southern supineness seems for once to have given way to action, and all seem to lend a willing hand to putting "the house in order" for Her Majesty's advent.

THE HEALTH OF THE PRIMATE.

COINCIDENTLY with the departure of the Queen, we are informed that the Archbishop of Canterbury has been advised to seek the sunny south for a few weeks' rest. We understand that the arduous duties which belong to his Grace's high office last year told very seriously upon his powers, and caused some anxiety to his Grace's medical attendant. A sojourn in the Isle of Thanet for a few weeks, with as perfect rest as could be obtained, assisted to remove some of the effects of the close attention to the duties of his office. A slight amount of bronchial irritation has continued through the winter, and chronic bronchitis has occasionally interfered with his Grace's comfort and ability to bear exposure. Exertion has caused shortness of breath, and increased the rapidity of an otherwise slow circulation; with this there has been a tendency to anæmia, which has shown its effect upon the muscular portion of the large blood-vessels. The dense atmosphere of Lambeth, with the stifling gases which are given off from the neighbouring manufactories, have seriously interfered with his Grace's comfort; whilst the absence of a due share of sunlight from the same cause has, with London fog, assisted to keep him in a delicate state. Under these circumstances, his Grace has been advised to seek for ozone and sunlight on the genial shores of the Mediterranean for the next six weeks, with the certain hope of a return to duty with renewed health and strength. We understand that there are no causes for anxiety, beyond those which naturally belong to a constitution which has been repeatedly tried by acute disease.

THE EDUCATION DEPARTMENT AND THE CLOSING OF SCHOOLS.

THE Education Department of the Privy Council has, we are very glad to be in a position to announce, at length yielded to the representations which have been frequently and earnestly addressed to it with regard to the important subject of closing of elementary schools during epidemics of infectious disease in the neighbourhood. Under the existing regulations, it has been directly opposed to the financial interest of the school to shut it during an epidemic; and thus it has frequently come about that, despite the strongest protests of the health-officer and the sanitary authorities, the school-managers have declined to see the necessity of closing their establishments, even when the plainest possible evidence was forthcoming of the dissemination of disease through its agency. The sanitary authority had no power to order the school to be closed; and had often to submit to seeing its utmost efforts to check the spread of an epidemic nullified by the attitude of school managers. For the future, this anomalous state of things will happily no longer exist. By the new Code of Regulations, which has just received the sanction of the Education Department, it is made one of the conditions of obtaining a grant, that the managers must comply with any notice of the sanitary authority of the district in which the school is situated, requiring them for a specified time, with a view to preventing the spread of disease, either to close the school or to exclude any scholars from attendance, subject to an appeal to the department if the managers consider the notice to be unreasonable. Other clauses in the regulations, which show an increasing appreciation of hygienic principles, permit an exception to the otherwise indispensable visit and report of an inspector in the event of a continued epidemic making such visit and report impossible; and make it necessary that the department should be satisfied that the school-premises are healthy, well lighted, warmed, drained, and ventilated, properly furnished and supplied with suitable offices, and contain sufficient accommodation for the scholars attending the school; at least eighty cubic feet of internal space and eight square feet of internal area for each unit of average attendance being the standard they will endeavour to secure.

PROSECUTION UNDER THE BIRTHS AND DEATHS REGISTRATION ACT, 1874.

A CONVICTION has recently been obtained at the Todmorden petty sessions against Mr. Herbert Henry Thomas, surgeon, of Hebden Bridge, for signing death-certificates in the case of several children whom he had not personally attended during their last illness, but who had been seen by his unqualified assistant; and a penalty of £5 and costs imposed. It is very desirable that practitioners should clearly understand that the form of certificate which is supplied in printed books by the Registrar-General is intended only to be used in cases of the death of any person who has been attended during his or her last illness by a registered medical practitioner; and that, in respect to this matter, the ordinary rule of law, *qui facit per alium facit per se*, does not apply. At the same time, we cannot think that any professional dignity or honour accrues from the spectacle of prosecutions got up, as this appears to have been (judging from the newspaper report), by a rival practitioner, in whose employment the unqualified assistant had previously been. The main object of giving death-certificates is, as is expressed on the face of each certificate, to give "the cause of death". Everything else in the certificate is subsidiary to this; so much so, that, even to the fact of death having taken place at all, the certifier is not obliged, unless he choose, to testify. It would be perfectly easy, we think, to insert "my assistant attended", for "I attended", and to substitute "he" for "I" last saw him, etc., so as to get rid of the technical illegality on which these prosecutions are founded. No doubt, it would be better that every person who dies should have the benefit of the attendance of a qualified medical man before death; but, in the present state of public opinion, it would be hopeless to attempt to make such a law, or to enforce it if made. In the present case, it can hardly be supposed that the object of the prosecution was to stop the employment of unqualified assistants; as Dr. Lawson, who acted as informer, had previously employed one himself; and there seems some reason to credit the charge of professional jealousy made against him by counsel for the defendant.

THE VISION OF SEAMEN.

DR. FITZGERALD, of Dublin, raised an important subject at the last meeting of the Ophthalmological Society; he pointed out that the examination made by the Board of Trade into the eyesight of seamen was, in spite of recent improvements, still very imperfect. From remarks that fell from various speakers there seemed to be no doubt that there are many seamen holding positions of more or less responsibility afloat whose visual acuity is far below the necessities of their calling. The subject is already occupying the serious attention of the Board of Trade, and will we understand probably be brought independently under the notice of Parliament during the present session. We hope that the attention thus attracted to the subject may strengthen the hands of the Board in applying for an extension of their powers in this matter.

THE "PEST-HOUSE" AT CHISWICK.

A PLOT of land, which has an historical as well as a sanitary interest, has lately been swallowed up by the omnivorous speculative builder. Alluding to this, the *Athenæum* observes: "Antiquaries interested in Westminster School know that at Chiswick there was, until a few years since, a large rambling old mansion, sometimes known as the 'pest-house', and appropriated for centuries as a sanatorium for the scholars. It was suited for this purpose, as the site was airy, facing the river in front, and there was a large plot, called the 'home field', behind. The field was of yore a playground for convalescent Westminster boys; and, since their guides abandoned the place, it has served as a 'people's park' for Chiswick and Hammersmith. The mansion was long occupied by the printing-office of Messrs. Whittingham and Co., and gave its name to the famous 'Chiswick Press'. A few years since, the old house gave place to villas. The authorities of the school having sold the 'home field', more villas will cover the ground, and another 'lung' of London will be abolished."

THE MEDICAL SOCIETY OF LONDON.

THE one hundred and ninth anniversary of this Society was celebrated on the evening of Wednesday, the 8th instant, the Fellows dining together in the Victoria Hall of the Criterion Restaurant. The chair was occupied by the President, Dr. Broadbent, who was supported on the right by the President of the Royal College of Surgeons, on the left by Mr. Francis Mason, the President-elect. During the evening, the Society's medals were presented to the recipients by Dr. Broadbent —the Fothergillian gold medal, for a dissertation on the Pathology and Treatment of Whooping-cough, to Mr. Dolan of Halifax; a silver medal to Dr. Allen Sturge, for his paper on Muscular Atrophy; and a silver medal to the retiring honorary secretary, Dr. T. Gilbart Smith, for eminent services rendered to the Society.—On Monday last, the new President, Mr. Francis Mason, Surgeon to St. Thomas's Hospital, gave an opening address to the fellows on taking the presidential chair for the first time. He gave an agreeable and interesting sketch of his connection with the Society; and, in thanking the fellows for electing him to be their president, said that he regarded the post as the highest honour he had yet achieved in the profession. In resigning the post of treasurer to Dr. Wiltshire, he had left in his hands the largest balance which the Society had possessed for years. He trusted that the Society would lose nothing in its work and usefulness by having placed him in the presidential chair. At the conclusion of the address, which was listened to by a large audience, the ordinary business of the meeting was proceeded with.

NEPHRECTOMY AT THE LONDON HOSPITAL.

ON Friday, Mr. James Adams excised a kidney from an adult male. The symptoms were persistent hæmaturia with pain in the right loin, shooting down the thigh. The kidney was explored for calculus, but none was found, but the greater part of it was occupied by medullary sarcoma. After some difficulty, owing to adhesions, the organ was removed. The case will be published in detail shortly.

THE LONDON FEVER HOSPITAL.

WE regret to learn, from a letter published by the President of the London Fever Hospital, that it is at the present moment at the point of collapse. For the first twenty years of the present century, it was the sole means of protection against epidemics of fever which London possessed; and for the great majority of the population, except the pauper fraction, it even now, notwithstanding the Asylums Board hospitals, remains so. How many persons have owed their lives to this hospital; how many families have been relieved from intense anxiety by the removal of friends and relations sick of infectious fever; how many children have escaped scarlet fever and death, it would be impossible to estimate. At the most moderate of calculations, the benefits in all these respects must have been great. The institution which has done all this for London is now threatened with extinction, unless money be immediately forthcoming. This, too, is close at hand, and will actually take place in 1883. It is for the public to say if this is to be permitted. If it be, the public should clearly understand that the only means of isolating the infectious fevers constantly present in London, paupers excepted, will be closed next year.

THE "MISRULE OF VESTRIES".

A GOOD deal of correspondence has lately appeared in the public papers by residents in suburban localities who, having taken houses in undedicated, and therefore private roads, blame the vestries for not paving and cleansing the same. It seems not to be generally known that, until new roads are built over to the extent of about four-fifths, the vestries do not begin to take the necessary legal action for having them properly paved at the expense of the owners, and afterwards keeping them clean as ordinary parish roads. As the cost of making up new roads cannot be defrayed out of the rates, some time usually elapses after the service of the legal notices before the work can be begun. For instance, the various owners of the houses and of the land abutting on the road must have paid the calls made upon them before the authorities can begin the work, so that, until summonses have been taken out against the defaulting owners, or orders made, the nuisance remains unabated. There can be no doubt that such roads are injurious to health, and therefore should be avoided; but, as persons often take houses without making due inquiry, they ought to blame themselves rather than the vestries. If the expense, or any part thereof, of making up new roads were cast upon the parish, it would only act as a bonus to speculative builders to build more houses than they do even at present, which is quite unnecessary.

BEARING-REINS FOR HORSES.

APROPOS of the ignorant and morbid outbreak of sympathy with the woes of Jumbo which has lately afflicted London, Mr. Flower writes to a contemporary that many of the humane folk who went to bid their troublesome pet a last adieu, and do their best to ruin his digestion, were strangely oblivious to the pain that was being suffered by their own carriage-horses. Whilst the humble cab-horses were standing "at ease", with liberty for their heads and necks, most of the carriage-horses were tied up so tightly that they could not lower their heads one inch, and with their lips drawn up most painfully from tight bearing-reins. It is, indeed, singular that the perpetual tossing and turning of their horses' heads to get a little relief from the evident pain and discomfort they suffer, does not induce humane and sensible people to abolish the use of these instruments of daily torture.

POISONING BY "SOUSE" OR BRAWN.

FOR the following details of the recent cases of symptoms of poisoning after eating "souse" or brawn at Woodhouse, Handsworth, near Sheffield, we are indebted to Mr. F. T. Le Tall. A miner partook of "souse" at supper on Thursday night. He afterwards had violent diarrhœa and sickness, and applied for treatment about 9 A.M. on Friday. The case was treated as one of irritative diarrhœa, etc., and no more was thought about the matter; but on Friday at 4 P.M., when Mr. Le Tall was called to see a family thought to be poisoned, the symptoms being severe sickness, diarrhœa, etc., he found that they had eaten "souse" from the same shop. He at once gave emetics, warm diluent drinks, etc. A child aged 7, and the mother, aged 50, first began to vomit and be purged about three hours after the meal. A girl aged 10, after being at school, came home, and was similarly affected four hours after the meal. A boy 12 years old "felt queer", and began vomiting, etc., six hours after eating it. Besides vomiting and diarrhœa, the pulse in the cases was feeble, quick, and irregular; there was a sense of prostration, etc., most marked in the mother, who was in a dangerous state of collapse for some time, threatening to prove fatal. At 11 P.M., as the diarrhœa and sickness continued unabated, neither brandy, barley-water, nor anything else being retained, Mr. Le Tall gave one grain of opium to the mother, and a quarter of a grain to each of the children, with good results. Stimulants, etc., were retained, and the sickness, etc., suspended; the pulse became

quieter and firmer. On Saturday the children were well; the mother was still suffering from collapse. Eggs, brandy, and beef-tea were borne by the stomach. On Sunday she was much better, but still unable to rise in bed. On Monday, though very weak and prostrate, she was able to sit up; her pulse was normal; she had a sense of "feeling sore all over". Half a pound of the brawn was bought, two-thirds only of which were eaten by the four. The rest was handed, in a sealed jar, along with the vomit, to the police for analysis. Another family—man, wife, and infant—partook of "souse" from the same source. This was followed in a few hours by dimness of vision, "creeping feelings" in the legs, feet, arms, and hands; followed by copious purging and sickness, continuing for some hours, leaving them "feeling poorly". Mr. Le Tall further says: "On putting the case into the hands of the police, we can find twenty-one persons of various ages who have suffered more or less severely as above. Besides containing more fat than common, the 'souse' was said to be as usual. I suggested that it was not fresh made, and that decomposition might have set in, causing it to act as a poisonous (animal) irritant, as borne out by the report of the analyst. Neither vinegar nor mustard, the usual accompaniments, was eaten with the 'souse' by the families under my care."

THE THICKNESS OF THE SKULL.

MR. ROGER WILLIAMS writes to us:—The question was raised, in the recent discussion on "Hats and Heads", whether modern heads are smaller than they used to be. If the following quotation from Herodotus may be relied on, we might naturally expect to hear of such a diminution consequent on the prevalent custom of wearing hats, inducing thinning of the cranial bones. I am not aware of any explanation as to the varying thickness of the skull in different individuals and races; possibly the following quotation may throw some light on the matter. "Here" (Pelusiac mouth of the Nile), "I saw a very surprising fact, which the people of the country informed me of. For, as the bones of those who were killed in the battle lie scattered about separately (for the bones of the Persians lay apart in one place, as they did at first, and those of the Egyptians in another), the skulls of the Persians were so weak, that, if you should hit them only with a single pebble, you would break a hole in them; whereas those of the Egyptians are so hard, that you could scarcely fracture them by striking them with a stone. The cause of this, they told me, is as follows, and I readily assented: that the Egyptians begin from childhood to shave their heads, and the bone is thickened by exposure to the sun; from the same cause, also, they are less subject to baldness, for one sees fewer people bald in Egypt than in any other country. This, then, is the cause of their having such strong skulls; and the reason why the Persians have such weak skulls is this: they shade them from the first, wearing tiaras for hats. Now, I myself saw that such was the case; and I also observed the same thing at Paprenies, with respect to those who were slain with Achæmenes, son of Darius, by Marus the Libyan." Book III, ch. 12.

THE INFLUENCE OF SEXUAL EXCITEMENT ON WOUNDS.

IN a paper recently published in the *Lyon Médical*, M. Poncet draws attention to the evil effects of sexual intercourse when indulged in during convalescence from injuries, operations, etc., and suggests that this may be a not very unfrequent, though unrecognised, cause of some of the mishaps and complications that occur in private practice. The sexual act produces a certain amount of shock which, M. Poncet thinks, may be placed side by side with traumatic shock, and which leaves the patient for a certain time after indulgence in a condition of "least resistance", during which he is especially susceptible to morbid influences. With regard to the impression produced even in health by the act of coitus, some thermometrical experiments undertaken by an interne of the Lyons Hospital are quoted. A thermometer placed in the rectum was carefully observed on nine occasions; and it was found that the temperature was always from five-tenths to six-tenths of a degree Centigrade (nearly 1° Fahr.) lower just after than before coitus. During the act, the temperature rose slightly above normal. In illustration of his views, M. Poncet gives notes of seven cases observed in his own practice, where complications were ascertained to have followed coitus. Four of these patients had lesions of the hand or finger, and all were going on well up to the time of sexual indulgence, which was quickly followed by pain and swelling of the injured part in one case, and in three others by inflammation of the lymphatics, which went on to suppuration in two. In another case, chronic tetanus was attributed to the disturbing effects of coitus, and in yet another the non-union of a fracture. In the latter case, union took place when the man was removed from his mistress, who had been nursing him. In the seventh case, pyæmia and death are referred to a similar cause. The patient had undergone amputation of the thigh for an injury, and was in the country away from any known septic influences. The wound was healthy and granulating, when, on the eighteenth day after the operation, he had intercourse. Rigors quickly followed, and death occurred five days later. A somewhat similar case is mentioned on the authority of Ollier. Although these cases are all surgical, M. Poncet also refers to the adverse influence of sexual excitement in some other diseases—notably diabetes and gout.

A RARE FORM OF VASCULAR DISEASE.

AT the consultation at St. Bartholomew's Hospital, on the 2nd instant, Mr. Thomas Smith was able to exhibit an instance of an extremely rare form of disease. The patient was a young woman, about nineteen years of age, who presented an abnormality of the circulation of one hand and forearm, which is best classed, perhaps, under the head of aneurysmal varix; she could hardly be said to suffer from the condition, as she had been able to discharge her duties as a domestic servant until her comfort was interfered with by a somewhat persistent hæmorrhage from the site of a small abscess in one finger. Large pulsating vessels having the distribution of the veins were to be seen on the back of the hand; the pulsation was accompanied by a purring thrill and a loud buzzing murmur. There were two points about the case which gave it a peculiar interest: first, that there had been no known injury which could have caused a direct communication between the arteries and the veins; there had been, it is true, a severe burn of the hand in early childhood, but there was no reason to suppose that the vessels were especially damaged. The case thus appeared to be an instance of spontaneous aneurysmal varix. The second point of interest was that the thrill and loud buzzing murmur were very plainly to be observed in the brachial artery at the bend of the elbow, and in all the arteries of the forearm. These latter vessels all appeared to be enlarged; and these facts led Mr. Smith to suggest that the case had some analogy to the aneurysms by anastomoses commonly seen on the scalp, and that the free communication between the arterial and the venous circulation of the forearm was effected by way of the much enlarged capillary vessels. In whatever way the case be regarded, it is of singular interest, and probably almost unique.

SELF-MUTILATION IN CHINA.

DR. R. A. JAMIESON of Shanghai has recently presented to the Museum of the Royal College of Surgeons a pair of feet, to which the following remarkable history is attached. Some months ago, a Chinese beggar excited much pity, and made a very profitable business in the streets of the foreign settlement, Shanghai, by showing the mutilated stumps of his legs, the feet belonging to them being tied together, and slung round his neck. Warned frequently by the police, he was knocked down by a carriage one day when scrambling out of the way of a constable. He was brought into hospital, under Dr. Jamieson's care, being slightly injured; and, on recovery from his bruises, he sold to his medical attendant his feet, which otherwise would have been confiscated by the police. He admitted that, for the purpose of making himself as attractive as possible to the charitably disposed, he had, about a year previously, fastened cords round his ankles, drawing them as tight as he could bear them, and increasing the pressure every two or three days. In about a fortnight, the bones were bare, and he had no more pain.

At the end of a month and a half, the bones were quite dry; and, by this time, according to his account, he was able to remove the feet by partly cutting and partly snapping the bones. The feet were quite black and mummified; on the wounded surface of the right foot, the upper aspect of the astragalus was seen, no trace of the malleoli remaining; but the external malleolus lay in its normal position in the left foot, and it had evidently been removed by cutting and snapping, as the patient affirmed. The stumps were perfectly healed, and conical; the ends of the tibiæ and fibulæ were apparently fused, and both stumps were covered in with a good cicatrix, puckered at the centre, and admitting of a very considerable amount of pressure before pain was produced. Such instances of self-multilation appear to be frequent in China; and, when performed for such a motive as in Dr. Jamieson's case, they throw a light on that singular mixture of courage, deceit, and sacrifice of almost anything to advance low enterprise, which characterise the lower orders in that country.

CARRIER PIGEONS AS DOCTORS' ASSISTANTS.

THE *New York Medical Record* gives an account of a method of utilising the homing instincts of the carrier-pigeon as an aid to country medical men in their practice. It seems that these birds have been made very useful by country doctors in New York State and Pennsylvania. One medical man in Hamilton County, New York, uses them constantly in his practice, and considers them an almost invaluable aid. After visiting a patient, he sends the necessary prescription to a dispensary by a pigeon, or any other instruction the case or situation may demand. He frequently, also, leaves pigeons at places from which he wishes reports of progress to be despatched at specified times or at certain crises. He says that he is enabled to attend to at least a third more business through the time saved him by the use of pigeons. In critical cases, he is able to keep posted up by hourly bulletins from the bedside between daylight and nightfall, and he can recall case after case where lives have been saved that must have been lost if he had been obliged to depend upon ordinary means of conveying information. The idea is ingenious; but it is not new.

MALFORMATION OF THE MALE EXTERNAL ORGANS: OPERATION.

IN the *Gazette Médicale de Strasbourg*, Dr. Schrumpf of Wesserling describes a remarkable anomaly of the external organs in a male child. The penis and testes were enclosed in one common sac of integument, a scrotum, with a projection not one quarter of an inch long from its upper part, representing the prepuce. The urine issued during micturition from a very narrow opening in the prepuce. The corpora cavernosa could be detected on palpation, and appeared to be normal. The case is described as unique; but it is only an extreme form of the fusion of the integuments of the penis with the scrotum posteriorly—a result of arrested development of the genital tubercle. To remedy the malformation, when the child was a year old, the corpora cavernosa were raised from the scrotum with as much integument as possible, which was then severed from the scrotum, and united by sutures behind the penis; the scrotal wound being also sewn up. Circumcision was performed at the same time. The result was quite satisfactory.

VACCINATION FROM CRUSTS.

DR. LITTLE, the Superintendent of Vaccination in the Hyderabad Assigned Districts, in his report on vaccination for these districts during the year 1880-81, mentions that the use of crusts has almost entirely been interdicted. He has found that inflammation and ulceration frequently ensue if the crusts be not very carefully selected. The arm operated upon swells in some cases to twice its natural size, and the spot where the lymph was inserted becomes the centre of a slough of the size of a rupee or larger. In this country, the use of crusts for vaccination has almost entirely disappeared; and the chief reason of their employment in India would seem to be to guard against the frauds of the natives, who are necessarily much employed for vaccination purposes.

THE SECRETS OF OUR PATIENTS.

OUR contemporary, the *Journal de Médecine de Paris*, contains a letter from a correspondent detailing a hypothetical case, in which the medical attendant delivers a woman of a syphilitic child, when, to his knowledge, the father is exempt from the disease; and desires to know whether it is the duty of the medical attendant to inform the father of the nature of the disease from which the child is suffering. M. Diday replies to the letter, and maintains that such a case offers no exception to the general rule, that the secrets of our patients are inviolable. He points out that, when the child is born dead, as a rule, no questions would be asked; and, if any were, it would be sufficient to say that there was commencing putrefaction; but when syphilitic symptoms are manifested by the child after birth, he thinks the medical man can easily discover the real state of things; and he believes that it is only necessary for him to insist on the mother nursing the child herself, so as to avoid infecting anyone else; and should she herself show any symptoms of the disease, to submit herself at once to treatment, and to persevere in it actively and to the end. We may add, that we quite agree with M. Diday; any other view is obviously founded on a principle which would make one law for the husband, and another for the wife; for who ever heard of a medical man feeling himself bound to tell a wife that her husband had acquired syphilis?

DEAF-MUTISM.

DR. BOUCHERON lately made a communication to the Medical Section of the Paris Academy, in which he expressed an opinion that the coexistent states of deafness and dumbness so often observed is owing to the compression of the acoustic nerve. This compression is the result of the vacuum existing in the cavity of the tympanum. This vacuum causes the external air to press on the membrane, and thus on the ossicula, and finally on the liquid of the labyrinth and the nerve. By frequent insufflation into the Eustachian tube, M. Boucheron succeeds in destroying the vacuum, and thereby the pressure on the nerve, and deafness is cured. M. Boucheron has restored in some cases, to the apparently deaf and dumb, and even idiots, the faculty of hearing and of speech.

CHOLERA IN THE NORTH-WEST PROVINCES OF INDIA.

DURING 1880, 71,546 deaths were registered from cholera in the North-West Provinces and Oudh, equal to a death-rate of 1.6 per 1,000 of the population, as compared with 0.8 in 1879 and 0.5 in 1878. The mortality of the year seems again to favour the rule that cholera-disease, while it establishes its prevalence in the eastern portion of the province in the months of the hot season, cannot apparently establish its prevalence in the western portion until the rainy season commences. The previous year, it may be remembered, was an exception to this well-established order of events.

THE MEDICAL PROFESSION IN CHINA.

THE neglect of physicians in China to attend at once on their patients, and the high fees they charge, have recently given rise to a quaint decree issued by the authorities at Shanghai. This decree, which *Nature* sums up as a model one for a paternal Government, in which argument, entreaty, objurgation, exposition, threats, are all mingled in due proportions, declares that it is the duty of all physicians to use their knowledge for the benefit of the people; when people are sick, they must be ready to attend upon them whenever they are sent for, without regarding the hour of the night or day or the state of the weather. When people are ill, they long for the presence of the doctor as the grain of seed longs for the rains. Instead of doing this, however, the physicians now think that they possess great skill, and not only charge high fees, but insist on being paid full hire for their chair-coolies, and they do not care what becomes of the patients so that they get their fees. If these were only charged to the wealthy, it would not so much matter; but the poor have to pay them also. An evil practice, the decree goes on, also exists, by which doctors will not visit their patients before 1 o'clock in the afternoon; some will even smoke opium and

drink tea until late in the evening. These are abuses, the magistrates say, which they will on no account permit. Doctors must attend their patients at all times; they must, if necessary, visit them several times daily; they must think more of them and less of their fees. Notice, therefore, is given to all officials and people that a physician who does not attend when he is called must only receive half his fees and half his chair-hire. "If you physicians delay your visits, you show your wickedness and sin against yourselves."

SCOTLAND.

AMBULANCE LECTURES IN ABERDEEN.

FOLLOWING up what has been done elsewhere, ambulance lectures have been commenced in Aberdeen. The medical officer of health, Dr. Simpson, is engaged in giving a course of instruction on this subject to the members of the police force. Dr. Hall, assistant to the Professor of Materia Medica in the University, gives a course of instruction in ambulance drill to the members of the Volunteer Engineer corps.

THE GLASGOW OPHTHALMIC INSTITUTION.

THE thirteenth annual meeting of the supporters of the above institution was held on March 13th, when the report was read and adopted. The report shows that, in addition to the large number of patients remaining on the books at the beginning of the year, 3,322 new cases have been admitted, of which number 3,004 were dispensary patients, while 318 were taken into the hospital for treatment. Of the 3,322 new cases treated during the year, 3,170 were cured, 86 relieved, and 66 were dismissed as incapable of further benefit. There has been a decrease in the number of out-door and in-door patients during the past year, but this has arisen in great measure from the institution being shut for some months while alterations were being carried out. By these alterations, additional accommodation has been obtained, so that ten extra beds have been added, raising the number of beds for in-patients to thirty. This will involve an increased expenditure for the support of the institution, but no doubt the extra income will be forthcoming. During the past year, there was an excess of income over expenditure, and a gratifying feature in the report is the large amount of income contributed by the working classes.

PREVALENCE OF MEASLES IN SCOTLAND.

IN many places in Scotland, there is quite an epidemic of measles; in Edinburgh and Portobello, large numbers of children have been seized by the disease, which is not of a virulent type, but which has led to the thinning of many of the schools. In the Island of Skye, the disease has disappeared, and the schools are open again.

SMALL-POX IN EDINBURGH.

WHAT, in the meantime, appears to be a completely isolated case of small-pox has occurred and terminated fatally in Edinburgh. On Tuesday, the medical officer of health reported to the Edinburgh Public Health Committee that, last week, a man living in South Bridge had been removed to the City Hospital, suffering from an attack of small-pox of a malignant type, and of which he died in two days after his transference to the hospital. He had been ill for about a fortnight, having been seized by the disease when visiting a village near Edinburgh, where there has been no recent case of small-pox. So far as can be known yet, the disease has been limited to the deceased.

THE ROYAL MATERNITY AND SIMPSON MEMORIAL HOSPITAL.

AT the annual meeting of the supporters of the Royal Maternity and Simpson Memorial Hospital, held on Tuesday, the secretary submitted an encouraging report regarding the building fund of the institution. Some weeks ago, it was stated in this JOURNAL that, owing to the munificence of the late Dr. Hunter, the debt on the new building had been reduced to £200; this balance has, by a donation of £50 from Mr. Barbour of Bonskeid, and subscriptions from various parties interested in the hospital, now been wiped out, and the institution is free from debt. During the year, there had been only two deaths in the hospital; 213 patients had been delivered in it, while 442 were attended at their own homes. The Earl of Home and Dr. Rutherford Haldane were elected extraordinary directors, in place of the late Sir Robert Christison and Mr. Anderson. The directors have set apart a small ward for the reception of respectable married women, who may be specially recommended to the hospital. The total income for the year was £748, as compared with £435 the previous year.

THE ADMINISTRATION OF SMITHSTON ASYLUM.

FROM time to time, various complaints have been made as to several points connected with the administration of the above institution, one of the chief being that too much liberty was given to the inmates of the asylum. With a view of strengthening their hands in the conduct of the place, the Committee of Management placed before the Commissioners of Lunacy a series of queries as to a number of points; and, following upon these, the Commissioners held an inquiry into the whole question of the administration of the asylum. Their report has just been made public; and, while very voluminous, it is quite explicit, both in the recommendations suggested and in the views expressed. It advises the committee to leave entirely in the hands of the medical officer the decision of the amount of liberty to be allowed to patients, and that on no account should there be any interference with him in this matter; and the report concludes by paying a high tribute to the zeal and ability of the medical officer (Dr. Wallace), and to the efficiency and administration of the governor and the other officials. Such approval must be very gratifying to all concerned in carrying on the trying and arduous duties connected with the management of the asylum; and it is to be hoped the committee will see their way to carry out the suggestions of the Commissioners.

THE ODONTO-CHIRURGICAL SOCIETY.

THE Odonto-Chirurgical Society of Edinburgh, at a meeting held on Monday in Edinburgh, adopted the following resolution: "That, although the Society are of opinion that the three years' mechanical training is, and always must be, the essential part of the training of the dental surgeon, they do not consider it necessary for the dental student to be compelled to pass his preliminary examination in arts prior to his entering upon his hospital and surgical duties." At the same meeting, Principal Williams read a paper on the Dentition of the Horse and other Animals.

THE REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending March 4th, it appears that the death-rate in the eight principal towns during the week was 21.6 per 1,000 of estimated population. This rate is 1.3 below that for the corresponding week of last year, and 1.0 below that for the previous week of the present year. The lowest mortality was recorded in Aberdeen, viz., 16.5 per 1,000; and the highest in Perth, viz., 32.7 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 3.3 per 1,000, or 0.3 below the rate for last week. The most fatal zymotic diseases were whooping-cough, diphtheria, and measles. Acute diseases of the chest caused 144 deaths, or 28 more than the number registered last week. The mortality from these diseases was most marked in Glasgow. The mean temperature was 40.9°, being 5.6° below that of the week immediately preceding, but 10.7° above that of the corresponding week of last year.

HEALTH OF GLASGOW.

FROM the fortnightly report of the medical officer of health, it appears that, for the fortnight ending March 4th, there were 490 deaths registered, giving a death-rate of 25 per 1,000 living. This year there is a diminished fatality of pulmonary diseases, which is partially counterbalanced by the larger fatality of infectious diseases, which were at a minimum point at this time last year. There were 7 deaths from fever,

viz., 5 from enteric, and 2 from typhus. From the infectious diseases of children, there were 37 deaths, viz., 19 from whooping-cough, 12 from measles, and 6 from scarlet fever. The number of cases of fever registered was 43, viz., 28 of enteric fever, 14 of typhus, and 1 undefined. There were also 135 cases of measles, 56 of scarlet fever, 53 of whooping-cough, and 17 of diphtheria registered, of which 30 were removed to hospital, and the remainder kept under supervision at home. There has been a renewed increase in the number of cases of measles, especially in the eastern and northern districts. It appears, too, that that there is in Govan, at present, an exceptional prevalence of fever. There are at present in the hospital, Belvidere, 165 cases, as compared with 161 this day fortnight.

IRELAND.

A MORGUE for Queenstown is required; but the Town Commissioners wish to throw the onus of erecting one upon the Cork Board of Guardians, and appealed to the Local Government Board, who have informed the Commissioners that it is their duty to provide what is required.

THE Committee of the Cork Fever Hospital recently tried to obtain a capitation allowance from the Cork Board of Guardians for patients treated at the hospital, and who had an objection to be treated among paupers in the fever hospital attached to the workhouse. The proposition was, however, lost by thirty votes to ten.

ADDRESS TO THE QUEEN.

THE President and Fellows of the King and Queen's College of Physicians in Ireland have forwarded to the Queen an address congratulating Her Majesty on her escape and that of the Princess Beatrice from the dastardly attack made by McLean on the 2nd instant, and expressing the loyalty and respectful attachment of the College to Her Majesty.

CORK DISTRICT LUNATIC ASYLUM.

A DISCUSSION took place at a meeting of the Board of this Asylum last week, in respect to the chargeability of lunatics who were sent from the workhouse into the institution; and instructions were given that no patient should be admitted from the workhouse without obtaining a special certificate from the medical officers of the Union. The lunatic wards of the workhouse being overcrowded, the guardians arranged to transfer some of the inmates to the asylum on the condition that they should be paid for, and that they should be removed whenever the Govenors called on them to do so. From twenty-five to thirty were sent under this arrangement, the Guardians agreeing to pay the difference between their cost and the capitation grant allowed by Government. The question also of recovering from the friends of patients the amount of their maintenance was considered, but it was pointed out that they could not be held responsible. This is a defect in the Act; and as an instance of the necessity for an alteration, it was mentioned that there was recently a patient in the asylum who had property worth £400 a year, yet who had never paid a farthing towards his support.

HOME FOR PROTESTANT INCURABLES, CORK.

THE tenth annual meeting was held last week, presided over by the Lord Bishop of Cork. The total number of patients treated in the Home was fifty-one, a great increase on former years. There were fifteen deaths, of which eight were due to consumption and two to cancer. The advantages of the new Home were well shown during the year, and many of the patients derived great benefit from the good air and cheerful situation of the building, especially those suffering from consumption. In several instances their lives were certainly prolonged, and their general condition improved after their admission, proving that the institution has done good work, and showing how invaluable such an hospital is to those suffering from incurable disease. Six hundred pounds have been subscribed for the endowment of the Castletown-Roche bed, in memory of Mrs. Welsted, of Ballywalter, but it will not be handed over to the Home until the sum of £1000 is completed.

SMALL-POX IN BELFAST.

ON March 5th, there were 121 cases of small-pox in the hospital for contagious diseases, Belfast, being a decrease of 16 as contrasted with the previous week. Four deaths took place, and 13 fresh cases were admitted during the week. During the last three epidemics of small-pox, no convalescent was allowed to leave the convalescent ward until he had been there five weeks, received two baths weekly, and duly washed with carbolic acid soap. Since that arrangement has been made, no case of small-pox has been admitted out of a family into which a convalescent thus treated had returned, thus proving its protective power.

THE CASE OF DR. KENNY.

THE Irish Local Government Board have informed the guardians of the North Dublin Union that, as Dr. Kenny, their late medical officer, who was dismissed by a sealed order of the Board on his having been imprisoned as a "suspect", has been released from prison, they were prepared to consent to his employment as medical officer of the workhouse, if he should be elected to the vacant office in the usual way. The guardians have, therefore, advertised for a medical officer, and the election is to take place on the 22nd instant. If Dr. Kenny be reinstated in his office, as there is little doubt he will be, it has been stated in Parliament that his previous ten years' service will count towards future claim for superannuation.

LECTURE AND HOSPITAL CERTIFICATES IN IRELAND.

THE Council of the Royal College of Surgeons in Ireland have adopted an important recommendation of a committee appointed by them in October 1881, to inquire and report respecting the best means of ensuring the *bona fides* of lecture and hospital certificates as evidences of medical study. In future, the College has resolved to recognise no certificates of courses of study unless they fulfil the following requirements: "(*a*) That all lecture certificates shall set forth the exact number of the student's attendances, and the total number of lectures delivered in the course; (*b*) That no lecture certificate shall be received by the Inspection Committee unless the number of attendances certified shall be at least two-thirds of the entire number of lectures which the Council shall consider sufficient; (*c*) That, as regards hospital certificates, the number of daily attendances certified shall not be less than eighty for the winter session, and forty for the summer session." Rules for checking the attendances of students at lectures by means of tickets, and at hospital by the student signing his name in a book each day he attends, are also made; and, in order that the sufficiency of the attendances of the student at lectures and hospital may be fully guaranteed and presented to the Inspection Committee of the College in proper form, the Council has decided that the various courses of medical study required for each of the examinations of the College be set forth in a "schedule". The registrar of the schools and hospitals at which the student has attended shall be required to sign a declaration upon such schedule that the entries therein respecting the attendances at their respective schools are in all respects correct. The student shall be also required to sign a declaration upon such schedule to the same effect, and furthermore that he agrees that—if the College licence should, after examination, be granted to him on the faith of the entries in such schedule—the diploma may, in pursuance of Clause 18 of the Supplemental Charter, be cancelled, and the licence withdrawn, if it be afterwards ascertained that the entries are not correct.

THE quality of the metropolitan water supplied during February by the five companies drawing their supply from the Thames shows, according to Dr. Frankland's report, a marked improvement upon that delivered in the two preceding months.

PROTECTION OF EXPERIMENTAL SCIENCE.

A REPRESENTATIVE and important meeting of the heads of the principal Medical Faculties and Associations, and others, will be held at the College of Physicians on March 28th, to form an Association for the Protection of Science, in respect especially to the attacks which have recently been made on those engaged in the prosecution of research and the advancement of medical knowledge by experiment on animals. The letters of invitation are signed by the President of the College of Physicians, Sir William Jenner; and the President of the College of Surgeons, Sir Erasmus Wilson.

SMOKE ABATEMENT.

THE Lord Mayor gave a dinner at the Mansion House on Saturday last in connection with the Smoke Abatement Exhibition. The guests who were eighty in number, consisted of noblemen and gentlemen who had taken a personal interest in the recent Smoke Abatement Exhibition, and who are aiding in the further progress of the movement. Among the principal guests were the Presidents of the Royal Society, of the British Association, of the Society of Arts, of the Royal Academy, of the Institute of Civil Engineers; Vice-Presidents of the Royal Institute of British Architects, Earl De-la-Warr, and Mr. Shaw Lefevre, M.P., First Commissioner of Works, Sir William Gull, Dr. Alfred Carpenter, Dr. Quain, Dr. Andrew Clark, the Mayors of Manchester, Oldham, Bolton, and Stockport; Sir Frederick Bramwell, Professor Frankland, F.R.S., Professor Abel, C.B., Professor Chandler Roberts, F.R.S., etc. After the usual loyal toasts the Lord Mayor gave the toast of the Smoke Abatement Committee, and referred to the enormous increase in the consumption of coal in the metropolis, which in ten years had risen from five to ten millions of tons; and to the increasing necessity for finding some means of clearing the atmosphere of London from the solid products of imperfectly consumed coal, which at present added to the fogs inherent to the situation of London, and became an additional element of dirt, disease and discomfort. He spoke in eulogistic terms of the rapid progress which had been made by this movement in a short space of time, and expressed the hope that it would be possible to abate smoke without doing away with the open grate, and coupled with the toast the name of Mr. Ernest Hart, chairman of the Smoke Abatement Committee.

Mr. HART, in reply, referred to the striking evidences of the special mortality due to the combination of smoke with fog, as shown by the London tables of mortality, which, in February 1880, rose to 48.1 per 1000 for London, a higher mortality than had been known in the last forty years of civil registration, except in the cholera epidemics of 1849 and 1854. For any similar rise in that period, a week in December 1873 must be looked to, when the death-rate was equal to 37.5 per 1000. A similar sudden rise occurred in the end of last February when the occurrence of thick yellow fogs in London raised the mortality by upwards of 13 per cent., while the provincial mortality underwent no such rise, notwithstanding the prevalence of fogs in other parts of England. This mortality was especially noted among the very young and the very old, and was due to affections of those delicate organs, the lungs. Another equally delicate organ, the breeches-pocket, was not less severely affected. Every day the smoke cloud, which hangs over London like a pall, might be computed to amount to fifty tons of coal, of which the unconsumed particles were floating in the air. The waste of unconsumed carbon, in the form of imperfectly burnt gases, was calculated at least at five times as much; and the annual waste from the 800,000 chimneys of London could not be calculated at less than £1,000,000 sterling. The addition to the washing-bill of London, from the same cause, had been set down by Mr. Chadwick also at a million. It might be safely estimated possibly at half that amount. To this was to be added the cost of the blackening and destruction by soot, and the sulphate of ammonia which it contained, of the surface of public buildings; the injury to works of art, to dress, decorations, furniture, etc. This was the cost of dirt; to it must be added the cost of darkness. An average day's fog in London raised the gas bill of London for that day by £7,000 sterling, causing the consumption of gas in London to be about fifty millions of cubic feet. If to this we added the cost of oil and candles, it was calculated by Mr. Sugg that an average day's black fog caused an expenditure of £20,000 on light alone; to this must be added the less easily estimated cost of disarrangement of business, difficulties of locomotion, extra cost of labour on railways, and other places, where business traffic is carried on. To compensate for this inconvenience anyhow, it might safely be said that it was certain, from the merely economical point of view, that the saving which would be effected if the dirt and darkness, caused by the present unscientific method of burning coal in our private houses, as well as in our factories, could be prevented, the saving would speedily recoup the total cost of any changes necessary to bring about that object. Mr. Hart announced that the principal documents connected with the report of the jurors had that day been completed, and placed in his hands: and he was able to announce, on the authority of Professor Chandler Roberts and Mr. Atchison, that, in the department of steam-boilers, it had been completely demonstrated, by the experience of the Exhibition, that there was no case in which smoke-consuming apparatus might not be fitted to steam-boilers, with the result of great economy as well as of adequate efficiency. The result of the testing of kitcheners and cooking grates, by Professor D. Kinnear Clark, had been to demonstrate that a large proportion of the kitcheners shown did effectually and economically carry out all they proposed to carry out as cooking apparatus; while they practically abolished, or very nearly so, the emission of smoke. In the department of grates and stoves, he was also able to say that several of the grates shown were quite efficient in the way of consuming smoke, or reducing it to a minimum, without sacrificing the ordinary cheerful appearance of an open fire, and would burn ordinary Newcastle coal. On the other hand, there were also a number of grates in which anthracite or steam-coal could be burnt easily, effectually, and safely; and several minor apparatus were shown, by which existing grates could easily be adapted, either on the one hand for the burning of smokeless coal, or on the other for the burning of the ordinary bituminous coal, without sensible production of smoke.

The MAYOR OF MANCHESTER, in his speech, referred to the fact that the Smoke Abatement Exhibition of London was about to be transferred to a large extent to Manchester, where a Smoke Abatement Exhibition was in turn to be opened, under the auspices of a highly influential Committee, and for the purpose of carrying on in Lancashire the work begun in London.

Sir FREDERICK LEIGHTON, Pres.R.A., in returning thanks for the toast of the "Arts," in a speech of most polished eloquence, referred to the despairing millions who now groped their darkling way beneath the canopy of smoke, and expressed the most fervent hope that everyone would think it a personal duty in his own household to carry into practice such of the improvements as this Exhibition might show to be adapted, to relieve his household from the reproach of adding to the darkness and gloom of London.

To the toast of the "Medical Profession" Sir WILLIAM GULL and Dr. ANDREW CLARK replied in their own names, and on behalf of Dr. Alfred Carpenter, of Croydon, who has rendered brilliant service to this cause, Dr. Quain, and Dr. Tripe, Chairman of the Association of Medical Officers of Health, who were also present.

Sir WILLIAM GULL said that nothing which affected the health of the community could be indifferent to the medical profession, and he claimed for his medical brethren that in this, as in every other movement aiming at the prevention of disease and the increase of human life and happiness, they had taken a foremost part. It was his pleasure no less than his duty to give any assistance in his power, and to testify to the importance and hopefulness of the movement.

Dr. ANDREW CLARK said that nature was inexorable, and those who chose to disobey its laws by daily creating an artificial gloom which shut off the sunlight, and living as it were under a cloud of their own creation, must suffer daily and continuously, and it was not by any one act, not by the waving of a wand they could be cured, but they must pay the penalty of their offences against nature, and remove the causes. Physicians could not cure them, but they could cure themselves, and they must consent to the sacrifice necessary to remove the cause before they could hope that they would free themselves from the constantly accruing increment of suffering due to their own neglect.

Sir U. KAY SHUTTLEWORTH proposed the health of the Lord Mayor, and said that whoever might hereafter rule over the municipality or over a greater London at a future time, would gratefully recognise the endeavours which the Lord Mayor and his predecessor had made on behalf of this important effort to free London from its greatest source of suffering, loss, and discomfort.

AMBULANCE WORK IN GERMANY.

IF imitation be the sincerest form of flattery, then ought the Saint John's Ambulance Association to be satisfied with its last success. Under the inspiration and active personal direction of Professor Esmarch, whose name is honoured and respected throughout Europe, not only by the members of the medical profession, but also amongst all who desire as far as possible to minimise physical pain and suffering, a centre for ambulance work is being established at Kiel, if even it may

not be considered as an accomplished fact. During the meeting of the International Medical Congress, held in London last summer, Professor Esmarch had an opportunity of seeing the manner in which a knowledge of the best means of affording first aid to the injured was becoming popularised in England. On his return to Germany, he determined to follow an example which had already produced such excellent results; and, a few weeks since, he opened his first Samaritan School (Samariter Schule). Within three days of the announcement of his intention, the distinguished surgeon was besieged by applications from eight hundred and fifty candidates for instruction, and many hundreds more would have joined had the list not been closed. It was quite impossible for any man to conduct such a class without assistance, and it was equally impossible for the Professor to repeat his lectures, as many times as would be necessary, if the candidates were to be formed into working classes of thirty or forty, as in England. He, therefore, divided the number into two sections; and each of the five lectures has been given twice weekly in the large hall of the Kiel University. At the conclusion of this, the class has been distributed in eleven different rooms (the women being separated from the men); and eleven assistant-surgeons, aided by the same number of dressers and some nursing sisters, have superintended and directed the practice indicated by the Professor. The hand-painted illustrations; the articulated models of limbs, showing the various kinds of fracture; and the mechanical and improvised means of giving immediate assistance to wounded, apparently drowned, or other suffering people, were of the most complete and exhaustive character. Dr. Esmarch invited Mr. J. Furley, member of the executive committee and director of stores of the St. John's Ambulance Association, to be present at his last two lectures; and he availed himself of the occasion to bring together some of the highest naval, military, and civil authorities, when steps were taken to establish such a centre in Holstein as will probably soon develope into a great national institution.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL:

NOTICE OF MEETING.

A MEETING of the Committee of Council will be held in the Council Room of Exeter Hall on Wednesday, the 12th day of April next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, London, March 15th, 1882.

NOTICE OF QUARTERLY MEETINGS FOR 1882: ELECTION OF MEMBERS.

MEETINGS of the Committee of Council will be held on Wednesday, April 12th, July 12th, and October 18th. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary not later than 21 days before each meeting, viz., March 22nd, June 22nd, September 27th, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

November 4th, 1881. FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH: NORTHERN DISTRICT.—The next meeting of the District will be held at the house of Dr. Grosvenor, 72, Priory Road, Kilburn, on Wednesday, March 22nd, at 8.30 P.M. Dr. Danford Thomas will read a paper on The Registration of Diseases and Deaths. Mr. Ernest Hart will preside.—G. W. POTTER, M.D., Honorary Secretary, 12, Grosvenor Road, N.—March 6th, 1882.

WEST SOMERSET BRANCH.—The spring meeting of this Branch will be held at the Railway Hotel, Taunton, on Thursday, March 30th, at five o'clock. The following question has been settled by the Council as the one on which members should be invited to express their opinion at the said meeting after dinner: "What is your Experience of the Complications and Sequelæ of Scarlet Fever?"—W. M. KELLY, M.D., Honorary Secretary.—Taunton, February 28th, 1882.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH.—The next meeting will be held at the Imperial Hotel, Malvern, on Thursday, March 23rd, at 2.45 P.M. Dinner will be provided at 5 P.M. for those members who signify their intention to be present to the Honorary Secretary not later than Monday, the 20th instant. Dinner tickets five shillings each. Business: To ballot for a member of the Association and Branch; To discuss various matters relating to the Jubilee Meeting of the Association. Members wishing to read papers, or to exhibit patients, pathological specimens, etc., are requested to communicate with the Honorary Secretary.—N.B. Members are requested to pay their subscriptions to Dr. Crowe. Association, twenty-one shillings; Branch, four shillings.—GEO. W. CROWE, M.D., Honorary Secretary, Shaw Street, Worcester.—March 8th, 1882.

BATH AND BRISTOL BRANCH.—The fifth ordinary meeting of the session will be held at the Grand Pump Room Hotel, Bath, on Thursday afternoon, April 13th, at 4.15 P.M.—R. S. FOWLER, E. MARKHAM SKERRITT, M.D., Honorary Secretaries.—Bath, March 1882.

SOUTH-EASTERN BRANCH: EAST AND WEST SUSSEX DISTRICTS.—A conjoint meeting of the above Districts will be held at the Grand Hotel, Brighton, on Wednesday, March 29th, at 3.30 P.M. Dr. Ewart of Brighton will preside. Dinner will be provided at 5.30 P.M.; charge, six shillings (exclusive of wine). The following communications have been promised. 1. Dr. Lee: Practical Remarks on the Treatment of Infantile Paralysis; 2. Dr. Mackey: On the Treatment of Whooping-Cough; 3. Mr. Bernard Roth: On the Treatment of Lateral Curvature of the Spine; 4. Mr. Furner will show an adult man presenting symptoms of Pseudo-Hypertrophic Paralysis; 5. Mr. Baber: Adenoid Vegetations of the Naso-Pharynx; 6. Mr. Noble Smith: Caries of the Vertebræ, with cases; 7. Dr. Treutler; Case of Spinal Meningitis.—T. JENNER VERRALL, Honorary Secretary East Sussex District.—95, Western Road, Brighton, March 15th, 1882.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—A meeting of the above District will be held at the Infirmary, Gravesend, on Wednesday, April 12th, at 3 P.M.; J. C. Armstrong, Esq., in the chair. Papers will be read by Dr. W. M. Ord, on Diagnosis of Thoracic Aneurysm; Dr. William H. Day, Remarks on Chorea and its Treatment; etc. Dinner will take place at the Old Falcon at 5.30 P.M.—A. H. B. HALLOWES, Honorary Secretary, 11, King Street, Maidstone.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.

THE eighty-second meeting was held at the Cottage Hospital, Ashford, on March 2nd; W. H. COKE, Esq., in the chair.

Papers.—The following papers were read.

Dr. Eastes read a paper on Intussusception. An animated discussion ensued.

Mr. Whitehead Reid read notes of a case of Colotomy, and exhibited morbid specimens.

Dinner.—The members afterwards dined together at the Saracen's Head.

METROPOLITAN COUNTIES BRANCH: NORTHERN DISTRICT.

THE fourth meeting of the session was held on Friday, February 17th, at the house of Dr. Norman Kerr, 42, Grove Road, N.W.

The Typhus Epidemic in Marylebone.—Dr. NORMAN KERR, in opening a discussion on the recent typhus epidemic in Marylebone, said that the fever broke out early in July 1881, and lingered on till January 1882. He had personal knowledge of sixty-three cases, nine of which were fatal. The disease first appeared in the family of a very drunken woman, earning her living at a dust-yard in Paddington, who died. she and her three daughters, who all caught the fever, lived in dirt and filth in a room near Charles Street, Lisson Grove, with 160 cubic feet to each. More than half the cases occurred in three adjoining houses in Charles Street. There were thirty-one cases on one side of this street, and only one on the other side. Most of the cases radiated to the neighbourhood from the three houses in question. The cases were of a genuine typhus type. Probably more than thirty more would have died, had not they been removed to the excellent hygienic and curative influences of Homerton and Stockwell. Overcrowding was a potent factor. In one room of one of the three infected houses in Charles Street lived seven persons, with 113 cubic feet to each. In that street were thirty-three occupied houses, with nearly four hundred and fifty inhabitants. At least eleven houses were overcrowded. The contact in the street was unusually close, and there was a densely crowded open market a few yards off every Sunday morning. One woman infected twelve cases. Nothing could be much worse than the unsanitary condition both of the people and the houses. There was a plentiful presence of drunkenness, squalor, and filth, and an utter absence of ventilation. One room, inhabited by a family, was over a privy, the latter ventilating through the interstices of the flooring among the company above. There was a considerable depth of sewage in the subsoil under some of the houses, and an insufficient fall in the drains from the houses into the common sewer. For a long time little was done, except by outside agencies, to remove non-pauper cases; but, latterly, the sanitary authority had exercised their powers, and removed all cases. Had such energetic measures been adopted at the onset, not more than a dozen cases would probably have occurred. Dr. Kerr had every confidence that future epidemics would be promptly and effectively dealt with. The other measures recommended were the distribution of information to the residents; thorough and repeated inspection; the organisation of some such supplementary health-agency as the Hastings Association; and, above all, the compulsory notification of infectious diseases. Had there been an efficient compulsory system of notification in operation, several lives would have been spared; and the scandal arising from the recent epidemic altogether avoided.—Mr. WILLIAM SEDGWICK referred to the fact, that thirty-two out of thirty-three cases of typhus, in Charles Street, had been limited to one side of the street;

and he remarked that such limitation was in accordance with what had been occasionally observed during the prevalence of cholera, and, to a less extent, of other epidemic diseases. He was of opinion that the late epidemic of typhus in Lisson Grove had been very clearly shown to have been connected with the overcrowded state of some of the houses in Charles Street, which were, moreover, from the state of the subsoil, totally unfit for habitation. It was important to notice that the disease had passed over some of the adjoining and worst parts of Lisson Grove, and had spread to many families who were in a position considerably above that of the pauper class. During the great epidemic of typhus in London, which had only ceased in 1871, after having continued without any decided interruption for a period of ten years, the number of patients admitted with that disease, into the London Fever Hospital, had been very close upon 15,000. For four or five years previous to that epidemic, London had been so far free from typhus, in the epidemic form, that serious thoughts had in consequence been entertained of converting the Fever Hospital into a hospital for general diseases. There was, as regards London, a corresponding absence of typhus in the epidemic form, after the subsidence of the great epidemic, which had lasted ten years; and, although sporadic cases occurred from time to time among the destitute classes in overcrowded districts, yet the disease did not, as a rule, exhibit any decided tendency to become diffused in the epidemic form. It must, he thought, be admitted that we were altogether ignorant of the nature of this epidemic constitution, in virtue of which typhus and other similarly communicable diseases, on some occasions, presented themselves in an almost uncontrollably epidemic form; whilst, on other occasions, they occurred only in the sporadic form. Overcrowding, destitution, and filth had been very commonly and very correctly associated with the diffusion of disease; but its epidemic constitution appeared to be primarily due to something independent of their influence.

At the close of the discussion, the following resolution, proposed by Dr. DANFORD THOMAS, and seconded by Mr. WILLIAM SEDGWICK, was unanimously agreed to: "That this meeting is strongly of opinion that the notification of infectious diseases should be made compulsory; and that a copy of this resolution be sent to the BRITISH MEDICAL JOURNAL."

CORRESPONDENCE.

THE DANGERS OF CHLOROFORM, AND THE SAFETY OF ETHER AS AN ANÆSTHETIC.

SIR,—I am greatly pleased to think that my former letter has had some effect in directing particular attention to this important subject. Many of the suggestions, as mentioned by your various correspondents, are most valuable in setting forth the real dangers attendant upon the different anæsthetics in use.

I am quite agreed that a fatal result may follow, no matter what agent is employed. However, what I did assert, and what I still assert, is, that ether is the least dangerous of them all. I am aware that if etherisation be pushed too far (which it occasionally is, quite beyond the necessity of the case), death may follow, as it does during the administration of other agents; but, as far as I know, there is nothing in ether obnoxious to human life, and, when pushed in anæsthesia to its greatest limits, its action appears to affect the respiratory movements only; for in those very cases recorded, where a fatal result followed its administration, it was found death occurred by the failure of the respiration, the heart's pulsations continuing generally for some time after respiration had entirely ceased.

From this it will be seen that ether has a stimulating, not a depressing, effect on the heart, as is the case in chloroform. Furthermore, ether gives warning, as indicated by a weakness of respiration; and, by removing the ether and immediately setting up artificial respiration, the weak point is promptly acted upon; whereas in chloroform the heart has to be acted upon through the respiration, and therefore, in some cases, time is lost in attempting to avert a fatal issue.

As regards the use of chloroform in obstetric practice, my letter in no way conveyed the idea that I wished to withdraw it entirely from the *Pharmacopœia* as a therapeutic agent; I merely alluded to its being used in producing complete anæsthesia during the performance of serious surgical operations, where ether would suit all purposes quite as well.

With the apparent haphazard way of administering chloroform, regardless of quantity or mode of administration, the absence of a fatal result, is certainly very remarkable, as mentioned by some of your correspondents; but, in my opinion, it is no reason why an endeavour should not be made to still observe the greatest caution in administering an agent like chloroform, which has proved fatal in so many instances, even when it has been given with the greatest care and by the most experienced hands. As regards the best form of ether-inhaler, I mentioned the one made for me by Coxeter, London, as I considered it the best, combining, as it does, so many advantages—viz., simplicity, portability (can be carried in the pocket), ease of administration, small quantity of ether used, besides being very moderate in price.

However, I am quite ready to admit that other ether-inhalers have advantages as well, and no doubt may be quite as efficient. Notwithstanding what has been said about the irritating effects of the ether-vapour, I never saw a patient yet who could not take ether. With a little coaxing, and heating the inhaler before using, so as to warm the vapour, few patients, with management, will refuse to submit to its influence. When the ether-vapour becomes warm, it seems entirely to lose its irritating effects. Mr. Swain of Plymouth speaks in favour of bichloride of mythelene. I regret to state I cannot agree with him in the view he has taken regarding its safety. The statistics on the subject prove to the contrary, as will be seen in the table I append, which is the combined result of statistics collected in America by Dr. Andrews of Chicago and those collected in England by Dr. Richardson, as mentioned by the late Professor Morgan.

In this table will be seen at a glance the absolute and relative mortality caused by the several anæsthetic agents as at present administered.

Agent Employed.	Deaths.	Administrations.	Deaths.	Administrations.
Ether	4 in	92,815	Or 1 in	23,204
Chloroform	53 in	152,260	,, 1 in	2,873
Mixture of chloroform and ether	2 in	11,176	,, 1 in	5,588
Bichloride of methylene.	2 in	10,000	,, 1 in	5,000

From the foregoing table it will be seen that chloroform appears to be eight times more dangerous than ether, twice as dangerous as a mixture of chloroform and ether, and, as far as we can judge, more dangerous than bichloride of methylene.

With such facts and figures before one, the surgeon must necessarily incur grave responsibility if he permits, without very good reason, a fellow-creature to be suddenly precipitated into the mysterious sleep of insensibility, never to wake again, by means of an agent that has been proved to be eight times more dangerous than ether. He certainly cannot be said to have given his patient the best chance of recovering from unconsciousness by discarding what statistics have proved to be the safest anæsthetic in use.—I am, sir, etc.,

LAMBERT H. ORMSBY, M.D., F.R.C.S.,
Surgeon to the Meath Hospital, Dublin.

Merrion Square, West, March 8th, 1882.

CHLOROFORM OR ETHER?

SIR,—The main difficulty in the way of our arriving at a satisfactory solution of the question between ether and chloroform, seems to be the impossibility of discovering the relative proportions in which the two anæsthetics are used. One correspondent suggests the proportion as one to two. I should be more inclined to suggest one to fifty. Though it may be regarded as impossible to gain accurate information on the point, some light might be thrown on the subject, if we can ascertain the relative amount of the two drugs sold or manufactured. If, as some assert, ether has largely replaced chloroform, its manufacture and sale must largely have increased during the last few years. Inquiries, directed to one of the largest firms in the kingdom, have elicited the reply that they sell a much larger quantity of chloroform than ether, though they understand several medical men use the latter in preference. This is not very definite. Probably a more satisfactory answer might be got from some large manufacturer. An article, in the *Pharmaceutical Journal* for the 4th instant (page 730), points to a probable cause of some of the deaths lately recorded. It seems that much of the chloroform in the market is impure, or has altered in its composition, owing to some peculiarities in the process of manufacture. This is a subject worthy of grave consideration. Formerly, we always asked for Duncan and Flockhart's chloroform for anæsthetic purposes; but, lately, I fear too many of us have been contented to use anything furnished by the nearest druggist.—I am, sir, yours truly,

Liverpool, March 10th, 1882. A. H. F. CAMERON.

ON ACUTE TRAUMATIC MALIGNANCY.

SIR,—In his interesting paper on this subject (page 187 of the JOURNAL), Mr. Barwell has expressed a hope that his cases may be supplemented by other similar cases of acute malignant disease, apparently directly due to injury. Among the cases of sarcoma of the bones, which I have collected from various sources, there are several which appear to have arisen as a direct consequence of injury.

Dr. Gross describes a lympho-sarcoma of the humerus, which occurred

within six weeks of a heavy blow upon the arm, and grew with great rapidity. (*American Journal of Medical Science*, October 1879, page 358.)

Mr. R. W. Parker recounts, in the thirty-first volume of the *Pathological Transactions* (page 223), the case of a child, a year and a half old, who fell and hurt the left knee. The knee began to swell within a few days of the injury, and continued regularly to increase in size. In three and a half months, the child died of widespread general sarcomatosis.

Dr. Reclus tells of a boy whose thigh began to enlarge almost immediately after a sharp blow from the handle of his cart. In eight days, he became unable to work. In three months, amputation at the hip was performed for a very large tumour of the femur. The boy died at once from shock; and both lungs were found to contain numerous tumours. (*Bull. de la Soc. Anat.*, 1873, page 108.)

These are selected from the cases which occur in surgical literature. My own experience furnishes me with other cases, of which the following will serve as an example. J. H., thirty-eight years old, fell and strained his knee, three months before his admission into St. Bartholomew's Hospital, in 1874. The injury was followed by pain, and, in less than three weeks, by the formation of a tumour, just above the knee, for which amputation was performed within a few days of his admission. The tumour was of large size, of medullary appearance, and of very malignant aspect.

Were I not afraid of trespassing on your valuable space, I could relate several (at least six) other instances of subperiosteal and central tumours of bone, rapidly arising after injnry; and a still greater number attributed, apparently with perfect justice, to injury, but pursuing a chronic course. I have, too, seen and read of tumours of many other struetures, which have arisen almost immediately after injuries, and have pursued, some an acute, some a chronic course.

Your article, therefore, and Mr. Barwell's paper, appear to me to be of especial value in directing attention to conditions which ought to be generally acknowledged and recognised.

I must confess I do not see any reason for adopting a special nomenclature for the malignant growths which are produced by injury. For there is no evidence to prove that they differ in any respect, either in their characters or in their course, from malignant growths which are produced by other causes, or which arise from any evident cause. I quite agree with Mr. Barwell, that there is, probably, a strong predisposition to the development of tumours in persons who thus break out in tumour-growth on the application of a violence. The evidence in favour of this theory is as strong as that which supports the belief in a strumous or rheumatic diathesis.—I remain, sir, yours truly,

HENRY T. BUTLIN.

47, Queen Anne Street, W., February 17th, 1882.

HAS THE DURATION OF HUMAN LIFE IN ENGLAND INCREASED DURING THE LAST THIRTY YEARS?

SIR,—With your permission, I should like to reply shortly to some of the criticisms on my previous letters to you on this subject.

1. No one denies what I sought to show, that adults are now dying at a greater rate than they did thirty years ago. The only point on which a difference of opinion arises is, when we try to account for this. Mr. Beaumout thinks the cause is that saving weakly children, who would otherwise have died, must swell the numbers of weakly adults, and that these, therefore, naturally die at a greater rate than formerly. I dealt with this opinion at some length in my third letter, but should like to add here the following considerations. Critics seem to overlook the fact that, if sanitation increases the proportion of weakly adults, it makes stronger those adults who would have grown up weakly under the former unsanitary conditions, and must have a like effect on the strongest also. Of the three classes, therefore, into which adults may be divided (just as children may be classified), the weakly, the moderately robust, and the strong, the latter two ought to be improved by sanitation, while the numbering of the first should be increased by it; and if two of the three divisions be improved in physique, we should expect the whole class of adults to be improved. For these reasons the criticism appears to me to fail.

2. As Mr. Biddle seems to consider men of thirty-five and women of forty-five "octogenarians and nonagenarians," I need not, I think, spend much time in replying to him.

3. Your correspondent, "G," has written a very able letter, showing that statistics of deaths, to be valuable, ought to give the collective ages of persons at death. This is a similar point to one raised in a very valuable paper kindly sent to me by Dr. Syer Bristowe, in which the whole question is gone into most elaborately. Dr. Bristowe shows that the longevity of the population cannot be inferred from the death-rate alone, but should be founded on the birth-rate also. This is theoretically no doubt true; but practically the Registrar-General does attempt to do what Dr. Bristowe desires, by adding each year his estimate of the growth of the population, before calculating the next year's mortality. In this way he attains an approximation to practical accuracy. Occasionally he is pretty far out, as in the case of Bradford, where it appeared at the census that the population was 183,000, while the Registrar-General had been calculating on a population of 210,000. Still, on the whole, the estimates are fairly correct. I am sorry I am not in a position to state the collective ages at death, a task which would require enormous labour and time.

4. I have not, as some of my critics seem to think, asserted that "worry" was the whole of the cause of the increased adult mortality, but have said only that, in my opinion, it was a main part of the cause. I hold to this opinion still; and I use the term "worry" as meaning not only anxiety, but also haste and pressure. In addition to the reasons for this view stated in my former letters, I find a curious corroboration of it in the fact that deaths from suicide have been steadily increasing every lustrum for twenty years; and that in 1879 they were 21·6 per cent. more numerous than on the average of the five years 1860-4.—I am, faithfully yours,

A. RABAGLIATI, M.A., M.D.,
Surgeon, Bradford Infirmary.

THE GRAVE SOCIAL PROBLEM.

SIR,—May I occupy a few lines of your valuable space in an attempt to check the flow of male-hysterics on this topic? The vice referred to is, I take it, "masturbation," and I cannot see that anything is gained by paraphrasing it.

The advantage of such a course as that pursued by Mr. Hime is a matter of opinion, and, to my mind, worse than doubtful; but the lecture he sketches is a good example of the exaggerated warnings which abound on the subject, and which, I believe, most boys receive from one or another source, although most often too late, and which have a much stronger tendency to drive them into the claws of rapacious quacks than to do any good.

But what is masturbation? Is it anything more than a sexual orgasm artificially provoked? If so, and if this covers the whole of the ground, as I believe it does, the whole subject becomes at one stroke perfectly simplified. Require sexual or any other function from an immature organism, and the consequence is obvious—viz., break-down—and the damage will be in proportion to the abnormality of the demand.

The great danger of masturbation is, according to this view, twofold; it is, unfortunately, a vice of very immature organisms, *anglicé* boys; and from its inherent conditions there is no external check to the continual increase of the vice in its unfortunate victims.

Then, with regard to its consequences. That in extreme cases the horrible train of evils commonly associated with it ensue, there is, of course, no doubt, and I have myself had the painful experience of watching a promising life blasted by mental disease from this cause; but, on the other hand, there is another case within my knowledge of a gentleman who admitted having practiced the vice up to the time of his marriage, and whose sons are men of whom the proudest father might boast.

I believe there is very great harm done by the "secret vice" system, much more than by the vice itself; for the possession of a guilty secret produces a moral effect probably worse than the physical damage which would follow if this vice were as open as fornication. Boys will not confess it; but how many do you suppose are free from it? Let us, in the interest of common sense, shake off monkish prudery, look the thing in the face, and, calling a spade a spade, see what may be done to protect our children from a habit which makes them its own before they have sense to refuse to begin it.

Firstly, I would circumcise all males very freely. Then, in their childhood, they should be taught that it is dirty and wrong to play with their genitals; dirty first, because if you attach too great importance to the moral aspect, you concentrate the child's mind on the very thing you wish to banish from it. And then, when he reaches an understanding age, warn him that sexual pleasure, which will come to him in its own good time, is not to be anticipated; that to think lasciviously is a dirty and unmanly thing, interfering with his growth, good looks, and success in work and play. If he have received the warning in time, it will probably be sufficient to deter him; if not, go into greater detail, but neither then ought too much to be made of it, nor in any but extreme cases ought such a picture as Mr. Hime's to be drawn. Such cases, having lost the power to help themselves, call for the additional assistance of blisters and bromide of potassium.

What I have written has been in my mind many years; and I believe that, if you can succeed in lifting the whole subject out of the "secret vice" category, and teaching the profession and the public to look at the thing from a rational point of view, you will do more than has ever been done before to stamp out a habit which, together with the denunciations it calls forth, is a source of great unhappiness, and an insidious enemy to the moral, mental, and physical well-being of the rising generation.—I am, sir, your obedient servant, P. B.

SPECIAL CORRESPONDENCE

GLASGOW.

Royal and Western Infirmaries.—Charity Organisation Society.—Public Health Legislation.—Science Lectures.—St. Andrew's Ambulance Association.

THE Royal and Western Infirmaries of our town are to be congratulated on the financial success which attended the fancy ball held on the evening of the 2nd instant in aid of the funds of these institutions. Some months ago, when it was felt that an effort of a special kind would have to be made to supplement the annual income this year of our two leading charities, it was resolved by a number of influential gentlemen to repeat the experiment made four years ago in behalf of the Western Infirmary, and hold a large fancy ball. Tickets were eagerly taken up, and, that the whole proceeds from this source might be available for the infirmaries, the expenses of the entertainment were defrayed by private subscription. No official statement has yet been issued as to the exact amount of money realised by the sale of tickets, but it is very generally understood that it will not fall far short of £2,400, which will give a sum of £1,200 to each of our infirmaries. Four years ago, when the first effort of this kind was made in behalf of the then recently opened Western Infirmary, £1,400 was the amount raised, and this was all given to one institution. On the present occasion, there is to be an equal division of the money realised, and it must be very gratifying and pleasing to the promoters of this undertaking to find that the public have responded so handsomely to their efforts, and that in so joyous and pleasant a way there has been such a substantial contribution to the funds of our two great charities.

While, however, such undertakings as the above are admirably calculated to meet a temporary pressing demand in the matter of charitable finances, they do not furnish any solution of the problem as to how the ever yearly increasing expenses of our different philanthropic institutions are to be met. In connection with this question of charitable relief, a very important conference was held very recently in Glasgow under the auspices of the Charity Organisation Society of this city. Representatives were present from most of the local benevolent institutions, and the chief point considered during the evening was, how the money of the benevolent might be given to the poor with the least amount of waste to the giver, and without demoralising the receiver. Papers were also read by Dr. Russell and others on the subject of the "overlapping" of the different charities. In the course of the conference, several very interesting facts were brought out, and among them some which show how vast is the amount of money given annually in Glasgow alone in charity, and the great extent to which our charities have increased. Thus, it seems that, in the year 1815, there were about fifty-five public charities in Glasgow, with a revenue of about £104,000; while now there are 221 charitable associations in Glasgow, and the amount distributed by public and private charities is thought not to be less than £1,000,000 *per annum*. This gives some idea of the importance of the subject dealt with by the conference, and the necessity for some reform in our present system of voluntary charitable relief, so that there may be an avoidance of all waste, and that the recipients of charity may be as little demoralised as possible. As to how these objects are to be attained, there were two suggestions put forward by the conference. The first one was the adoption of a system of registration of relief, whereby every recipient of charity should be enrolled on a list, to which access should be had by other societies; and the second one was the establishment of a "clearing-house of relief", similar to that in existence in Boston. This latter suggestion is the more preferable and practical of the two, for by it there would be collected under one roof all the charities of the city, and in this way closer and more cordial relations would exist between them, their administration would be simplified, and imposture on the part of applicants more easily detected. If this idea can be carried out, the experiment will be watched with much interest, and there seems every reason to think it would be attended by the happiest results.

There has been for some time a very general feeling that, while recent legislation for the public health has been carried on with the best aims and intentions, and has accomplished much good, especially in the way of preventing infectious diseases from assuming alarming dimensions amongst the community, that there are yet many points that want amendment. With the view of improving present legislation on the subject, the Philosophical Society of Glasgow have appointed a committee to take the matter into consideration, and this committee have further subdivided themselves into sections, each of which is to deal with separate points, when eventually a report will be presented to the Society on the proposed sanitary reforms and alterations which they deem advisable. One of the most recent occurrences showing the present unsatisfactory state of the law regarding public health is to be found in the last report issued by Dr. Wallace, medical officer of health for Greenock. It is there stated that, while scarlet fever had considerably abated in the town, there had been recently an extension of the disease in the west end, and that it had been traced to the milk supplied to the locality by a farmer near Inverkip, four of whose children were found suffering from the disease. Steps were of course taken to stop the supply of milk, but the extent of the mischief done may be imagined, when it is remembered that, from the outbreak on the farm on January 19th till February 1st, when the discovery was made, no fewer than eleven families supplied by this farmer took the disease. The offender cannot be proceeded against by the local authorities, as he does not reside within the boundaries of a burgh, and thus his residence in a country district enables him to go scot free. Such a state of matters imperatively demands immediate alteration.

The subject of infectious diseases and their spread had an able exponent in Mr. Dallinger, who gave last week in Glasgow a lecture under the auspices of the Glasgow Science Lectures Association, his subject being, "Further Researches into the Origin and Development of the Least and Lowest Forms of Life." Mr. Dallinger is not a stranger to Glasgow audiences, having already treated of this subject here, but his present effort was as successful as any previous ones, and his lecture was as fresh and interesting as ever. He pointed out that the unity and variety of nature had never been so wonderfully discovered as now, when immense powers of vision had, by means of optical appliances, lifted us almost into a new sense; and then, tracing the life-history of the organisms to be found in a drop of putrescent water (illustrated by a series of beautiful diagrams), he showed that, though these organisms were capable of being destroyed as adults at a temperature of 140° Fahr. in fluid heat, some of their spores were not more than destroyed at a temperature of 262°, the result of which was that we could not infer spontaneous generation in the origin of organisms in a fluid because it had been heated up to the boiling point of water. In concluding, the lecturer pointed out how all these facts had a powerful and important bearing on everyday life, when it was remembered that some of the most terrible diseases by which the human race were afflicted were dependent upon the presence of organisms closely allied to those whose life-history he had just related; and yet he expressed a hope that the time was not far distant when our knowledge of these minute organisms would give us triumphant power over many of these deadliest forms of disease.

The St. Andrew's Ambulance Association, which has recently sprung into existence in Glasgow, has now formally commenced its labours. The objects at which it aims have been already given in the notice which appeared about the association in the JOURNAL. As to the exact status which it occupies, there has been as yet no public announcement; but, from the title it has assumed, it is evidently to be carried on as an independent society, and have no connection with the London one. The gentlemen connected with it have no doubt considered this point well, and have thought it advisable to take up this position; and it is to be hoped that a movement so philanthropic and useful will prove a great success. At the same time, much might be said in favour of the view that it should be merely a centre from the London Association, and carry on its work on exactly the same lines and under its world-wide *prestige*. Courses of lectures have already commenced, and others are to follow. It appears that Greenock, too, is determined not to be behindhand in this useful work, as it is announced from there that a movement has been set on foot to provide an accident ambulance for the conveyance of injured persons to the infirmary. The idea is that the ambulance, when procured, should be kept in the fire-brigade station, and that the police and members of the fire-brigade should be drilled in its use by a surgeon. Further, it is proposed to establish communication between the large public works and the fire-brigade station. If this simple arrangement can be carried out, it ought to prove of great service in cases of accidents.

VACCINATION.—Mr. W. L. Emmerson has been awarded a gratuity of £5 12s. for efficient vaccination in the Waltham district, Melton Mowbray Union.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS, Wednesday, March 15th.

Irish Prisons.—Mr. FORSTER, replying to Mr. T. Dickson, said a very careful inquiry had been made into the state of Omagh gaol by an eminent Dublin physician, whose report he had only before him that day. He did not think there was any ground for putting the country to the expense of a general inquiry into the sanitary condition of the prisons of Ireland. Statistics showed that the death-rate in them was remarkably low, and that it contrasted very favourably with the general death-rate. Under the peculiar circumstances connected with the incarceration of prisoners under the Protection Act, he had directed a special inquiry to be made into the sanitary condition of those prisons where these prisoners were confined.—Mr. GRAY asked the right hon. gentleman whether the Local Government Board would permit their medical officers to make an inspection of Kilmainham?—Mr. FORSTER said in the absence of some special reason he did not think he ought to do that.

MILITARY AND NAVAL MEDICAL SERVICES.

THE Army Medical Returns for 1880 show that of 46,108 men who offered themselves, 18,794, or 407.61 per 1,000, were rejected as medically unfit.

DEPUTY Surgeon General E. M. Sinclair, M.D., who has been serving for some time past at the Cape of Good Hope, has been appointed Principal Medical Officer to the Forces in South Africa, in succession to Deputy Surgeon-General James Sinclair, M.D., who returns to England.

SURGEON HORATIO R. O. CROSS, Army Medical Department, has been appointed assistant-instructor to the Army Hospital Training School and Depot at Aldershot, in succession to Surgeon Crofts. Mr. Cross has recently returned from South Africa. He was sent to the Transvaal with reinforcements in January, 1881.

BRIGADE-SURGEON S. B. ROE, M.B., C.B., late in medical charge of the Gordon Highlanders, has been appointed medical officer to the Dublin Recruiting District. Dr. Roe gained his C.B., for his services as medical officer of the 92nd Highlanders in Afghanistan. He was highly spoken of by Sir Frederick Roberts for good service rendered with a Field Hospital at Sherpur, and again by General Macpherson for his devotion in attending to the wounded in the field, when his conduct under fire was mentioned as being most admirable.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

COMPULSORY NOTIFICATION OF INFECTIOUS DISEASES.—A paper on the Bills before Parliament for the Notification of Infectious Diseases will be read by Mr. Hastings, M.P., at a meeting of the Social Science Association on Monday next, the 20th instant at 8 P.M. The chair will be occupied by Dr. Cameron, M.P., President of the Health Department of the Association.

AT a recent meeting of the Okehampton Board of Guardians, Mr. Bird, the medical officer of health, drew attention to the want of a ward for the reception of infectious cases. He pointed out that the room at present used was not sufficiently isolated, and that measles, which were now prevalent in the Tavistock Union, might at any time spread to the Okehampton Union, with its inadequate state of preparation for such a visitation.

THE BOLTON IMPROVEMENT ACTS.

SIR,—In your impression of March 4th, you give the gist of what you say you learnt from the *Bolton Chronicle* as to the opinions of two opposite parties in the profession in this town, whose opinions with regard to the Bolton Improvement Acts, present and prospective, are widely different. It is a pity that a medical paper should take up a matter like this from a biassed statement made in a strongly party paper, and therefrom generalise. Here are a few facts.

A general meeting of the medical men was called, at which two-thirds of the medical men of the town were present, Dr. Livy amongst them. The objections to the manner in which the sanitary clauses of "The Bolton Improvement Act, 1877" have been carried out, and the objections to the sanitary clauses of the Act now being applied for were freely discussed *seriatim*. They were read to the Sanitary Committee of the Corporation by a deputation appointed at the above meeting, and the Sanitary Committee requested that a copy of the objections then read be sent to them. The reply from the Sanitary Committee was received by the deputation before a copy of the objections was sent.

Dr. Livy was at the general meeting, but did not state his objections openly; but went afterwards to a few who were not at the meeting, stated views to them to which they assented, and then stated to the Sanitary Committee that he represented three other medical men. The majority of these gentlemen are displeased that Dr. Livy should have used such a liberty with their names; for they decidedly object to the spirit of the Acts, and the manner in which the present Act is carried out, and are afraid that further powers will mean further interference. Indeed, the profession in this town are so unanimous, that Dr. Livy is the only one who has spoken in favour of the sanitary clauses of "The Bolton Improvement Acts"; and, not content with speaking in their favour, he expresses his sorrow that the objections to the Acts on the part of his medical brethren are the offspring of sordid motives.—Yours, etc., TRUTHFUL JAMES.

THE COMPULSORY NOTIFICATION OF INFECTIOUS DISEASES.

SIR,—In to-day's BRITISH MEDICAL JOURNAL I am glad to observe that, at a recent meeting of the South London District of the Metropolitan Counties Branch of the British Medical Association, several of the speakers expressed their approval of the suggestion that a fee of one guinea should be paid to a physician for each notification of an infectious case made by him to the sanitary authority, or for each certificate given by him to the person in charge of the patient, should the duty of notifying devolve on that individual and not on the physician.

When my paper on Compulsory Notification of Infectious Diseases was read before the Social Science Congress in Dublin, last October, a forcible argument in favour of the payment of a guinea fee did not occur to me. It is that such a fee would be practically a fine on the sanitary authority for the occurrence of each case of infectious disease within the district under their control. We can well imagine that the liability to pay a guinea in every case would act as a powerful incentive to the sanitary authority to take all possible measures to check the spread of epidemic diseases.—I remain, sir, yours faithfully,

JOHN WILLIAM MOORE, M.D.Dub., V.P. and F.K.Q.C.P.

40, Fitzwilliam Square, West Dublin, March 4th, 1882.

WHAT IS A PAUPER?

THE guardians of the poor of the Isle of Wight union, at their last meeting, received a communication from the Local Government Board, enclosing a letter which had been addressed to the Board from Dr. Martyn Barker, district medical officer for Brading, in which the writer, after citing several cases of persons in receipt of good wages, and in no way encumbered, whom he was attending on medical relief orders, asks the central department to define what constitutes a pauper. The Board, in their reply, simply refer Dr. Barker to Article 206, General Consolidated Orders, September 18th, 1865, from which it appears that it is the duty of a district medical officer to attend any and every body to whom the guardians, the relieving officer, or an overseer, may have given an order, the only remedy left to such medical officer being, in cases like those cited by Dr. Barker, to report the facts to the guardians at their next meeting. The reading of the correspondence provoked a very lively controversy at the board meeting, and the conduct of Dr. Barker was loudly complained of; and, it seems, he is to be called on to explain his conduct. To our mind, the action of the relieving officer or overseer, in granting orders under such circumstances, needs equally to be inquired into, and, if proved, should be peremptorily checked.

OBITUARY.

SIR C. WYVILLE THOMSON, LL.D.,

LATE PROFESSOR OF NATURAL HISTORY IN THE UNIVERSITY OF EDINBURGH.

WE regret to announce the sudden death from an attack of paralysis of Sir Wyville Thomson, at his residence near Linlithgow. The deceased was born in 1830, and was consequently in his fifty-second year. He was, says *Men of the Times*, the only son of the late Mr. Andrew Thomson, H.E.I.C.S., of Bonsyde, Linlithgowshire, by Sarah Ann Drummond, only daughter of Dr. Wyville Smyth, Inspector of Military Hospitals. He was born at Bonsyde, March 5, 1830, and educated at Merchiston Castle School and at the University of Edinburgh, of which he was LL.D. In 1850 he was appointed Lecturer on Botany in King's College, Aberdeen, and the next year he became Lecturer on Botany in the Marischal College and University of Aberdeen. On the resignation of Mr. Hincks, Professor of Natural History in Queen's College, Cork, which occurred in 1853, Mr. Thomson was appointed his successor, but his stay at Cork was short, for the Professorship of Mineralogy and Geology in the Queen's College, Belfast, becoming vacant in 1854, Mr. Thomson was transferred from Cork to fill that chair. In 1868 and 1869 he went on scientific dredging expeditions in the *Lightning* and the *Porcupine*, which vessels had been lent by the Admiralty for this purpose. Many new forms of animal life were discovered, and much information obtained regarding ocean temperature and currents. In November, 1870, Mr. Thomson was elected Regius Professor of Natural History in the University of Edinburgh. He was afterwards placed at the head of the scientific department of the famous *Challenger* deep-sea exploring expedition, which was sent out under the auspices of the British Government. After an absence of nearly three years and a half, the *Challenger* cast anchor at Sheerness May 27, 1876. On the 27th of

the following month Professor Thomson received the honour of knighthood. In 1877 he was appointed to deliver the Rede lecture at Cambridge. He presided over the Geographical Section of the British Association at the meeting held at Dublin, August, 1878, when the University of Dublin conferred on him the honorary degree of D.C.L. He was the author of *Depths of the Sea*, 1872, containing an account of the cruises in the *Lightning* and the *Porcupine;* and *The Voyage of the Challenger; The Atlantic*, giving a preliminary account of the general results of the voyage, during the year 1875, and the early part of the year 1876.

WILLIAM MILLER COULTATE, F.R.C.S.Eng.

WE have this week to record the death of William Miller Coultate, F.R.C.S.Eng., aged 68, at Burnley, Lancashire, where he had been in practice since 1836.

The deceased was the son of a surgeon who practised in the same town; he completed his medical studies in Dublin; was possessed of great natural abilities, which he had carefully cultivated; and his information on many subjects outside those relating to his profession was varied and extensive. He was largely endowed with good common sense, was a sound and well informed medical practitioner, and had had extensive experience both in private practice and local consultations; was straightforward in his conduct, trustworthy and uniformly courteous in his intercourse with his professional brethren, who have lost in him an able adviser in difficult cases. He has left them an example in professional conduct calculated to have a lasting and beneficial influence on character. Besides being Vice-President of the Lancashire and Cheshire Branch of the British Medical Association, he was certifying factory surgeon, and, till lately, surgeon of the Fifth Royal Lancashire Militia. He was a borough and county magistrate, and for many years occupied a very prominent position in Burnley and the neighbouring parts of North-East Lancashire; was an alderman, and more than once had the offer of the mayoralty; and was looked up to as the leading spirit in all municipal affairs, to which for many years he devoted his best energies.

About a year ago, his fellow-townsmen presented him with a service of plate, and had two portraits of him painted in oil, one of which was placed in the Council chamber, the other in the Mechanics' Institute, of which he was a trustee. About six months ago, he had an apoplectic seizure, with hemiplegia, from which he in great measure recovered; but, on Saturday, March 4th, after a few days' illness, he had another seizure, which proved suddenly fatal.

His loss to his family, his professional brethren, and to the town of Burnley, is in many ways irreparable; and his memory will be long cherished by those who had the privilege of his acquaintance.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—At a meeting of the Council of the College on the 9th instant, Mr. William Martin Coates, L.S.A., of Endless Street, Salisbury, surgeon to the Infirmary, and Mr. Alexander Harkin, M.D.King's College, Aberdeen, and J.P., of College Square North, Belfast, were elected Fellows, their diplomas of membership bearing date respectively July 26th, 1833, and June 26th, 1840.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, March 9th, 1882.

Beswick, Robert, Brighton.
Handford, Henry, Atherstone, Warwickshire.
Macaulay, Samuel, Fitzroy Avenue, Belfast.
Salmon, Arthur Gay, Truro, Cornwall.
Webber, Edward Samuel, Abergavenny, Monmouthshire.

UNIVERSITY OF DUBLIN.—At the Hilary Term, or Spring Commencements, held in the Examination Hall of Trinity College, on Shrove Tuesday, February 21st, the following degrees in Medicine and Surgery were conferred by the Senate, under the presidency of the University Caput, the Right Honourable John Thomas Ball, LL.D., Vice-Chancellor of the University; the Rev. the Provost of Trinity College; and the Rev. James W. Barlow, Senior Master Non-Regent.

Bachelors in Surgery.—H. St. John Brooks, J. Craig, T. R. Gillespie, Dawson Henry, G. Chadwick Kingsbury, G. A. Marshall, E. F. Pigot, Rev. Sydney G. Turpin, L. Tarleton Young, Bertram C. A. Windle.

Bachelors in Medicine.—H. St. J. Brooks, J. Craig, J. Gloster, J. W. Gowland, G. C. Kingsbury, G. A. Marshall, P. Neary, E. F. Pigot, T. R. M. Smith, Rev. S. G. Turpin, L. T. Young, B. C. A. Windle.

Doctors in Medicine.—T. A. Baldwin, J. D. Pratt, Rev. S. G. Turpin, J. Waugh.

MEDICAL VACANCIES.

The following vacancies are announced :—

BODMIN UNION, Cornwall.—District Medical Officer. Salary, £32 2s. per annum. Applications by March 23rd.

BRITISH HONDURAS, COROSAL DISTRICT.—Medical Officer. Salary, £150 per annum. Applications to the Secretary, Colonial Office, London, S.W.

BRITISH LYING-IN HOSPITAL, Endell Street.—Honorary Physician. Applications by April 1st.

CHELTENHAM GENERAL HOSPITAL AND DISPENSARY.—Resident Surgeon. Salary, £180 per annum. Applications by April 17th.

CORK UNION.—Medical Officer for Ballygarvan Dispensary District. Salary, £120 per annum, with £15 per annum as Medical Officer of Health, registration, and vaccination fees. Election on the 20th instant.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E. - Clinical Assistant. Applications by March 23rd.

EMPEROR LIFE ASSURANCE SOCIETY.—Medical Officer. Applications by March 20th.

EPSOM UNION, DISTRICT OF LEATHERHEAD AND FETCHAM.—Medical Officer and Public Vaccinator. Salary, £50 per annum. Applications by March 21st.

ESSEX AND COLCHESTER GENERAL HOSPITAL.—Member of Surgical Staff. Applications by the 29th March.

ESSEX AND COLCHESTER GENERAL HOSPITAL.—Physician. Applications by the 29th March.

GENERAL HOSPITAL FOR SICK CHILDREN, Pendlebury, Manchester—Resident Medical Officer. Salary, £80 per annum. Applications by March 22nd.

GREAT NORTHERN HOSPITAL, Caledonian Road, N.—Obstetric Physician. Applications to the Secretary by March 31st.

GREAT NORTHERN HOSPITAL, Caledonian Road, N.—Surgeon. Applications to the Secretary by March 31st.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Clinical Assistant. Applications by April 1st.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT, St. John Street, Deansgate, Manchester.—Honorary Physician. Applications by the 31st instant.

HOSPITAL FOR WOMEN, Soho Square, W.—Pathologist and Registrar. Salary, 50 guineas per annum. Applications by April 3rd.

KENT AND CANTERBURY HOSPITAL—House-Surgeon. Salary, £80 per annum. Applications by April 6th.

KENT COUNTY LUNATIC ASYLUM, Chartham Downs, near Canterbury.—Second Assistant Medical Officer. Salary, £120 per annum. Applications by the 21st instant.

KNIGHTON UNION—District Medical Officer. Salary, £40 per annum. Applications by 29th instant.

MANORHAMILTON UNION.—Medical Officer for Workhouse, at a salary of £80 per annum. Election on the 23rd instant.

NORTH WALES COUNTIES LUNATIC ASYLUM, Denbigh. — Medical Superintendent. Salary, £450 per annum. Applications by the 29th instant.

NOTTINGHAM DISPENSARY—Resident Surgeon. Salary, £200 per annum. Applications by March 25th.

PARISH OF GAIRLOCH, Ross-shire.—Medical Officer. Salary, £100 per annum. Applications to the Chairman, Osgood H. Mackenzie, Esq.

QUEEN'S HOSPITAL, Birmingham.—Resident Surgeon. Salary, £50 per annum. Applications by April 10th.

SALFORD UNION.—District Medical Officer. Salary, £100 per annum. Applications by 21st instant.

SEAMEN'S HOSPITAL (late Dreadnought), Greenwich, S.E.—Resident House-Physician. Salary, £75 per annum. Applications by April 6th.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY.—Junior Assistant House-Surgeon. Salary, £50 per annum. Applications by March 22nd.

ST. LUKE'S HOSPITAL—Clinical Assistant. Applications by March 23rd.

TAUNTON UNION—Medical Officer. Salary, £52 per annum. Applications by March 18th.

TOWCESTER UNION—Medical Officer. Salary, £60 per annum. Applications by March 20th.

WARWICK COUNTY LUNATIC ASYLUM.—Junior Assistant Medical Officer. Salary, £100 per annum. Applications by 24th instant.

MEDICAL APPOINTMENTS.

DREWITT. F. G. D., M.B., appointed Assistant Physician to the West London Hospital, *vice* Montagu Lubbock, M.D., resigned.

STEVEN, John Lindsay, M.B. and C.M., appointed Pathological Chemist to the Western Infirmary, Glasgow.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., *which should be forwarded in stamps with the announcements.*

BIRTHS.

HARVEY.—March 13th, 1882, at Craigmore, Blackrock, Co. Dublin, the wife of the late Reuben J. Harvey, M.D., of 7, Upper Merrion Street, Dublin, of a daughter.

TREVES.—On March 10th, at 18, Gordon Square, the wife of Frederick Treves, F.R.C.S., of a daughter.

MARRIAGES.

EMRYS-JONES—MEW-FRANKLIN.—On the 9th inst., at Sutton, Surrey, by the Rev. John Booker, M.A., A. Emrys-Jones, M.D., 10, St. John Street, Manchester, to Kittie, the only daughter of the late J. W. Mew, of Hull, and step-daughter of the late Rev. S. Franklin, M.A., Rector of Brierley Hill.

ILLINGWORTH—RICHARDSON.—February 21st, at St. Clement's Church, Leeds, by the Rev. T. S. Fleming, assisted by the Rev. J. MacCarthy, Charles R. Illingworth, M.B., M.R.C.S.E., Clayton-le-Moors, Lancashire, to Jessie, second daughter of the late John Richardson, Esq., of New Leeds, Leeds.

MAITLAND—CHARSLEY.—At Colombo, Ceylon, on 8th February, Surgeon John Maitland, M.B., Madras Army, to Alice Maud, daughter of Edward Charsley, Esq., of Melbourne, Victoria.

DEATHS.

COULTATE.—On the 4th inst., at Burnley, Lancashire, William Miller Coultate, F.R.C.S.Eng., aged sixty-eight.

PATERSON.—At Mid Yell, Shetland, on the 7th instant, William Dalrymple Paterson, L.R.C.S. and L.R.C.P. Edinburgh, eldest son of Dr. Paterson, Bridge of Allan. All friends will kindly accept of this the only intimation.

BELFAST ROYAL HOSPITAL.—This institution has received £50 from Mr. Thomas Fisher, and £50 from the workers at Owen O'Cork Mill, to qualify the manager as a life governor of the hospital.

HOSPITAL FOR PARALYSED AND EPILEPTIC.—A festival in aid of the rebuilding fund of the National Hospital for the Paralysed and Epileptic has been held at the Freemasons' Tavern, the Duke of Albany presiding. The contributions amounted to £1,412, including £25 from the chairman, £50 from the Grocers' Company, and £100 from Mr. Samuel Morley, M.P.

A MEETING has been held in the Vestry Hall by the inhabitants of St. Clement Danes, headed by the Rector, to protest against the proposed erection of a disinfecting chamber in Denzil Street. It was held that, the neighbourhood being a poorly inhabited and much crowded one, infection had the best chance of spreading there. The rector recommended the chamber should be provided in the country or on a barge in the river.

DONATIONS AND BEQUESTS.—Mr. James Yates, of Whiston, Yorkshire, has bequeathed £500 to the Rotherham Hospital and Dispensary.—Mr. John Gray, formerly of Bolton-le-Moors, has bequeathed £500 to the Bolton Infirmary and Dispensary.

HEALTH OF FOREIGN CITIES.—Trustworthy indications of the recent health and sanitary condition of various foreign and colonial cities are afforded by the following figures, deduced from a table in the Registrar-General's last weekly return. According to the most recently received official weekly returns, the annual death-rate in the three principal Indian cities averaged 33.5 per 1000, and was equal to 28.3 in Calcutta, 29.5 in Bombay, and 46.7 in Madras. Cholera caused 14 deaths in Bombay, 20 in Calcutta, and 60 in Madras; 55 deaths from measles were returned in Bombay, and fever fatality showed the usual large excess in each of these Indian cities. The death-rate in Alexandria was 34.0, showing a slight decline from that in the previous week; 8 more deaths from typhoid fever were reported. In twenty European cities, the death-rate averaged 32.7, and exceeded by no less than 8.7 the mean rate prevailing last week in twenty-eight of the largest English towns. The death-rate in St. Petersburg was equal to 53.8, showing a considerable increase upon the declining rates in recent weeks; 50 deaths resulted from typhus and typhoid fevers, and 23 from scarlet fever. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate averaged 25.7; measles caused 14 more deaths in Copenhagen and typhoid fever 2 in Stockholm. In Paris, the death-rate was 31.8, and almost identical with the rates that prevailed in the two preceding weeks; 62 deaths were reported from diphtheria and croup, 38 trom typhoid fever, and 15 from small-pox. The 46 deaths in Geneva was equal to a rate of 34.6, and included 3 fatal cases of scarlet fever. The death-rate in Brussels did not exceed 23.4, showing a further decline from the rate in recent weeks. In the three principal Dutch cities, the death-rate averaged 28.8, and was equal to 29.1 in Amsterdam, 30.0 in Rotterdam, and 26.1 in the Hague; "fever" showed fatality in Amsterdam and the Hague, and whooping-cough in Amsterdam and Rotterdam. The Registrar-General's table includes returns from nine German and Austrian cities, in which the death-rate averaged 32.1; it ranged from 23.4 in Berlin and 29.7 in Hamburg, to 41.6 and 44.7 in Munich and Buda-Pesth. Small-pox caused 23 deaths in Vienna, 14 in Buda-Pesth, and 4 in Prague; diphtheria showed fatal prevalence in Berlin, Dresden, and Trieste. The death-rate was equal to 29.9 in Turin, and 34.7 in Venice; 4 deaths from typhoid fever and 5 from diphtheria were returned in Turin. No returns were received either from Rome or Naples. The average death-rate in four of the principal American cities was equal to 30.0; the rates in these cities ranging from 25.4 in Brooklyn to 36.2 in New York. Small-pox caused 21 deaths in New York and 17 in Philadelphia; scarlet fever showed fatal prevalence in New York and Brooklyn, and typhoid fever in Philadelphia.

OPERATION DAYS AT THE HOSPITALS.

MONDAY..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear. Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p. Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M.Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. The President (Mr. Francis Mason): A Case of Sarcoma of the Septum Nasi eight years after operation (living specimen). Dr. Stephen Mackenzie: On the Treatment of Chronic Dysentery by large Enemata of Nitrate of Silver. Dr. Fletcher Beach: Atrophy of the Brain in Imbeciles.

TUESDAY.—Pathological Society of London, 8.30 P.M. Specimens—Mr. Eve (for Mr. Edwards): Sarcoma of Epididymis. Mr. Dent: Sequestrum in Head of Femur. Dr. Warner: Obstruction of the Bowels in a Marmozet. Dr. N. Moore: 1. Variations in Structure of Alimentary Canal; 2. Ulcer of Duodenum; 3. Calculus in Ureter. Dr. S. West: 1. Sarcoma of Tonsil; 2. Necrosis of Epiglottis. Dr. Turner: Hepatic Abscess. Dr. Ormerod: Hæmorrhage from Cerebral Tumour. Dr. Sangster: So-called Ichthyosis of the Tongue. Dr. Creighton: Tubercular Vomicæ from an Eland. Mr. Sydney Jones: 1. Intestinal Obstruction caused by a Diverticulum; 2. Tumour of Shoulder-Joint (card specimen). Mr. Leech (of Manchester): Dilatation of Heart (card specimen).

WEDNESDAY.—Hunterian Society, 8 P.M. Report of Committee on Dr. Stevens's Case of Cerebral Tumour. Dr. H. Port: A Case of Hæmophilia with Joint-Disease. Mr. R. Clement Lucas: 1. Double Popliteal Aneurysm, with Epithelioma of Tongue and Palate in the same subject; 2. A Case of Destructive Lupus of the Face.

FRIDAY.—Clinical Society of London, 8.30 P.M. Mr. Warington Haward: Case of Removal of the Hypertrophied Spleen. Dr. Goodhart and Mr. Golding-Bird: Case of Nephrectomy for Scrofulous Kidney. Dr. Barlow and Mr. Godlee: Case of Extirpation of the Kidney for Calculus Pyelitis. Mr. Howard Marsh: Case of Pyelitis; Exploration of the Kidney; Partial Removal; Death from Suppression of Urine. Mr. Pearce Gould: Case of Spina Bifida cured by Injection of Iodine.—Quekett Microscopical Club, 8 P.M. Mr. E. T. Newton: On Fishes' Tails.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

DOES THE PRESENT SYSTEM OF MEDICAL EDUCATION FULFIL ITS REQUIREMENTS?

SIR,—In answer to your correspondent "Londinensis", I would answer that it depends very much upon what its requirements are considered to be. Of the requirements of private practice, it is evident he knows but little. If there is a screw loose in our medical schools, it is that they do not sufficiently teach what is really wanted. What a man wants in private practice is a good sound knowledge of therapeutics, worldly wisdom, and an acquaintance with the expression of the eyes of those with whom he has to treat or deal; add to this a tolerable manner, and, even though he be but L.S.A., he will supersede the M.D., F.R.C.S. (by exam.), with a knowledge of the optic disc, and none of the world. The requirements of the general practitioner and those of the physician and surgeon are becoming too mixed. The poorer classes cannot afford to be attended by a man who has to add to his fees a percentage on the time and money spent in studying optic discs. I for one know the optic disc, and find the knowledge of very little use. I have made a great deal more capital out of the knowledge that, on arriving at a confinement, if your hands are cold, the quickest way of warming them is to dip them into a basin of warm water—a fact which the present system of medical education does not teach.—I am, sir, your obedient servant,

RURALIS.

M.D. BRUSSELS should communicate with Dr. F. E. Pocock, the Limes, St. Mark's Road, Notting Hill, W.

WANTED, A MODEL HOSPITAL.

SIR,—I venture to think your correspondent, Mr. Wood, will find what he requires at the New York City Hospital. In the centre of that building, opposite the entrance door, is a lift which goes from the basement to the top of the house; here are placed the kitchen and laundry. On either side of the lift are wards, right and left, surgical on one floor and medical on the other. Each ward is oblong, with windows on one side, capable of containing twelve or more beds. The ceilings and walls where they join are rounded, not angular; they are white and silicated. In front of the doorway is a brass plate indicating the position for fixing a hose to a pipe connected with a water-supply, so that walls and ceiling may be readily washed down in cases of infection, or for cleansing purposes. The egress air is extracted from the top, and ingress air supplied about four and a half feet from the floor by means of a small engine. There is a central two-branched gas-burner. A mosaic runs round the ward at the foot of the beds; this is a relief to the monotony of the white walls. The bedsteads are of iron, without heads. The waterclosets, urinals, and lavatories, are outside of the ward, with an ingenious plan for checking water-waste; whilst the closets themselves are perfectly sweet. The dead-house and dispensary are in the basement. Behind and adjoining are well-proportioned committee-rooms, residents' quarters, large library, operating theatre, and a museum beautifully arranged. The hospital can accommodate two hundred patients, from each of whom payment is exacted.

I have no doubt further information as to size of wards and other matters would be given by the courteous secretary and resident. I trust, however, I have said sufficient to direct your correspondent's attention to a hospital which rightly may be considered perfect in all its details.—I am, sir, yours truly,

Paris, March 12th, 1882. CHARLES MOORE JESSOP.

D.—The subject has been more than once under discussion during the last few years, and may probably be undertaken; but the question is, to some extent, one of cost.

AMBULANCE SYSTEM FOR LONDON.

SIR,—Will you allow me to state that I believe that I am the first who suggested a wheeled hospital accident ambulance system for London. A letter by myself, dated March 29th, 1880, on "Help in Street Accidents" (see JOURNAL for April 3rd, 1880, p. 537), was in reply to a statement made by Mr. G. Carrick Steet, contained in his letter on the same subject, in the JOURNAL for the previous week, to the effect that, "beyond the police-stretcher, a cab, or some improvised shutter, no means were available" in London for the easy conveyance home, or to hospitals, of the large number of persons killed or injured.

I now propose: 1. That ambulances should be constructed so that each may be conveyed by either hand or horse, by simply turning up the shafts or handles or some ready detachments; 2. That where it can be shown that it is essentially necessary for a man and horse to be specially employed, at those places only should such be kept; 3. That, when an accident occurs through a passing vehicle, its horse, if suitable, should be required to convey the ambulance to the hospital and back free of charge; and, (4) in all other cases, that the first passing cab-horse, or other suitable horse, should be engaged to take the ambulance to the hospital and back, and for this the driver should be paid. Should proposals 3 and 4 be adopted, they would obviate the necessity of specially keeping either man or horse.

While some accidents allow sufficient time to make arrangements for them to be properly attended to, yet others may occur when the injured need to be laid in a suitable place as promptly as possible. Quite recently, during a rainy day with muddy streets, a man had his leg broken in this neighbourhood, and he was conveyed to the hospital in a cab. To send a telegram to, and wait for an ambulance to arrive from, the nearest hospital, would occupy considerable time, however promptly attended to.—I am, sir, yours faithfully,

E. NOCK.

16, Bloomsbury Street, W.C., March 6th, 1882.

THE HULL DAIRYCOATES POISONING CASE.

SIR,—My attention has been drawn to a paragraph appearing in your JOURNAL of the 18th ultimo, with reference to what is characterised as a strange story relating to the deaths of two children at Dairycoates, near Hull. The report, however, on which your comment is based, is a most unfair and totally incorrect report. So far as I am concerned, my action in the matter was confined to performing the *post mortem* examination, and giving evidence before the coroner; but, although I acted no further, or otherwise, I am in a position to contradict the statements made by your correspondent. In the first place, he states that the children were not attended by a qualified medical practitioner; as a matter of fact, my brother, Dr. Wm. Jackson, did attend them. In the second place, you state that "the evidence showed that the stomachs of the children were inflamed and ulcerated, there being several ulcers in each case;" whereas the most important part of my evidence as to the morbid changes points to a very different conclusion. To enable your readers to judge, not only as to this, but also as to your remark that "no less novel is the idea that all sewer-air causes the above results," I give an extract from my evidence, which is as follows.

"*Post mortem* examination on the body of Susannah Stevenson, aged 5. There were no external marks of violence, but great *post mortem* lividity, extending down the back from the neck to the feet; the lips and tongue were livid. Viscous yellow mucus escaped from the mouth and nostrils. The pupils of the eyes were widely dilated. The fingers were contracted, and the nails blue. The forearms and palms of the hands were rigid, and turned outwards. On opening the thorax, a most offensive odour exhaled from the soft parts; there was considerable effusion of serum in the cavity of the chest. The lungs were congested, and filled with dark liquid blood. The heart contained a little dark fluid blood, and was flaccid. On opening the abdomen, the odour was most oppressive; the liver was gorged with black liquid blood, also the spleen, which was twice its normal size. The kidneys were distended with dark blood. In fact, the blood throughout the body was black and fluid; the vessels of the stomach were congested: the coats of this organ were very much softened. The mucous membrane separated with slight pressure; two small places, about a quarter of an inch in circumference, were found denuded of the mucous membrane. They were an inch and a half from the pyloric end of the stomach, and may have been caused in the examination of this organ, as the membranes were so remarkably softened. The mucous membrane of the duodenum, part of the ascending, the whole of the transvere, and part of the descending colon were very much congested, and the vessels filled with dark fluid blood." The morbid changes in the second child were similar, so I need not repeat them.

The symptoms and changes found in these two children coincide with the experience of gentlemen so high in the profession as Mr. Holden, and Drs. Letheby, Murchison, and Taylor.

Dr. Murchison mentions a case which occurred at Clapham in 1829. Twenty out of twenty-two boys at one school were seized with violent vomiting, purging, and prostration, with convulsive twitchings of the muscles and fever, within three hours. One boy had been seized with similar symptoms two days before, and died. Another also succumbed. So alarming was the outbreak, that poisoning was suspected; but, after careful investigation, it was found that the sole cause of the disease was to be attributed to the opening of a drain at the back of the house. The evidence in these cases states: "In one, the mucous glands of the intestines were found enlarged; and, in the other, the mucous coat of the small intestines was found ulcerated, and that of the colon softened."

In Dr. Richardson's work on the *Diseases of Modern Life*, it is stated that the emanations from sewer-air were compounded of several gases, but that the true disease-producing agent was sulphuretted hydrogen gas; and, in the *Lancet* of February 23rd, 1861, Dr. Letheby records a case where four men lost their lives by sewer-gas. The *post mortem* appearances were similar in these two children at Dairycoates: "The eyes and mouth were opened, the lips and tongue livid, the pupil widely dilated, the blood black and fluid, the lungs congested, the heart full of black fluid blood, the right side gorged; and there was a bloody froth in the windpipe; in the brain, the large vessels of the dura mater were full of black fluid blood."

Within a few yards from where the children in question were playing just before they were taken ill, there was about a ton of decomposed organic matter, contents of cesspools and rotten fish, etc. The sewer-openings were most offensive. In the interval of the adjournment of the inquest, another child died close by, after a few hours' illness, having similar symptoms; and, in another house in the immediate district, two more children died, with bilious vomiting, diarrhœa, and convulsions. In this house, at high tide, the atmosphere was so offensive that the family were sick and giddy, and, after the loss of their children, were obliged to leave the house. On careful examination, it was found to be caused by the escape of sewer-gas into the dwelling. Until there are ventilating shafts placed in the sewers, during high tide the sewer-gas will be forced into the houses, especially those which are badly trapped.

Judging from the symptoms of these children before death took place, and the morbid changes found after death, may I ask if it is still, in your opinion, "a novel idea that these children may have died from inhaling sewer-gas"?—Yours sincerely,

THOMAS JACKSON, M.D.

*** Dr. Thomas Jackson states that the children whose deaths were the subject of the inquest at Dairycoates were attended by Dr. Wm. Jackson. The coroner, in his charge to the jury, said: "Mr. Cartwright (an unqualified person) seemed to have been the only person really employed to treat the children, as Dr. Jackson only came in at the finish, when they were dying;" and he further stated that "here was a chemist practising as a medical man, and under a medical man's name; and, when he had a serious case, or there was likely to be a death, he then consulted Dr. Jackson." There was also, he said, a division of profits between Cartwright and Dr. Jackson. We think, then, that we did not go beyond the facts of the case in stating that the deceased children were not attended by a qualified medical practitioner, as Dr. Jackson never really treated the children. We characterised as a novelty the idea that sewer-air had caused an inflamed and ulcerated condition of the stomach, with rapidly fatal illness. Dr. Thomas Jackson demurs to this statement, and quotes cases recorded by Drs. Murchison and Letheby in opposition to our view. In no one of the cases he quotes is there any mention, however, of gastric inflammation attended with ulceration. Moreover, Dr. Bell, who assisted at the *post mortem* examination at Dairycoates, attributed the deaths of the children to the inflamed and disorganised condition of the stomach, probably the result of irritant poison or irritant food.

F. J. THOMAS (Swaffham).—We agree with Mr. Thomas. His emoluments from his office appear to be such that he has no cause to complain. Our remarks applied exclusively to Dr. Milne, and the unworthy treatment of him by his board.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

UNQUALIFIED PRACTICE.

SIR,—Kindly give me your opinion on the following. A firm, whom we will call Messrs. Jumbo and Mumbo, open a dispensary, on the window of which they advertise their charges, etc., and over it their names "Jumbo and Mumbo, Surgeons". Jumbo is a qualified man, but a non-resident, and comes down to see patients. One day, however, a patient, who had been attended solely by Mumbo dies somewhat abruptly before Jumbo has seen him, whereupon Mumbo writes and signs the certificate, but in Jumbo's name, who had never seen the deceased. The case is laid before the Registrar-General, who declines to take further notice of the matter on Mumbo promising not to do it again.

Meanwhile, a child dies in convulsions while under the care of Mumbo, and Jumbo writes to the registrar, saying that he might safely assign the death to whooping-cough. The registrar, however, not feeling satisfied, refers the matter to the coroner, and the coroner declines to interfere. The inference to be drawn is that Mumbo himself is unable legally to write certificates of cause of death; and, if so, why does he style himself surgeon over his door? Is this fair in the interests of the public or of the medical profession?—I am, sir, yours truly,

PRO BONO PUBLICO.

PATHOLOGY IN THE UNIVERSITY OF GLASGOW.

SIR,—In the BRITISH MEDICAL JOURNAL for March 4th, it is stated, in your notice concerning the proposed Professorship of Pathology in the University of Glasgow, that, "Among the requirements for graduation, at the present time, general pathology is not a compulsory subject." This is a mistake. General pathology *is* a compulsory subject; and the examinations, oral and written, are thoroughly searching.—Yours, etc.,

A GLASGOW GRADUATE.

ARTIFICIAL HUMAN MILK.

SIR,—Professor Frankland's plan—commended by Dr. Playfair—of treating cow's milk so as to render it almost identical with human milk, prescribes the use of "a piece of rennet about an inch square". May I ask some of your readers who are familiar with the process to explain what solid preparation of rennet they employ? Here, in America, the only thing discoverable of the sort is an imported solid pepsin (Merck's), which is of a gummy consistence, and which imparts an abominable smell and taste to the milk. I have for some time past been using, with excellent results, the dried pepsin (in small scales), enclosed in a cambric bag to facilitate its removal; but should like to learn what better form of rennet can be obtained.—I am, sir, faithfully yours,

AMERICUS.

New York, February 21st, 1882.

SCARLET FEVER.

SIR,—With the opinion held by Mr. Smith—mentioned by him] in the JOURNAL of January 28th—as to the rarity of a second attack of scarlet fever, and also as to the sore-throat of the "protected" being communicable to the "unprotected" as a true scarlet fever, my experience leads me entirely to agree. A year ago, this was very plainly shown in my own household—my three eldest girls had each at the same time an attack of scarlet fever. Last December twelve months, the eldest, aged 11 years, awoke on a Friday morning complaining of sore-throat and some fever; this was attributed to romping in the nursery the night before, she at that time appearing to be in perfect health. She was not confined to her room, but was some days before recovering; in fact, convalescence was somewhat protracted. My two youngest, a boy and a girl, both unprotected, remained apparently quite well and in excellent spirits until Sunday night. Three full days afterwards, the girl commencing during the Sunday night, the boy on Monday morning, they both had very grave attacks, the girl at one time being all but moribund. The disease afterwards spread to the grandmother, nurse, and housemaid, all of whom were unprotected, the two girls previously protected escaping.

From the history of this epidemic, I think none can doubt that the sore-throat of my eldest girl was the outcome of her having been exposed to the influence of the poison of scarlet fever, and that it was plainly the means of conveying it to the other children, the two latter having had no communication whatever with any other children than their sisters.—I am, etc.,

J. F. HOWARD, M.D.

Sandycroft, Shaw, March 1st, 1882.

A CASE OF MEDICO-LEGAL INTEREST.

SIR,—An incident has just occurred in my practice which, I think, presents some features of interest from a medico-legal point of view. Upon paying my ordinary morning visit to a patient, a delicate woman, I entered the room unannounced; and it at first seemed to me untenanted, but some indistinct choking sounds soon reached my ear, and I discovered my patient lying half on and half off the sofa. I rushed forward to lift her up, and found some difficulty in doing so. Upon examination, I found the head, which was much congested, caught by some wraps (a piece of flannel covered by a piece of velvet), which were round the throat, in a projecting piece of the handle of a coal-scuttle. So tightly were the ligatures drawn by the action of this metal bar, that I had some difficulty in introducing two fingers between them and the neck, and dividing them with a bistoury. This being effected, the lady rapidly recovered, and I found that she was suffering from an epileptic attack—the first she ever had, to my knowledge, or of which I could get any account. A very evident mark was left by the bandages round the throat. Now, had not I or some other person entered in time to release the patient before life was extinct, and had she been raised without notice taken of the garotting action of the scuttle-handle, would not appearances have pointed to foul play, especially as it appears that there had been some trivial misunderstanding between my patient and her maid, who had just left the house before my visit?—I am, sir, yours faithfully,

A. COOPER KEY.

30, Wilton Place, February 23rd, 1882.

TAPEWORM IN THE INFANT.

SIR,—In answer to your correspondent, "A Member", who seeks information as to the most efficacious treatment of tapeworm in children, I would strongly recommend him to adopt the following plan of treatment. The child should not be allowed any food after five or six o'clock in the evening. It should have a dose of castor-oil at bedtime; and, early on the following morning, a draught composed as follows: Extracti filicis liquidi 3ss; mucilag. acaciæ 3ss; aquæ menthæ piper. ad 3ii, should be administered, followed by another dose of castor-oil in about three hours. This draught may require to be given two or three times; should it not succeed, oil of turpentine may be tried.—Yours truly,

HERBERT WRIGHT, M.R.C.S., L.R.C.P., etc.

128, Cornwall Road, South Kensington, S.W., March 8th, 1882.

SIR,—As my name has appeared for some time in the published circulars of one of the English societies for the abolition of compulsory vaccination, I wish to give notice that I have withdrawn from all societies of the kind, not because I disapprove of their objects, but because I think I will be more useful in a private capacity. I am also unwilling to take part in that portion of the agitation which might seem ungracious towards certain members of my own profession, from whom I differ in opinion upon this question, though I still continue to regard them with esteem as private individuals. After this notice, all such advertisements will be known to be without my concurrence.—I am, sir, your obedient servant,

EDWARD HAUGHTON, M.D.

Spring Grove, Upper Norwood, S.E., March 11th, 1882.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. Brodie, Edinburgh; Mr. C. N. Dobson, Clifton; Mr. F. Scott, Manchester; Dr. F. Simons, London; Our Dublin Correspondent; Mr. A. Farrington, Diss; Mr. W. Adams Frost, London; Dr. F. H. Worswick, Manchester; Mr. H. E. Armstrong, Newcastle-on-Tyne; Mr. D. Bruce, Reigate; Dr. W. Arnold Thomson, Ampthill; Our Glasgow Correspondent; Dr. J. W. Moore, Dublin; Dr. W. Smyth, Banbridge; Dr. I. Burney Yeo, London; Dr. Tom Hewitt, Cheltenham; Dr. Sieveking, London; Mr. Walter Whitehead, Manchester; Dr. A. E. Jones, Brighton; Mr. R. Lewes Willcox, Warminster; Mr. Shirley F. Murphy, London; Mr. W. Whitworth, St. Agnes; Mr. W. J. Beatty, Stockton-on-Tees; Dr. John Gill, Stratford-on-Avon; Dr. H. Allan Jamieson, Edinburgh; J. E. A.; Mr. A. F. Cameron, Liverpool; Mrs. Sydney Vacher, Stepney; Dr. Rustone, Liverpool; Mr. T. P. Teale, Leeds; Dr. Urquhart, Aberdeen; Mr. G. Welland Mackenzie, London; Mr. J. B. Norris-Cane, Waterford; Dr. A. J. H. Crespi, Wimborne; Mr. W. Marsh, London; Mrs. Gladstone, London; Mr. Herbert Collier, London; Dr. Patterson, Bridge of Allan; Dr. Haughton, Upper Norwood; Dr. Dudfield, London; Dr. Potter, London; Mr. Reginald Harrison, Liverpool; Dr. Robert Gray, Armagh; Our Aberdeen Correspondent; Surgeon-Major Hickson, Dublin; Mr. G. E. Jeaffreson, Framlingham; Mrs. Langham, Clifton; Mr. A. Cohen, London; Dr. Herman, London; Mr. J. Hussey Williams, Bootle; Mr. F. J. Thomas, Swaffham; Mr. J. R. Lunn, London; Dr. H. Davy, Exeter; Dr. D. Mann Fraser, Homerton; Mr. T. H. Bagshaw, Salford; Dr. Playfair, London; Mr. J. E. Adams, London; Dr. A. S. Currie, Sydney; Dr. Duffey, Dublin; Dr. Arthur Downes, Chelmsford; Mr. R. J. Gilbert, Hammersmith; Mr. R. Clement Lucas, London; Mr. J. E. Ingpen, London; Mr. H. Coupland Taylor, Todmorden; Dr. Lennox Browne, London; Mr. F. W. Lowndes, Liverpool; Mr. W. Donovan, Whitwick; Mr. J. Bennett May, Birmingham; Mr. A. Creswell Rich, Liverpool; Our Birmingham Correspondent; Mr. J. Griffiths, Lampeter; Mr. J. Lindsay Steven, Glasgow; Mr. W. Rogers Williams, London; Mr. C. T. Kingzett, London; Mr. W. F. Phillips, St. Mary Bourne, Andover; Mr. E. T. Davis, Cowbridge; Mr. W. Wilson, Carlisle; Mr. C. M. Jessop, Lincoln; Mr. R. W. Greenish, Vienna; Dr. Stephenson, Woolwich; Mr. J. Vesey Fitzgerald, London; Dr. John Brown, Burnley; Dr. G. W. Crowe, Worcester; Mr. J. F. Pink, London; Captain Perrott, Plumstead; Dr. Murrell, London; Mr. A. H. Benson, Dublin; Mr. J. Oliver, Durham; Dr. J. S. Main, Withington, Manchester; Dr. Joseph Rogers, London; etc.

BOOKS, ETC., RECEIVED.

Antiseptic Surgery: its Principles, Practice, History, and Results. By W. W. Cheyne. London: Smith, Elder, and Co. 1881.

Science and Culture, and other Essays. By T. H. Huxley, F.R.S. London: Macmillan and Co. 1881.

Transactions of the Pathological Society. London: Smith, Elder, and Co. 1881.

Essentials of Medicine. By Henry Hartshorne, A.M., M.D. London: Smith, Elder, and Co. 1881.

Sympathetic Diseases of the Eye. By L. Mauthner, M.D. New York: William Wood and Co. 1881.

Medical Ophthalmoscopy. By W. R. Gowers, M.D. London: J. and A. Churchill. 1882.

Diseases of the Heart. By G. W. Balfour, M.D. London: J. and A. Churchill. 1882.

Guy's Hospital Reports. London: J. and A. Churchill. 1882.

The Opium Question. By J. M. Hays. London: J. and A. Churchill. 1882.

Scrofula and its Gland-Diseases. By F. Treves, F.R.C.S. London: Smith, Elder, and Co. 1881.

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THE LUMLEIAN LECTURES
ON
INFLAMMATION.

Delivered before the Royal College of Physicians.

By J. BURDON SANDERSON, M.D., LL.D., F.R.S.,
Professor of Physiology in University College, London.

Lecture I.—Injury and Damage.

I FEEL that I need some apology for coming before the College with a subject which has been frequently discussed already, and about which it may be presumed that I have nothing new to say. I cannot promise that it will not be so; for I have no new doctrine of inflammation to advance, no great discovery to relate.

In what I shall have to say to-day of the nature of the process of inflammation, it will be my purpose to strengthen the position I have taken with reference to the subject on former occasions, and particularly in my essay on Inflammation published in 1870, and in the lectures I gave in the theatre of the University of London seven years ago.* In my second lecture, I intend to enter on a question which, though not new, has attained of late years a significance which it did not before possess—that of the ætiology of inflammation—that is, the discussion of the various agencies which, either as principal or accessory causes, may be concerned in its origin. And, lastly, I desire, in my third lecture, to bring our modern knowledge into comparison and harmony with the teaching of those who have thought and observed best on the subject, from Hunter to our own times.

1. *Inflammation is the Physiological Effect of the Damage done to a Tissue when it is injured.*—The definition which in our epoch has carried more weight and has had more influence than any other, is that given in nearly the same terms, first by Mr. Goodsir (*Anatomical and Pathological Observations*, page 43, Edinburgh, 1845), and subsequently by Mr. Bowman, who, in his well known lectures (*Lectures on the Parts concerned in Operations on the Eye*, London, 1849, page 29), described the effect of an injury of the cornea as "a change wrought in the natural acts of nutrition then existing in the wounded part." The same conception originated in the mind of these two observers independently, from the study, which the introduction of the microscope and their own anatomical discoveries had rendered for the first time possible, of the textural changes which inflammation leaves behind it. This conception, so thoroughly British in its origin, was soon transplanted into Germany. It was adopted by Virchow with little modification, and became part of that more general doctrine of "cellular pathology" which at one time ruled pathological opinion, and has not even yet lost its influence. The work that Mr. Bowman did about inflammation was, like all the other work he did in those early and fruitful years, complete. The appearances which he described in the cornea as evidence that the "natural action of its nutrition" had undergone a change, are as full of interest to us at the present time as they were to him; and, if we were now to repeat his experiments, we should find the results to be exactly as he said they were. Why, then, should we not content ourselves with the same explanation? Why should we not continue to say with him and with Goodsir, "Inflammation may be described as a modification of existing normal processes"? The answer is that, during the last ten or fifteen years, another step forward has taken place—a step forward in the same direction as the former one, and, as it was, dependent on the acquirement of new methods of observation. These methods may be described as physiological, just as those which led to the brilliant discoveries of the preceding epoch were anatomical. We are now striving to become eye-witnesses of the actual processes of disease at the same time that we continue, with unabated curiosity and vastly improved means, to scrutinise its results. We have thereby learnt that many pathological processes, and particularly the fundamental one which now occupies us, are not quite what, from their anatomical results, they seemed to be. We find, when we actually watch the effects of injury on a living part, that the old order changes, but does *not* give place to new—that we have before us, not disorder of function, but arrest; not the diversion of the resources of nutrition into new channels of activity, but merely the accumulation of such resources where they are useless, if not destructive, and, consequently, that the restoration of a part to the natural state must be as simple as its departure from it—that the resolution of an inflammation means either that the temporarily arrested processes of normal life simply go on again, or, if the process have proceeded to its ultimate issue—death of the affected part—that what has been destroyed has to be repaired, not (as we used to think) by a continuation of the morbid processes, but simply by the restitution of the normal condition. The principle is the same (if I may be permitted to use so homely an illustration) whether the inflammatory process invade our houses or our bodies. Obviously, no one would think of regarding the destruction of a house by fire as a modification of any normal process, nor would it occur to any one that the damage done would be best repaired by extension of that process, perhaps in a milder form.

I am well aware that this illustration is open to the objection that an inflammation has only the most remote resemblance to a fire; but I use it merely for the purpose of enforcing what I want to say—namely, that, if we confine the word inflammation within the limits of the original definition, and accept as its phenomena those which have been assigned to it by the authority of tradition (which is the only authority that has any claim to be heard in such a question), its essential nature is fully expressed in the word *damage*, and that it has no further relation to the process of repair than that which arises from the universal operation of the physiological law that, whenever part of an organ is destroyed, new growth proceeds from the old, to supply the defect.

2. *Mode of Origin of Inflammation in a Non-Vascular Tissue. Keratitis cannot now be understood as a "perversion of the natural acts of nutrition of the part."*—Keratitis, as I have already hinted, and will endeavour to show more completely in my third lecture, was the point of departure of the cellular pathology. It is, therefore, with the cornea that we must begin, if we desire to re-examine the grounds of that doctrine by bringing to bear upon it the direct teaching of experiment.

Although in the cornea we have to do with a structure which is devoid of vessels—and therefore, in the sense of the classical definition, incapable of inflammation by itself—yet, inasmuch as, in every keratitis, the adjoining vascular structures sympathise—*i.e.*, are also affected by the injury, it is allowable to include what happens in the vascular border as forming part of the process.

When an incised or punctured wound is made in the cornea of the rabbit, of sufficient depth to penetrate below the superficial epithelium and expose the proper corneal tissue, the reaction is exceedingly slight. All that can be seen by the naked eye is, that the wound is surrounded by a haze of opacity, which rapidly disappears; but there is no congestion of the limbus. As an exciting cause of inflammation, therefore, such a wound is inadequate, for none of the objective signs of inflammation are present. To induce them with as limited an injury as possible, the best way is to insert a silk thread as a seton at the centre of the cornea, withdrawing it as soon as it has accomplished its purpose. After several hours, during which no visible effect follows the injury, the cornea is seen to be surrounded by a red border, which consists of the wreath of dilated capillary loops of the episcleral vessels, from which it, for the most part, derives its nutrition. It often happens that the inflammation which has thus begun proceeds further; that the marginal congestion extends and increases until the cornea is surrounded by a ring of tumid and highly vascular mucous membrane; that the surface of the conjunctiva is bathed with pus; that the cornea becomes more and more opaque; and that eventually pus collects in the anterior chamber.

This effect exceeds what is wanted, as much as the others fall short of it. The excess of reaction may be avoided by withdrawing the ligature as soon as the conjunctivitis has begun; in which case it may fortunately happen that the zone of redness is limited to one border only, opposite to which a radial tract of opacity extends towards the middle of the cornea, and becomes continuous with the zone of opacity which surrounds the path of the seton. To understand what this means, it is scarcely necessary to appeal to the microscope. It is plain enough that the central area of opacity is of the same kind as the little cloud which, when the cornea was injured by merely breaking up its surface with the point of the scalpel, as Mr. Bowman did, surrounded the little wound. The other area as evidently comes from the edge, and is a consequence of the surrounding inflammation. Mr. Bowman would have taught us to understand both as results of a "change of the natural acts of nutrition having their seat in the wounded part"; and particularly he would have regarded the central

* The definition which I gave in 1870, in my essay on the Process of Inflammation, published in the *System of Surgery*, was as follows. "1. Inflammation is the succession of changes which occurs in a living tissue when it is injured, provided that the injury is not of such degree as at once to destroy its structure and vitality."—*System of Surgery*, 1870, page 729. The definition accepts the characteristics of the inflammatory state as they were stated by Celsus, and connects them with each other by their common relation to the cause which produces them—*injury*. The lectures referred to were not reported or published.

cloud—that which immediately surrounds the wound—as directly dependent on nutritive disorder of the corneal tissue irritated by the seton, and the marginal opacity as evidence that similar changes were beginning in the neighbouring vascular parts. Experiment shows that the true explanation is much simpler than this. The reason why the little punctured wound surrounds itself with a cloudy border is, that cells resembling the colourless corpuscles of the blood exist in the conjunctival sac, and find their way by the breach into the little branching tubes which permeate the tissue in every direction; the proof of this being, (1), that, if we place a dead cornea, in which a puncture has been previously made, for a few hours under the same conditions as those to which the living cornea is normally exposed, we find that it remains transparent everywhere excepting in the neighbourhood of the injury; and (2) that we may destroy the tissue of the living cornea by other means, to an extent far exceeding that of either the seton or the puncture, without any such results. We may, indeed, destroy half the organ without producing any opacity whatever, provided the agent is of such a nature as not to disintegrate its protective epithelial covering, and thus open the way for the immigration of cells from the outside. The agent which answers this purpose is chloride of zinc, which, as a caustic, has two invaluable properties. One is, that its action produces very little change in the mechanical properties of the tissue acted on; another is, that it kills up to the limit, without damaging beyond the limit. When it is applied to the cornea over a carefully limited surface, it leaves behind a scarcely visible opalescence; but the tissue is absolutely dead—the necrosis extending in depth, so as to affect two-thirds or more of the corneal tissue. Here, again, the effect, so far as concerns the recognised signs of inflammatory reaction, is usually *nil*. There is no opacity—no surrounding zone of congestion. If you examine the cornea microscopically, what you find is, first, that within the region of necrosis the branched corpuscles which are characteristic of the cornea have become so attenuated as to be indistinguishable; secondly, that, immediately outside of the dead part, these bodies are shrivelled into shapeless masses, like little fresh-water polyps which have drawn in their tentacles; and finally, that, beyond this clump region, the fixed corpuscles present in every way their natural aspect. If the chloride be applied near to the limbus, the case is quite otherwise. Notwithstanding its little tendency to spread, the episcleral blood-vessels are acted on, and fill with blood. The result of this is, that thousands of colourless blood-corpuscles invade the cornea at the congested border, and find their way to the necrotic region, where, from the absence of the normal fixed corpuscles of the cornea, they are the more obvious. In this case, at all events, there can be no question of perverted nutrition; for the tissue which is the seat of the change is as lifeless as a bit of finger-nail. The whole process, indeed, is so self-evident, that neither comment nor explanation is necessary. You have before you a dead tissue, of which all the "natural acts of nutrition" of which Mr. Bowman spoke have ceased; but this dead tissue is as full as it can hold of living cells. If anything is clear, it is surely this—that they were not born there, but were imported from elsewhere; and, if not from the blood-stream, whence?

Let us, before we proceed further, sum up what we have learnt from the cornea. It is the type or representative of those structures which, under the term connective tissue, we recognise as constituting the connecting and supporting parts of our bodies. It consists of a system of branched cells, each of which is united with its neighbours by its branched processes—these being sheathed in a matrix, of a texture identical with that of the non-cellular part of ordinary connective tissue, but possessing those physical properties which fit the organ for its purpose. This matrix is hollowed out into intercommunicating channels, which, in form and branching, are the counterparts of the complicated network of protoplasm they are intended to contain. In every respect therefore, excepting one, the cornea is a complete tissue of its kind; and, if such tissues in general are to be supposed capable of responding to injury in an active way—*i.e.*, by continuing their "natural acts of nutrition in an unnatural, abnormal, or perverted way"—there is no reason whatever why the cornea should not do the same. Trained as we all have been in the "cellular pathology", we expect this, as it were, instinctively; but what we actually see is quite different. At the border of the faint eschar made by chloride of zinc, we see, on one side, health; on the other, not disease, but death; no reaction—no perverted nutrition—nothing but damage. So far, therefore, as can be learned from a non-vascular structure, the damage done by injury, whether mechanical or chemical, is exclusively negative. It consists in arrest or annihilation of function, not in perversion.

3. *Origin of Inflammation in Vascular parts. In such parts which have been damaged by heat or cold, inflammation comes into existence d'emblée.*—Let us now see what happens in the more common case in which the injured part is vascular. But, before doing so, let us consider the question which has to be answered. In injuring the cornea, we act directly on cells, fibres, ground-substance, nerves. We have seen what the result is. In acting similarly on a vascular structure, we have the same cells, fibres, ground substance, nerves, but, in addition, blood-vessels. Any signs of damage, therefore, which exist in the latter case that were absent in the former, we have a right to attribute to blood-vessels. To prove this, it is desirable first to select for the purpose agents which, in accomplishing their work, leave nothing behind them excepting the damage they have done; and, secondly, to compare what happens in two cases—one in which the injury is of such a nature as to affect all tissues equally, the other in which its action is specially directed to the vessels.

For the purpose of acting equally on all tissues, there is but one method that can be thought of, namely, the application of cold or heat. It is not necessary to have recourse to a very high temperature. Plunging an organ in water not much warmer than you can easily bear with your hand, is sufficient to accomplish all that is required, provided that, before the immersion, the circulation is arrested by an Esmarch's bandage. The organ used by Cohnheim for the purpose was the ear of the rabbit. The result is in the highest degree worthy of our attention. The immediate effect is, of course, *nil;* but if, after the ear has regained its normal temperature, the ligature be removed and the circulation restored, it is seen that, in a very short time, the signs of inflammation—not merely of active congestion, but of true inflammation—present themselves; and, in an hour or two, the organ is warmer than its fellow by several degrees, full of blood, and swollen to several times its previous thickness. At first, the redness is seen to be due to the dilatation of blood-vessels previously distinguishable, and to the appearance of new ones where none were visible before; afterwards, as the œdema increases, the organ acquires an uniform diffused redness. If, at this stage, the skin be punctured, coagulable liquid, charged with leucocytes (pus-corpuscles), escapes. If the animal be killed, and the swollen ear, after having been suitably hardened, be used for the preparation of microscopical sections, it is found that the subcutaneous tissue exhibits in every respect the character of inflammatory infiltration.

In the experiment I have just described, the part is subjected to two injurious actions simultaneously. It is deprived of blood, and its temperature is raised to about 10° above the normal. It is to the latter of these that the damage is alone attributable; for it is well known that the exclusion of blood from a part, for about six or seven minutes, has no permanent effect. If, however, the state of anæmia be kept up for twenty-four or forty-eight hours, the case is very different. It might be expected, indeed, that so long a starvation of the tissue would definitively destroy its vitality. If the bandage be kept on too long, this anticipation is realised; but in this case the time may be so regulated that the damage, thus slowly inflicted on the starved part, is similar in degree to that which was occasioned in a few minutes by the influence of heat, or it may exceed or fall short of it. In any case, the objective signs of damage are of the same kind. When the ligature is removed, blood finds its way along its accustomed channels, and for a time there is nothing to indicate that the apparent restitution of natural conditions will not be permanent. But, if the ear be examined half an hour afterwards, it is seen that arteries and veins are dilated, and that its temperature is already higher than it should be. I need not repeat here the description of the process, which, although of less rapid development, is identical in its results with that we have already had before us.

Here, again, the lesson to be learnt is so obvious that it scarcely needs indicating. The two experiments prove that an organ which is thoroughly damaged—or, to put it in other language, of which the vitality of every tissue is depressed, but not annulled—is already virtually in a state of inflammation, although, from the absence of the circulation (on the condition of which almost all the visible characteristics of vital changes are dependent) the objective signs of it may be wanting; that, in such an organ, the state of inflammation springs at once into existence, without any antecedent stage of incubation or development; and, particularly, that the formation of pus, which is commonly regarded as rather a consequence of inflammation than as a part of it, begins from the moment that the damaged vessels are distended with blood, and the internal surface of the walls pressed upon by their contents. To those who still find it difficult to realise that pus-corpuscles are not formed by some bioplastic process in the tissues, the experiment may be recommended, as affording one instance, at least, of the formation of pus, to which such an explanation is inapplicable, the rate of production of young cells being far too rapid to be thus accounted for.

(*To be continued.*)

CROONIAN LECTURES
ON THE
CLIMATE AND FEVERS OF INDIA.

Delivered before the Royal College of Physicians of London.

By SIR JOSEPH FAYRER, K.C.S.I., M.D., F.R.S.,
Physician to the Secretary of State for India in Council.

Lecture I. Part II.—Etiology of Fevers.

[*Concluded from page 369 of last number.*]

Theories of Origin of Malaria: Nature and General Characters of Country.—India represents almost every variety of soil and climate. In the southern and tropical parts, in the forest and jungle districts, on the littorals and deltas of the great rivers, on an alluvial or dark loamy soil, heat and moisture generally prevail; on the elevated tracts and arid table-lands, there is a drier though heated air; whilst on the hills the rarefied, cooled, and tempered air of mountain-ranges is found.

The influence of the monsoons is most marked within the tropics. The temperature of Southern India is comparatively equable, though high; the isothermal lines are influenced by elevation. Except on the higher table-lands and hill-stations, the general character of the climate, vegetation, people, and their surroundings, is tropical, whilst the endemic diseases are of a tropical or malarial type.

North of the Vindyan hills, and along the basin of the rivers of the Punjab, the Indus, Ganges, and Brahmapootra, and on the extensive alluvial plains accumulated by these great rivers, we have many phases of climate, and extreme diurnal range of temperature. Bengal is hot and damp, with a prolonged rainy season and a delightful cold season. North-West India, Oude, the North-West Provinces, and the Punjab, have a climate so cold in winter that frost is frequently seen, but a hot season of great intensity, with dry burning winds, great alternations of temperature and varying states of atmospheric humidity, and a scanty supply of rain; whilst the hill-stations of the Himalayas and other mountain-ranges, at elevations of 5,000 to 7,000 feet, are cool and bracing, and are health-resorts of Europeans. The differences in climate are especially noticeable in the dry heated air of Northern India, as compared with the steamy atmosphere of Bengal and the southern districts, the former being far more tolerable than the latter.

Much might be said on the relative effects of solar heat and light, moisture or dryness, and electrical states of the air, amount of ozone, and of the various soils, excess of vegetation or its absence, of atmospheric pressure, vapour-tension, and the like; but I must pass on to consider the more special causes of disease which we call malaria. They exist in certain regions more intensely than in others. The low-lying jungle-land at the foot of the Himalayas, known as the Terai, abounds in them; also the alluvial basins, silted-up beds and debouchures of rivers, waterlogged soil of land in which watercourses have been obstructed; littoral plains; in some regions the sandy deserts. There are regions that were formerly populous, now deserted, and given up to wild beasts and malaria, which probably desolated them: such are the ancient city of Goa, and cities of which the ruins can hardly be traced in dense jungle.

Much is attributed to climate which is more properly chargeable to defective hygiene and careless mode of living. Malaria prevails almost universally in India; at all events, periodic fevers occur everywhere, and there are extreme vicissitudes of temperature and endemic causes of dangerous disease. But with care, temperate living, and ordinary precaution as regards exposure to heat and to obvious causes of disease, the climate itself is less noxious than may be supposed. Sanitary work has already reduced the death-rate of European soldiers in India from sixty to sixteen per 1,000, and is gradually proving as beneficial to the civil population.

Malaria.—MacCulloch says: "Perhaps the best, as the truest, account of the nature of malaria would be an acknowledgment of utter ignorance" (*On Malaria*, p. 419), and I fear we have not much to add to this description of a hypothetical cause of disease which is of very general prevalence (according to Lombard) between the 65th parallel of north and the 40th of south latitude; and has been estimated to cause half the mortality of the human race, and has been called "the great enemy, the very Destroying Angel to whom the task of keeping man within bounds has been specially assigned" (MacCulloch *On Malaria*, p. 453).

In tropical climates it attains its greatest intensity. It is the cause of several forms of fever, and seems to be intimately connected with the etiology of cholera, dysentery, hepatic disease, bowel-complaints, and other morbid conditions; but in temperate climates, under certain conditions, its effects are manifested. It abounds in Southern Europe, and our own islands are not exempt; though the agues that prevailed in London in Sydenham's time are now, thanks to sanitary science, matters of history; its influence, however, still lingers in certain districts, in the eastern or southern counties, such as the fens of Lincolnshire, the marshes of Essex or Kent; whilst the writings of Pringle, Fergusson, G. Blane, MacCulloch, and others, describe its effects in Europe as being formerly of great severity.

With the view of showing the decline of malarial fever in this country, I have consulted the records of one of our great metropolitan hospitals, and am indebted to Dr. S. Mackenzie for a return which must have cost much labour. The return shows that the prevalence and type, and the quantity as well as intensity, diminished. The same process is going on in India, and there is reason to believe that, as sanitary knowledge becomes more a part of popular education and belief, further decrease of sickness and mortality will be the result.

The table shows a considerable decrease in the number of fever-admissions. In 1770, of 1,483 patients admitted, there were 21 cases of intermittent, with one death. The year 1780 seems to have been unusually unhealthy. There were, among 1,617 persons, 59 cases of intermittent fever, but only one death. 1779, with 1,886 in-patients, had 40 cases of intermittent, with four deaths. The year 1790, with 1,585 patients, there were four cases of intermittent. (The register is imperfect up to 1830.) In 1840, with 3,337 in-patients, there were six cases of intermittent fever; no deaths. In 1870, with 5,218 in-patients, there were only two cases of intermittent. In 1880, with 6,312 in-patients, there were 14 cases, but no deaths.

Before Hippocrates wrote on epidemics, it was known that people who lived in marshy districts were liable to suffer from intermittent fever. But it was not until the end of the seventeenth century that Lancisi, in Rome, wrote on marsh-exhalations, and pointed out their connection with these fevers, and called them paludal or marsh miasmata. The term is still in use, though "malaria" is more generally preferred; that of paludal being apt to mislead, by indicating marshes as the only cause, whereas paroxysmal fevers are often seen on a dry, sandy, and rocky soil. Still, experience teaches that the presence of moisture, organic matter, and a temperature above 60°, are generally requisite. Whatever be the cause, malaria is abundant in India, both in marshy and in arid regions. Since the time of Varro (114 B.C.), Lucretius (95 B.C.), and Columella (50 A.D.), Kircher (1602), and Linnæus (1778), it had been surmised that a low organism might be concerned in its production. In 1866, Dr. Salisbury thought he had discovered it in a palmella associated with cells and sporules of other fungi, to which he gave the name of gemiasma or ague-plants. Mitchell of Philadelphia, in 1859, endeavoured to show the cryptogamic origin of malaria (*American Journal of Science*, January 1866). Balustra also discovered a species of alga in the Pontine marshes (*Comptes Rendus*, tome lxxi, No. 3, p. 235). Niemeyer also ascribed malaria to low organisms. Harkness (*Boston Medical and Surgical Journal*, January 14th, 1869) says that he has found the palmella and spores in snow on the summit of the highest Alps, and says that they may readily become mixed with saliva and urine from without, and have nothing to do with malaria.

Klebs and Tommasi-Crudeli, in 1879, announced the discovery, in the soil, water, and air of the Roman Campagna and marshes, of germs or sporules which are capable, under the influence of warmth (above 68° Fahr.), moisture, and air, of rapidly developing into sporigerous bacilli; and it is stated that the bacilli or spores have been found in the marrow of bones, in the spleen, and in the blood of persons dying of pernicious fever. These bacilli they consider to be malaria, and the results of their investigations stand thus. *a.* Rabbits inoculated with washings of soil, or with fluids in which the bacillus had been cultivated, suffered from intermittent fever, the interval being in some cases eighty hours. *b.* Filtered liquids caused only slight symptoms, even when five times the original quantity was used. *c.* All the animals with intermittent fever had marked enlargement of the spleen, to nine or ten times the normal size. *d.* Many of the spleens contained black pigment, especially those from graver cases, just like spleens of persons suffering from ague. *e.* The bacilli were found in the spleen and marrow of animals, as well as in the soil. They were at first ovoid, mobile, shining spores, which developed in the body, as well as in cultivation-apparatus, into long threads, homogeneous at first, but soon dividing into sections, each of which give rise to a new thread. *f.* These bacilli could not develop without oxygen, and required a richly nitrogenised medium for their growth and cultivation.

Tommasi-Crudeli, in a note published in the *Gazzetta Medica Italiana*, October 1880, summarises the observations made under his directions by Perroncito, Marchiafava, Cuboni, Ceci, and the experiments of Valenti, Ferraresi, Sciamanna, and Piccirilli. Their results are these. 1. The bacillus may be found in any quantity in the soil of the Campagna or Pontine marshes, and may be grown freely in that medium; it could not be got from soil taken from healthy places in Lombardy. 2. During the hot weather, the air in malarial districts was so charged that numerous bacilli could be found condensed in the sweat on the hands and face of persons working there. 3. Spores of the bacillus were constantly present in the blood of infected rabbits, in that of persons suffering from ague, in blood aspirated from the ague-patients' spleens during the acme of fever. These spores, when cultivated, gave fully developed bacilli, while that from other patients gave negative results. 4. Venous blood from ague-patients gave intermittent fever to dogs when subcutaneously injected. 5. Blood removed during invasion always contained numerous bacilli; but, at the acme, they disappeared, and only spores could be found (similar to the behaviour of spirillum in relapsing fever). Tommasi-Crudeli thinks that the rigors may be produced by the irritation of the vaso-motor nerves by the bacilli in the circulation; that the febrile attack is the result of the discharge of the bacilli from their special nidus in great quantities; that their development and disintegration are accelerated by the high temperature, abundant nourishment, and oxygen of the blood.

Lanzi, Terrigi, Marchiafava, Cuboni, and some French observers in Algeria, say they have been able to communicate true malarial fever to dogs and rabbits, by inoculating them with blood taken from malarial patients. They have found the bacillus in the blood of malarial cases constantly, in great quantities in the blood during the cold stage; it disappears in the hot stage almost totally, leaving only traces of its spores, which in their turn produce a second generation of parasites. Lanzi says he observed the same fact in the blood of twelve patients in the Hospital of S. Giovanni in Laterano. Professor Tommasi-Crudeli has made the suggestion that arsenic should be used as a prophylactic, to render the human organism insensible to malaria.

Laveran found organisms in the blood of malarial subjects—cylindrical curved bodies, transparent, but with a pigmented spot, without movement; also cylindrical bodies, about the diameter of a red corpuscle, containing pigment-granules, presenting rapid movements. On the borders of the spherule were filaments in rapid movement, three or four times the length of the diameter of the corpuscles. There were also bodies of spherical or irregular form, transparent or finely granular, about the one-hundredth of a millimètre in diameter, containing dark-red, rounded pigment grains; these were motionless, and appear to be the ultimate stage of the above; they have no nuclei. There were also spherical elements, similar to the last, but smaller in size. Laveran regards them as a form of animalcule, which exists at first in an encysted state, and in the perfect condition becomes free in the form of mobile filaments. Further, the blood of malarial fever persons contains (1) red corpuscles, which appear to be vacuolated at one or two spots, and contain pigment-granules; (2) pigmented leucocytes; (3) free pigment-granules, probably proceeding from the destruction of the parasitical organisms. Laveran has found them in 180 of 192 persons affected with various symptoms of malarial poison in Algeria and Tunis. He is convinced that they are not found in the blood of persons suffering from diseases not of malarial origin; where they were not found, it was when quinine had been previously taken. The addition of a small quantity of quinine to the blood destroyed the organisms. He thinks that, during a pyrexial period, the organisms probably sojourn in the internal organs, especially in the spleen and liver. After death from malarial disease, pigment-granules are found in great numbers in the blood, and especially in the small vessels of the liver and spleen; even the marrow of bone, and the brain-substance, are discoloured by their presence. These pigment-granules, which may obstruct the capillary vessels, appear to be derived from the parasitic elements, which perish after death, and become unrecognisable.

Kelsch and Kiener found, in the liver and blood of Algerian patients dying of malarial cachexia, that the red corpuscles became larger and their number diminished. In a case of quotidian ague, there was a loss, in twenty-four hours, of more than one million red corpuscles per cubic millimètre of blood. In profound anæmia, the number may fall from five millions to less than one and a half million.

In the liver, there is dilatation of the capillaries, and epithelioid proliferation in the walls. Leucocytes and pigment-cells lodge in them. The hepatic cells become hypertrophied, and increased in number. There is distension of lymphatic spaces, and sometimes commencement of annular cirrhosis, these conditions tending to become chronic.

At the meeting of the British Medical Association at Cambridge, specimens of the bacillus were shown by Dr. L. Aitken of Rome.* Dr. Sternberg, of the United States Army, has made experiments on the soils, water, and air of New Orleans. He has found that a number of minute algæ, including bacteria of various forms, do exist on the surface of the swamp-mud; that they can be cultivated in isinglass, which then acquires pathogenetic properties. Some of the organisms found in swamp-mud and gutter-water, and in human saliva, are capable of multiplying within the body of an animal; and the blood, serum, and organisms containing them acquire virulent properties. Among the organisms are some which closely resemble, perhaps are identical with, the *bacillus malariæ* of Klebs and Tommasi-Crudeli. Still, he says, there is no conclusive evidence that, when injected beneath the skin of the rabbit, they give rise to a fever corresponding with the ordinary paludal fevers to which man is subject. The evidence on which the claim to the discovery of a *bacillus malariæ* has been based, therefore, cannot be accepted, because in these experiments, as in his own, the temperature-curve of the rabbits operated on has in no case exhibited a marked and paroxysmal character; healthy rabbits sometimes exhibit diurnal variations of temperature as marked as those shown in their charts; changes in the spleen, such as they describe, are not evidences of death from malarial fever, inasmuch as similar changes occur in the spleen of rabbits dead from septicæmia produced by the subcutaneous injection of human saliva; the dark-coloured pigment in the spleen and marrow of bone cannot be taken as evidence of death from malarial fever, inasmuch as this is frequently found in the spleen of septicæmic rabbits. He adds, however, there is nothing in his own researches to prove that the so-called *bacillus malariæ*, or some other minute organism associated with it, is not the active agent in the causation of malarial fevers in man; and that there are many circumstances in favour of the hypothesis that the etiology of these fevers is connected, directly or indirectly, with the presence of these organisms or their germs in the air and water of malarial localities. He suggests, as the disease is not of a fatal character, that the *experimentum crucis* should be made on man himself. It certainly seems unsatisfactory to argue from the rabbit to the man, especially in the case of a poison to which, whatever its nature may be, the susceptibility of the lower animals is doubtful.

The researches do, however, offer an explanation which corresponds with what we know of the mode of operation of malaria. 1. It occurs at certain heights; and it is not necessarily connected with the presence of marshes, ponds, or rivers, nor with admixture of fresh or salt water, nor with the putrefaction of an organic substance. 2. The production of malaria ceases when the air can no longer act on the soil, as when the most pestilential marshes cease to be so when there is plenty of water, or when the air is excluded by any interposing substance. 3. A very moderate degree of humidity will produce malaria—some malarial soils, innocuous during hot and dry weather, becoming dangerous after a shower: and so in the case of the upturning of new ground or the cutting down of jungle.

If these views be confirmed by further observation, a great acquisition will indeed have been made to our knowledge—one as important as that which revealed the true etiology and pathology of continued fevers in Europe.

But, in our anxiety to find a particulate poison or germ, we must not overlook the possibility that the results may be due to other agencies—some gaseous emanation, or perhaps an impression produced from without, inducing disturbance of innervation, vaso-motor action, and nutrition, or the autogenetic production of a poison in the body predisposed to be deranged by peculiarity of constitution, climatic or other influence, of the nature of which we are ignorant, though by analogy it is conceivable; as, for example, the origin of influenza or the derangements arising from emotional states, such as joy, fear, etc. Some such view has been held by men who find it difficult to reconcile the facts with the operation of a specific poison. Great diurnal range of temperature, vicissitudes of climate, fatigue, hunger, exhaustion, combined with local causes that predispose to enfeeble health, are considered as sufficient to account for the phenomena.

Dr. Oldham, of the Bengal Medical Service, attributes intermittent fever to alternations of temperature in persons weakened by tropical influences. Dr. Lyons, of the same service, says: "The opinion that intermittent fever is due to miasm is not applicable." Dr. Bellow ascribes fevers, in the first instance, to chill. Others have expressed similar views; even Dr. Parkes considered that "some alteration must be made in the prevalent opinion of the action of malaria".

* In the BRITISH MEDICAL JOURNAL of December 10th, 1881, Dr. MacMunn of Wolverhampton gives an account of his discovery of *bacillus malariæ* in the blood of a young African traveller who was suffering from intermittent fever. The blood was taken during the cold stage, and examined with a 1-16th immersion. The *bacillus malariæ* was seen most distinctly by Dr. MacMunn himself, the patient, and another medical man. The cold was followed by the hot and sweating stages, so that there was no doubt as to the nature of the disease.

The most careful examination has failed altogether to detect any separate active principle, though it has been shown that the air of marshes contains a variety of products that are absent from the normal atmosphere, *e.g.*, excess of carbonic acid (6 to 8 per 1,000 volumes), sulphuretted hydrogen, phosphuretted hydrogen, watery vapour, ammonia, free hydrogen, organic matter, and the microscopical *débris* of vegetable and animal matter. One or other or several of these may be present, but they are not malaria. That some subtle agency, in addition to climatic influences, is at work, seems probable; but whether it be one or more, we know not. The theory of the material nature of malaria is, at any rate, a good working hypothesis; as such only would I receive it, pending more definite information.

A glance at the distribution of fevers in India will show that they occur in districts that present opposite characters, and it would be easy to show that they are sometimes absent altogether where marshes and other conditions presumably favourable to their existence abound; and that in arid regions in Africa, Spain, and on the sandy soil of Walcheren, in Greece, the Island of Ascension, etc., the fevers are often severe.

MacCulloch believed in malaria from a variety of sources: the surface of damp ground; stagnant waters, from the lake to the smallest pool; the dung-heaps and pools at the doors of farmhouses and cottages; from sewers and ditches; from the mud left by the recess of the tide, and at the mouth of rivers; marshy and swampy spots in low situations near woods and on roadsides, or small spots of coppice and brushwood in England. He mentions a case in the West Indies where a number of men were seized with fever from exposure to ground which, by the removal of boxes, was exposed to light and heat. From the mere *malaise* of disordered health which many people feel in certain localities that are damp and ill-ventilated, to the severest form of remittent, he ascribes them all to malaria. We are not wont to call it malaria unless it produce periodic fever, neuralgia, or cachexia; but we do find people recover from a depressed state of health on removal from a damp locality, and in this sense we may call the cause malaria; and the ill effects of such localities on persons who have previously, it may be long before, suffered from tropical fever, are common. I have seen cases, to whom each autumn brought back vague indefinite symptoms of malarial fever, or neuralgia, and rheumatism, restored to health by quitting the locality at that season. Lately, we read of malaria from flower-pots. I have heard of it from watering a flower-bed in India, and of an insidious disease arising from the presence of living plants in the hot damp air of rooms.

Malarial fever is the origin of most of the diseased conditions I have to deal with in connection with Indians who appear before me at the India Medical Board; but I occasionally see cases that present the same appearances, and, indeed, who suffer from periodic fever, who have never been in the tropics, and for whom it is not possible to find a malarial origin for the disease.

The existence of malaria as a particulate thing has not yet been demonstrated, and it is still asked if such a thing exist. It may be so; there are circumstances connected with its action which are difficult to reconcile with a parasitic origin; and, for the present, our attitude with respect to that view, much as we may wish that it should prove true, must be one of reserve; but who that has followed the progress of pathological investigation during the last quarter of a century would venture to assert that, in such researches as those of Pasteur, Burdon Sanderson, Lister, Greenfield, Koch, Klebs, Tommasi-Crudeli, and others, we may not find a complete solution of the problem?

[*To be continued.*]

DEATH AND DUTY.—We regret to have to record the recent death of Dr. J. T. Gadsby of Mansfield, who died from illness contracted during the performance of his professional duties. It appears, according to the *Nottinghamshire Guardian*, that some weeks ago a serious outbreak of diphtheria occurred at the Mansfield Workhouse, and Dr. Gadsby, as one of the medical officers, devoted much time and labour to prevent the spread of the infection, and to aid the distressed children. When the contagion was at its height, seventeen children and the schoolmistress of the house having caught the disease, Dr. Gadsby contracted the malady, and was obliged to relinquish active duties. He was promptly attended by Dr. Godfrey and Dr. Sparke, and diphtheria presented itself in a virulent form. Medical skill, however, proved unavailing, and he succumbed a fortnight from the date when he received the infection. Dr. Gadsby, who was an M.D. of the University of London, and formerly house-surgeon at Richmond (Surrey) Hospital, was only about thirty years of age, and his loss is keenly felt by a wide circle of friends.

THE GULSTONIAN LECTURES
ON
PULMONARY CAVITIES: THEIR ORIGIN, GROWTH, AND REPAIR.

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LECTURE II.—PART I.

AMONG the varieties of pulmonary consumption, enumerated in my last lecture, there is one which, in its history, differs so widely from the rest, that I have ventured to isolate its description from that of other forms. Whereas, in the ordinary cases, the earliest symptoms are trivial, and it is almost impossible to trace with accuracy the beginning of phthisis, in this variety the transition from health to disease is indicated by a striking landmark, never overlooked by the patient nor by the physician. The causal relation implied in the phrase "phthisis ab hæmoptoe" had been accepted from the days of Hippocrates down to modern times—as a self-evident truth, even more than as a dogma. It may be taken as no small proof of the scepticism of the nineteenth century, that Niemeyer's reassertion of so venerable a statement should have called forth so much astonishment, and so strong an opposition. To what extent Laënnec's teachings may have assisted towards this effect of novelty, I will not attempt to discuss. Laënnec's assumption of a tuberculosis preceding and causing hæmoptysis (see *Traité de l'Auscultation Médiate*, vol. i, page 646), reasserted with less reserve by some of his followers, remains to this day unproved, although the *onus probandi* rests with his, rather than with the more ancient, doctrine.

Daily experience teaches us that hæmorrhage forms no essential part of consumption; neither does phthisis invariably follow upon hæmoptysis. Of this, we are reminded by Niemeyer's first proposition: "Abundant bronchial hæmorrhage occurs very frequently, it is admitted, in such persons who are neither consumptive at the time of hæmorrhage, nor become so afterwards." (*Clinical Lectures on Pulmonary Consumption*, Sydenham Society's translation, page 38.) Could there be any clearer proof that, in a large number of cases, tuberculosis is not the prime factor in pulmonary consumption? On the other hand, the time-honoured tenet, "phthisis ab hæmoptoe", was not adopted by Niemeyer without an important modification. According to him, catarrhal pneumonia forms a necessary link between the hæmorrhage and the phthisis.

To Dr. Reginald E. Thompson belongs the credit of having taken up the subject at this point, and vigorously pushed forward its analytical study. Some of his conclusions so immediately concern the etiology of cavities, that they claim our attention; but, for a full account of his interesting views on the subject of hæmoptysis, I must refer you to his original paper in volume lxi of the Royal Medical and Chirurgical Society's *Transactions*, "On the Pathological Traces of Pulmonary Hæmorrhage," and to his work on *The Causes and Results of Pulmonary Hæmorrhage* (London, 1879). The term "hæmorrhagic phthisis", frequently used by clinical observers, is not free from the reproach of ambiguity. Hæmoptysis, even of recurrent type, occurs from three very different causes: 1. As the result of confirmed phthisis; 2. As an early complication of the congestive forms of the disease; 3. As an event not dependent upon pre-existing phthisis, but capable of producing the latter. The results in the three cases are equally divergent. The first variety of hæmoptysis, commonly due to pulmonary aneurysm, usually terminates in fatal hæmorrhage. The second, supervening in the midst of a pneumonic phthisis, almost invariably leads to serious exacerbations, and to a rapid breaking down. There can be little doubt that the third variety comprises the strictly hæmoptoic forms of consumption. According to Dr. R. E. Thompson, hæmophilia bears the responsibility of the hæmorrhage in a majority of these cases; and, if I understand him rightly, phthisis and excavation are events subsequent to the local disablement of the lung by the products of hæmorrhage. The stagnation of the residues of hæmoptysis had been mentioned by Morton and by Hoffmann; and Niemeyer had described their infiltration in the alveoli as a factor in catarrhal pneumonia. But Dr. Reginald E. Thompson was the first to emphasise that the worst results

are apt to ensue, not so much in the vicinity of, as at a distance from, the seat of the hæmorrhage, and in localities which are almost constant. These localities are roughly depicted in the annexed diagram, according to Dr. Thompson's description.

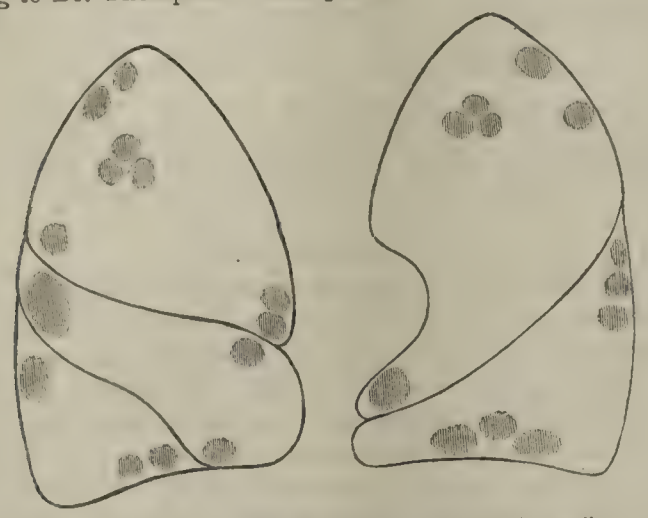


Fig. 1.—Usual situations of "Hæmorrhagic Deposits" (according to Dr. Reginald E. Thompson).

In profuse hæmoptysis, a single cough is insufficient to empty the air-passages; and the deep inspiration which follows draws into the bronchi a quantity of blood, which fills some of the lobules. Once in possession of the alveoli, the blood escapes the *vis a tergo* of expiration, and every inspiratory effort results in a deeper impaction of the clot. This blood, according to Dr. Thompson, never leaves the lung unless it be coughed up once more in the process of excavation.

It would carry me too far to attempt any detailed description of the resulting *hæmorrhagic nodules*, of their aspect, of their constitution, and of the puckering and pigmentation which they occasion. My present inquiry more specially concerns the subsequent fate of the nodules. The excavation to which they frequently give rise is slow to be established, but is rapidly carried through. The tolerance of the lung for solid residues of fibrin is a proof, according to Dr. R. E. Thompson, of the non-irritating quality of the blood; and the absence within the deposits of degeneration is due to the plug of fibrin which extends for some distance up the bronchus, effectually protecting the bulk of the deposit from contact with the air. Spontaneous breaking down occurs in the nodule whenever septic matter was originally mixed with the impacted blood; hence the disastrous effects of hæmoptysis in an incipient catarrhal pneumonia, especially if already softening. The blood inhaled under these circumstances leads to more of pneumonia, and to less of the consolidating fibrosis, than would have resulted in healthy tissue, and the masses are from the first marked out for disintegration. More usually the softening is secondary to the dislodgment or to the absorption of the protecting plug, or else to the progress of ulceration from a neighbouring cavity. In the more fortunate cases, the nodule, as elsewhere described, softens within its membranes; its contents may be coughed up, and the resulting vomica may undergo contraction. The stiffness, pigmentation, and the puckering of the limiting layer, which often sends out fine radiating striæ into the surrounding spongy tissue, for a long time, indicate the mode of origin of these cavities. At the time when excavation overtakes the deposit, the process of fibrosis is usually an accomplished event. As long as it remains confined within the limits of the capsule, the destructive process excites in the lung neither irritation nor reaction; but should the membrane, as too often happens, give way, the surrounding tissue, taken as it were by surprise, can offer no obstacle to a spread of the irritative pneumonia far beyond the limits of the original hæmorrhagic infiltration.

Should the nodule be seated at the periphery, the same insidious ulceration may attack the pleura. I believe this event to be a common cause of pneumothorax; and it should be noted that the posterior axillary region, where perforation of the lung frequently takes place, is also one of the situations pointed out by Dr. R. E. Thompson as most obnoxious to the inhalation of blood in hæmoptysis. The sternal region, which is especially liable to blood-nodules, is rarely the seat of perforating ulceration. I have observed, however, an instance in which perforation resulted in this situation; and, in another case, softening of a blood-nodule at the base was followed by the same event.

Cases in which hæmoptysis is followed by extensive and rapid softening probably possess a constitutional bias which intensifies the mechanical results which I have attempted to describe. They supplied Laënnec and his followers with a plausible argument in favour of a tuberculosis anterior to the hæmorrhage; but precisely in these cases I have observed relatively more of pneumonia than of tubercle; and their later history has closely resembled the march of ordinary pneumonic phthisis.

Tuberculosis, on the other hand, is the common mode of termination in those cases where hæmorrhage leads to chiefly local damage, just as it is the most frequent termination of other forms of chronic excavation. The constitutional element of phthisis is almost absent from their primary stages; the pulmonary changes which they suffer as the mechanical result of hæmoptysis are changes characteristic of healthy lung-tissue. With the recurrence of hæmorrhage, the lung becomes more and more disabled, and consumption may be finally established. But there is much in the earlier progress of the disease which is capable of a mechanical explanation; and, in a great measure, the phthisis may be viewed as incidental to the results of hæmoptysis.

With these cursory remarks I close the subject of the etiology of excavations; and I would invite you next to a study of the anatomical characters and of the functional peculiarities of pulmonary cavities.

The *shape* of vomicæ is generally given by the mode of their formation. They originate in deposits, which, being usually peripheral and situated around a bronchial termination as a centre, impart to the softening roughly a spherical outline; but their ultimate contour is governed by a variety of circumstances, especially by the extension of the inflammation in one or the other direction, and by the coalescence of outlying groups. This fortuitous element renders it impossible to point to any special variety in shape as being absolutely typical of cavities; and we cannot apply literally to them the statement of Rindfleisch, "that every space acted upon by uniform forces, either from within or from without, tends to a spherical shape." Even in their later stages, when the contraction which I shall have occasion to describe approximates their internal surfaces, the forces acting upon various points of their circumference are usually unequal. Pleural adhesions are a source of irregular traction. The persistence of bronchial connections favours shrinking in definite lines, and the influence of outlying consolidations further disturbs the even pressure of the spongy tissue by which they are surrounded.

A very different view of the shape of cavities is implied in Gerhardt's attempt to determine during life the longest diameter of a cavity by means of Helmholtz's resonators. This method might have led to better results, did cavities usually possess a simple outline and a smooth internal surface. Such is far from being the rule. Cavities are often traversed by trabeculæ; and they are commonly provided with irregular prolongations, which explain the failure of Gerhardt's ingenious device. A safer guide is to be found in a combination of the ordinary methods of auscultation with a careful regard to the anatomical relations, and to the average shape of cavities as observed after death.

Whilst admitting the great uncertainty of the shape of cavities, I am led to believe that, in definite districts of the lung, excavation roughly tends to assume definite development. Nowhere is this more apparent than in the pectoral region. Superficial cavities in this situation, if of sufficient size, invariably acquire a flattened condition in harmony with the bronchial distribution. Cavities at the apex proper are ovoid or rounded; in the mid-dorsal region, they are habitually spherical; but in all situations, whenever excavation increases largely, it tends more and more to assume the ultimate dimensions of the lobe affected.

More important than the inquiry into the shape of cavities is a determination of their *size*. When cavities approach the surface, this determination can be effected without much error; but it is rendered uncertain by the presence of an intervening layer of lung-tissue, whether spongy or consolidated. In the first case, the cavernous sounds are imperfectly transmitted; in the second, they are apt to be conducted beyond the excavated region. Thus it frequently happens that the cavity diagnosed is larger than the cavity discovered after death. On the other hand, cavities may be, and often are, underrated by the ear; putting aside the comparatively rare cases in which their detection is rendered impossible, owing to the occlusion of the corresponding bronchus. Our estimate of the size of vomicæ is further unsettled by the presence of trabeculæ and of secretion, which restrict the area of sound-production, or impair the sonorous vibrations.

It is no part of my present duty to point out the element of a correct clinical diagnosis. My object is simply to call attention to the great assistance which our practical conclusions would receive from a more accurate knowledge of the anatomical varieties of excavation.

It is customary, in describing cavities, to allude to the *trabeculæ* which they often contain. The absence of trabeculæ in cavities of recent date points to their having been produced from an extensive pneumonia, or from some equally destructive congestion affecting the whole area of excavation. In chronic cavities, the removal of tra-

beculæ is effected by a slow superficial necrosis, which I have described as never absent from the internal surface of cavities; it is hastened by all those circumstances which promote the necrotic process, and especially by maceration. As an instance of this last influence, I would point to the excavations situated at the posterior part of the upper lobe, and in the mid-dorsal region, where, owing to the supine posture, fluid secretions are apt to be retained for long periods. Anatomical peculiarities are in favour of a more extensive and of a more persistent trabeculation at the pectoral region than at other parts. In this situation, behind a tolerably shallow layer of spongy tissue, the main bronchial ramifications form a *pes anserinus* of considerable strength, and the larger divisions of the blood-vessels contribute greatly to the resisting power of the district. Thus the normal type of cavities in the pectoral region would be mainly trabecular; the normal type at the apex proper, and especially at the posterior apex, where the bronchial and vascular supply is terminal, mainly the non-trabecular form.

In size and in aspect, trabeculæ differ widely. They may form bands of substantial thickness, or mere cylindrical cords; and they are liable to present every degree of ulceration, but they all agree in possessing a lining similar to that belonging to the cavity. Their destruction usually proceeds with the greatest activity at the point furthest removed from their attachments; and, when disruption has finally occurred, the divided stumps gradually waste and disappear.

The sudden rupture of a trabecula under the influence of strain is probably of less uncommon occurrence than is generally suspected. Dr. Douglas Powell narrates a case of this nature in which the physical signs enabled him to recognise, during life, this event, which was subsequently confirmed by the necropsy.

The exact nature of trabeculæ has been the subject of some divergence of opinion even among competent observers, a circumstance which I am at a loss to understand. By some, the vascular nature of trabeculæ is upheld; and it cannot be denied that blood-vessels often constitute the only bond of connection between the opposite parietes of a large cavity. This is, indeed, the usual appearance presented by completed excavations, due to caseous pneumonia. But the smooth surface, the tough yellowish aspect, closely resembling in colour and consistency the fibro-elastic coat of a large artery, and the mode of branching special to the blood-vessels, constitute as many unmistakable features, which render impossible a confusion between the latter and trabeculæ proper. Trabeculæ have too often been stated to consist of bronchial tubes. From a large number of observations, I am able to affirm that patent bronchi very rarely, if ever, enter into their composition. I cannot recall more than one instance of a bronchus traversing a cavity of some magnitude, and even in this case the tube was the seat of incipient ulceration. With Dr. D. J. Hamilton's opinion that trabeculæ are the remains of interlobular septa, I can partially agree. I am familiar with a form of pulmonary liquefaction in which the lobules are completely dissected; here, neither tubercular fibrosis nor inflammatory thickening of the tissue obscure the simplicity of the pathological process, which is one of moist necrosis. The remarkable honey-combed condition which results is, however, far from being typical of what is usually understood by a trabeculated excavation. In the formation of the ordinary trabecula, the fibrous tissue of the interlobular septum undoubtedly constitutes an element of resistance; but the position of trabeculæ is mainly determined by the blood-vessels, and especially by the bronchial tubes. As pointed out by Dr. D. J. Hamilton, trabeculæ commonly are inserted into the side of a bronchus. If the bronchial tube which appears to enter a trabecula be carefully probed, the instrument introduced at the bronchus cannot be made to pervade the trabecula, but issues immediately in a direction parallel to it, clearly showing that the tube has been gutted. In earlier stages, the bronchial tube presents a series of fenestrations in which we readily recognise the orifices of ulcerated bronchioles. The larger air-tubes are gradually overtaken by the same ulceration, but the peribronchial sheath, with its vessels, remains an important constituent of the trabecula, and assists, in no small degree, in its conversion into fibroid tissue.

I have placed before you drawings and diagrams of trabeculæ both in longitudinal and in transverse section, demonstrating the partly alveolar nature of their structure. The sections exhibit the following component parts: 1. Blood-vessels usually contracted and thickened, and occasionally obliterated; 2. A layer of spongy substance always much collapsed; 3. Fibrous elements such as normally belong to the peribronchial sheath; 4. A false membrane analogous to that which lines the cavities. If I understand rightly the mechanism and the formation of trabeculæ, the latter are but bridges of pulmonary tissue which originally separated distinct cavities, and had escaped the influence of the disease until deprived of their air-supply by the laying open of their bronchi. The collapse of the alveolar tissue, and its transformation into a compact layer, tightly fitted around a branch of the pulmonary artery as an axis, are nothing more than late consequences of the bronchial ulceration.

New vessels, often of considerable size, are abundantly developed in connection with inflammatory changes in the trabecula; but, of the original structures, the only one preserving functional activity is the artery. In this fact consists one of the chief uses, as well as one of the main dangers, special to trabeculæ. The trabecula remains for a considerable time the chief source of nutrition for the segment of lung-tissue into which it is inserted. As long as blood flows to the periphery through the trabecular artery, some risk of hæmorrhage may be said to exist. But, practically speaking, bleeding very seldom occurs from these vessels, which remain well protected by a layer of collapsed alveoli, until finally overtaken by obliteration. Aneurysm is remarkably more frequent in arteries of the wall than in those crossing the cavities. Sooner or later, the lumen of the trabecular vessels lessens in proportion to the contraction and to the thickening of their walls, and finally it disappears.

In their ultimate shape, trabeculæ may be said to consist largely of elastic elements, namely, collapsed alveoli and vascular membranes. The importance of this fact will become apparent when I describe the mechanism of the contraction of cavities, and will afford some excuse for the development which I have given to this part of my subject.

Concerning the *blood-vessels* which traverse cavities, I need add but little to what I have incidentally stated. In the moister varieties of phthisis, the bronchial and pulmonary divisions are carried away with the general softening; but where fibroid change is active, they survive for a time, and partake in the fibrosis. Of this we have seen a striking instance in caseous pneumonia. In transverse sections of trabeculæ, it is often possible to recognise the blood-vessels belonging to various systems. In the drawings and in the diagrams, which I owe to the skill of Mr. Arthur Grayling, house-surgeon to the Belgrave Hospital for Children, you will notice, in addition to numerous thin-walled and distended vessels of new formation, a central cluster of large blood-vessels undergoing degenerative thickening. The pulmonary artery, the pulmonary veins, and a branch of the bronchial artery, all come into view; and in this instance, the trabeculæ contains in addition, by the side of a lymphatic duct, a smaller bronchial tube completely obliterated by cell-growth. Among these vessels, it will suffice for the present specially to consider the most important—the pulmonary artery.

When finally laid bare by gradual removal of the condensed spongy tissue, the surface of the artery becomes an excellent indicator of the slow destruction which incessantly proceeds within cavities. This secondary ulceration of the blood-vessels constitutes the real danger of hæmorrhage. It was pointed out by Dr. Douglas Powell in his book *On Consumption* (2nd edition, 1878, page 74) that the fibrotic cavities of old standing are most likely to develop aneurysm, and that aneurysm is more especially found on the exposed side of vesseis which are partly buried in indurated tissues. I have often verified the correctness of this observation. For the fact itself, the following appears to me to be a satisfactory explanation. Owing to their persistent connection with living lung-substance, the flow of blood within the vessels in question suffers no diminution; but, inasmuch as, in the segment of their wall which is sunk in fibrous tissue, absolute rigidity has taken the place of the elasticity natural to the vascular membranes, the blood-pressure is entirely thrown upon the exposed segments, which are ill nourished and weak. The tendency to bulging once established, becomes progressive. If the cavity be small, its limits may be reached by the vascular membrane, and the danger of rupture averted. The cavity then becomes a blood-space, in which opportunities are afforded for coagulation. Obliteration of an aneurysm may also ensue, as originally pointed out by Rokitansky, even after rupture, from the lateral pressure of the blood effused into the cavity, provided the bronchial orifice be temporarily obstructed, or naturally so small as to be unable to allow the blood to escape before the occurrence of coagulation. Most usually the cavities are too large to render possible either of these events, and, after repeated premonitory hæmorrhages, the final burst occurs with irresistible violence.

A description of those vessels which do not traverse the cavity, but are distributed to its walls, must be deferred until my next lecture; and I will pass at once to the consideration of the relations of *bronchi* to vomicæ. As long as the excavation is lobular, the conditions are simple, the vomica is terminal to a single bronchiole. This lobular stage is extremely transient; in most cases, the destruction attacks from the first or in rapid succession several groups of lobules; and the good-sized trabeculated cavity which results intersects the path of numerous air-tubes.

It may be accepted as an invariable rule that all non-cartilaginous bronchi are destroyed at an early date of the excavation; but the same fate sooner or later awaits the larger branches. The difference in the

resisting power of the two sets of bronchi may be plainly seen in cavities which occur in the mammary region near the root of the lung. The larger bronchial divisions which commonly project into these cavities are cleared of all their smaller branches, and in this denuded state they closely resemble the heavier roots of a tree torn up from the soil.

The mechanism of the destruction of the bronchi throws much light on the pathology of the pulmonary changes. Let us follow the course of an ordinary bronchus of the third order passing through an early excavation. The bronchioles formerly distributed to the excavated region, are represented by simple perforations resembling the holes in a surgical drainage-tube. These perforations impair the air-conducting function from the first; but, gradually enlarging at the expense of the bronchial wall, they lead to its ultimate destruction. Inasmuch as the proximal perforation (that nearest the trachea) is swept by a more powerful draught, it is apt to suffer earlier and more severely than the more distal perforations, which are not reached by the air-currents until the latter are attenuated by the first leakage; it follows that a bronchus will give way at a point in the cavity nearest the root of the lung, and this in reality happens with great regularity. The ultimate removal of the remains of the bronchial tube is merely a matter of time. As the cavities acquire extension, the same process is repeated in the case of bronchi of a higher order, until the presence of strong cartilages delays for a while the advance of the ulceration. The stumps of the larger bronchi, when denuded, usually present a terminal perforation, which acts much in the capacity of the eye of a catheter; but here also the ulceration of the orifice of a bronchiole ultimately taps the tube at the level of the cavity-wall.

The foregoing remarks explain the oft-quoted experiment of M. de Castelnau, who, by injecting water through the trachea, demonstrated the multiplicity of the orifices leading into cavities. With the progress of excavation, this multiplicity tends to lessen, every successive ulceration cutting off a fresh bronchial set, until ultimately the cavity may empty itself into the lobar bronchus.

The completeness with which a cavity may be drained greatly depends, not only upon the position, but upon the size of the bronchial orifice. I have often found the aperture of outlet to be out of all proportion with the size of the vomica, fibrosis and contraction having taken place in the peribronchial sheath. Where two or more large bronchial divisions terminate in the same cavity, this contraction is invariably more advanced in the upper branches, which have comparatively little work to perform. In the contraction of the bronchial orifices, we find an explanation for the great difficulty attending the expectoration of the contents of very chronic vomicæ. The patients are struggling with mechanical disadvantages which no medical treatment can wholly remove.

The changes which I have described as occurring at the proximal side of cavities proceed likewise, although less rapidly, at its distal aspect. As a late result, the fibrosis extending from the cavity-wall and the cell-proliferation special to the mucous membrane leads to an obliteration of all air-tubes not actively in use; but, during the interval which precedes this occlusion, the distal segments of numerous smaller bronchi take their origin, as it were, from the cavity; any air they may obtain is derived from the vomica, and contaminated with its impurities. This is a fertile source of secondary infection for the surrounding spongy tissue. More favourable in this respect are the cases where the interruption of the bronchial air-current has led to a collapse of the corresponding respiratory district. Excavation, in this instance, put a stop to its own progress by surrounding itself with a zone of compressed tissue more prone to fibrosis than to inflammation.

The contents of vomicæ possess for the physician considerable practical interest. In the early stages of cavities, it is usual to find within them structural traces of the tissues whose removal has led to excavation, sodden epithelia, fragments of fibrous and elastic tissue, and the products of simple and of tubercular inflammation, mixed with a large proportion of mucus, all in various degrees of degeneration. If the softening be of the moist type, these *débris* will be shed into the vomica very gradually, and it will be difficult to find either in the sputum, or, after death, in the cavern, any recognisable masses of pulmonary texture. Louis, however, has recorded the discovery within a vomica of a detached piece of spongy tissue; and, more recently, in a case of pulmonary gummata, masses of pulmonary tissue invaded by syphilitic cell-growth were repeatedly recognised in the sputum by Cube. But in caseous pneumonia and in gangrene, the rule is for sphaceli to become detached and expectorated. The heavy blocks which occasionally are loosened in caseous pneumonia from the undermined cavity-wall, constitute a tolerably common *post mortem* object. During life, their size may prevent their removal through the bronchi, but they are placed in a favourable position for rapid dismemberment, and their smaller fragments are readily expectorated.

More or less suppuration always accompanies the discharge of the products of disintegration, and persists for a time in the fully cleared vomica; but, sooner or later, the pyogenic energy of the internal surface becomes exhausted. The patches of bronchial membrane, by which mucus was secreted, gradually become absorbed, and secretions, if present, are more watery. Hence it has been correctly observed by Lebert that, the older a cavity, the more fluid are its contents.

In proportion as the walls of the cavity become rigid from fibrosis, and the bronchial orifice less patent, the secretion is with greater difficulty expelled; that the latter should become somewhat offensive, is nothing more than we would expect. More habitually, however, we are astonished to find that septic decomposition is almost entirely absent from the contents of vomicæ in phthisis. Perhaps the free currents of air, set up by periodical expectoration, even in cavities which, from the rigidity of their walls, possess but a sluggish respiratory traffic, may have the effect of washing the effete products, and of supplying more oxygen than is favourable to the growth of micro-organisms. As a broad fact, it may be stated that the contents are preserved from putrefaction in proportion to their free communication with the outer air. This, however, should be understood to apply strictly to phthisical excavations. Decomposition within the cavities is a characteristic feature both of bronchiectasis and of gangrene; in both oxygen exerts its influence upon organic matter, of complex chemical constitution, in the presence of abundant moisture. In gangrene, the decomposition may receive a natural termination in the removal of the offending matter. In bronchiectasis, on the other hand, fresh pabulum is perpetually added to the decomposing mass, which largely consists of mucin—a substance, in its moist form, unusually prone to decay. Hence the mucous fermentation and the acid reaction often present in bronchiectatic sputa, which in this respect contrast with the ammoniacal decomposition special to gangrene. Phthisical cavities are almost as free from the one as from the other form of decomposition. Mucus is only secreted in minimal quantities by the surviving shreds of mucous membrane, and true gangrenous action is entirely absent. Chemical metamorphosis has taken place in the comparatively dry state, at the inner surface of the capsule; and its products, both morphologically and in respect of their chemical constitution, have reached so low a standard as to afford little room for further degeneration. However, the innocuous character of the contents of the cavity has its limits. The secretions, in chronic phthisis, are apt to become offensive in a measure as their expectoration is rendered more difficult; and, after death, the cavities may be found to contain horribly fœtid fluid. This condition I have often noticed in the larger vomicæ of fibro-tubercular lungs, where the walls become rigid, and the bronchial orifice is considerably reduced in size. Whilst fully admitting the influence of stagnation in promoting septic changes in the secretions of phthisis, we must recognise that septic action does not appear spontaneously to originate within the cavities, but is usually dependent upon some infection introduced from without.

ENDOWMENT OF RESEARCH.—It is announced that the Lords of the Treasury propose to allot a sum of £4,000 in continuation of the endowment of research. The £1,000 fund, heretofore known as the "Government Grant," will cease to exist in a separate form. Applications for grants are to be sent in by the last day of the present month.

THE POLLUTION OF THE THAMES.—A meeting of the committee for the Protection of the Lower Thames from Sewage was recently held in the Cannon Street Hotel. Professor Thorold Rogers, M.P., presided. The chairman mentioned, as an evidence of the growing magnitude of the evil, that the daily discharge of sewage from the Metropolitan area was 180,000,000 gallons.—Mr. Bennock, director of the London Steamboat Company, said this meant the precipitation of about 300,000 tons of solid matter yearly in the bed and on the banks of the river. He moved:—"That in the opinion of this committee, a Royal Commission should be appointed, or a Parliamentary inquiry instituted, for investigation of the present state of pollution of the River Thames from sewage, and the means to be taken to remedy this alarming and growing evil." Mr. Hinton, Master of the Waterman's Company, who seconded the resolution, described the prejudicial effects which the state of the river had on the watermen; and Captain Gillet, of the *Warspite*, who supported the resolution, described the Thames as a common sewer. The resolution was unanimously passed. On the motion of Lord H. Lennox, it was resolved to appoint an executive committee to take the necessary steps to give effect to the first resolution, and to adopt such other measures as they might think desirable in furtherance of the object in view. The executive committee was then appointed including Lord Henry Lennox, M.P., and Viscount Lewisham, M.P.

ABSTRACT OF LECTURES
ON THE
MORPHOLOGY OF THE MAMMALIAN SKULL.

Delivered at the Royal College of Surgeons of England.

By W. K. PARKER, F.R.S.,
Hunterian Professor of Anatomy in the College.

LECTURE V.—THE CHANGES UNDERGONE BY THE ENDOCRANIUM: *a*. THE MEMBRANOCRANIUM; *b*. THE CHONDROCRANIUM; *c*. THE CHONDROSTOCRANIUM; *d*. THE OSTEOCRANIUM.

IN its first condition, the cerebral capsule is composed of indifferent tissue, or embryonic cartilage, and is spoken of as the *membranocranium*. A layer of this same kind of tissue, which will give rise to the dura mater, is formed around the cerebral mass immediately inside the membranocranium proper, and this is continuous with the membranous sheath or *theca vertebralis* of the spinal cord; this layer undergoes no further change than development into a very dense fibrous tissue.

After embryonic or larval life, no existing vertebrate *(Craniata)* has an entirely membranous cranium, but in nearly all the types certain tracts continue membranous for a considerable time, and are never replaced by proper cartilage; at most, they become converted directly from membrane into bone.

The cranium which permanently retains the membranous condition in the greatest proportion is met with in the Myxinoids, in which group it combines the characters of membrano- and chondro-cranium. It forms a shallow trough of cartilage, the bottom of which is very imperfectly closed with soft cartilage; the hard sides of the trough are not differentiated from the upper parts of the face. Thus half the floor, nearly all the sides, and the whole of the roof are membranous.

A still more simple condition than this is found for a time in the larval lamprey, when the trabeculæ are the only cartilaginous parts of the cranium; these meet together behind the nasal sac, but leave a large membranous fontanelle below, the sides and roof being also membranous. Immediately after transformation, the floor of the skull becomes filled in by a cartilage similar to that in the Myxinoids, and gradually side-walls and even a partial roof are formed. The side-walls correspond to the exoccipital, alisphenoidal, orbitosphenoidal, and lateral ethmoidal regions. A nearly perfect tegmen is formed over the postsphenoidal region; this is too far forward to be considered the homologue of the very constant occipital arch. In this type, the upper parts of the face are not differentiated from the basis cranii, the anterior part of which is continued forwards, under and in front of the nasal capsule, as a large shield-shaped plate, emarginate in front (the posterior dorsal cartilage). All this cranial structure, except the very feeble hinder part of the parachordals, is composed of hard cartilage.

The chondrocranium of the larval frog resembles so closely that of the lamprey, that it is best studied before passing to the fishes proper. In the tadpole, the cartilage is of the ordinary hyaline kind, neither so hard as the lateral parts of the basis cranii of Myxine, nor so soft as its partial floor. In this case also, the floor before ossification is partial, the space between the trabeculæ being imperfect behind. In the occipital region, the two halves are separated by the notochord, which, in the larger tadpoles at least, is invested with a peculiar form of cartilage. The floor is greatly extended under the auditory capsules, but the roof and upper part of the side-walls are entirely membranous. The emarginate front part of the skull (cornua trabeculæ) is as solid as the rest, and the suspensorium is continuous with the basis cranii before and behind.

The perfect chondrocranium of the larval Urodele is also extremely like that of a lamprey, with this difference—viz., that the large prochordal floor is permanently membranous from the notochord to the ethmoid. The intertrabecula, which is present in the forms just described, is here absent permanently. The side-walls extend but little way; the roof is only present behind, and does not belong to the posterior sphenoid, as in the lamprey, but to the occipital arch, as in the anurous larvæ. The parachordals are two separate cartilages, embracing the membranous elastic sheath of the notochord. The chondrocranium is continuous with the upper part of the suspensorium—an acquired character; but there is no direct connection with it in the ethmoidal region.

These chondrocrania have not, in the stages just described, any calcification in the cartilage. The Selachians, however, have their permanent chondrocranium largely calcified over the surface. The lowest form of Elasmobranch chondrocranium is that of the Chimæroids; their extremely solid skull, which has a cartilaginous tegmen and floor, and an anterior fontanelle, shows a continuity of the basi-cranial region with the large suspensorium of the mandible. But in the sharks and skates, including Cestracion and Notidanus, the suspensorium is quite free from the skull, which forms in sharks an extremely perfect box composed of solid hyaline cartilage, which after a time becomes calcified on its outer surface in tesseræ. There is a fontanelle in sharks in front of the large tegmen cranii; but in some cases its position is almost entirely in front of the proper cranial cavity. In skates, two fontanelles are formed on the upper surface.

The chondrocranium of the Dipnoi is formed on the same pattern as that of the Chimæroids, but does not persist absolutely as cartilage, some bone being formed behind.

Above these types, the lower Ganoids, such as the sturgeon, have an extremely solid chondrocranium—far more solid and massive than that of a shark, and without any calcification or proper cranial fontanelle.

The chondrocranium of the bony Ganoids and Teleostei only persists as such for a very short time; but the membranous spaces formed in it are of great interest. In these types, there is a considerable cartilaginous tegmen formed, but independently of the side-walls, so that the orbital space is often largely membranous.

The chondrocranium of the Amniota also remains as such for a short time only; it is constructed in the same manner as in the Anamniota, but generally becomes converted into very perfect cartilage before ossification, and retains one large membranous fontanelle over the anterior and posterior sphenoidal regions.

In the suctorial fishes, there is no bony matter protecting the chondrocranium; but in the larvæ of amphibia the primordial skull is soon converted into what may be called a *chondrostocranium*. Superficial bones very early appear in immediate contact with the chondrocranium. The most important of these are the parasphenoid below and the fronto-parietals above. These are quickly followed by the cartilage-bones which appear, strengthening the nerve-outlets; yet each ossification is not confined strictly to one pair of nerves. About this time, the surface-cells of the cartilage in many places become calcified, not in tesseræ, as in the Selachians, but in large irregular patches. In certain places, this passes rapidly into true bone, in the formation of which the perichondrium takes a share. There is no finished floor or roof of bone in the occiput of Amphibia, nor, indeed, in any part of the median line of the skull-base; but outside the emerging glossopharyngeal and vagus nerves, a crescentic tract of bone is formed on each side, the two almost meeting below and above, and giving rise to the exoccipitals; these ossify much of the auditory capsules, in front of which the pro-otics appear related to the fifth and seventh nerves. Outside the emerging olfactory nerves, another pair of centres appear; these belong both to the ethmoidal and to the anterior sphenoidal regions, and in the Anura they soon coalesce to form the girdle-bone or sphenethmoid, but remain separate in Urodeles.

In the Holostean Ganoids and osseous fishes, similar bones appear; but the ossifying sheath of the notochord is more perfectly developed than in any of the amphibia, and forms the exoccipitals. In the Teleostei, a supra-occipital is also formed, and in some species a basi-occipital also.

In the cold-blooded Sauropsida, the ossifications of the skull begin to take on more and more the characters with which we are familiar in the Mammalia; but the fore part of the cranium is to a large extent cartilaginous. The superficial bones also begin to acquire characters similar to those in the hot-blooded types.

In Birds, the development of the centres, both in cartilage and membrane, is very similar to that which is seen in the types below them; but, in their rapid growth, all distinction between cartilage and membrane bones is soon lost, and every suture in the cranium proper becomes obliterated in the highest types. Hence this skull, as well as that of mammals, may be spoken of as an *osteocranium*. In all Sauropsida, the ossifications of the auditory capsules are quite independent from those of the chondrocranium.

In the Mammalia, the development is after the same manner; but, as a rule, the bones formed in membrane retain their distinctness, whilst the centres that begin in cartilage are very apt to be fused together. The floor, sides, and roof all become converted into true bone.

RECTAL ALIMENTATION.

By W. JOSEPH TYSON, M.D., F.R.C.S.Eng., Folkestone.

IT seems somewhat strange, considering the frequency of those cases in which no food can be retained by the stomach, that more attention has not been paid to the introduction of aliment by the rectum. To show how little this method of feeding is valued, I quote the following paragraph from Wood's well-known treatise on *Therapeutics* (second edition): "The solvent influence of the rectal juices is practically nothing, and formerly the attempt was made to supplement this complete lack of power by the use of soups. It is evident that very little nutriment can be introduced into the system by such a plan; and, consequently, feeding by the rectum has hitherto been a forlorn hope, and has accomplished little good." Here, I take it, the author is speaking of unpeptonised injections of food; but, even if this be so, cases are far too numerous, in which patients have been kept alive by ordinary beef-tea enemata, to allow such a sweeping assertion as the above to pass unchallenged. As one example of good resulting from rectal feeding, the following case is instructive. A. B., aged thirty years, had sickness, which commenced soon after she became pregnant the first time; for eleven weeks, she was fed by beef-tea enemata, a wineglassful being injected every three hours. Nothing was retained by the stomach during the whole time. Subcutaneous injections of morphia were given continuously to allay the constant retchings. At the end of eleven weeks' stomach fasting, premature labour was brought on, because of the serious condition of the patient; upon this, the vomiting ceased.

It must be admitted that many practitioners, even now, so disbelieve in rectal feeding as rarely, or ever, to adopt it; but I trust, with the valuable digestives which we at present possess, that the above mode of feeding will be increasingly had recourse to—not only in those cases where it is used simply to prevent starvation, but as a method of relief, or even cure, in many affections of the stomach and bowel.

In dealing with this subject, there are two things which, I think, are often overlooked, and yet have materially to do with it. The first is the length of time a patient is able to live without food; and the second, the slowness or even absence of wasting which occurs in many cases of chronic vomiting. As regards the first, it has commonly been said that, after a fast of from eight to ten days, a person dies. This statement is doubtless true in some cases; but I am convinced, with our modern experience, that in many others it is not. What the exact period is it is impossible to say; it depends upon many circumstances. A certain condition of the nervous system seems to be essential to enable the body to endure a lengthened starvation; and, when we consider that this condition is almost invariably associated with rest in bed to all the locomotor organs, with little or no brain-work carried on, and the temperature maintained to a great extent by the bedclothes, it is scarcely conceivable how little nourishment is needed to keep body and soul together. As regards the second point—the little wasting which goes on in many cases of chronic vomiting—it is explained either by the food not being rejected *in toto*, or by a portion of the food being absorbed before vomiting comes on.

I may also mention, in passing, that the mouth itself is capable of a certain amount of absorption; and, though this mode of food administration is not frequently adopted, it must not altogether be forgotten. But, even after the above have been fairly considered, there is still sufficient evidence to show unequivocally the life-retaining property of the rectum.

Dr. Bowles informs me of a case of gastric ulcer, under the care of Dr. Hermann Weber, at the German Hospital, which was fed for one month on Darby's peptonised fluid-meat only *per rectum;* at the end of one month, the patient had gained one pound in weight.

Before going on to speak of the cases which require rectal feeding, the preparations of food which have been and those which are used at present, it will be well to say something about the anatomy of the rectum, the theory of absorption, as well as the best mode of administering an enema.

1. *Anatomically*, the rectum is not ill-suited for the purpose of feeding. It is extremely well supplied with blood-vessels, which have a most free anastomosis; in fact, its mucous membrane is thicker and more vascular than that of any other part of the large intestine. Lymphatics of a large size are found here; and Mr. Wadham, late physiological assistant at St. George's Hospital, tells me that he has found several small solitary glands in this part of the bowel. Towards the anus, the secretory apparatus gradually disappears. At the lower part of the rectum, about an inch from the anus, there is a dilatation of the bowel—this dilatation being of considerable use for the lodgment of food; and, lastly, the anus itself, although it fails in its duty in some cases, yet in very many others acts effectually as a sphincter, much in the same way as the sphincter at the cardiac or the pyloric end of the stomach.

2. With respect to *absorption*, it has been said that substances known as colloids, such as albumen, gelatin, starch, etc., cannot pass into the system until they are converted into crystalloids; and, as this change has been supposed not to take place in the rectum, the giving of enemata containing colloids, such as beef-tea, eggs, etc., has little or no nourishing effect upon the body; and the brandy, which is frequently added, only tends more to increase the colloid properties of the aforementioned foods, and therefore to render still more nugatory the use of these enemata. Graham supposes the coats of the stomach to dialyse the food during digestion, absorbing the crystalloids and rejecting the colloids—an action favoured by the thick coating of mucus which generally lines the stomach; but Miller, after having quoted the above paragraph, goes on to say that "this suggestion probably requires some limitation—otherwise starch, gelatine, and other colloids, unless previously converted into crystalloids, would be wholly unabsorbed after they had been swallowed". The starch, as far as the stomach is concerned, is converted into a crystalloid by the saliva; and the starch which escapes being made dialysable in the mouth is made so in the duodenum by the action of the pancreatic juice. This is the reason, probably, why sugar has been recommended to be added to nutrient enemata. Whether the rectum has the power of changing colloids into crystalloids, is perhaps doubtful; but results which have and do now follow the use of alimentation by the bowel, are too evident to leave any doubt that the rectum possesses properties by which nutrient injections, if not wholly absorbed, are certainly partially so.

It has been suggested that the secreted intestinal juices which descend from above may dissolve a considerable amount of starch and animal fibre; and lately a theory has been put forward, that the contents of an enema are carried from the rectum to the upper intestinal tract, where digestion and absorption actively takes place; but, as digested meals can now be given to the rectum to a great extent, there will be little need for the rectum, as well as perhaps other portions of the bowel, to act the part of a stomach.

3. *The operation of administering an enema* requires to be carefully and skilfully done. Anyone who has given these injections by means of the ordinary ball-syringe, must have felt the inconvenience of this, the usual mode of procedure. If the ball be not quite full, air will probably be injected into the rectum, to the annoyance of the patient; and, even when the ball is full, great care must be exercised not to spill any of its contents on the bed. The best mode is to take a piece of India-rubber tubing, two or three feet long. At one extremity fix a small piece of bone, resembling that which is attached to an ordinary Higginson's syringe; to the other end of the tubing attach a funnel. When the injection is to be used, the patient is placed on his side, the bone extremity of the apparatus oiled, and placed into the bowel, the other end raised, and the prepared enema is now poured into the funnel, and runs easily and comfortably into the rectum; the rate of progress can be increased or diminished according as the funnel is raised or lowered, or the food can be arrested at any time altogether by just nipping the tube below the funnel by the fingers of the hand holding it.* If this apparatus be not at hand, a Higginson's syringe is the next best thing. I need hardly say that the rectum should be empty when a nutrient injection is to be given.

4. *In what cases should recourse be had to rectal feeding?* I would recommend it in all cases where obstinate and constant vomiting has existed for four days, or even before; of course, if the cause be a removable one, this should be attended to at once. Then there are a large number of cases in which rectal alimentation might be used beneficially as a means of treatment or even cure; such as painful diseases of the stomach, including gastric ulcer, cancer, dilatation, or, again, in some affections of the bowel.

5. *Composition of Nutrient Enemata.*—Hot water can scarcely be regarded as a food; yet, in some cases of collapse, the injection of it, about the temperature of the blood, might very reasonably be given. In many conditions of partial stoppage of the circulation, an addition to the volume of the blood has been successful, at least temporarily, in re-establishing the action of the heart.

Nutrient enemata have been in the past, and are often now, made with beef-tea, milk, the yolk of an egg, and a little brandy, either separately or combined; in bulk not exceeding three ounces, and given every two, four, or six hours, according to the exigencies of the case. Although the above have done good, their value has been enhanced

* To prevent air from entering the rectum, the tubing can be "clipped", either by a spring or the fingers, close to the bone extremity, whilst the food is being poured into the funnel.

since the introduction of artificial digestives. Pepsine, in its various forms, and hydrochloric acid, were long used in stomach digestion, before their value was recognised in rectal alimentation. Pepsine is now very much replaced by the preparations of pancreatine, the latter possessing the double power of acting on proteids as well as on starch. The two ferments which have the property of changing the proteids into peptones, and the starch into sugar, are called respectively proteolytic and diastatic; and, on account of this double property of pancreas, the preparations of the latter have come very much into vogue.

Two preparations of pancreas for rectal use have been made—one by Dr. Leube, and the other by Dr. Horace Dobell. In the former, one part of finely minced pancreas is mixed with three parts of scraped meat, adding warm water sufficient to make a small injection, and sometimes a slight proportion of fat. Dr. Leube found, by experiments on dogs, that a considerable amount of nitrogen was thus consumed by the body. In the second preparation, a fourth of a pound of cooked beef or mutton is finely grated, to which are added twenty grains of pancreatic powder, and twenty grains of pepsine (pig's); the whole is mixed in a warm mortar quickly, and one tablespoonful of brandy, and enough warm water to bring the mixture to the consistency of treacle, are added, this is injected as quickly as possible after the mixture has been made.

I think that the best pancreatic preparation, and certainly the one most easily tried, is that known as liquor pancreaticus (Benger), strongly recommended by Dr. W. Roberts of Manchester, in his Lumleian Lectures of 1880, "On the Digestive Ferments and the Preparations and Use of Artificially Digested Food". Speaking of the giving of food by the rectum, Dr. Roberts says: "The enema may be prepared in the usual way, with milk-gruel and beef-tea, and a dessertspoonful of liquor pancreaticus should be added just before administration. In the warm temperature of the bowel, the ferments find a favourable medium for their action on the nutritive materials with which they are mixed, and there is no acid secretion to interfere with the completion of the digestive process." Thus, in one thing the rectum possesses an advantage in the use of this preparation over the stomach, in the absence of any acid to interfere with the full action of the pancreatic ferments. In giving these enemata, they should be made of milk, or milk with beef-tea, or of milk-gruel. To a half a pint of the warm enema, a tablespoonful of liquor pancreaticus and half a teaspoonful of bicarbonate of soda should be added. About three ounces of this mixture should be injected every two, four, or six hours, as the case requires.

In a communication to the BRITISH MEDICAL JOURNAL of February 19th, 1881, a nutrient suppository is recommended by Mr. Spencer of York in cases where the nutrient enema would otherwise be used. The suppository is about the size and shape of the old-fashion bullets; it is made of peptonised beef. Mr. Spencer speaks well of its use; but I think some more experience is necessary to test its comparative value. Its obvious gain is the ease with which it can be introduced into the bowel, causing no trouble to either patient or nurse; but a drawback is likely to arise from the solidity of the preparation, the rectum being supposed not to take up food readily in this way. I have used the suppository in one case, and recommended it in another; in the latter, I believe, with fair results. It would seem that the cacao-butter with which Mr. Slinger (the chemist who made them at the suggestion of Mr. Spencer) covered the suppositories, is rather detrimental than beneficial, as opposing somewhat the liquefaction of the meat. Mr. Martindale, of New Cavendish Street, London, made some for me, simply oiling the exterior, and adding to each suppository a fourth of a grain of acetate of morphia; in this form, I found them better retained, and apparently more quickly dissolved. Lastly, enemata of blood have been recommended, and in some cases successfully tried. They were first suggested by Dr. Andrew H. Smith of New York; he found that, when blood was administered *per rectum*, both corpuscles and serum were absorbed. Three or four ounces of defibrinated blood having been injected into the rectum at night, no trace was found in the evacuations the next morning. Ox's blood has generally been employed. It must be fresh and defibrinated before use, and two or three ounces may be injected every two or three hours; but, if there be any stomach-digestion going on, it may be less frequently used. In order that there may be no delay in its use, it can be obtained already prepared, concentrated and preserved in tins. To prepare the injection, the concentrated blood is dropped into the warm fluid to make the enema, a fluid drachm representing a fluid ounce of ordinary blood. The cases so treated have been recorded by Dr. Smith, Dr. Hanks, and Dr. F. W. Brown in America, and Dr. A. Ernest Sansom in this country; they have been those of gastric ulcer, severe uterine hæmorrhage, diphtherit paralysis in a child, pulmonary phthisis, anæmia, and a few others. The success so far attending this novel mode of treatment is certainly sufficient to encourage an extended trial.

In this paper, I have purposely avoided the subject of using the rectum medicinally; yet, surely, the bowel might be more profitably used in this way than at present. We know the great value of administering morphia by the bowel; and there is every reason to believe that other medicines, used in suitable cases, would have an equally good effect.

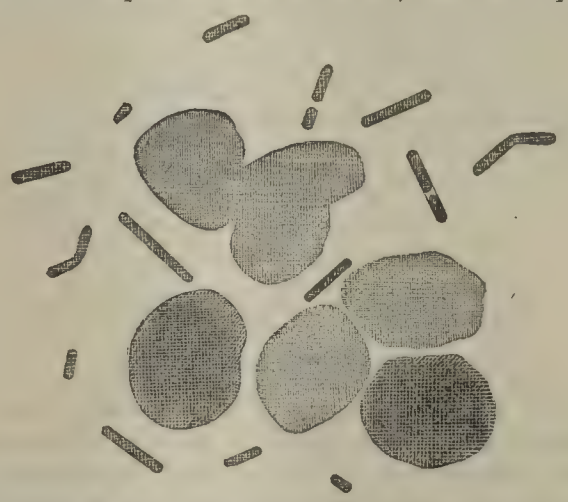
EBERTH'S TYPHOID BACILLUS.

By JOSEPH COATS, M.D.,
Pathologist to the Western Infirmary, Glasgow.

IN the number of this JOURNAL for November 26th, 1881, there appears a short notice of Eberth's discovery of bacilli in typhoid fever. I had recently brought to me a portion of the intestine and mesenteric gland from a case which died in the Belvidere Fever Hospital, Glasgow; and, as the results from this case definitely corroborate those of Eberth, it may be worth while to make a brief note of it.

The case was one of virulent typhoid fever in a young woman, fatal on the ninth day. The mesenteric gland, received from Dr. Prichard, one of the resident medical officers, was enlarged, and presented, on section, a deep reddish-brown colour. The cut surface was scraped with a clean knife, and the material spread on a thin cover-glass, so as to form a fine film. The cover-glass was then exposed for about ten minutes in an oven to a temperature of 120° C. (in order to fix the albumen, according to Koch's method). A large drop of methyl-violet solution was then placed on the film on the cover-glass, and allowed to lie for a few minutes. It was then washed off; the film was dried, and mounted in Canada balsam.

The accompanying woodcut shows the conditions presented under a magnifying power of 1,500 diameters. The drawing was made with the camera lucida with Zeiss's $\frac{1}{18}$" oil immersion-lens and No. 4 eye-piece. The red corpuscles were abundant, and are represented as



Eberth's typhoid bacilli, drawn with the camera lucida, 1,500 diameters. The paler bodies are red corpuscles, the darker ones the nuclei of lymphatic cells. This does not represent a single field, but representatives from several.

pale flat bodies. The nuclei of the lymphatic cells were deeply stained, and are shown as rounded dark bodies in the figure. There were frequent bacilli of various lengths, and many of them obviously germinating. The identity of these with the organisms described and figured by Eberth is unmistakable. In Eberth's figure, the drawing was made with the same objective, but with No. 5 eye-piece, giving a magnifying power of about 2,000 diameters instead of 1,500 as in ours.

After the gland had been hardened, it was much more difficult to detect the bacilli, the same resistance to the staining with aniline dyes which Eberth notes being experienced. The difficulty was enhanced by the fact that the bacilli do not apparently form definite zooglœa, although they do occur in groups. By diligent search, however, they were found in considerable abundance when fine sections stained with Bismarck brown, and mounted in Canada balsam, were used. The bacilli were found in considerable numbers in some parts, while entirely absent in others. They seemed to have definite centres, in which they were closely set, becoming more sparse in passing outwards; so that, at the peripheral parts, there were isolated rods, extending a considerable distance from the centre, and insinuating themselves between the lymphatic cells. In a very few cases, isolated bacilli were found at a distance from such aggregates, and, where they were met with, they may have been outlying units of groups in a part not involved in the section.

THERAPEUTIC MEMORANDA.

LOCAL APPLICATION OF IODOFORM.

THE method introduced by Mr. Walter Whitehead of fixing iodoform by means of collodion, has been long pursued by me in the treatment of glandular enlargements in the region of the neck, and I can entirely confirm his experience of its advantages. I have not yet, however, been able to obtain a solution of iodoform in ether in a less proportion than one to eight, and a completely satisfactory one in less than one to ten. It is, however, quite easy to make a clear transparent solution of iodoform in collodion without the addition of ether, by shaking up one part of iodoform with ten parts of collodion, care being taken to add the iodoform to the collodion, and not the collodion to the iodoform.

LENNOX BROWNE, F.R.C.S.ED.

CLINICAL MEMORANDA.

TWO CASES OF TYPHUS, COEXISTENT DURING THE LATTER PART OF THEIR PROGRESS WITH SCARLET FEVER.

THE rarity of this combination is perhaps of sufficient importance to make the two following cases worthy of record.

A father and his two sons were lately admitted to the fever hospital connected with this institution, suffering from typhus fever of a very severe type. The father died, but the two boys have since recovered. In both boys' cases, the fever during the latter part of its course was rather of an erratic nature, and convalescence was somewhat protracted. On making a cursory examination of the bodies, in these cases, during convalescence, I was rather surprised to find distinct evidences of commencing desquamation. This led me to examine the tongue, which had the strawberry appearance peculiar to scarlet fever. Afterwards, desquamation in both cases became general.

There can be no mistake I think that scarlet fever must have supervened during the latter part of the course of typhus, causing the fever to diverge from the normal, and protracting convalescence.

The source of the infection was easily traced, as the nurse who attended these patients had also two scarlet fever wards under her charge.

JOHN S. MAIN, M.D.,
Chorlton Union Hospital, Manchester.

SURGICAL MEMORANDA.

ON FRACTURED PATELLA.

IN the BRITISH MEDICAL JOURNAL of March 4th, Mr. Jonathan Hutchinson published some clinical remarks on fracture of the patella, maintaining that the separation of the fragments depends upon effusion, which "may be of blood, or it may be of synovia, or perhaps most commonly of a mixture of the two." Agreeing fully with Mr. Hutchinson in this view, I have carried the treatment of these cases farther than he seems to have done, and do not hesitate to aspirate the knee-joint in cases both of fractured patella and injury of the joint without fracture; thus demonstrating that the contents are principally blood within the first few hours, and blood mixed with synovia later on. If a knee-joint be aspirated within a few hours of the accident, the blood is still fluid, and can be readily withdrawn; but, if allowed to coagulate within the joint, the case must necessarily be a tedious one; for, as Mr. Hutchinson remarks, "blood is more slow of absorption than synovia."

Having emptied the joint, or, still better, having the patient in charge before the effusion has taken place, I do not hesitate to apply at once plaster-of-Paris bandage over an envelope of cotton-wadding, and to make the patient get about as soon as the plaster is dry. I gather from Mr. Hutchinson's injunction, to "cover the whole joint with bandages, and never touch the bone again until six weeks are accomplished", that he follows the old practice of keeping the patient in bed for that time; and, under these circumstances, atrophy of the quadriceps may be anticipated; whereas, if the patient is about with stick or crutches within a few days, the muscles maintain their tone.

I would suggest, as an explanation of the fact that close or so-called bony union is less satisfactory than a distinctly ligamentous union, the probability that the patella contracts adhesions to the external condyle, thus limiting the movement of the joint; and that, in the case narrated by Mr. Hutchinson, the second accident ruptured these adhesions, and thus liberated the joint.

CHRISTOPHER HEATH, F.R.C.S., Holme Professor of Clinical Surgery in University College, and Surgeon to University College Hospital.

RARE DISLOCATION.

A BOY, aged 10, was brought to me a fortnight ago, who, his father said, had fallen off a gate and "put his elbow out". On examination, less than an hour after the accident, I found the head of the right radius protruding directly backwards. The skin, tightened over it, allowed its shape and size to be distinctly made out. The forearm was slightly flexed on the arm; the power of pronation and supination of the hand was lost. Reduction was easily accomplished by pressing the displaced head forwards, the bone returning to its normal position with a slight snap, and leaving the contour of the joint in all respects similar to that of the other side. There was little or no swelling. Flexion and extension of the forearm on the arm were now easy; pronation and supination were possible, but painful. The boy is now, a fortnight after the accident, able to make all the movements of the limb without difficulty, and with very slight discomfort.

The dislocation of the head of the radius backward, uncomplicated by other displacement at the elbow-joint, is said by the books to be very rare.

A. BENSON, M.A., M.B.Oxon., M.R.C.S.Eng.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

ST. THOMAS'S HOSPITAL.

CASE OF HYSTERICAL CATALEPSY.

(Under the care of Dr. ORD.)

[From the notes of Mr. BUTLER, late House-Physician.]

M. A., widow, aged 45. Her father died at fifty, of hemiplegia, after a blow; her mother was subject to hysteria. The patient married at 21, and had been a widow ten years. She had one child, a girl, who was 23 years old, and healthy. She had no miscarriage; and there was no history of epilepsy or of insanity in the family. She had always been delicate, but had had no acute disease of any kind from which she could date her present trouble. She had suffered a good deal from sore-throat, but had had no absolute signs of syphilis. There was no history of alcohol. The catamenia were regular till two years and a half ago, when they disappeared. During the week in which she was admitted, they reappeared. The patient had always lived in England, principally at London and Margate. For the last five years, she had suffered from neuralgic pains. At their commencement, they were quite slight, but they grew gradually worse; the pains came on in paroxysms, which lasted about an hour. The pain always affected the head and face on the right side; never the limbs, nor any part of the trunk. Different parts were affected at different times, sometimes the cheek, sometimes the forehead, and sometimes the top of the head. Her memory had been failing of late years. The patient had had fits ever since she could remember, which came on quite suddenly; she never knew when a fit was coming on; she did not lose consciousness, but was unable to move; she never injured herself in any way during a fit; at times, she was very noisy; at other times, she was perfectly rigid; these fits lasted about an hour. After a fit, she felt weak for some time, and soon fell into a heavy sleep. She did not pass a great quantity of urine after a fit. The fits occurred about once a month, more or less. She had at no time paralysis. She had not been aware of the slight deviation of tongue which existed, and had had no loss of cutaneous or other sensation; no pains nor tingling in the limbs; no globus hystericus; but occasionally she lost her voice, though only for a short time, and when she had had a cold. She had dysuria occasionally, without retention of urine. Sometimes the limbs during a fit remained in any position in which they were placed; sometimes they were perfectly flaccid.

When admitted, on December 28th, 1880, she was found to be pale and not well nourished. Examination revealed nothing to account for the pain in the head. There were no bad teeth. There seemed to be the same loss of the furrows of the left side of the face as compared with the right side, and the right angle of the mouth was higher, the left being drooped; but this, it was noted, might have been due to

the patient having some prominent teeth in the upper jaw on the right side, and none on the left side. The tongue, when protruded, pointed to the left. There was no loss of sensation in the face. Her sight had been failing lately, and she was unable to read small print without glasses; there was no paralysis of the muscles of the eyes. Hearing seemed better on the left side. Taste was normal. Smell and touch were normal. There was loss of power in the arms; but the patient was always weaker after a fit (she had one on this morning). There was no loss of sensation in the arms, and the legs were unaffected. Physical examination of the respiratory and circulatory systems disclosed nothing abnormal. There was no tenderness nor distension of the abdomen, but the recti muscles offered great resistance; the liver-dulness began at the sixth rib, and the organ could be felt in the abdomen at the lower margin of the ribs. The spleen was not enlarged.

On January 1st, the night-nurse reported to the sister that the patient had grown unconscious; beyond this, she had merely noticed some twitching of the arms. She was found in a curious mental condition; she could not be aroused to answer questions or obey directions, but was readily induced to drink when a vessel was applied to her lips. The pupils were equal, and acted to light; there was no strabismus. The eyelids were kept closed; when they were raised by the observer, the eyes, and sometimes the head, were rolled irregularly about. The conjunctival reflex was fairly well marked. No movements of the face or tongue occurred. The limbs were not rigid, but the arms would remain in any position in which they might be placed; thus, having been raised straight above her head, they remained in that position without any support for forty minutes. Occasionally, however, and especially after the limbs had been put in any particular position, a slapping movement of the hands over each other began; the movements grew quicker and quicker, and there was then added some kicking of the legs; finally, she rose into a sitting posture, and uttered a cry. These convulsive movements could be stopped at any time by pressure in the right ovarian region; on the left side, pressure produced no effect. During the fit, the patient foamed at the mouth, and saliva trickled down from the angles. She passed urine under her twice during the day. In the evening, the soles of her feet were tickled, and pricked with a pin; this was followed by the convulsive movements above described: she shrieked, and fell back with the eyes open, and was conscious. In reply to questions, she said she felt drowsy.

Next morning, she was found in much the same condition as on the previous morning. There was no evident loss of sensibility; pricking the soles of the feet, or in the submammary region, induced a fit. On the following morning, the convulsions could not be so easily induced, and were less marked, and in the evening she was quite rational. From this date she improved in general health, and, though her manner was rather strange and shy, she had no fit of any kind until February 3rd. On that day, about noon, she had what the sister of the ward describes as "a regular hysterical attack"; she screamed, threw herself about, talked loudly, and implored the sister to stay with her; these symptoms quickly ceased on dashing cold water over her face.

On February 7th, it was noted that there was an area of distinct hyperæsthesia under the right mamma; both groins were remarkably sensitive, especially the right, and the soles of the feet were hyperæsthetic. There was no distinct anæsthesia, but the legs were analgesic. It was difficult to cause the skin to flush in this situation, but a puncture made with a pin bled easily.

DEVON AND EXETER HOSPITAL.

A CASE OF PERFORATING ULCER OF THE STOMACH IN A MIDDLE-AGED MAN: POST MORTEM EXAMINATION: REMARKS.

(Under the care of Dr. DAVY.)

[Reported by A. G. BLOMFIELD, M.B., M.R.C.S., House-Surgeon.]

JOHN D., aged 56, a butler, was admitted on June 24th, 1881, at 5 P.M., suffering from intense abdominal pain and distension, retraction of testes, and shock. The patient lived but a few hours, and was not in a state to give any trustworthy account of the attack.

It appeared that at about 7 A.M. on the day of admission, having for the last few days complained of pain in the stomach, of which he took no particular notice, he was seized with violent pains, like those of colic, in the abdomen, and was doubled up in bed and groaning with pain. The bowels had been opened slightly that morning. These symptoms increased in severity during the day, and his state on admission, at 5 P.M., was as follows: Talking frequently, and fairly rationally; groaning at times and crying out with pain, which he referred to the abdomen generally. Pressure on the abdomen increased the pain. There was slight dulness over the pubes; a tympanitic note everywhere else; and a marked sensation of resistance (tension), especially in both flanks. The pulse was feeble and small. The pupils were equal and small. There was no vomiting. The feet and legs were warm, but the hands were somewhat cold. The right testicle was very much retracted. Hot fomentations were applied, and small quantities of iced milk were given.

At 7.45 P.M., he was in much the same state; conscious, and calling out with pain in the abdomen. Dr. Davy saw him at this hour, and gave an hypodermic injection of one-sixtieth of a grain of atropia. It was evident that the condition was one of acute peritonitis; from its very acute onset, the symptoms suggested a violent exciting cause, and were certainly such as, without evidence to the contrary, might suggest an irritant poison, or rupture or perforation of internal viscera, or sudden obstruction of the bowels and consequent peritonitis. There was no history of any injury that could in any way account for the symptoms. Dr. Davy was greatly in favour of perforation of the intestine high up in the canal, or of the stomach: from the marked absence of vomiting all through the case while under notice, we later on concluded that the perforation causing the peritonitis was most probably in the stomach; an opinion which the *post mortem* examination verified.

At 10.50 P.M., the pulse at both wrists was imperceptible, and the hands cold; he was quite conscious, and perhaps somewhat quieter; he complained of a tearing pain in the abdomen, and a sensation of forcing about the lower part of the rectum. The rectum was examined, and found empty; and a half-grain morphia suppository was introduced.

The collapse rapidly increased; hypodermic injections of brandy and ether were tried, but had no beneficial effect; at 11.40, he was unconscious, and died at midnight: the whole of the symptoms developed in the course of fifteen hours. The only point in his previous history that could be ascertained was that, about eight years ago, a former employer took him to consult Dr. Budd for violent pains in the epigastrium, which he accounted for by having hurt himself while getting over a stile about this time.

The *post mortem* examination was made fifteen hours after death. The abdomen only was examined. The abdominal walls were very tense, especially in both flanks, with a tympanitic note all over the abdomen. On opening the cavity, a small knuckle of healthy bowel was found at the umbilicus, not strangulated in any way. A quantity of air at once escaped from the peritoneal cavity; the coils of intestine were injected, and to a large extent covered by a recent delicate lymph; in parts, the intestines were matted together; the peritoneum was injected, especially that portion reflected over the diaphragm. On slightly moving the intestines, a large quantity of a yellow fluid (contents of stomach), with no particular odour, at once flowed out. On examining the stomach, the perforation was at once apparent, as a small circular clean-cut opening of the size of a fourpenny-piece, on its anterior aspect near the top, and about the middle of the lesser curvature; when opened, the stomach was empty; the mucous membrane was of an uniform dirty colour, and intensely congested. The perforation was found to correspond to the site of a previous chronic ulcer, the floor of which was extremely thin, and about the size of a halfpenny—the perforation being about the centre; the edges were hard and elevated, and extending but a very little distance from the floor. There was no evidence of carcinoma, nor of any recent active inflammatory change about this cicatrix; the perforation was punched out, as it were; there were no signs of inflammation or raggedness about it. The tail of the pancreas was adherent to the stomach. The liver was of an uniform dark slate colour, hard to the feel, and, when cut, offered a perceptible resistance. There were some white patches in the capsule of the right kidney. Both kidneys were enlarged and red. There was no deposit of any kind, nor enlarged glands along the spine. There was evidence of a recent general acute peritonitis.

REMARKS.—The case is of interest in a medico-legal point of view. Without any previous history, such a case, presenting so rapid and acute symptoms of a violent peritonitis and collapse, might very properly suggest a suspicion of irritant poisoning; more especially if, as in this case, there had been no evident symptoms of gastric or intestinal disease previously to the development of the acute and fatal symptoms.

Dr. Brinton points out, in his work on this form of disease, that the frequency is twice as great in females as in males; in 654 cases of ulcer of the stomach he had collected, 440 were females, and 214 males. The average age was 42.6 years. The situation of the ulcer is governed by no fixed rule, and the size appears to vary from a fourpenny-piece to a crown-piece; and, curiously enough, the smaller ulcer may exhibit all the characteristic appearances of the larger, and prove even more deadly by fatal hæmatemesis or perforation. Devergie states that suppression of urine occurs in perforation of the stomach.

In the above case, a catheter was passed on admission at 5 P.M., and a small quantity of non-albuminous urine drawn off; and the patient stated that he had passed none since the attack at 1 A.M., and he passed none afterwards; so that this case, to a certain extent, confirms Devergie's statement. The retraction of the right testicle was well marked, and suggested renal colic. We are not aware that this condition has been noticed in previously recorded cases of perforation of the stomach.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

FRIDAY, MARCH 10TH, 1882.

J. LISTER, D.C.L., F.R.C.S., F.R.S., President, in the Chair.

Chimney-Sweep's Cancer.—Mr. GEORGE LAWSON brought before the Society a chimney-sweep, upon whom he had operated for chimney-sweep's cancer in the axilla. The patient had had the disease twice removed, but it recurred after each operation. He was admitted into the Middlesex Hospital last November. His condition then was this. In the right axilla there was a wound about two inches long, with hard ragged edges, and from this there was a sanious fœtid discharge. Through this wound a probe could be passed in all directions beneath the pectoral muscle, where there was evidently a large epithelial ulcer. The patient was anxious for an operation, but as it was clear that, owing to the rigid state of the pectoral muscle over the ulcer, the mere excision of the growth would not prove satisfactory, Mr. Lawson obtained the sanction of the patient to amputate the arm at the shoulder-joint if, in the course of the operation, he though it advisable. On November 24th, the patient having been placed under ether, a knife was passed into the wound in the axilla, and the pectoralis major divided. A large epitheliomatous ulcer was then exposed. This was dissected away; but as the disease had encroached on the artery close to the axilla, Mr. Lawson felt that if he stopped here the operation would be useless. He, therefore, tied the axillary artery just below the edge of the lesser pectoral muscle, where the artery and tissues were healthy, and as the wound was very large, he amputated the arm at the shoulder-joint, and brought the flap, which he had made of skin and muscle, on to the chest. In some remarks at the close of the paper, Mr. Lawson said that the reasons which induced him to amputate the arm at the shoulder-joint were:—first, to obtain sufficient skin to cover the wound caused by the excision of the epithelioma and the division of the pectoral muscle; and next, to prevent the formation of a free collateral supply of blood to the region from which the epithelioma had been removed.—The PRESIDENT asked if the epitheliomatous growth was in any respect distinguished from ordinary growths of a similar kind.—Mr. LAWSON replied that it was not, in his knowledge; but he did not see the case during the early stages.—Mr. J. CROFT inquired whether the sheaths of the axillary vessels or nerves had been found infiltrated.—Mr. LAWSON answered that the artery was involved in this way.—The PRESIDENT remarked that amputation was the proper course to adopt in the case, and expressed a hope for the patient's recovery.

Aneurysm of the left Axillary Artery: Ligature of the Subclavian: Rupture of the Sac: Amputation at the Shoulder-joint: Recovery.—Mr. HOWARD MARSH read notes of this case. The patient was a carman, aged 32. He had never had syphilis, nor any serious illness. Eight weeks before admission, he found a small pulsating swelling in the armpit. This rapidly increased, and, when he came to the hospital, measured nineteen inches over its most prominent part. There was great œdema of the whole limb. No pulse could be felt at the wrist. After the patient had been at rest for three days in bed, the subclavian was tied, under the carbolic spray, with a silk ligature, the ends of which were cut short. The case progressed favourably for three or four days, but then the swelling gradually increased in size, and on the 17th day hæmorrhage occurred from the sac. This having recurred on the 18th day, the swelling was laid open, with the object of tying whichever proved to be the bleeding end of the artery. As, however, a gush of arterial blood immediately occurred, and as the patient was still in a very exhausted state, it was thought best to amputate at once at the shoulder-joint. The patient made a favourable recovery. The author remarked that the cause of the aneurysm was probably a small rupture of the coats of the axillary artery, resulting from a strain. The case was a good illustration of the usual features of aneurysm in the axilla, in respect to its rapid increase, the large size the swelling might attain, and the tendency of the sac to rupture. Ligature of the subclavian—the method of treatment most often successful—seemed to offer the best prospect of cure. It failed through the free establishment of the collateral circulation. Had the patient been in a less exhausted condition the limb might perhaps have been saved by Syme's operation, even when the sac had given way; but weak as he was, amputation seemed the safer expedient. The silk ligature, after it was thrown off, travelled toward the surface, and could at one time be felt close beneath the skin, and a small shred was discharged through the wound. How it was afterwards disposed of was not known. It never, however, was observed to escape externally. The silk ligature, the author thought, was unsafe, as it was apt to act as a foreign body, and so to provoke a dangerous process of ulceration in the neighbourhood of the artery. He should, on any similar occasion, employ the kangaroo-tendon ligature, which, so far as present experience had shown, was perhaps the most reliable form now in use.—Mr. GOLDING-BIRD suggested that silk should always be soaked in wax, and never in oil. It was curious that in this case a portion of the silk had been removed.—Mr. MARSH thought the ligature had cut through and been found as of old, but only a shred remained.—Mr. C. HEATH was loth to criticise a case which he had not seen, but it seemed that there had been a doubt as to whether the aneurysm had given way. When the vessel was ruptured, then it was surely the recognised practice to open the sac and tie both ends of the vessel. This was what was done in Mr. Syme's well-known case; still, it had been contested by surgeons of eminence. It was best, however, to obtain complete control over the subclavian in the first instance.—Mr. BARWELL thought that in all probability the aneurysm had given way. He should have liked to know something about the temperature. The danger of tying vessels in their continuity was now greatly lessened by the use of animal ligatures.—Mr. MORGAN asked what was the condition of the limb itself when removed.—The PRESIDENT considered that the aneurysm had in this case given way, but even then he did not think that ligature of the main artery was hopeless. He had himself, in two cases of diffuse popliteal aneurysm, cut down in Scarpa's triangle, even through clots, and tied the femoral. This procedure was far more likely to be successful than groping about among clots for the ends of the ruptured vessel. The case recorded afforded another example of carbolised silk making its way through the vessel. It was this that originally made him think of catgut. For his own part, he would not use oil or wax, but only carbolised water, for silk; still, he preferred animal ligatures. He had again turned his attention to this, and he had found catgut prepared with water alone worse than that prepared by sulphurous acid. After use, it showed more superficial infiltration. But he had found the best to be that prepared in chromic acid and sulphurous acid. This might be dried, and was ready for use at any time by simply putting in carbolised water.—Mr. MARSH, in reply, said that when the case occurred this was the best ligature he could get. No doubt ligature of the subclavian had cured axillary aneurysm; and then the man, when seen, was sinking. Should he come across another case, he would tie the vessel first again.

Myxœdema Improving under Treatment.—Dr. MAHOMED showed a case occurring in a married woman, aged 30. Her family history was good. She had been married twelve years, and had had seven children, the youngest child eight months old. The symptoms of her disease commenced towards the end of her first pregnancy. She had the usual symptoms of the disease, and her appearance was very characteristic. When first seen, there was great swelling of the lower eyelids, which hung like bags containing fluid; her face was generally swollen, the lips were bluish, the cheeks pink; the hands were hard, swollen, brawny, and stiff—so that her movements were awkward, and her sensation impaired. There was no pitting on pressure of the affected parts; the lower extremities were not affected. Speech was slow and laborious, as usual in this disease. Her chief complaint was pain at the top of the head, worse towards evening and at night. The urine was not albuminous; the impulse of the heart was not perceptible; the pulse small, with the artery apparently contracted, so that at first no satisfactory tracing could be obtained. During the first fortnight, no change in her symptoms was perceptible; after that she was treated by 1-50th of a drop of nitro-glycerine, and from this time she rapidly improved. The headache immediately disappeared. In a fortnight the appearance of extreme swelling below the eyes had very greatly diminished; her hands were supple, much softer, her gloves being too large for her; she talked more quickly. The treatment had been assisted during the last week by severe purging. A trace of albumen was found in her urine on two occasions. Her pulse-tracing, when her arteries had been dilated by nitro-glycerine, showed an increase of pressure and prolongation of systole. The improvement in her condition had been frequently remarked upon by her friends and all who had seen her at the hospital. She had now been under treatment about two months, and the skin of her hands was quite loose, and almost natural. Her face, though much improved, was still characteristic of the disease. A photograph taken on February 20th was exhibited. Dr. Mahomed treated her

with nitro-glycerine with the intention of relaxing her arteries, thus reducing, to some extent, the arterial pressure, and increasing the rapidity of her capillary circulation. Severe purgatives, which, she said, afforded her great relief, were administered with the same object.—Dr. CAVAFY said that these cases often improved under the most various treatment. In one of his cases the patient, when seen, was unable to take off her wedding-ring, but afterwards this could easily be done. His second case also improved, especially as regarded the hands. A third case, in a gentleman he had seen, had also improved; and in one on whom Charcot had lectured, the Professor regretted that the patient was so much better that he could not show the marks he desired. In one of Charcot's cases, residence in a warm climate, and a modified milk diet, together with sulphur-baths, seemed to do most good. In his own cases he had given one ergot, the other strychnine, and the third was treated by iodide of potassium. But all such cases varied; especially they were worse in cold weather.—Dr. F. TAYLOR referred to the case he had already shown. The patient was much better. He had used jaborandi.—Dr. HADDEN thought the great thing was to quicken the bodily movements, and to improve the general circulation. Nitrite of amyl would probably be found useful. In Charcot's case the chief agent was heat.—Mr. W. HAWARD referred to a case where the patient had got into a kind of cretinoid condition. There was a history of syphilis, for which he was treated, and after a time he was induced to go out and take more exercise. He speedily began to improve, and now the only thing notable was some slowness of speech. After some remarks from the President, Dr. MAHOMED, in reply, said he had used the nitro-glycerine to diminish tension. It was not common to find degeneration come and go, though congestions might.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, MARCH 21ST, 1882.

SAMUEL WILKS, M.D., F.R.S., President, in the Chair.

Report of the Committee on Dr. Goodhart's Specimens of Addison's Disease.—The report, which was read by Dr. CREIGHTON, stated that the suprarenal capsules were very small, but preserved their general naked-eye appearances; the cells were opaque, and the nuclei were invisible; no very distinct alterations in the sympathetic ganglia could be discovered.

Spindle-celled Sarcoma of the Epididymis.—Mr. SWINFORD EDWARDS showed this specimen; the growth was entirely confined to the epididymis. The patient was a young child, on whom the swelling had only been noticed for a very short time. Mr. Edwards supposed that, in a short time, enlargement of the pelvic lymphatics would occur, and that the child would die.—Mr. BUTLIN said that he had only been able to find in literature one case of malignant disease beginning in the epididymis. He agreed with Mr. Edwards, both as to the rarity of the affection and as to the probability of early involvement of the lymphatic glands.—The PRESIDENT said that he had brought a little boy to the Society, some years ago, who presented a considerable tumour of the epididymis; this had disappeared under the use of mercury and iodide of potassium; he inquired if the possibility of syphilis had suggested itself to Mr. Edwards in this case.—Mr. EDWARDS said that there was no probability of syphilis in his case.

Abnormalities of the Alimentary Canal.—Dr. NORMAN MOORE showed a large number of specimens, illustrating various abnormalities. 1. An œsophagus, from the anterior wall of which, at a point a little below the end of the trachea, a diverticulum as large as a pea protruded. The specimen was removed from a man aged 49, who, for five months before his death (of bronchitis), had suffered from some discomfort after eating. At the *post mortem* examination, the stomach was found to contain three minute ulcers, and the duodenum one deep ulcer as large as a fourpenny-piece. That simple duodenal ulcer was a rare affection was shown by the fact, that only two such cases had occurred at St. Bartholomew's Hospital in the last fifteen years. As to diverticula of the œsophagus, Quain and Sharpey regarded them as hernial protrusions; but Dr. Moore was inclined to think that they were fœtal abnormalities, of the same age and nature as the normal diverticula of the œsophagus, from which the lungs were developed. 2. Eight examples of diverticula from the ileum. In all the examples, the diverticulum was situated within four feet of the ileo-cæcal valve; the diverticula varied much in size, the largest being six inches long, and as wide as the ileum itself. Three of the specimens showed a marked constriction of the gut at the origin of the diverticulum—*i.e.*, on the ileo-cæcal side. Meckel attributed this abnormality to a persistence of part of the omphalo-meseraic duct; and the fact that the sacs showed tubular glands and epithelium, similar to those of the ileum, confirmed the view that they were derived from the hypoblast. At St. Bartholomew's Hospital, twenty-seven examples had been found in 3,200 *post mortem* examinations; and, in one-third of the cases, the abnormality had been the cause of fatal obstruction. This was produced in three cases by narrowing of the intestine at the origin of the diverticulum; by adhesion of the tip of the diverticulum to the mesentery in three cases; to the umbilicus in one; to an uterine tumour in one; and by the coiling of a fibrous band, proceeding from the diverticulum, round the ileum in one. The symptoms of obstruction in these cases usually began gradually, but not always. 3. The cæcum of a man aged 68, which was without any vermiform appendix, and terminated in a long fibrous band, like the cæca of most of the Felidæ. 4. A specimen in which a small lobule of liver-substance was attached to the gall-bladder, and by only a long pedicle to the liver.—Dr. COUPLAND was surprised to hear the great number of cases in which Dr. Moore had found these diverticula to lead to serious results. He had only met with two such cases. Nearly all of the diverticula had a small mesentery; and, in one of the fatal cases he had seen, strangulation had been produced by a coil of intestine passing beneath the mesentery. In Virchow's *Archiv*, a description had recently been published of some curious cysts connected with the intestine, having the structure of the gut, and apparently having their origin in the same way as the diverticula.—Dr. CREIGHTON had seen a blood-cyst connected with the intestine, apparently having its origin in the vitelline duct.—Mr. ROGER WILLIAMS compared the constrictions in these cases to the constrictions seen in the stomach.—Mr. SHATTOCK observed that probably Dr. Moore's case was an instance of hernia, as the pouch seemed to consist entirely of mucous membrane.—Dr. MOORE admitted the justice of this criticism, but thought the question could not be answered without a microscopical examination; this he would make, and report the result.

Calculus in Ureter.—This specimen, which was removed from a woman aged 45, who died of cerebral hæmorrhage, was also shown by Dr. NORMAN MOORE. The calculus was impacted in the ureter, and had formed for itself a sort of pouch; surrounding this pouch was a great mass of fat. This was, he thought, an instance of fat accumulation due to irritation.

Chronic Rheumatic Arthritis in a Dog.—The specimen, which was exhibited by Dr. NORMAN MOORE, showed bony outgrowths on the carpal and metacarpal bones, with ankylosis. The disease was of long duration. The disease probably caused great pain, and was, he believed, one of the commonest causes of the howling of dogs at night.—The PRESIDENT said that the dogs of the Hospice of St. Bernard were very subject to chronic rheumatism, on account, the monks believed, of their exposure to cold.

Sarcoma of Tonsil.—Dr. SAMUEL WEST said that the specimen was obtained from an old woman who had suffered from "sore-throat" for about two months. The right tonsil was greatly increased in size, and the gland at the angle of the jaw and below this were much enlarged. The tumour continued to grow after admission; the dysphagia became very extreme, but there was at no time any dyspnœa. Extensive ulceration occurred before death, which happened about five months after the commencement of symptoms. At the *post mortem* examination, the tumour was quite unconnected with bone, and there was no implication of other structures; the growth pushed its way between the tissues, displacing the tongue, and preventing closure of the jaw. A small tumour was found above the apex of the left kidney, another in its hilus, and a third nodule in the pericardium. Sections of all the tumours showed the same structure. On referring to Mr. Butlin's lectures, he found that the disease was excessively rare, and that no case in the female sex had been before recorded.—Mr. BUTLIN said that no cases had been collected by him except those which had been examined microscopically, so that his table probably did not by any means show the total number of cases.—Mr. EVE thought that the rapid infiltration of the lymphatic glands might be explained by supposing this growth to be a lympho-sarcoma.—Dr. WEST, in reply, said that he had encountered the difficulty referred to by Mr. Butlin: the absence, namely, of proper microscopical examination. Many cases of tumour of the tonsil were called epithelioma, without proper examination.

Hepatic Abscess.—Dr. TURNER said that, in the specimen, both lobes of the liver showed extensive erosions of the surface, so that large cavities, lined with old fibrous tissue, were formed. The colon showed extensive ulceration, apparently recent. The patient was a ship's carpenter, who first sought advice for pain in the back following a severe fall, and for dysenteric diarrhœa. A few days before admission, he suddenly had the sensation of "something giving way" in the right hypochondrium. He became very ill after this, but the symptoms were at first very indefinite; after about a month, the diagnosis of hepatic abscess was made, and a quantity of pus was withdrawn with a trocar. At the *post mortem* examination, it was found that the liver was adherent to the diaphragm; and, on tearing through these adhesions, a quantity of pus escaped from the cavities above referred to on the sur-

face of the liver. He thought the abscesses were due to fissures produced on the surface of the liver by the severity of the blow received; and that these fissures, under unfavourable circumstances, underwent suppuration. He was inclined to attribute the recent ulceration of the colon to the old-standing abscesses; pus from the abscesses, he supposed, entered the intestine and set up the ulceration. In some of the cases reported by Dr. Bristowe, the bile-ducts had been seen freely entering the abscess; in his case he found that, on injecting water into one bile-duct, it flowed out freely from an opening in the floor of the liver abscess.—Dr. STEPHEN MACKENZIE agreed with Dr. Turner that traumatic abscess of the liver was exceedingly rare, but he had seen one such case. Specimens in Netley Museum and elsewhere showed that ulceration of the intestine was often secondary to the abscess, and that hepatic abscess might go on to a fatal termination without any intestinal ulceration.—After some remarks from Mr. ROGER WILLIAMS and Mr. EVE, Dr. NORMAN MOORE objected to Dr. Turner's theory, that, in other cases where pus entered the intestine—in retro-pharyngeal abscess, for instance—no ulceration occurred.—The PRESIDENT said that all writers seemed to have followed Dr. Budd's teaching, and it was very difficult to upset his theory; such cases as the one brought forward by Dr. Turner helped to throw much light on the question.

Membranous Laryngitis.—Dr. TURNER, who showed this specimen also, said that the interest of the case consisted in the absence of any probability of infection. The child was recovering from scarlet fever. The membrane extended into the trachea and bronchi.

Hæmorrhage into Cerebral Tumour.—Dr. ORMEROD showed microscopical sections and several drawings from a case of cerebral tumour, which, in naked-eye appearance, simulated simple hæmorrhage. On making a section through the anterior part of the brain, a large cavity containing blood was found; the brain-tissue around this was stained with blood to a varying distance and degree; the edges of the cavity were clean cut, and no diseased condition could be made out in them, but sections of the cortex showed areas of effused blood, and a small celled growth which had an indistinct stroma. The clinical phenomena pointed to a growth involving the cortical parts of the left hemisphere. The history was, shortly, that the patient was a type-worker, who was admitted with paralysis of the right arm; subsequently, he began to suffer from convulsive seizures of the upper limb; a little later, he became unconscious; on recovering, he was aphasic and hemiplegic on the right side; there was no cardiac murmur, no albuminuria, and no optic neuritis. The patient only survived four weeks after the onset of the first symptom.

Ichthyosis (so-called) of the Tongue.—Mr. SANGSTER showed a man who, for twenty years or more, had suffered from a peculiar condition of the right half of the anterior part of the tongue; it was covered by a white patch with a coarsely granular surface, upon which the enlarged papillæ could be seen. He also showed sections of malignant disease of the tongue, following on white leathery patches on the tongue; about the margins of these, ulceration had frequently occurred for many years. Finally, this ulceration took on an epitheliomatous character. In the leathery patches, he found that the epithelial layer was thinner than natural, and that the mucous membrane was sclerosed. Ichthyosis linguæ was a disease of the middle period of life, which affected men almost invariably, and which commonly resulted in epithelioma. Statistical investigation afforded no ground to the generally received theory that this disease was due to syphilis. He believed that at least three classes of cases were included under the one head, viz., true ichthyosis (of which the case shown was an instance), "leathery tongue", and cases in which there was a combination of these two conditions. He referred at some length to the etiology of these affections; the first he believed to be quite independent of syphilis; the second and third might have some connection, but not a very direct one; he inclined to attach some importance to excessive tobacco-smoking.—Mr. BUTLIN referred to a case of a man who had patches of this kind on the tongue, and a similar condition of the buccal mucous membrane.

Tubercular Vomicæ from an Eland.—Dr. CREIGHTON said that the specimen was an instance of that remarkable disease which was called in England, bovine tuberculosis, and in Germany, *perlsucht*. The lungs showed a condition which Virchow attributed to bronchiectasis, with subsequent inspissation of the contents. Dr. Creighton, however, agreed with other pathologists who believed that the vomicæ were the result of the clearing out of tubercular nodules. Sometimes, no doubt, bronchi did open into these smooth-walled cavities, but that was due to a later process of extension by ulceration. In bovine tuberculosis, there occurred peculiar pearl-like outgrowths from the serous membranes, and also large tubercular deposits in the lungs and elsewhere. In the specimen now shown, the pearl-like bodies were by no means so prominent as they had been in a lung from another member of the antelope family, which he had shown earlier in the session. The specimen, was, he thought, interesting, as showing that a disease closely resembling bovine tuberculosis in its morphological characters could occur in another genus; and he thought that the most reasonable explanation of this was, that the disease was communicable.

Card Specimens:

Dr. SAMUEL WEST: Necrosis of Epiglottis and of right Arytenoid Cartilage, with Ulceration of Vocal Chords and of Base of Epiglottis, from a case of Typhoid Fever.

Mr. ALBAN DORAN: Horny Growth from the Neck.

Mr. J. R. LUNN: Carcinoma of the Pyloric End of the Stomach of a Man, aged 33.

Mr. J. H. MORGAN: Head and Neck of Femur, showing a large Sequestrum on the Inner Surface of the Neck.

Mr. JONATHAN HUTCHINSON (junior): 1. Tumour of Testicle in a Child; 2. Degeneration of Kidneys in a Lamb.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, MARCH 1ST, 1882.

J. MATTHEWS DUNCAN, M.D., President, in the Chair.

Uterine Fibroids removed by Laparotomy.—Dr. BANTOCK exhibited five specimens of uterine fibroids removed by abdominal section within the last seven months. They weighed respectively 12 lb., 6 lb., 4½ lb., and 1 lb. Some were of long standing; others of recent growth. In only one case was menorrhagia a prominent symptom, and in that it produced great anæmia. In all, the pedicle was kept outside, secured at the lower angle of the wound by Kœberlé's *serre-nœud*, and supported by two stout pins transfixing the stump just beyond the wire loop. Eight cases treated in this way recovered well; while four others, in which the pedicle was treated intra-abdominally, all died. Dr. Bantock also exhibited fragments of a very soft fibroid removed *per vaginam* by enucleation.

Extra-uterine Fœtation removed by Laparotomy.—Mr. KNOWSLEY THORNTON showed an extra-uterine fœtation removed by abdominal section on February 28th. The patient ceased to menstruate in June 1881. A membrane was expelled from the uterus in January 1882. When the patient was seen after this, the diagnosis was very obscure, the physical signs resembling those of an uterine fibroid. The operation was very difficult, the tumour being closely adherent to the omentum and uterus. It consisted of a small upper portion containing the fœtus, apparently a tubal fœtation, and a larger solid portion closely connected with the uterus and largely composed of blood-clot. The uterine attachment was treated like an ovarian pedicle. The patient, on the third day after operation, promised well for recovery.

Fibroid resembling Placenta.—Dr. HERMAN showed fragments of a fibroid tumour. which, while undergoing spontaneous expulsion, had been mistaken for placenta.

Histological Results of Laceration of the Cervix.—Dr. GALABIN showed microscopic sections of the flaps removed in two cases of Emmet's operation. In both cases, the surface looking towards the vagina was shown to be really the everted cervical mucous membrane. One case was recent; the cervical villi were hypertrophied; but there was no marked inflammatory change, and the cylindrical epithelium was almost intact. The other case was old; the cylindrical epithelium was almost entirely lost, but there were patches of ill-formed squamous epithelium between the gland-orifices. The surface was densely infiltrated with inflammatory cells, and the glands beneath were dilated and proliferating.

Tracheloraphy, or Emmet's Operation.—A paper was read by Dr. W. S. PLAYFAIR on the above subject. After a short account of the history of the operation, its frequent performance in America, and the high opinion entertained of it by certain American and continental practitioners, the author referred to its comparative neglect in this country. He then described the cases for which it was suited, and referred to their diagnosis. Subsequently, he referred briefly to the mode of performing the operation, and to his own experience of it. Finally, he ended his paper as follows. "My own conclusions may be briefly summed up in the statement that, although there are a large number of cervical lacerations which produce no effect whatever, and, having healed, call for no treatment, there are a considerable number which give rise to much irritation of the uterus, which lead to important secondary results; and that these cases can often be rapidly and permanently cured by the operation for the introduction of which we owe Dr. Emmet a debt of gratitude, and with which his name will always be associated."—Dr. SAVAGE said Dr. Playfair proceeded on principles directly opposed to those of Dr. Emmet, who insisted that the operation should not be performed when there was any sign of disease in the cervix. The American school professed to believe that every disease (none excluded) incidental to the uterus might be, and generally was,

the direct consequence of a cervical laceration. The English school disbelieved this, on good grounds. The diseases alluded to in Dr. Playfair's paper could be seen in their entirety through an ordinary Ferguson's speculum. To apply to them Emmet's operation, which was admittedly not seldom followed by pelvic mischief, would be an act of extreme folly. Entropion, not ectropion, according to Emmet, was the common result of the lacerations.—Dr. HERMAN had performed this operation in eight cases. All professed themselves benefited at the time they left the hospital. The subsequent history of two of them he did not know. Three were complicated with other conditions. Of the others, one was relieved of her symptoms, although the operation was a failure so far as obtaining union was concerned; in one, the symptoms returned in three or four months; in the other, he believed the operation had checked leucorrhœa. The American literature on the subject consisted mostly of general statements. Few writers had published cases, and the cases were mostly complicated ones. He thought benefit had sometimes been attributed to this operation which was really due to the cure of other concomitant morbid conditions.—Dr. PRIESTLEY was prepared to believe that Emmet's operation would aid materially in curing some troublesome cases. His experience of it was limited to two or three cases; but he could recall others which had resisted all usual modes of treatment, and might probably have been cured by this operation. Ectropion with granular inflammation was not nearly so difficult to cure as endocervicitis in the virgin. He did not think these lacerations were attended with distressing symptoms so often as was represented. The operation was only required in exceptional cases; it was painful, difficult, and sometimes dangerous. He hoped, therefore, that it would not be performed with undue frequency.—Dr. WYNN WILLIAMS did not agree with the paper either as to the simplicity or the risk of the operation. Cases ending in death, metritis, and perimetritis had been recorded. He did not think there were many cases in which it was required. Eversion was not always due to laceration.—Dr. BANTOCK thought there was a field for the operation, but that the effects of laceration and the necessity for operation had been exaggerated. He had met with one case of laceration in which he thought the operation would be required, but the patient completely recovered without it.—Dr. MURRAY called attention to a published fatal case. Operating when there was a suspicion of malignant disease appeared to him a curious idea. The duck-bill speculum magnified any little tear that might exist. Diagnosis was more fairly made by Ferguson's speculum.—Dr. HEYWOOD SMITH agreed with Dr. Playfair as to the importance of the operation, but maintained that areolar hyperplasia often existed without fissure, and could be cured by potassa fusa, or the cautery at a white heat. A raw granulating surface difficult to heal was analogous to malignant papillary dermatitis of the areola and nipple, and often a precursor of cancer; in such, it was important to operate. He asked if any Fellows had operated immediately after labour. It seemed to him that there were considerable difficulties attendant on such a proceeding. He had performed Emmet's operation in many cases with great success, both as to repair of the cervix and relief to symptoms.—Dr. FANCOURT BARNES thought the operation was only necessary in cases of bilateral laceration of the cervix, with ectropion and enlargement of Nabothian glands. In unilateral laceration, thickening of the cervix could be more readily dispersed by ignipuncture.—Dr. CARTER had operated six times with benefit, four of the cases remaining well three or four months subsequently. Slight laceration of the cervix was very common —not so cases requiring operation. He had been struck with the frequency with which displacement of ovaries complicated laceration of the cervix. This was so in two of his cases.—Mr. KNOWSLEY THORNTON called attention to the probability that fissure of the cervix with eversion predisposed to carcinoma, and that Emmet's operation prevented it. If so, a most important field for the operation existed. The specimens exhibited by Dr. Galabin were of great importance as aids towards settling this point.—The PRESIDENT could not concur in thinking tracheloraphy one of the greatest advances in modern gynæcology. It might be an advance; but, admitting all that was said for it, it was a very small affair, compared with the triumphs of laparotomy shown by Dr. Bantock and Mr. Thornton. A split condition of the cervix was said to be attended with Protean symptoms and disorders. Not long ago, ulceration, and then displacements, held the same position. He regarded all three as minor disorders, whose attempted cure was often the worst part of them. The Protean disorders were accompaniments, not consequences. Nevertheless, the cure of such lesions might be a valuable service to the patient. An ectropion which could only be shown by a special speculum and special manipulations was an artificial ectropion. He did not regard the profession as having hitherto mistaken ectropion for so-called ulceration. Such cases, with or without ectropion, were generally easily cured. In cases with hypertrophy, a good old plan was the caustic potass. He believed that, if a new laceration were made by cutting out a bit of the cervix, cure would follow just as well as after trachelorraphy. The reference to the frequency with which the cervix was formerly divided as a means of cure was not a *jeu d'esprit*, but a weighty argument. He regarded trachelorraphy as at present *sub judice*, but was not impressed in its favour. He had not done it, but had seen the most exaggerated lacerations of the cervix interfere in no degree with health, comfort, or fertility.—Dr. PLAYFAIR had studied carefully the writings of Thomas and Emmet, and thought that Dr. Savage must have misunderstood their meaning. It was impossible not to see that Dr. Matthews Duncan was prejudiced against the operation; his remarks showed that he was not familiar with the use of the duck-bill speculum and tenaculum in these cases. The tenaculum was used, not to produce ectropion, but to draw the lips together. He thought that, when Dr. Duncan had fairly and impartially studied the subject, he would alter his opinion. This operation was, of course, not to be compared to those to which Dr. Duncan had referred; but, if it were the fact that there were hundreds of women leading lives of constant suffering, who might be cured by this operation, then it deserved to be called a great improvement in gynæcology.

REVIEWS AND NOTICES.

ELEMENTS OF PHARMACY, MATERIA MEDICA, AND THERAPEUTICS. By WILLIAM WHITLA, M.D., Physician to the Ulster Hospital for Sick Children; Assistant-Surgeon to the Belfast Charitable Hospital. London: Renshaw. 1882.

THE difficulty of writing a really good text-book of materia medica and therapeutics for students is well known. Dr. WHITLA has endeavoured to condense into a small work the information usually found scattered through two or more large manuals. He has departed from the orthodox arrangement, and divides his work into five parts, headed Pharmacy, Materia Medica, Therapeutics, Administration of Medicines, and Pharmacopœial Reactions and Tests.

The first part, devoted to pharmacy, is well done, and deserves careful study. The student is taught the meaning of the different signs and symbols used in prescriptions and dispensing; and is instructed how to weigh and measure, and how to make up various mixtures, pills, and powders. The different modes of preparing emulsions are fully discussed, and much useful information on the point is given. It may not be generally known that a few drops of tincture of senega will emulsify any fat or oil. Dr. Whitla enters fully into the details of various pharmaceutical processes, discussing even the different kinds of paper adapted for sending out powders. The art of folding powder papers is described and illustrated, over three pages being devoted to this subject. The directions for making and coating pills are reliable and explicit. Referring to the gelatine coated pills, now largely employed, the author says: "A strong solution is made by heating one part of gelatine with two of water; and each pill, stuck upon the end of a fine pin, is dipped into the solution—the other end of the pin being thrust into moist sand till the gelatine sets, when the pin is withdrawn, and its mark closed with a little fresh gelatine." We are glad to see that he insists on the necessity for closing the pin-hole by a second coating of gelatine, as this is too frequently neglected, so as to entirely defeat the object of the coating. The chapter on general hints to the dispenser is one of the best in the book. It is to be feared that many prescribers are somewhat lax in their use of officinal titles, or the following directions would hardly be needed: "When magnes. calc. is ordered, magnesia *B.P.* should be used; magnes. carb., the *heavy* preparation, is usually intended. When bismuth or bismuth. alb. is prescribed, the subnitrate is the preparation generally in the mind of the physician; when aqua menth. is ordered, aq. menth. pip. should not be used, but aq. menth. sativ. is the intention of the prescriber." Dr. Whitla says: "Much confusion unfortunately exists in the memory of some prescribers about the mercurial chlorides, and fatal consequences have resulted. The subchloride is often written hyd. chlor., hyd. mur., hyd. submur., and the perchloride is occasionally prescribed as hyd. chlor., or hyd. bichlor." He adds: "If the dispenser finds it impossible to consult the physician in such cases, he will not regret giving the subchloride, if more than one-quarter of a grain is ordered in each dose"—a statement with which most of his readers will heartily agree. The remarks on excipients are useful, and will be eagerly read by those who are unfortunately compelled to dispense their own medicines. As an excipient for carbolic acid (Calvert's pure crystalline), the author prefers wheaten flour, in the proportion of one and a half

grains of flour to two grains of acid. Camphor, after being powdered with a few drops of spirit, makes a good mass with tragacanth paste. Iodide of potassium should be rubbed up, with a few drops of water, into a stiff smooth paste, and then worked into a good mass by the addition of liquorice powder. At the end of the first part, an explanation is given of certain terms and processes used in pharmacy—such, for example, as affusion, ablution, decoction, depuration, despumation, elutriation, granulation, levigation, and trituration.

The second part consists of a list of articles of materia medica, arranged alphabetically. The descriptions are necessarily short; but they are, in the main, correct and to the point. This will be found useful to students who have already obtained some knowledge of the subject from larger manuals. The non-officinal preparations are printed separately in red ink; but the information concerning them is very meagre, the whole subject being despatched in seven pages.

In the third part, the alphabetical arrangement is continued. The information is given in as few words as possible, and there is little or no room for the discussion of moot points. Under the head of arsenic, the author very properly calls attention to the absurdity of making lavender one of the ingredients of Fowler's solution; and remarks: "Often the red lavender contained in the liquor disgusts the stomach of the patient." Under aqua, a good account is given of the therapeutic uses of water, whether employed internally or externally, including a description of the different baths and packs, and of aquapuncture, or the injection of water under the skin for the relief of pain. A good abstract is given of the therapeutic uses of camphor; but no reference is made to the use of the essence—or saturated solution in alcohol—in the treatment of choleraic diarrhœa, for which it is one of our best remedies. The internal administration of glycerine, for the relief of painful and inflamed piles, is described; but its value as a remedy for flatulence and acidity is not mentioned. Full directions are given for the administration of cod-liver oil in phthisis, and in other wasting diseases; and the method of inunction, as a last resource, is advocated. At the end of this part, the different medicinal agents are classified, and the general characters of the groups are described.

The fourth and fifth parts are devoted to prescription-writing; the composition of a recipe; parsing and syntax; weights and measures; and other subjects of interest to students preparing for examination.

The work contains a great deal of valuable information; and is, on the whole, reliable. It is evidently the result of much care and thought, combined with sound practical experience.

On Diseases and Injuries of the Eye. By J. R. Wolfe, M.D., F.R.C.S.E. London: J. and A. Churchill. 1882.

This treatise conveys its information in a very readable and pleasant form, and is in this respect admirably adapted for the use of students commencing the study of diseases of the eye. The advanced ophthalmologist will also find in it some useful information, notably with regard to the various methods of treatment of entropion and ectropion. The author favours that by skin-transplantation *without pedicle*, after the principle first introduced by Le Fort in France.

As might be expected in a course of lectures originally addressed to students, many points are omitted which would be of interest and value to the more advanced student or to the practitioner. These especially concern the therapeutical part; for example, there is no mention of eserine in the treatment of corneal ulcers, and even in glaucoma its use is barely alluded to. In the same way, no mention is made of the subcutaneous injection of nitrate of pilocarpine in retinal detachments and vitreous opacities, a treatment so much lauded by French authorities, that it is impossible for us to neglect its trial; nor under atrophy of the optic nerve or retinitis pigmentosa is there any mention made of that most valuable mode of treatment, the continuous current. The author attaches very little value to sclerotomy in glaucoma as compared with iridectomy. He believes that the latter operation cures by removing a portion of the nerves which, by their morbid condition, give rise to the tension.

In his chapter on sympathetic disease, he holds to the now almost abandoned doctrine of reflex nervous irritation. He says nothing about sympathetic irritation as distinguished from sympathetic disease, nor does he mention the dotted deposits on the membrane of Descemet, which constitute the most important and characteristic symptom of commencing sympathetic disease.

The theory of accommodation which he has accepted is now somewhat antiquated. Indeed, the same may be said generally of his views on the anatomy and physiology of the eye. The chromo-lithographic plates are numerous and well executed. They appear to be the same as those of the well known Atlas of Magnus. The names of the authorities cited are not unfrequently misspelled, but the bad Latin of the numerous formulæ constitutes by far the greatest blemish in the book.

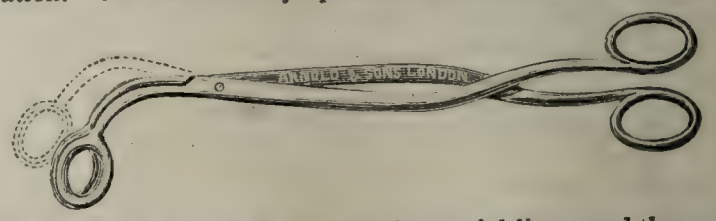
NOTES ON BOOKS.

We have received, in a handy and compact octavo form, the eighteenth volume of the *Minutes of the General Medical Council*, containing an official record of the business of the General Medical Council transacted during its thirty-first and thirty-second sessions; with the Minutes of the Executive and Dental Committees, and the English, Scotch, and Irish Branches; also an appendix containing the General Medical Council's Standing Orders, and a complete list of officers and meetings from the passing of the Medical Act in 1858 to 1882. We are requested to state that this volume may be procured of its publishers, Messrs. Spottiswoode and Co., 30, Parliament Street, S.W., at the price of 5s.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

NEW TONSIL FORCEPS.

The question as to the best means of removing inflamed and hypertrophied tonsils, has been frequently brought under the notice of the profession in the columns of the British Medical Journal; and now many surgeons prefer the use of the knife to that of the guillotine. The chief, and indeed only, danger of the operation consists in the close proximity of the internal carotid artery. Having recently been called upon to excise a number of enlarged tonsils, I have used an instrument, invented by myself, and manufactured for me by Messrs. Arnold and Son, with the greatest success, of which the above is an illustration. The mode of my operation is as follows. Having firmly



grasped the tonsil, I draw it towards the mesial line; and then, with a probe-pointed and curved bistoury, rapidly cut through the tissues, "keeping the blade in direct contact" with the enlarged grasping end of my forceps. The following are the advantages I claim for this instrument. 1. Extreme simplicity and ease of application. 2. By attending to my direction of keeping the blade of the bistoury in contact with the blades of the forceps, all danger as to hæmorrhage from wounding the internal carotid is avoided. 3. The instrument can be used for either right or left tonsil. 4. The groove on the edges of the circular blade gives great grasping power.

R. C. Studdert, B.A., M.B., M.D.Trin. Col., Dublin,
L.M.K.Q.C.P.I., Surgeon to the Erith Cottage Hospital.
58, Pier Road, Erith, London, S.E.

MARSHALL'S PATENT SECTIONAL FEEDING-BOTTLE.

This bottle retains the ordinary shape of feeding-bottles, but allows one side to be taken out for cleaning. This allows the bottle to be cleansed as easily as an ordinary teacup. It is quickly taken to pieces and readjusted. There is an arrangement which allows of its being attached to the child's waist or cot. The bottle satisfies the necessary requirements in all feeding-bottles, of being simple, strong, and easily cleaned. It received a certificate of merit at the late Sanitary Exhibition.

MATERIAL FOR SPLINTS.

Sir,—Reading Mr. Pye's note on "A New Material for Splints" has recalled to my mind one which was designed by myself twenty years ago, and which I used with great success for many years. It was composed of thin corrugated iron, such as is used in the manufacture of the "patent metallic Venetian blinds". Indeed, I used to get them made by a manufacturer of these articles. I found them strong, light, cool, economical, and very durable, and, when covered with a coat or two of light stone-coloured paint, very clean and nice-looking. I do not think that they became publicly known, although some of my

friends used them; therefore, probably you might think it worth while to mention them.

I enclose a rough sketch, from which a tolerably correct idea of the invention may be gathered.—I remain, sir, yours truly,

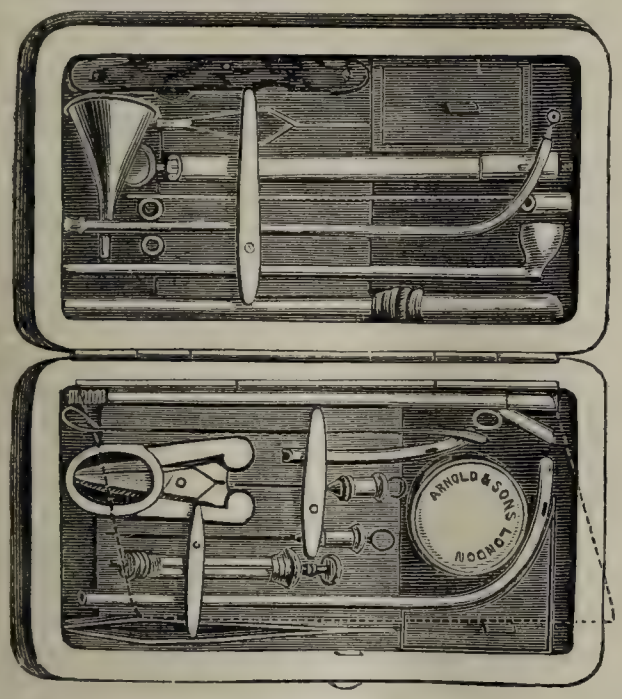
J. P. OATES, M.R.C.S., L.S.A.

Vaughan Lodge, Malvern Wells, March 20th, 1882.

P.S.—The padding is formed of a few layers of thick common flannel, cut to shape, and stitched on through the holes indicated by the dots, so as to have the convexity of the corrugation next the flannel.

SURGICAL POCKET-CASE.

THIS surgical pocket-case has been designed and manufactured by Messrs. Arnold and Sons, for the express purpose of supplying surgeons and general practitioners with a complete, portable, and compact case of really useful and necessary instruments, to be carried during the daily rounds of visiting, as well as when sent for to an urgent and unknown patient. The case contains nearly everything a surgeon can require on an emergency, besides many things of daily utility and necessity; and, instead of pondering over what instruments are to be taken out each round, or to a sudden call, the surgeon has simply to put this case (besides his stethoscope) in his pocket, and thereby save much time, and perhaps gain much credit, by having what he will require with him, instead of having to send or go back for the necessary article.



One side of the case contains a clinical thermometer and caustic-holder (combined), in plated metal case; Corrigan's actual cautery button and director (combined); Bellocq's epistaxis cannula; finger saw; exploring needle, in ivory case, with screw fittings to act as handle to the saw; Toynbee's ear-speculum, holding litmus paper, and constructed to act also as a tracheotomy tube, if desired; bull-dog forceps; straight bistoury; gum lancet; Fergusson's knife and American needle, mounted together in tortoise-shell; and a compartment to hold lamels, discs, and vaccine points.

The other side contains dressing forceps; medium-sized silver-plated catheter, adjustable as male or female; probe (inside catheter); Chesterman's patent metal measuring tape; hypodermic syringe and needles; aspirating needle, fitting to the hypodermic syringe; folding steel scissors; Imray's double ear-scoop; and a compartment for thread, wire, and surgical needles. In all, there are twenty-five full-sized, efficient, and highly finished instruments, besides the other necessaries before-mentioned, all of which are held securely together in their proper places by means of metal pivot bands.

The case measures about five and a half inches in length, three in width, and one deep, shaped and opening like an ordinary cigar-case, with the addition of a thin leather leaf in the middle, useful for holding plaister, lint, oil silk, etc.

SANITARY INSTITUTE OF GREAT BRITAIN.—At the ordinary meeting of the institute, held March 8th—Dr. A. Carpenter in the chair—the prize of £200 for an essay on the Range of Hereditary Tendencies in Health and Disease was presented by the Rev. E. Wyatt Edgell, B.A., to Mr. G. Gaskoin, M.R.C.S., who afterwards read a paper on the subject.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1882.

SUBSCRIPTIONS to the Association for 1882 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, MARCH 25TH, 1882.

THE VALUE OF EXPERIMENTS ON ANIMALS.

So much has already been published in these pages and elsewhere in demonstration of the fact that results of the highest value to life and health, both of man and of animals, have resulted from judiciously conducted experiments on animals, that it might seem almost supererogatory to say anything more on the matter. That misinformed and misjudging section of the community, however, which sees in "vivisection" nothing but material for abhorrence, not content with the stringent limitation placed on scientific physiological investigation by the Act of 1876, continues its denunciation of experiments on animals; and we therefore hold it to be a duty, as opportunities present themselves, to call the attention of our readers to sources from which they may obtain material wherewith to combat the misstatements and misrepresentations of the antivivisectionists.

The admirable addresses delivered at the International Medical Congress, and the excellent speech of Professor Humphry at the annual meeting of the British Medical Association at Ryde, will be fresh in the memory of our members. We have now before us two other valuable documents bearing on the value of experiments on animals, of which we propose to give a summary.

As our readers will probably remember (see BRITISH MEDICAL JOURNAL, February 11th, page 202), the antivivisection party in Germany some time ago presented to the Reichstag a series of petitions in favour of the restriction or prohibition of vivisection. These petitions were referred to a Committee, the majority of whom recommended their rejection. In the debate on the report of the Committee, an important speech was made by Professor Virchow, who, as is well known, is an influential member of the German Parliament. He denied the assertion made by the petitioners, that experiments on animals were performed by students or other persons indiscriminately, and to an extent far beyond the demands of science; he further asserted the statement to be incorrect, that they were used for the purpose of demonstration. As director of a Pathological Institute, he acknowledged that experiments were often performed; but they were done for research only, and the demonstration to the students was made on the dead body. In another part of his speech, he made some remarks on the practical utility of experiment, which we translate with slight abridgment.

"It would seem, on reading the petitions, that we had, in fact, to deal with a charge against medical men of bad character. With regard to this, I would first say, that the charge is really directed against the highest authorities in the empire and in the individual states. Our imperial sanitary department, for example, has just published a thick volume, which in reality contains nothing beyond a mass of observations, all turning on an experimental foundation. These researches contain very valuable material, and they all have relation to matters with which th empire and its legislature are intimately concerned—namely, contagiou and infectious diseases. They involve especially the inquiry, to wha extent these infectious diseases are to be attributed to certain parasites, minute fungi, or any other circumstance. Allow me to make a brief remark on this matter. The first thing which the legislator against these things always discusses, is the question of disinfection; and here

begins the practical duty of the state. If anyone desire to disinfect, he must first know what he really wants to do. This question, however, although formerly believed to be very simple, has become resolved into a series of subsidiary questions. Are there parasites, etc.? How can the parasites be overcome? How can we render certain injurious chemical matters inactive? What is it against which it is essential to direct the means of disinfection? The whole question of disinfection has anew become the subject of debate and of experiment. No new regulation concerning the mode of disinfection can be issued, that is not founded on the results of such research; and these results, in my opinion, cannot be arrived at without experiment on animals. If the petitioners say coolly that everything might be found out in other ways, from travellers and missionaries, and I know not from what other sources, who will know all that is to be said on the matter, then we shall never succeed in obtaining truly practical regulations. But, at the moment when the public sanitary department publishes a large book, which in fact probably contains the studies preliminary to legislation, and which is throughout based on experimental methods of research, people come here and ask: Is not this an altogether objectionable method?

"We have at the present time in Prussia a subject the solution of which has long been attempted by experiment, for which the ministry of agriculture, as well as that of instruction, is specially responsible. The question has been raised, whether a certain disease which occurs chiefly among horned cattle—*Perlsucht*—may possibly produce tubercle, scrofula, or even consumption in man; whether possibly phthisis can be produced in children by the use of the milk of cows thus affected; whether phthisis is not, perhaps, to a great extent produced in man by the use of products derived from animals thus diseased. The question is one of great importance, and must be closely investigated by means of experiment; but this is so much more difficult than was expected, and is attended with so many complications, that I must say that I do not see that we are near to obtaining a result. Nevertheless, I do not know how any one can come and say to us: As you have as yet arrived at nothing but contradictions, you must desist from experiment. The petitioners find in the contradictory results a proof of the inutility of the methods employed. But, gentlemen, these contradictory results are the first things that lead to a clearing up of the peculiar difficulties of the question; they lead to the question being stated more correctly, and investigated on a wider base. The more contradictions arise, the more distinctly is it shown that the question is by no means so simple as it has appeared to be, and that it must be resolved into a host of subsidiary and preliminary questions.....

"We have a second series of inquiries, which fortunately are somewhat more advanced—those concerning splenic fever (*Milzbrand*). Yet, what did we really know about this disease, before we undertook to investigate it anew by experimental methods? And now we are happily so far advanced with regard to splenic fever, that there is scarcely any other infectious disease regarding the details of the symptoms and causes of which we have more sufficient information. In this way, we shall arrive at being able to formulate the means for the prevention and removal of this disease, and to present useful material for legislative regulation, much more accurately and sufficiently than was formerly the case.

"The whole of the knowledge which we at present possess with tolerable certainty regarding the transmission of the parasites of living animals, especially the connection of tapeworm with various kinds of cysticerci, and the doctrine of trichinæ, is founded on experiment. Every important advance in this inquiry has been made by researches on animals; and what remains still to be done with regard to cysticerci will assuredly be done in no other way than by a continuation of experiment. On this are ultimately founded the practical labours which must be undertaken for the protection of man. As regards trichinæ, we investigate the whole process of their development in the rabbit. It was formerly said, that these are merely trivial matters, that we cannot cure a case of trichinæ, but must leave it to nature. But we have learned that it is possible to protect against trichinæ; and we have arrived at the result of being able to accomplish practical results in the larger towns.

"I will limit myself to these instances; I could cite an endless list. I will only yet refer to the question, under what circumstances inflammation can be prodnced in man. We are all at any moment exposed to this danger; every individual man may at some time be affected with inflammation; and we have, therefore, an interest in knowing positively under what circumstances inflammation is produced. The research assumes entirely special forms. Thus the questions arise: Is not the cause to be sought in microzoa or in microphytes? Should we make our investigations entirely on man? That would be an endless inquiry, which would probably not be completed for generations. If we would arrive at a practical result, no course remains for us but to take animals, and allow influences producing inflammation to act on them under the most varied circumstances, sometimes very severe ones; as, for instance, in the inquiry whether inflammation in the interior of bones can only take place in the presence of bacteria. These are painful proceedings, but they must be undertaken, if we desire to bring the inquiry to a practical result. This being obtained, an effect useful also to mankind will soon follow. The fact that the petitioners desire to contradict the value of the experimental method in medicine, only shows the greatest ignorance.

"In support of what I have said, I must refer to the proceedings of the recent great International Medical Congress held in London. At this Congress, where I myself had the honour of delivering an address on this subject, the whole civilised world was in fact assembled with the chief representatives of the medical profession. Now, gentlemen, do not give yourselves up to the idea, expressed here and there in the petition, that medical men, especially professors, pursue these practices for mere pleasure, that it is in a measure a passion with them, a gratification of a certain brutal inclination of their heart, to torture animals. The medical men who assembled in London to the number of more than 2,000, decided, without contradiction that science cannot do without the experimental method. If, however, reference be made to the fact that the English Parliament, in a moment of precipitation, took a step which most seriously endangered the progress of medicine in England, I may tell you that one of the most prominent men whom England at the present time possesses, Sir John Lubbock, has already in the present Parliament made an attempt to give effect to the resolution of the International Congress, and to procure the withdrawal of the Act. In fact, if the Act remain in force, medical men in England apprehend that it will in future become impossible to carry out in that country a great and almost the most important portion of researches; that it will become the rule that—as already happens—English investigators will have from time to time to come to the continent to carry out their researches."

To the English literature of the subject, must be added a paper on "The Influence of Vivisection on Human Surgery" read last month by Mr. Sampson Gamgee at a meeting of the Birmingham and Midland Counties Branch. Before further noticing it, we will once more return to Professor Virchow's speech, for the purpose of quoting from it some remarks expressive of his views on the relation of English surgery to vivisection.

"In England, there are two principal classes of practitioners—physicians and surgeons. The surgeons, who are educated quite differently from the physicians, have always been the supporters of physiology; and this is comprehensible.....That English surgery has made so great an advance during the last century, depends on the fact that the surgeons have made experiments, and kept themselves in constant connection with the progress of knowledge regarding life and the vital processes.'

Mr. Gamgee's essay has for its object the proof of the statement that "Without experiments on living animals, Scientific Surgery could not have been founded, and its present humane and safe practice would be impossible." Without attempting to make good this statement in all its bearings by a comprehensive review of the history of surgery and of

the departments of medical science with which it is connected, he contents himself with adducing some authentic and cogent instances of the valuable aid which experimentation has afforded to surgery since the middle of the last century.

He quotes two examples from the memoirs of the French Academy of Surgery; than which, it was said by Sir Benjamin Brodie, "there is no richer mine of surgical knowledge". In 1778, the Academy published an essay written by M. Saucerote on a subject which had been given out for competition for a prize—"To establish the theory of injuries of the head by *contre-coup*, and the practical conclusions to be derived therefrom". Saucerote's essay, to which the prize was awarded, was based on literary research, clinical observation, and twenty-one experiments on living animals. Again, an article in the memoirs of the same Academy relates the experimental proofs of a statement that amputation at the hip-joint had been performed safely on dogs; and, Mr. Gamgee says: "Amputation at the hip-joint, the direct outcome of vivisections, has resulted in saving many valuable lives which otherwise must infallibly have perished."

Among the examples in surgery adduced by Mr. Gamgee as affording proof of the value of experiment on animals, are the evolution of subcutaneous surgery from John Hunter's experiments on the union of the divided tendo Achillis in dogs; the demonstration of the possibility and utility of the ligature of arteries, by experiments conducted by Hunter, Astley Cooper, Lawrence, Jones, Travers, and with these must be associated Scarpa of Pavia, who laboured successfully, with the aid of experiments on animals, to demonstrate and extend Hunter's teaching on aneurysm; the demonstration of the value of torsion as a hæmostatic by Amussat in Paris, Costello, Porta, Simpson, Beale, Henry Lee, and Bryant; the operation of transfusion of blood, the way to the performance of which was prepared by the experiments of Lower, Boyle, and Blundell; the improved treatment of wounds of the intestines, founded on experiments on animals made by Shipton, Travers, A. Cooper, Jobert (de Lamballe), Gross of Philadelphia, and Bouisson of Montpellier; the removal of cancerous portions of the human subject by Péan, Billroth, Czerny, and others; the invention of the *écraseur*, the utility of which was first proved on animals; etc. Our space does not allow us to quote at greater length from Mr. Gamgee's interesting and most convincing list of instances in which operative procedures, resulting in the saving of an incalculable amount of human life and in the relief of much suffering, have been founded on the results of experiments on animals; but we would strongly recommend our readers to purchase his essay, and study it for themselves.*

In concluding his essay, Mr. Gamgee makes some observations on the manner in which the Vivisection Act is administered. If, he says, it is to be administered in the spirit which has obstructed Professor Ferrier and Dr. Lauder Brunton in their experimental inquiries, by the formalities of the necessary legal licence, "there is an end to the British school of experimental and comparative physiology, pathology, and therapeutics, on the lines of investigation which give the greatest hope for the progress of human medicine and surgery." He does not, however, desire that the Act should cease to exist, but that a compromise should be made, and the Act administered in a judicious and forbearing manner.

"No one denies that experiment is the very essence of physical research, and no valid reason has been adduced why animal physics should be an exception. Under anæsthetics, it is possible to carry out the majority of scientific experiments on living animals without pain; but how is it supposed that operating surgeons can practise their difficult, delicate, and most anxious art without inflicting pain upon, and sometimes at the cost of the life of, human beings? It is surely wise economy and enlightened charity to sacrifice a few guinea-pigs and rats, if it be thereby possible to spare pain and life to some of God's best and noblest creatures.

"The love of animals, which is one of the prime movers in the breasts of those who oppose vivisection, is deeply to be cherished. As Englishmen, we yield for it to no nation. The alleged horrors of Alfort and of the Florence laboratory are not practised in Great Britain. We hold that scientific experiments on animals are indispensable. Let us reassure all kindly persons, by giving every possible guarantee that only essential experiments shall be performed, and in the most humane manner possible. Vivisection might be restricted to licensed public institutions, such as medical schools or other scientific colleges; and then under the control of their teaching and governing bodies. If, in something like this spirit, a truce be agreed upon, and the Act temperately administered, I feel quite confident that the medical profession will act in the matter in the same spirit of benevolence and honour in which they discharge all their public duties. But, if spies are to track every scientific inquirer, and such prosecutions as the recent one of Dr. Ferrier are to be renewed, I would venture to make an observation. Laws which are too stringent and uncompromising inspire their own violation. Smugglers are the outcome of oppressive fiscal laws, as body-snatchers were of prohibited human dissection.

"When philanthropists outside the medical profession evince so much anxiety for the prevention of cruelty to animals, and by implication, if not explicitly, accuse us of being indifferent to it, they may be reminded that the discoverers of vaccination and anæsthetics, the chief promoters of sanitary reforms, and the founders of conservative surgery, have one and all been members of the medical profession, without rivals beyond its pale. The duty of sometimes inflicting pain for the relief of greater suffering, or for the prolongation of life, is an unfortunate necessity. But in what spirit, with what success, that duty is discharged by those on whom it devolves, may be inferred from the fact that the humanity of our operating surgeons is scarcely ever called in question. A great part of their practice is in public. Wards full of men and women witness their procedure; and it may safely be stated that in every city and town in the empire, in the army and in the navy, no men are more popular with the masses, none enjoy more fully the confidence and respect of the thoughtful, than operating surgeons. Are such men not to be trusted to perform scientific experiments on brutes, with the minimum of suffering, when they consider them essential to obtaining information for the saving of life, or for demonstrating the means of saving it to those who adopt the medical profession as their vocation? The predominant judgment of history and of the civilised world answers in the affirmative."

We shall have another opportunity of referring to the admirable series of papers, in the current number of the *Nineteenth Century*, on this subject, by Sir William Gull, Mr. Fleming, and Dr. Lauder Brunton. The latter, especially, will be found to be a valuable storehouse of facts in relation to the additions to the knowledge of practical medicine contributed by physiological experiments. These essays will be read with particular interest in connection with the formation of the Association for the Advancement of Medicine by Scientific Research, which we announced in our last week's impression, and with its first general meeting, which will take place next week. This Association will, it is to be anticipated, include the whole force of the medical profession, and will avail itself of its combined influence to arrest the lamentable perversion of intelligence and human sympathies which the societies for the prevention of experiments on animals are organised to bring about, and in which object they have to some extent succeeded.

* It is published by Messrs. J. and A. Churchill of New Burlington Street; price sixpence.

PHYSIOLOGICAL TESTS IN CRIMINAL TRIALS.

THE adequacy or inadequacy of physiological tests as proof of the presence of vegetable alkaloids has been again brought prominently before the medical profession and the public by the trial of Lamson; and the occasion is one which cannot be neglected in the present state of the vivisection controversy. We may remind our readers that the Cruelty to Animals Act, 1876, better known as the Vivisection Act, makes express provision in criminal cases for dispensing with the ordinary tardy and vexatious mode prescribed for obtaining a certificate to experiment upon animals; and allows an application to be made to a judge,

when a criminal charge has been preferred, for an order to make physiological experiments with the view of detecting poisons. It is understood, however, that, in the Lamson case, no such application was made, and that Dr. Stevenson obtained his licence in the ordinary manner from the Home Secretary. Acting under instructions from the Home Office, it may fairly be concluded that the scientific experts had less difficulty in obtaining permission to experiment than might have been the case had an application been made to a judge; and the more so when it is obvious that the judge who would have had to consider the application might have been the Lord Chief Justice of England. So far as we know, this is the first instance since 1876 in which the exigencies of the case have imperatively demanded the application of such tests as would bring the operator within the provisions of the Vivisection Act; and hence the Lamson trial may be regarded as a test case, and one which will, we trust, carry conviction to the public mind as to the indispensable necessity of permission to perform physiological experiments on the lower animals in toxicological research.

In connection with this, it is interesting to note that, in each of the great State trials for poisoning which have occurred within the last thirty years, stress has been laid upon physiological experiments; and in none of these could proof of the administration have been obtained without the aid of such experiments. In the Palmer case, where strychnine was the poison used, and no alkaloid was found by chemical analysis in the body of Cook, great numbers of experiments were made upon animals by the experts who gave evidence on both sides. The symptoms exhibited by the deceased were compared with those produced by the alleged poison, strychnine, on animals; and the conclusion was drawn, from the similarity of the phenomena exhibited by Palmer's victim and by animals respectively, that the death of the former was brought about by strychnine; and this inference was accepted as conclusive by most of the heads of the profession of that day. In 1864, the Pommerais case occurred, in which a French physician poisoned his mistress by means of digitaline, a substance yielding no clearly distinctive chemical reactions. Indeed, no attempt was made to detect, by chemical means, the poison administered; and Tardieu and Roussin contented themselves with making alcoholic extracts of the vomit and other matters from the deceased woman, and administering those extracts to animals. Here, the evidence derived from a crude method of experimenting was thought to be conclusive as to the administration of digitaline, since the animals exhibited fatal toxic symptoms similar to those exhibited by other animals to which digitaline was actively administered. In the Palmer case, identity of action of the poison when given to man and to animals was the basis of the investigation; in the Pommerais case, beyond this, there was taken into account the identity of the action (in dogs) of the extracts from the ejecta of the deceased with that of the active principle of digitalis, viz., digitaline. Tardieu, indeed, strongly insisted upon this identity of action of the poison upon man and the inferior animals; and laid down the principle that such animals should be selected for toxicological experiments in a given case as most nearly approach to man in their physiological functions; and he preferred dogs to all other available animals.

Tardieu's dictum did not long remain unchallenged. Obviously it had this weak point, that large quantities of material are required to be given to the higher animals in order to obtain fatal, or even marked, results—such quantities, indeed, as are not always available. Accordingly, in the following year, Drs. Hilton Fagge and Stevenson took up the question. They endeavoured to get rid altogether of this question of "identity of action", and to utilise the lower animals—frogs especially—as creatures on which to experiment. Their conclusions, supported by a great number of experiments, were embodied in a paper presented to the Royal Society in the spring of 1865, an abstract of which appeared in the Society's *Proceedings*. The paper itself was subsequently published *in extenso* in the *Guy's Hospital Reports* for 1866. Drs. Fagge and Stevenson clearly pointed out that, so long as a substance, *e.g.*, a visceral extract, when administered to an animal, such as a frog, produces a definite physiological result, and this result is the same as is observed when a pure substance, for instance, digitaline, is administered to a like animal, it is immaterial for the purpose of toxicological analysis whether the symptoms exhibited by the animal be or be not the same as are produced by the pure substance in man. We may illustrate the matter thus. The experimental animal may be regarded as a test-tube already charged with a reagent; and if to this charged test-tube the substance to be tested be added, provided a clear and definite result ensue, a valid conclusion may be drawn. It is true that the presence of one substance cannot in all instances be affirmed; but when such a definite result as we have described ensues, the article operated on may with certainty be affirmed to contain one of a small and limited number of bodies.

In 1865, Drs. Penny and James Adams enunciated and applied these views of Drs. Fagge and Stevenson, on the occasion of the trial of Pritchard for the murder of his mother-in-law. To the former gentlemen, indeed, is due the merit of having arrived independently at the same conclusions as had previously been placed on record by the latter. The presence of aconite in Battley's solution of opium was demonstrated by the taste and by the action upon rabbits of extracts made from the solution in question. Here, once more, physiological experiments were accepted as conclusive, in the absence of chemical evidence.

We propose to revert to this subject in another article.

FEES TO MEDICAL EXPERT WITNESSES.

As the time of gentlemen who give scientific opinions, by way of testimony in judicial tribunals, and who are called experts, is very valuable on account of their being eminent in their vocation, and their services being much in requisition, it is right that they should be entitled to fair remuneration for their evidence.

An interesting case on this question was tried, last month, in the Superior Court of Boston, in the United States, from which it appears that a Mrs. Osgood was severely injured in an accident, owing to a defect in a street; and she engaged the medical attendance of Dr. Dwight for her treatment. Legal proceedings were shortly afterwards taken against the authorities of that city for damages for this occurrence, and she recovered a large amount; but not until after a very long contest, which included four trials. At two of these, the doctor was called to give evidence; and was examined, not only respecting his knowledge of the case, but also as an expert on the anatomy of the injured part of her person, the probable results of the accident, and the chances of her recovering from the injury. He was also, previously to the trial, consulted on these matters by the plaintiff's counsel. Now, as he was only paid the ordinary witness's allowance, he declined to give his opinion in court, as a medical expert, without being paid as such. The patient and her husband then gave him a promissory note for extra fees to do so, but afterwards declined to pay him the same; and, upon suing for the amount due upon this document, a defence was set up, on behalf of Mr. and Mrs. Osborn, that a medical man is bound to give evidence upon anything he may happen to know respecting a case in court, whether it be a matter of fact relating to the particular action, or of general professional knowledge or opinion, and that he is not legally entitled to a greater sum for giving his opinion than an ordinary witness can lawfully demand for his testimony; and, consequently, a promise to pay extra fees to an expert witness is an undertaking to pay for a service which the law requires to be done gratuitously, and hence the promise is not legally actionable. The court, however, rightly refused to allow this defence; and ruled that a physician is not bound to give his professional opinion in court without payment, any more than elsewhere; that he might require to be paid for the production of his evidence as an expert; and that the giving of this testimony, or a promise to give it, is a good consideration for an undertaking to pay for the same by the person at whose request it is given. Upon these statements, the jury found a verdict for Dr. Dwight to the full amount of his claim.

We are informed that this decision does not conclusively settle the

law upon the subject, as it is not proved by the Supreme Court of Massachusetts; but it forms a precedent which will probably be followed, as it coincides with the general opinion of the lawyers of that State. But in other States of the Union there appears to be a conflict of authority on the question.

According to English law, although it does not generally give a witness any right to compensation for his loss of time whereby a promise to pay for such could be enforced, it has been held that there is a difference between the case of a person who sees a fact and is required to prove it in a court of justice, and that of a man who is selected by a party to the cause to give his opinion on a matter upon which he is specially competent to speak with weight and authority from the nature of his employment or vocation; and therefore, while the former is bound as a matter of public duty to give testimony concerning a fact which happens to have fallen within his knowledge, the latter is not under such an obligation, and consequently the party who requires his evidence must pay him for such.

From this decision—and as it is the practice of the Masters of the High Court of Justice, in taxing costs in litigation, to allow expert or scientific witnesses very liberal fees beyond those which are paid to ordinary witnesses of the same profession—we have no hesitation in saying that not only was the ruling in the Boston case just and equitable, but are surprised that there is any contrariety of judicial opinion in other courts in the United States on this question, considering that the principles of express and implied contracts recognised in the tribunals of that country and our own are almost entirely the same.

THE first German medical congress will be held at Wiesbaden at the end of April.

ON April 18th next, a congress of Greek physicians and naturalists from all parts of the world will meet at Athens.

THE contributions to the Virchow testimonial fund amount to 76,612 marks (£3,830 12s.).

WE understand that there is a vacancy for Lecturer on Public Health at Guy's Hospital; Dr. F. Taylor having resigned this course, which he has held for some years.

MR. THOMAS METCALFE SMITH, formerly a corn and wine-merchant of Lincoln, has bequeathed £10,000 to the Lincoln County Hospital and £5,000 to the Dispensary.

DR. ZUCKERKANDL of Vienna has been appointed Professor of Anatomy and Superintendent of the Anatomical Institute in the University of Graz. He has a high reputation as a skilful and learned anatomist.

THE honorary degree of Doctor of Medicine has been conferred by the College of Professors of the University of Vienna on Herr Ludwig, the Professor of Chemistry in the University, in recognition of his eminent services to science and to education.

MRS. DOMVILLE, the widow of the late popular and highly esteemed Inspector-General Domville, who fell a victim to typhoid fever caught when in charge of Haslar Hospital, has been authorised by Her Majesty to occupy Mrs. Wyndham's suite of apartments at Hampton Court.

THE following gentlemen have been nominated as the Select Committee on Police and Sanitary Regulations:—Mr. Blennerhasset, Mr. H. H. Fowler, Mr. Garnier, Sir G. Goldney, Mr. Hastings, Mr. M'Laren, and Mr. Sclater Booth.

THE Prince and Princess of Wales have accepted an invitation to open the Convalescent Home at St. Leonard's-on-Sea during the summer. His Royal Highness will also preside at the festival dinner of the Victoria Hospital for Sick Children, on Wednesday, March 29th, at Willis's Rooms.

THROUGH the generosity of Mr. R. H. Wood, J.P., the town of Rugby is shortly to be possessed of a free hospital for the poor. This gift, which is of the estimated value of £30,000, is to include a freehold site of ten acres just outside the town, a new hospital for thirty beds, and ample endowment to maintain the institution in proper working order. Both in the style of its architecture and in the completeness of its internal arrangements the hospital, of which Mr. Waterhouse is to be architect, will be constructed on an elaborate scale.

MR. C. S. LOCH, Secretary of the Charity Organisation Society, sums up, in the current number of the *Sanitary Record*, the conclusions which he has drawn from the prolonged investigations by committees of that Society, of the working of the Industrial Dwellings Act, and the desirable means of remedying their defects.

A WELL worded petition against the total abolition of vivisection has been drawn up in Hereford, signed by all the practitioners in the town. The full petition, *with its signatures*, has been published in the local journals, and affords a striking protest and statement of medical opinion which must affect favourably public opinion in the neighbourhood.

THE precise title of the new association which will be founded at the meeting of representatives at the College of Physicians on the 28th instant, will be Association for the Advancement of Medicine by Scientific Research. It is intended that the by-laws to be proposed shall provide for the representation on the Council of all the leading associations and corporations.

WE regret to record the death of Dr. J. C. Reid of Newbiggin-by-the-Sea. The deceased gentleman, who was sixty-seven years of age, and a Scotchman by birth, held for a considerable time the position of medical officer to the Newbiggin Local Board of Health, and was well known and highly respected in many parts of the north-east coast of Northumberland.

AN exceptionally low death-rate is reported at Eastbourne during the past year, the total deaths (269) being equal to a rate below 13.0 per 1,000 of the population. The matter is one of importance, having regard to the increasing popularity of the town as a health-resort; and, in this connection, it deserves to be mentioned that one-fifth of the whole mortality happened in persons over sixty years of age.

IN connection with the Jubilee Meeting of the British Medical Association at Worcester, we are asked to state that the annual museum will be held in the large music-hall, which will be devoted exclusively to the purposes of a medical, surgical, sanitary, and pathological museum. The total floor-space of this building is about 4,000 square feet, applications for which should be addressed to the Secretary, Mr. J. Randle Buck, 26, Sidbury, Worcester.

MISS JOANNA HASTINGS of Malvern, the eldest sister of Sir Charles Hastings, the founder of the British Medical Association, completed the hundredth year of her age on Tuesday, the 14th instant. Although somewhat infirm in body, her mental faculties are, it is said, still vigorous, and her health is good. On her birthday, she received numerous congratulations, and dined with a large number of members of the Hastings family at the residence of her nephew, Mr. George Hastings, M.P., of Barnard's Green, where she responded in well-chosen and vigorous words to the toast of her health. The father of Sir Charles Hastings, the Rev. James Hastings of Martley, was above a century old at the time of his death in 1855.

SOME remarkable revelations were recently made at Wolverhampton, in the course of a prosecution, under the provisions of the Sale of Food and Drugs Act, of a milk-seller for selling milk adulterated with water. It was stated by the wife of the wholesale dealer, from whom the milk was obtained, that she rinsed out her milk-cans with water obtained

from a well which closely adjoined the house-drainage, and afterwards put these rinsings into the milk, which was sent to the defendant. She also admitted that she was aware that complaints had been made of the great amount of sickness prevailing, owing to the sale of impure milk; and, further, that she had been cautioned by the health-officer not to use for drinking-purposes the water obtained from the well in question.

THE meeting at Mrs. Gladstone's, in support of the project initiated by Miss Wardell for the foundation of convalescent homes for scarlet fever cases, was unusually brilliant and eminently successful. Mrs. Gladstone has been conspicuous among the women of her time for the earnestness with which she has laboured, and the intelligence with which she has advanced an important series of medical charities and philanthropic movements. Her services in the East of London during the time of the cholera, and at the London Hospital, will always be memorable; and in bringing the great influence of her position, her character, and her name to bear upon the extension of convalescent institutions for persons suffering from this class of infectious disease, she has rightly judged herself to be aiding one of the most valuable of modern movements.

AMONG the speakers was Mr. Gladstone, whose powerful eloquence was aided by the basis of interesting statistical facts upon which he founded his speech. He quoted from Sir Rutherford Alcock statistics of the deaths from scarlet fever in the metropolis, which have been 2,574 annually, on an average, during the last ten years. Thus, it will be seen that the task of providing for the vast army of convalescents from this infectious disease is no light one. It may be doubted, indeed, whether those of the public who are approaching it really estimate the far-reaching character of this inquiry.

SIR RUTHERFORD ALCOCK indicated, however, some of its larger bearings, in speaking of the bitter opposition which has obstructed the efforts of the Metropolitan Asylums Board, to carry out the duty intrusted to them of providing hospital accommodation for infectious cases. In their acute stage, scarlatina convalescents are not less, but rather more, infective than small-pox cases, and they do not carry the same signals of danger about them; neither is there any known means, as in the case of small-pox, by which others can, by vaccination, or revaccination after adult age, protect themselves from the infection. Therefore, no less opposition must, it is to be feared, be expected to any considerable effort to provide convalescent homes for scarlatina patients than has met the Asylums Board and the Home Hospitals Association in their respective spheres. Sir Rutherford Alcock, indeed, intimated that the danger from fever patients is less than from small-pox patients, especially in respect to atmospheric infection. We very much doubt, however, if there be any real cogency in this statement, and whether, on the contrary, it would not be found, if the same minute inquiry were made, that there is no difference between the infective power of small-pox and of other fevers.

DR. BROADBENT made an useful point in his speech, when he declared that the patient, once brought into the hospital, ceases to be a source of danger to the community; and this is as true of the one series of cases as of the other.

DR. ANDREW CLARK, in the course of a very eloquent and effective address, aroused the alarms and susceptibilities of some of his audience, by alleging that the cancer of individualism, which has, he says, broken out in charitable institutions, is a form of disease which threatens the popularity of success, and attacks the financial prosperity of our voluntary hospitals. This allusion to the respective forms of egotism, which result, on the one hand, in the monstrous development of individualism among the directors of nursing departments of our general hospitals, and the sporadic and fungoid growth of unnecessary and often mischievous little special hospitals, was worded vigorously, though vaguely, and is likely to bear fruit in many minds. Altogether, the meeting will have served a doubly useful purpose. It has largely promoted the good work of founding a most useful institution, and it has called public attention to the uncontrolled extension of epidemic disease of a preventable kind, which now desolates our communities. The uncontrolled spread of scarlatina, of small-pox, of typhoid, and other zymotic diseases, is a blot on our civilisation, and one of a deeper dye, in that these diseases are of a preventable character; and, if duly notified in the first instance, and carefully dealt with by isolation and preventive sanitary measures, it is certain that their early beginning could be arrested, and the occurrence of serious epidemics would be in the future impossible. We have blotted out Asiatic cholera, one of the dreaded scourges of our population; and, in the early notification of infectious disease, the isolation of individual cases, and the vigilant adoption of general sanitary measures, lie the secret of the means of preventing the diseases which we have named from continuing to be the reproach and the scourge of our population.

ADMITTANCE to the Exhibition of Hygienic Wearing Apparel, opened by the National Health Society at the Cavendish Rooms, Mortimer Street, Regent Street, is confined to ladies. It has, we believe, been well attended, and includes a great number of interesting articles of apparel healthy to wear, but yet of artistic effect. Doctors are at present rigidly excluded, which is, perhaps, unfortunate for the influence of the exhibition for good, since among medical men such a movement finds its most powerful guidance and useful help. It is, however, open to the wives of medical men, who may find in it much material for instruction and useful influence, and perhaps some also for personal amusement. We shall not presume to suppose that its teachings are of a kind from which the wives of medical men need to gather personal instruction.

ST. BARTHOLOMEW'S HOSPITAL.

ON Thursday, March 23rd, Mr. James Shuter, M.A., LL.B., and M.B., Cantab, F.R.C.S., was duly elected Assistant-Surgeon to St. Bartholomew's Hospital, gaining 127 votes, a majority of 79 over the candidate second at the poll, who scored 48 votes. Mr. Shuter, as we have already announced, has held several junior appointments at the hospital; he is also known as the editor of Mr. Luther Holden's *Landmarks, Medical and Surgical*, and of the fifth edition of *Human Osteology*, by the same author. Mr. Shuter has been, for several years, assistant-surgeon to the Royal Free Hospital, and has been appointed one of the secretaries of the Anatomical Section of the next annual meeting of the Association. The increased surgical staff of St. Bartholomew's Hospital is now complete, consisting of five surgeons, Mr. Savory, Mr. T. Smith, Mr. Willett, Mr. Langton, and Mr. Baker, and five assistant-surgeons, Mr. Marsh, Mr. Butlin, Mr. Walsham, Mr. Cripps, and Mr. Shuter. The new arrangements, in accordance with the redistribution of the duties of the staff as now constituted, were settled at a General Court of Governors of the Hospital last January; an account of the proceedings of the Court will be found in our issue of January 28th, page 128.

FATAL FLOWERS.

NOTTINGHAM is at the present time visited by so serious an epidemic of small-pox, that it has been necessary to organise a house-to-house visitation, so as to ensure the removal of cases of the disease from overcrowded localities to the hospitals provided for their reception. In the course of the perquisitions, the chief inspector entered one of the "back-to-back" houses, of which there are many in Nottingham, and in which, of course, thorough ventilation is impossible. In one of these tenements, consisting of a common sitting-room and two bedrooms, occupied by two families, lived a hawker, his wife, and daughter. The man himself was down with small-pox; his wife was nursing him, and, in the intervals of attending to him, was arranging flowers, which she had purchased for the purpose, into the little bouquets known as "button-holes", and which she was about to try to sell in one of the chief thoroughfares of the town. Needless to say

the inspector bought the flowers from the poor creature, and sent the sick man to hospital; but, as the woman had been selling these bouquets on previous days in the public thoroughfares, it would be hard to say how many apparently mysterious cases of small-pox may not yet appear in Nottingham. The utility of a house-to-house visitation, and of removal to hospital, in time of epidemic, was perhaps never more conclusively demonstrated.

THE INTERNATIONAL MEDICAL CONGRESS.

We have received from Claudet's photographic studio, 107, Regent Street, a handsome and serviceable photographic album, containing a very fine series of cabinet portraits, executed for the purpose by Mr. G. Gerrard, of the President of the International Medical Congress held in London last year, and also of the Secretary, and of the Presidents and Vice-Presidents of the various Sections. The first page contains the portrait of H.R.H. the Prince of Wales. The series of portraits, which are all of full cabinet size, are among the most remarkable successes of the art of photographic portraiture which we remember to have seen. The likenesses are exceedingly good. The point of view has been selected in each case with remarkable intelligence; and the likenesses of Paget, Mac Cormac, Flower, Turner, Michael Foster, Hutchinson, Burdon Sanderson, Gull, Quain, Wilks, Bristowe, Pavy, George Johnson, Erichsen, etc., are singularly life-like. It is a most interesting volume; and such a selection of portraits of eminent medical men, so grouped in connection with the memorable event they commemorate, will certainly be treasured as a valuable and delightful memento by those who are fortunate enough to be able to acquire it.

THE NOTIFICATION OF INFECTIOUS DISEASES.

The Bill which has been framed by the Irish Medical Association and the Dublin Branch of our Association, to provide for the notification of infectious diseases in Ireland, was down for second reading on Tuesday, and again on Wednesday last, but was not reached on either occasion. Mr. Gray, who has himself a Bill on the subject similar to that which he introduced last year, has given notice of opposition to the first Bill, which is backed by Mr. Meldon, Mr. Maurice Brooks, Mr. Findlater, and Mr. Moore. Mr. Gray's own Bill was itself down for second reading on Wednesday, but the other business on the paper prevented its discussion. The Bill introduced by Mr. Hastings and others, for the extension of the system throughout England and Wales, has the second place amongst the orders of the day for Wednesday next. Mr. Thomasson, the member for Bolton, has given notice of his intention to move the rejection of all three of these Bills.

THE CASE OF MR. T. A. SMYTH.

At the adjourned inquest held by Mr. Langham on March 17th, on the body of the Rev. Matthew Campbell, late curate of All Saints', Surrey Square, Camberwell, Mr. T. A. Smyth was committed for trial for manslaughter. From the evidence, it appeared that Mr. Smyth had been practising as a medical man without having a qualification. He had a plate with "Surgeon" engraved upon it, on his street-door. The widow of the deceased stated that, on Saturday, February 25th, she told Mr. Smyth that her husband had not passed water for three days. Her husband was under the impression that Mr. Smyth was a fully qualified practitioner, and that he was connected with the staff of St. Thomas's Hospital. She told Mr. Smyth that she thought her husband was in a dangerous state, and asked him if he had instruments to draw the water. He said he had none, and that there was no immediate danger. On the 28th, Mr. Smyth called again, said there was no danger, and that he would return in two hours, and relieve Mr. Campbell, but he never returned. On March 1st, Dr. Chaning Pearce was sent for, who said the case had been neglected, and advised him to be sent to the hospital. Mr. Pitts, resident surgical assistant at St. Thomas's, stated that deceased died from extravasation of urine, caused by non-attention, the redness and inflammation of the parts having extended up the loins when he was seen in the hospital. He was operated upon, but died. The claim to medical knowledge possessed by the defendant was that he had been a student at St. Thomas's Hospital. After the defendant had been committed for trial, some of the junior students of St. Thomas's Hospital remained behind, and expressed their disapproval of Mr. Smyth by pelting him with stale eggs. After a scene of great disorder, an extra force of policemen appeared on the scene, and put an end to what at one time threatened to be a serious riot. It is much to be regretted that medical students should so far forget their position in relation to the hospital to which they may belong, and their own personal dignity; and the hospital authorities should, we think, take serious notice of this misconduct. One element of disorder in most inquests is that they are usually held at public-houses, as was the one in question, which deprives the proceedings of much of the dignity of a court of justice. Nothing, however, can justify such misbehaviour. There is only too frequent a tendency to fix unjustly upon medical students of the present day a general charge of roughness and disregard of the proprieties of conduct. Such a mode of exhibiting a justifiable indignation will gratify the detractors of their class, who will not trouble themselves to inquire into the circumstances which roused the students to a righteous anger, seeing that it vented itself in an unseemly manner.

THE SALE OF POISONS.

Pauline Larkworthy, wife of a druggist, has been charged at Brentford Petty Sessions with selling ammoniated mercury, commonly called white precipitate, contrary to the Sale of Poisons Act (31 and 32 Vict., c. 121). The poison had been sold to a woman who attempted to commit suicide with it, and was only resuscitated with great difficulty after the use of the stomach-pump. Defendant said she only did the same as other chemists who used the word "Poison" without the name and address. The police said the Act was being constantly violated. A fine of 40s. was inflicted.

THE WOLVERHAMPTON GENERAL HOSPITAL.

A correspondent writes: At the annual meeting of the board of governors of this charity, held on Tuesday, March 14th, Lieut.-Colonel Thorneycroft in the chair, a report was read from the committee which stated that the out-patient department had grown too large for the existing staff, and recommended the appointment of "two honorary assistant-physicians and two honorary assistant-surgeons, such assistant-physicians and assistant-surgeons not to be restricted in their private practice, and to possess the qualifications which are respectively necessary for the office of honorary physician and honorary surgeon." In the discussion which followed the reading of this report, great exception was taken to the proposal to allow the assistant-physicians to engage in general practice, as this was regarded as calculated to deteriorate the medical status of the charity, and was withholding from the poor the advantages to which they were entitled. Ultimately, an amendment recommending the appointment of a third physician, to be paid an honorarium of £100 a year, was carried by a large majority. It is certainly somewhat surprising that a report emanating from the committee of the hospital should have been so ill supported, and defeated so easily by an amendment which made only partial provision for meeting the difficulty, as the surgical out-patients are altogether unprovided for by it. It is no doubt desirable that, so far as possible, hospital appointments should be held by those who limit their practice to one or the other of the great divisions, medicine or surgery; but it is found quite impracticable to do this everywhere. Specialism in practice implies residence in a large centre, and only large centres can support many specialists, so that it may well happen that the town of Wolverhampton, for example, should be unable to support as many practising physicians as may be required to perform the duties of the medical staff at the hospital. Under these circumstances, there are only two alternatives: either the staff remains insufficient, in which case much of the work that should be performed by the senior and responsible officers actually falls to the house-physician, or it must be increased by appointing general practitioners to the out-patient offices. In the interests of

the patients, there can be no doubt that the latter alternative is the proper one to select.—Dr. Totherick of Wolverhampton writes to the local paper on the subject as follows. "The question has been before the public for nearly twelve months; a committee, consisting of the weekly board, the medical committee, and a large number of the largest contributors and most influential men, had several meetings, and at last reported by a large majority in its favour; four out of six of the medical staff of the hospital voted for it; several most able and well-informed leading articles have appeared in the local *Evening Express* and other papers, advocating the measure; and yet it has been thrown out at a general meeting of the governors. Once again some poor young physician is to be lured here by deceptive promises, and 'an honorarium' of £100 *per annum*, to keep the wolf from the door; and the very able and learned men we have in general practice in the town are to be prevented, for his sake, from being connected with the hospital to which they would willingly have given their services. Several of those who voted in the majority confess that they did not understand the matter, but voted as a personal favour to certain well-known men who asked them."

CHARLES MURCHISON SCHOLARSHIP IN CLINICAL MEDICINE.

THE first examination for this scholarship, which has been instituted as a memorial of the late Dr. Charles Murchison, will be held at the Royal College of Physicians on Friday, April 21st, at 4 o'clock. The scholarship will be competed for alternately in London and in Edinburgh, and is intended to attract such candidates as have already distinguished themselves in clinical medicine in their respective schools. It is hoped that the title of Murchison Scholar will indicate very exceptional merit in the possessor of it. All particulars relating to the examination are given elsewhere in our pages; and it may be noted that candidates are required to have studied either in London or in Edinburgh, and only in such schools as are recognised by the Royal College of Physicians of London or by the University of Edinburgh.

NEWCASTLE-ON-TYNE DISPENSARY.

THE first of a course of lectures upon aural surgery was delivered by Dr. Holland, the Aural Surgeon, on Friday, March 17th. The opening address was on the Comparative Anatomy of the Ear. There were recent dissections of the ear in the three great vertebrate groups. The department was originated in March 1878, and there has been recently added to it the lectureship. The dispensary is in its one hundred-and-fifth year, and has a staff of four physicians, two surgeons, one aural surgeon, a house-surgeon, and four assistant-surgeons; and last year attended about twenty thousand cases at the dispensary and at home.

SMALL-POX IN MAIDSTONE GAOL.

THE recent outbreak of small-pox in Her Majesty's Prison at Maidstone has afforded Mr. Matthew Adams, the health-officer of the borough, the opportunity of making an interesting report as to the method in which the contagium of that disease found its way into the gaol. Mr. Adams has carefully considered all possible explanations for the outbreak, and the only way in which he can account for it is the following. A barge from London lay at New Hythe from the 11th to the 15th of December, the mate (and possibly the captain) of the barge frequenting a certain inn there. This mate felt very ill when he reached New Hythe, and, getting no better, went home to Maidstone, where he sickened with very severe small-pox, and was removed to hospital. The inn at New Hythe was also daily visited by a man who, about Christmas-time, assaulted the police, and was lodged in gaol from December 29th to January 2nd. On that date he was released, feeling ill, sick, and trembling, and he subsequently came out in a pustular eruption, which, considering he had been well vaccinated, it is by no means unlikely was modified small-pox. Mr. Adams's explanation is, that this man brought the infection of that disease into the prison, and gave it to the other prisoners during his intercourse with them at chapel and in the workshed. It is true, that this theory strains somewhat severely the incubation period of small-pox; but, as no other explanation seems forthcoming, and the cases can be accounted for in this way with a reasonable show of probability, Mr. Adams's report must apparently be accepted. It should be added, that there were in all ten cases, the whole of which occurred in a batch within (judging by the rash) seven days.

ELEPHANT'S MILK

IN the present state of public interest in all that concerns elephants, an analysis of elephant's milk, made by Professor Doremus from samples obtained from the animal which has just given birth to a baby specimen in Barnum's menagerie at New York, may be acceptable. The Professor reports:

When first I examined the specimens, they seemed watery; but, after allowing the milk to stand, I could not help wondering at the large percentage of cream. The following represents the daily diet of the mother: 3 pecks of oats, 1 bucket of bran mash, 5 or 6 loaves of bread, ½ bushel of roots (potatoes, etc.), 50 to 75 pounds of hay, and 40 gallons of water. The last specimen of milk I obtained exceeded the others in quantity, and would, therefore, be the fairest for a test. It took several milkings to get even these; for the calf would begin to nurse, then stop, and when she stopped the flow of milk did also. The analyses of the samples gave the following results:

	First.	Second.	Third.
Quantity	19 cub. cent.'	36 cub. cent.	72 cub. cent.
Cream	52.4 vol. p. ct.	58.	62.
Reaction	Neutral.	Slightly alkaline.	Slightly acid.
Sp. Gr.	..	..	1,023.7
In 100 Parts Weight.			
Water	67.567	69.286	66.697
Solids	32.433	30.714	33.303
Fat	17.546	19.095	22.070
Solids not fat	14.887	11.619	11.233
Caseine	14.236	3.694	3.212
Sugar		7.267	7.392
Ash	0.658	0.658	0.629

It is evident, from these analyses, that the milk approaches the composition of cream. The milk was pleasant in flavour and odour, and very superior in these respects to that of many animals. The fat is a light yellow, resembling olive-oil; it is very pleasant in odour and taste, is liquid at common temperatures, but solidifies at a temperature of 64° Fahrenheit. From whatever standpoint, therefore, we view the lacteal products of these four-footed giants, we are fully warranted in ascribing to it not only extreme richness, but also great delicacy of flavour.

It may be instructive to note that Professor Doremus, while on the visit, during which he made the above analysis, fortunately escaped serious injury from a most unexpected and violent assault by the father of the baby elephant. The elephant seized him around the waist with his trunk, and swung him violently against the side of the room. He owes his escape to the ready aid of the keeper, and suffered only a slight wound in the head.

DALRYMPLE HOME FOR INEBRIATES.

WE have the pleasure of informing our readers that the licence of the Board of Trade has been obtained by the managers of the Dalrymple Home for Inebriates, to enable them to dispense with the word limited in their prospectus, and to be registered with limited liability. The company was formally established at the meeting which was held at the Mansion House in the month of May last. Such have been the delays incidental to the work, that it was only on the 7th of the present month that permission was given for the incorporation of the company. A meeting of the promoters was held at the office of this Association on Tuesday last, when Canon Duckworth was appointed Chairman, and Dr. Alfred Carpenter, Vice-Chairman, of the Committee of Management, and Dr. Norman Kerr Honorary Secretary. It was suggested by Dr. Cameron that measures should be at once taken to make the incorporation of the company fully known, and it was also determined to advertise for premises fitted for the purposes of the Association.

Any member of the British Medical Association who is acquainted with such premises would oblige if he would send particulars to Dr. Norman Kerr, 42, Grove Road; and all gentlemen willing to assist the measure may do so by joining the Association, and thus helping forward an establishment which is urgently needed.

A MUNIFICENT BEQUEST.

ONE of the most munificent of modern bequests to hospitals has fallen to that admirable institution, the Royal National Hospital for Consumption, Ventnor, Isle of Wight. This hospital, founded by a distinguished member of our profession, Dr. Arthur Hill Hassall, on the cottage system, will receive a sum of nearly £200,000, under the will of the late Mr. John Jones of Piccadilly. There is not a more beneficent and useful institution in the country than this, which is the youngest, and is the most intelligently devised and constructed, and one of the most ably administered, of our voluntary hospitals. The members of the British Medical Association had recently the opportunity of inspecting and appreciating its merits, under the guidance of Dr. Sinclair Coghill, visiting physician.

NEPHRECTOMY.

THE two patients on whom nephrectomy has recently been performed by Mr. Knowsley Thornton, at the Samaritan Free Hospital, are both proceeding favourably; the second patient, who underwent the operation on Wednesday, March 15th, having suffered but very little shock, although the removal of the cystic kidney, which was in a state of suppuration, discharging through an opening in the loin, and the precautions necessary for securing the pedicle and cleaning the peritoneum, were tedious and prolonged proceedings. We are informed, on the operator's authority, that these cases will be very shortly reported before the Royal Medical and Chirurgical Society. In both, the abdominal incision was made not in the middle line, but along the outer border of the rectus muscle. We also learn that Mr. Adams's case of nephrectomy is progressing favourably.

LUNATIC GRIEVANCE.

A GENTLEMAN, discharged last year from the Barnwood Lunatic Asylum at Gloucester, has complained to the Commissioners in Lunacy that all his letters, written when in a state of insanity, were duly forwarded to their destination. He is indignant that epistles bearing evident traces of mental disease, which he addressed to numerous friends, were punctually transmitted to them, and that he was thus, as it were, permitted to make a fool of himself in public. The complaint has hitherto been that letters are intercepted in asylums; and we can well believe that those who are in charge of the insane are sorely puzzled what to do with the correspondence of their patients, as whether they forward or detain letters they are equally liable to give offence.

CREMATION AND EXHUMATION.

THE case of Williams *v.* Williams was tried before Mr. Justice Kay in the Chancery Division of the High Court of Justice, on the 8th instant. The circumstances were as follows. It appears that the late Dr. Henry Crookenden had not only formed a strong opinion in favour of cremation as a way of disposing of human remains, but had resolved that his own body should be cremated, if possible. Either because he doubted whether the members of his own family, to whom he bequeathed his property, would carry out his wishes in this respect, or for some other reason not explained, he entrusted the execution of the crematory rites to his friend Miss Eliza Williams. By a codicil to his will, he directed that, within three days after his death, or as soon as conveniently might be, his body should be given to her, to be dealt with in such manner as he had directed in a private letter left in her hands. In the letter referred to in the codicil, he preferred what he termed his "little request", to the effect that she would see his body burnt on, or rather under, a pile of wood; and he even entered into some details as to the process to be adopted; his idea being that the corpse should be laid on a layer of dry faggots, and covered with a mass of fuel, called "cord wood", which, if tolerably dry, would burn fiercely for hours, and consume whatever was combustible. His calcined bones and ashes he desired to be subsequently collected and put in a favourite Wedgwood vase, which was to be ultimately buried with Miss Williams, or otherwise disposed of as she might think best. On the death of Dr. Crookenden, his wife, family, and executors, in spite of the protests of Miss Williams, caused him to be buried in the Brompton Cemetery, in the usual way; but that lady was not thus to be prevented from fulfilling her pious trust. Three months after the interment, she applied to the Secretary of State for his licence to remove the body for the purpose of cremation, or for reburial in consecrated ground, Dr. Crookenden having been a Roman Catholic, and having been laid, not in consecrated ground, but in a grave which was simply blessed by the officiating priest. The Home Secretary declined to permit exhumation for the purpose of cremation, but he inquired to what burial-ground it was proposed to remove the remains; and being informed that it was to a parish churchyard in Montgomeryshire, he issued the required licence. The body was accordingly raised; but, instead of being carried to Wales, it was conveyed to Milan, and there cremated at a cost of £321, which Miss Williams now sought to recover from Dr. Crookenden's executors. Mr. Justice Kay gave judgment against Miss Williams's claim to this sum, holding that the removal of the body to Italy to be cremated there was an illegal act, and a fraud on the licence. Absolving Miss Williams of any intention to do that which was improper, and believing that she thought herself under a paramount obligation to carry out the wishes of the testator, he decided that her action was illegal, and that she could not recover the money which she claimed. Mr. Justice Kay laid down the law that there can be no property in the dead body of a human being, that a man cannot by will dispose of his own body, and that the cremation of a human body is not lawful in this country. Many nervous persons will possibly be alarmed by this revelation of the facilities offered for the removal of bodies from what is fondly believed to be their last resting-place, without the cognisance of those who had most affection for "the silent dust".

SCOTLAND.

FAREWELL DINNER TO PROFESSOR CUNNINGHAM.

DR. D. J. CUNNINGHAM was entertained at a farewell dinner on St. Patrick's Day, before leaving Edinburgh to undertake the duties of Professor of Anatomy to the Royal College of Surgeons in Ireland. Professor Turner occupied the chair, and Professor Douglas Maclagan and Mr. John Chiene acted as croupiers. Among those present were the Rev. Dr. Cunningham, of Crieff, father of the guest; the Rev. Wm. Browne, of Beith, his father-in-law; Professors Macnamara and Stokes, of Dublin; Professors Balfour, Grainger Stewart, Annandale, and Dickson, of the University of Edinburgh; Principal Walley and Professors Aitken and McFadyean, of the Royal Veterinary College; Drs. Wyllie, James, Bramwell, A. Thomson, Cathcart, Hart, Murray, etc. A very enjoyable evening was spent.

INFECTED MILK AND SCARLET FEVER.

IN consequence of a renewal of the outbreak of scarlatina at Greenock, Dr. Wallace, the medical officer of health, has been led to make a rigid inquiry into the circumstances of the extension. He ascertained that the disease prevailed in a number of families who obtained their milk-supply from the same dairy-farm; and, on an inspection being made, it was found that no fewer than four of the dairyman's children were stricken with the disease. The milk-supply was at once stopped, and the sufferers removed to a neighbouring empty house. Upon the farmstead and its appurtenances being disinfected and cleansed, and the milking of the cows done by persons not connected with the establishment, the milk was again allowed to be sold to the public. Dr. Wallace adds that, between the 19th of January, when the disease broke out in the farmhouse, and the 1st of February, no fewer than eleven families

supplied with milk by the farmer were invaded by the disease, the number of individual patients being twenty. These epidemics of infectious diseases due to the drinking of polluted milk appear to be now becoming so common, that no notice is taken of them. It must not, however, be lost sight of that every single case of disease thus caused is absolutely preventable by precautions, of which the thoroughly practicable character has now been conclusively proved on a large scale in London, and also in Bristol, Glasgow, and elsewhere. The negligence which can permit such a state of things to occur as that described would probably be amenable to a substantial fine or imprisonment, if it were felt that omission to comply with the requirements of the law would certainly be punished by prosecution; and every such case ought, in the public interest, to be brought before the law-courts, if only as a wholesome warning for the future.

ROYAL INFIRMARY, EDINBURGH.

THE active connection of Dr. G. W. Balfour with the Royal Infirmary, Edinburgh, concludes this month. Remembering the valuable contributions Dr. Balfour has made to practical medicine by his clinical studies (especially in cardiac diseases), this intimation will be received with regret; and if a prolonged term of office could have been afforded him (without injury to those who necessarily look for promotion on the retirement of a physician), it would have given satisfaction to all in the profession. By his retirement, Dr. Wyllie, the senior assistant physician, is advanced to a physicianship; there is thus a vacancy for an assistant physician, which will shortly be filled up. So far as we are aware, the candidates (who must all be Fellows of the Royal College of Physicians of Edinburgh) are: Dr. James, Lecturer on Physiology, Surgeons' Hall, Edinburgh; Dr. Byrom Bramwell, Lecturer on Practice of Physic, Edinburgh Medical School; Mr. J. Murdoch Brown, M.B., Clinical Medicine Tutor in the University of Edinburgh; and Dr. G. A. Gibson, Lecturer on Physical Diagnosis and Medical Anatomy, Edinburgh Medical School.

ACROBATIC DISLOCATIONS.

A MAN was shown in the operating-theatre of the Glasgow Western Infirmary, by Professor George Macleod, on the 15th instant, who went through some remarkable feats. With the exception of the elbow, he had the power of dislocating voluntarily any joint of the upper or lower extremity, and afterwards reducing them. He also went through some acrobatic feats, which were very extraordinary. He seemed to have a maximum of muscular power with a minimum of ligamentous resistance. We shall give some further details next week.

IRELAND.

SMALL-POX.

DR. RIGGS, medical officer of the Armagh Workhouse, reported last week that there were only five acute cases of small-pox in the hospital, while 27 were convalescent, and 7 had been discharged during the week. For the week ending March 11th, there were 107 cases of small-pox in the hospital for infectious diseases, Belfast, against 121 on the 4th instant, only 10 fresh cases having been admitted during the week. Five deaths were registered in Belfast from the disease, but the epidemic is rapidly subsiding.

REMUNERATION OF CORONERS.

AN application was made to the County Down grand jury, last week, to fix the salaries of the county coroners. Under the old system the remuneration was 30s. for each inquest held in the half-year, provided the total did not exceed £50; but, by the Act passed last session, considerable alteration has been made. There are two coroners, and, both having been examined as to the nature of the duties they were called upon to perform, the salary of one was fixed at £175 *per annum*, and the other at £130 yearly.

VACCINATION FEES.

DR. WOODS, medical officer of the Monaghan Dispensary, has furnished an account to the guardians for over £100 for vaccination fees for persons vaccinated within the past fortnight. It was, however, contended that the list of those vaccinated, which had been supplied by Dr. Woods, contained the names of people who were well able to pay themselves, and the guardians have remitted the account to the Local Government Board for their advice as to whether the ratepayers are liable in these cases.

LISMORE UNION.

IN consequence of the prevalence of fever in Cappoquin district, the Local Government Board have requested Dr. Redmond, dispensary medical officer, to furnish them with a special report in reference to the matter. Dr. Redmond is also expected to supply a report on the sanitary condition of the town of Cappoquin.

THE QUEEN AT MENTONE.

WE have been informed on the best authority that Her Majesty, who reached Mentone after a journey of eighteen and a half hours only from Cherbourg, was quite well and in good spirits, and has continued so ever since. The arrangements of the Villa des Rosiers have been found most satisfactory by those who surround her; and Her Majesty expresses herself much pleased with her residence, the climate, and the scenery. On the evening of the day of arrival, Dr. Henry Bennet handed over to Sir Henry Ponsonby the keys of his Mountain Garden and Saracenic Tower at Grimaldy. At Mr. Charles Henfrey's request, some weeks ago, Dr. Henry Bennet offered his picturesque property to Her Majesty's representatives during her residence at Mentone, as a mountain resort, and it was accepted. This well known garden is one of the most picturesque spots in the Mediterranean, about a mile from the town, on the Italian side of the frontier. It is situated on the side of a high mountain, is 300 feet above the sea, and is composed of terraces rising one above the other, planted with olive trees, orange and lemon trees, and the flora of the southern hemisphere. The mountain amphitheatre of Mentone is seen better from the "Fighting Terrace, at the summit of the Saracenic Tower; is finer, more complete, and more striking, than from any other point." The air on this mountain, Eldorado, is pure and bracing; and Dr. Henry Bennet attributes his own recovery of health, in a great measure, to all his leisure hours having been spent there, between the earth and the sky, for the last seventeen years. The property is thoroughly isolated, far removed from all habitations, the Italian Custom-house excepted, and yet commands a magnificent distant view of the town of Mentone, and of the surrounding mountains.

The weather continues magnificent, and the sea is as calm as a lake —an unusual occurrence at this time of year. The *Inflexible*, ironclad, has arrived from Malta, and lies like a huge floating fortress in the middle of the bay, half a mile from the shore. The town is in a state of very unwonted excitement, full of English sailors and marines, and of visitors, who have crowded in from all parts of the Riviera to honour their Queen.

THE CONTAGIOUS DISEASES ACTS.

THE Select Committee to inquire into the operation of the Contagious Diseases Acts met for the first time this session on Friday, the 10th instant. Mr. O'Shaughnessy has been appointed Chairman in place of the late Mr. Massey, and Mr. Hanbury Tracy has been elected on the Committee.

The first witness called was Mr. Wreford, chief constable of the borough of Plymouth. He was examined at great length by Mr. William Fowler, with a view to controverting the statements and returns of Mr. Anniss, the special inspector charged with the carrying out the Acts in Plymouth. Mr. Wreford stated that the number of brothels and prostitutes had decreased in his town within the past fifteen years; but, while Inspector Anniss had alleged that this diminution was entirely due to the working of the Acts, Mr. Wreford attributed it to the greater activity of the local police in carrying out the by-laws of the borough, and particularly to the operation of the Licensing Act of 1872. In support of his statement, he put in several returns showing the number of persons convicted under the borough by-laws and Licensing Act during the past fifteen years for various offences in connection with prostitution, with the fines imposed. He was of opinion that much good had arisen from the improvement, of late years, in the conditions of life of our soldiers and sailors, such as the

establishment of "homes" and "institutes", and the providing of suitable places for amusement and recreation within barracks. But against this ought to be set the fact that a much greater amount of leave is now granted in the services, by day and night, thereby giving greater opportunities for dissipation; and the men are, as a rule, much younger than the soldiers and sailors of former times. Moreover, Mr. Wreford failed to explain satisfactorily the rather curious coincidence that the improved condition of the town and the greater activity of the local police have been noticeable only during the past fifteen years; that is to say, practically, since the Contagious Diseases Acts came into force. He felt no doubt that the Acts had a deterrent effect on young girls, and prevented a great many from entering a career of vice.

Evidence to a similar effect was then given by Mr. Lynn, Superintendent of the Devonport Borough Police, who was examined by Dr. Cameron and Mr. William Fowler.

Both witnesses spoke highly of the character of the special police, and of the tact and ability with which they discharged their difficult duties; while neither of them was aware of a single authenticated case of injustice or oppression towards the unfortunate women who came within the jurisdiction of the Acts.

The Committee met again on Friday, the 17th, when Captain Brutton, Superintendent of the Devon County Police, was called in and examined by Mr. Stansfeld. The witness said he thought the statements of Inspector Anniss quite the reverse of accurate, as to the effect of the Contagious Diseases Acts on the brothels of the district. He put in a return showing the number of brothels of all kinds in Stonehouse, and the number closed between 1865 and 1882. The majority of such places were beer-houses, and were formerly licensed by the Inland Revenue; but, in 1869, the Beer-house Act came into force, and they had to obtain licences from the magistrates: twenty-four of the licences were opposed, and, the opposition being successful, most of the houses were shut up altogether. These proceedings were taken by his own county constabulary, quite independently of any assistance from the Contagious Diseases Act police. He agreed with the previous witnesses in thinking that the improved condition of the streets of Plymouth and Devonport as regards prostitution was not due so much to the working of the Contagious Diseases Acts as to other causes, such as the early closing of public-houses, the reduction of public-houses and beer-shops used as brothels, and to the prosecutions undertaken by himself and his staff. With regard to the Acts themselves, Captain Brutton considered they had been of the greatest service in checking the spread of disease, and in exercising a deterrent influence on young girls. Moreover, far from having any complaint to make of the way in which the Acts were carried out, he thought the special police were an excellent body of men, and had not heard a single authenticated case of harshness on their part, or of interference with respectable women.

Evidence of a similar character was given by Mr. William Coster, Superintendent of the Borough Police of Portsmouth.

CAMBRIDGE LOCAL EXAMINATIONS.

THE following notice respecting the Cambridge Local Examinations has been issued.

"The University of Cambridge has established an additional local examination, to be held in September. This examination is undertaken at the request of the General Medical Council, to meet the convenience of those who desire to register as medical students in October, for whom it will serve as the Preliminary Examination which all such students are required to pass. Those who intend to enter into articles of clerkship with attorneys and solicitors can avail themselves of this means of satisfying the preliminary requirements of the Incorporated Law Society. It will be convenient also for those who intend to enter the University in October, and desire exemption from the Previous Examination ("little go"). For these three classes of candidates there is no limit of age. The examination will commence on Monday, September 4th, and will be held in the same subjects as those for the Examination for Seniors in the December following, and the usual Senior Certificate can be obtained by students under the age of eighteen, on September 1st. The centres of examination already announced are Cambridge and London, for which centres applications for entry must be made to the Rev. G. F. Browne, St. Catharine's College, Cambridge, and R. St. J. Corbet, Esq., 10, Portman Street, London, W. The examination may be held at other centres, if there appears to be sufficient demand."

The Syndicate would, we believe, be willing to endeavour to make arrangements for an examination in any place where there are twenty-five candidates.

The examination for the certificates, which exempt from the Previous Examination at the University, is somewhat more difficult than the Previous Examination itself; but the students who succeed in obtaining the requisite certificates, especially if they include that exempting from the "additional subjects", will save time, and will derive considerable advantage throughout the whole of their University course. This will be particularly the case with those who intend to study medicine and natural science.

COLLECTIVE INVESTIGATION COMMITTEE.

MEMORANDUM ON ACUTE PNEUMONIA,

ESPECIALLY WITH REGARD TO ITS ETIOLOGY AND EPIDEMIC PREVALENCE.

By OCTAVIUS STURGES, M.D., and SIDNEY COUPLAND, M.D.

THE object of this inquiry is to collect evidence from those who are best able to afford it, bearing on the natural history of acute pneumonia as observed in this country; and especially its etiology. Upon this latter question opinion is much divided, and while in other countries valuable material has been collected respecting it, little has been done in our own. It is now desired that an impartial investigation should be made upon the disease, in the hope that information of great value may be elicited. Such an investigation might reasonably be expected to be of service in the promotion of particular measures of prophylaxis, and probably also in the establishment of a rational therapeutics in this disease.

At the present day, two views are commonly held, concerning the etiology of an attack of primary acute lobar pneumonia in a previously healthy individual. They may be concisely summed up under the terms: 1. Exposure; 2. Infection. The first view is that generally accepted; the question is, What grounds exist in favour of the second? That this latter form of pneumonia does exist, possibly to a far greater extent than is admitted, seems likely, not only from the records that appear from time to time upon "epidemic" and upon "contagious" pneumonia, but also from the well-attested facts of the ordinary course of the disease. All clinical observers are agreed that the fever characterising many of the best marked cases of acute pneumonia does not run parallel with the physical signs of the pulmonary inflammation; that it does not, in other words, coincide with the latter in degree or in duration. For instance, high fever usually accompanies a small tract of inflammation, when this is seated at the apex of the lung instead of at the base; and again, it not uncommonly happens in an ordinary case of basic pneumonia that the fever subsides rapidly (by crisis), some days before the local signs indicate a corresponding improvement in the damaged organ. These are but two examples out of several which might be quoted, as affording *primâ facie* support to the view that in the disease we call "pneumonia" there is something over and above the mere condition of an inflamed lung; some influence, call it septic, or what not, which, attacking the whole organism, has its local and manifest expression in pulmonary inflammation. Have we, in a word, in the inflamed lung, a condition related to some underlying influence (at present unknown), in a manner analogous to the bowel-affection characterising typhoid fever; or, to the cutaneous inflammation of facial erysipelas; or, on the other hand, is pneumonia simply a local disease, solely due to "exposure", like catarrhal affections?

We have here, however, not to deal with speculations, but only to ask for facts. The facts supplied may go far to show that an "epidemic" of pneumonia means nothing more than a great prevalence of the disease due to atmospheric conditions, to which the term "epidemic" is no more applicable than it is to bronchitis, when that happens to be prevalent. The Collective Investigation Committee invite the profession to aid them in determining a question, the solution of which will materially further the progress of scientific and practical medicine.

The main points to which attention is directed are given in the accompanying schedule. They do not involve detailed statements, and most of them can be answered by a mere affirmative or negative, or by the erasure of certain words. A few brief explanations will suffice to show the purport of the questions.

The answers to the questions concerning *occupation* and *habits* will point to the existence or not of any factors peculiar to the individual, which may operate in rendering him susceptible to the disease. From them it will be learnt whether his life, passed in the counting-house, factory, or workshop, or in the farm or mine, be sedentary or active; whether the occupation, in short, be one likely to expose him to unsanitary or miasmatic influences, to changes of temperature, to

great physical fatigue or mental effort, or to other conditions whereby his general health may have suffered, or his liability to "take cold" be enhanced; while, as to habits, it may be expected that some light may be thrown upon the extent to which impoverished diet, and especially *alcoholic intemperance*, conduces to the determination of pneumonia.

Then follow a series of questions specially intended to elicit facts bearing upon the existence of epidemics of pneumonia, and the conditions under which they arise. The *locality and situation* of the patient's dwelling, whether this be in an elevated position, isolated and exposed, or sheltered in a valley, or buried among trees, or in the heart of a thickly peopled town, together with the nature of the soil on which it stands.

It should be explained that, under the next heading, *atmospheric conditions* prevailing at the time of the attack or epidemic, it is only intended to ask for such general statements as "dry", "damp", "wet", "cold", "hot", "changeable", and the prevailing wind—such as come naturally under the head of "weather"—without any detailed "meteorological" data being required; as these could be supplied, when necessary, by reference to the records of the Meteorological Office.

The next query requires a single word in answer from the practitioner. Are there *other cases of pneumonia* in the patient's house or in the surrounding district? If there be other cases, and an outbreak of pneumonia be generally prevalent, the observer's returns upon *each* of the cases that come under his notice will afford the chief evidence of the presence of "epidemic pneumonia", so far as his practice goes. To make the information complete, it is to be hoped that, whenever pneumonia is unduly prevalent in a district, every practitioner concerned will take part in this inquiry. In this way the Committee would be placed in possession of a mass of facts of the greatest value accumulated by independent observers.

It is also of great importance to learn whether, at the time of the prevalence of pneumonia, there be concurrently an undue prevalence of the *specific fevers*, *e.g.*, typhoid, scarlatina, diphtheria, erysipelas, etc., as it may happen that conditions liable to produce such diseases in some individuals may favour pneumonia in others. It must be understood that examples of pneumonia occurring as a complication in the course of a specific fever are not required. Where, however, as sometimes happens, pneumonia occurs in the *initial* stage of a specific fever—notably typhoid—such a case should be recorded in this inquiry. In like manner, information is asked for as to any concurrent undue prevalence of those ill-defined mild febrile conditions, to which the terms *febricula* and *catarrhal fever* are applied, with the view to ascertain whether they also arise under conditions existing at the time when pneumonia prevails.

The next question applies to a different branch of the subject. In asking for a return of the concurrent prevalence of *bronchial catarrh*, it is intended to ascertain how far an "epidemic" of pneumonia may be explained by the existence at the time of meteorological rather than "septic" conditions. If, for instance, the returns show that pneumonia and bronchial catarrh are both unduly prevalent in a particular district, where there is no reason for suspecting any unsanitary influences, but at a time when cold and damp weather is in the ascendant, then surely it may fairly be concluded that the pulmonary and bronchial disease have in this instance the same non-specific etiology; whereas on the other hand, if pneumonia largely prevail, and catarrhal affections be at a minimum, there will be ground for suspecting that meteorological variations were not alone, if at all, to be assigned as the cause of the pneumonia.

Next on the list comes the important subject of *sanitary conditions*, which, if carefully inquired into, may throw much light upon many an "epidemic" of pneumonia. It may be discovered, for instance, that, when several members of a household have been in succession struck down by the disease (not at the time generally prevalent in the district), the house itself is in an insanitary state, and that its inmates have been poisoned by sewer-gas or other noxious effluvia. Or, again, the practitioner, meeting with an unusually large number of cases in his district, may find that the drainage is generally defective. If a reasonable doubt exist on these matters, the word "uncertain" will sufficiently express it.

The remaining queries refer solely to the *family* and *personal history* of the patient and the leading features of his attack. From the answers furnished, it will be possible to learn whether there be any uniformity in the extent and seat of the pulmonary inflammation, in the course of the concomitant fever, in the rate of mortality, etc.

Lastly, space is left for any additional remarks from the observer which appear to him desirable; but there is no need for him to go beyond the few points named, as answers to them will furnish all the information required; and he will find that these replies can be made without the expenditure of much time. Facts alone are asked for, and those neither numerous nor abstruse; but they should be plainly and simply stated, unbiassed by views or opinions; and, so presented, they will be collated and analysed, with a view to the solution of one of the many vexed questions in medicine.

Form of Card about to be Issued.

Initials of patient. M. or F. Age.
Married. Single. Widowed.
Occupation.
Temperate. Intemperate. Total Abstainer.
Food—sufficient, insufficient.
Place of residence.
Locality—high, low, damp, dry, exposed, confined.
Prevailing wind at onset of attack.
Atmospheric condition—dry, damp, wet, cold, hot, changeable.

(State whether "many" or "few" of each disease.)	In Same House.	In District.
Cases of pneumonia.....		
,, any kind of fever* ..		
,, catarrhal fever		
,, tonsillitis		
,, herpes.....		
,, bronchial catarrh....		
,, erysipelas		
,, other infectious diseases.....		

* Nature of the prevalent fever.

Sanitary condition of house—good, bad, indifferent.
Sanitary condition of district—good, bad, indifferent.
Family history of lung-disease.
Previous illnesses of patient, with dates.
Attack preceded by rigors. Date.
Premonitory symptoms.
Date of onset.
Part of lungs affected. R. base, apex. L. base, apex.
Expectoration—blood, rusty, white, none.
Fever—severe, moderate, mild.
Highest range of temperature.
Duration of fever.
Termination of fever—sudden, by gradual subsidence.
Duration of physical signs.
Result.
Sequelæ.
Remarks on any special feature of the case.
Plan of treatment.

N.B.—Information and assistance given to the Committee in this and all other investigations will be duly acknowledged.

UNION OFFICERS' SUPERANNUATION (IRELAND) BILL.

SEVERAL petitions in favour of this Bill have been presented to Parliament from medical and other bodies in Ireland. Amongst them, Mr. Maurice Brooks, senior member for Dublin, presented one last week from the President and Council of the Dublin Branch of the British Medical Association. Petitions are being prepared in virtue of a resolution passed at the last meeting of the Parliamentary Bills Committee, which will be issued on behalf of the Committee, and of which copies will be forwarded and recommended for signature to all the Branches of the Association.

ASSOCIATION INTELLIGENCE.

BRITISH MEDICAL ASSOCIATION:

FIFTIETH ANNUAL MEETING.

THE Fiftieth Annual Meeting of the British Medical Association will be held at Worcester, on Tuesday, Wednesday, Thursday, and Friday, August 8th, 9th, 10th, and 11th, 1882.

President: BENJAMIN BARROW, F.R.C.S., Consulting-Surgeon to the Royal Isle of Wight Infirmary.

President-elect: WILLIAM STRANGE, M.D., Senior Physician to the General Infirmary, Worcester.

An Address in Medicine will be delivered by W. F. WADE, F.R.C.P., Physician to the Birmingham General Hospital.

An Address in Surgery will be delivered by WILLIAM STOKES, M.D., F.R.C.S.I., Professor of Surgery in the Royal College of Surgeons, Ireland.

The business of the Association will be transacted in Eight Sections, viz.:—

SECTION A. MEDICINE.—*President:* Thos. Clifford Allbutt, M.D., F.R.S. *Vice-Presidents:* George W. Balfour, M.D.; William Henry Broadbent, M.D.; G. H. Philipson, M.D. *Secretaries:* Edwin Rickards, M.B., 14, Newhall Street, Birmingham; H. Ashby, M.D., 13, St. John Street, Manchester.

SECTION B. SURGERY.—*President:* Augustin Prichard, F.R.C.S. *Vice-Presidents:* T. W. Walsh, F.R.C.S.; Reginald Harrison, F.R.C.S.; T. H. Bartleet, M.B., F.R.C.S. *Secretaries:* F. E. Manby, F.R.C.S., 10, King Street, Wolverhampton; Richard Clement Lucas, M.B., F.R.C.S., 18, Finsbury Square, E.C.

SECTION C. OBSTETRIC MEDICINE.—*President:* William Leishman, M.D. *Vice-Presidents:* Henry Vevers, M.R.C.S.; J. G. Sinclair

Coghill, M.D.; Arthur W. Edis, M.D. *Secretaries:* C. J. Cullingworth, M.R.C.P., 25, St. John Street, Manchester; Tom Bates, L.R.C.P., Worcester.

SECTION D. PUBLIC MEDICINE.—*President:* Alfred Carpenter, M.D. *Vice-Presidents:* Alfred Hill, M.D.; Horace Swete, M.D.; E. T. Wilson, M.B. *Secretaries:* Geo. Haynes Fosbroke, jun., M.R.C.S., Bidford, Redditch; Francis Edward Atkinson, L.R.C.P., Settle, Yorkshire.

SECTION E. ANATOMY AND PHYSIOLOGY.—*President:* George M. Humphry, M.D., F.R.S. *Vice-Presidents:* S. S. Roden, M.D.; Frank Payne, M.D.; Gerald Yeo, M.D. *Secretaries:* J. B. Haycraft, M.D., Mason's College, Birmingham; James Shuter, M.B., F.R.C.S., 58, New Broad Street, London.

SECTION F. PATHOLOGY.—*President:* J. Hughlings Jackson, M.D., F.R.S. *Vice-Presidents:* W. R. Gowers, M.D.; H. T. Butlin, F.R.C.S.; Wm. Smith Greenfield, M.D. *Secretaries:* Sidney Coupland, M.D., 14, Weymouth Street, London; F. Treves, F.R.C.S., 18, Gordon Square, London.

SECTION G. OPHTHALMOLOGY.—*President:* James Vose Solomon, F.R.C.S. *Vice-Presidents:* David Everett, F.R.C.S.; F. Mason, M.R.C.S.; Edwyn Andrew, M.D. *Secretaries:* Geo. Edwin Hyde, L.R.C.P., Worcester; J. A. Nunneley, M.B., 22, Park Place, Leeds.

SECTION H. OTOLOGY.—*President:* W. Laidlaw Purves, M.D., London. *Vice-Presidents:* Geo. P. Field, Esq., London; A. H. Jacob, M.D., 23, Ely Place, Dublin; Cresswell Baber, M.B., Brighton. *Secretaries:* J. J. Kirk Duncanson, M.D., 22, Drumsheugh Gardens, Edinburgh; Peter McBride, M.D., 20, Alva Street, Edinburgh.

Honorary Local Secretaries: George W. Crowe, M.D., Shaw Street, Worcester; H. C. Moore, M.R.C.S., 7, King Street, Hereford.

TUESDAY, AUGUST 8TH.

2.15 P.M.—Meeting of Committee of Council.
3 P.M.—Meeting of the Council of 1881-82.
4.15 P.M.—Short service in the Cathedral, with sermon by the Dean of Worcester.
8 P.M.—General Meeting. President's Address; Annual Report of Council, and other business.
Tea and Coffee after the Meeting.

WEDNESDAY, AUGUST 9TH.

9.30 A.M.—Meeting of Council of 1882-83.
11 A.M.—Second General Meeting. Address in Medicine.
1.30 P.M.—Luncheon given by Worcester and Hereford Branch to Members of the Association, and afterwards presentation of bust of Sir Charles Hastings to the Mayor and Corporation of Worcester.
3 to 5.30 P.M.—Sectional Meetings.
9 P.M.—Soirée.

THURSDAY, AUGUST 10TH.

9 A.M.—Meeting of the Committee of Council.
10 A.M.—Third General Meeting. Reports of Committees.
11 A.M.—Address in Surgery.
2 to 5.30 P.M.—Sectional Meetings.
6.30 P.M.—Public Dinner.

FRIDAY, AUGUST 11TH.

9.30 to 11.30 A.M.—Sectional Meetings.
11.30 A.M.—Concluding General Meeting. Reports of Committees.
3 P.M.—Garden Party.

COMMITTEE OF COUNCIL:
NOTICE OF MEETING.

A MEETING of the Committee of Council will be held in the Council Room of Exeter Hall on Wednesday, the 12th day of April next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*
161A, Strand, London, March 15th, 1882.

NOTICE OF QUARTERLY MEETINGS FOR 1882: ELECTION OF MEMBERS.

MEETINGS of the Committee of Council will be held on Wednesday, April 12th, July 12th, and October 18th. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary not later than 21 days before each meeting, viz., March 22nd, June 22nd, September 27th, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

November 4th, 1881. FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH.—The fifth ordinary meeting of the session will be held at the Grand Pump Room Hotel, Bath, on Thursday afternoon, April 13th, at 4.15 P.M.—R. S. FOWLER, E. MARKHAM SKERRITT, M.D., Honorary Secretaries.—Bath, March 1882.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The next meeting will be held at Tredegar towards the end of April. Members desirous of reading papers, etc., are requested to send titles to either of the undersigned within a week, in order that they may be inserted in the circulars convening the meeting.—ALFRED SHEEN, M.D., D. ARTHUR DAVIES, M.B., Honorary Secretaries.—March 14th, 1882.

WEST SOMERSET BRANCH.—The spring meeting of this Branch will be held at the Railway Hotel, Taunton, on Thursday, March 30th, at five o'clock. The following question has been settled by the Council as the one on which members should be invited to express their opinion at the said meeting after dinner: "What is your Experience of the Complications and Sequelæ of Scarlet Fever?"—W. M. KELLY, M.D., Honorary Secretary.—Taunton, February 28th, 1882.

SOUTH-EASTERN BRANCH: EAST AND WEST SUSSEX DISTRICTS.—A conjoint meeting of the above Districts will be held at the Grand Hotel, Brighton, on Wednesday, March 29th, at 3.30 P.M. Dr. Ewart of Brighton will preside. Dinner will be provided at 5.30 P.M.; charge, six shillings (exclusive of wine). The following communications have been promised. 1. Dr. Lee: Practical Remarks on the Treatment of Infantile Paralysis; 2. Dr. Mackey: On the Treatment of Whooping-Cough; 3. Mr. Bernard Roth: On the Treatment of Lateral Curvature of the Spine; 4. Mr. Furner will show an adult man presenting symptoms of Pseudo-Hypertrophic Paralysis; 5. Mr. Baber: Adenoid Vegetations of the Naso-Pharynx; 6. Mr. Noble Smith: Caries of the Vertebræ, with cases; 7. Dr. Treutler; Case of Spinal Meningitis.—T. JENNER VERRALL, Honorary Secretary East Sussex District.—95, Western Road, Brighton, March 15th, 1882.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—A meeting of the above District will be held at the Infirmary, Gravesend, on Wednesday, April 12th, at 3 P.M.; J. C. Armstrong, Esq., in the chair. Papers will be read by Dr. W. M. Ord, on Diagnosis of Thoracic Aneurysm; Dr. William H. Day, Remarks on Chorea and its Treatment; etc. Dinner will take place at the Old Falcon at 5.30 P.M.—A. H. B. HALLOWES, Honorary Secretary, 11, King Street, Maidstone.

CORRESPONDENCE.

THE ILLNESS OF THE DUCHESS OF CONNAUGHT.

SIR,—I hope and believe that the letter of Dr. Playfair will assist in calling the attention of the public to a matter of extreme importance, and that thereby it will assist in lessening the number of cases of which the responsibility and sometimes the blame has to be borne by the members of our profession. However, as far as my opportunities have enabled me to form an opinion, I should consider that our profession, as a body, are more alive to the importance of attending to the drainage in respect of the lying-in-woman than Dr. Playfair would think, and indeed, the recognition of this importance is the natural outcome of the advance of sanitary knowledge and the frequent discussions on puerperal fever, pyæmia, and other abnormal conditions attending the lying-in; and as far as I have discussed the question with my brethren it seemed to me that they have pretty generally understood that the law which was applicable to the wounded, to those about to undergo or undergoing operations, and to those smitten with illness of all kinds, was equally applicable to the women about to be delivered, or lying-in; namely, that unhealthy surroundings of various kinds all tended to interfere with recovery in various degrees, even to its total impossibility, and that bad drainage stood foremost among the evil influences, either indirectly as a producer of zymotic diseases, or directly as an irritator of septic changes, and all the immediate and secondary phenomena resulting.

So long ago as 1870 I called attention to this subject in a paper read before the Obstetrical Society of London (vol. xii), in which I examined eighty-nine cases of so-called puerperal disease after simple labour in respect of the "causes". This was five years before the discussion alluded to by Dr. Playfair (in the seventeenth volume of same *Transactions*), a few remarks from which it may not be out of season to quote.

"But however frequently the cause of puerperal diseases may be owing to zymotic influences, still it is easy to understand that imperfect drainage, close rooms, and bad dwellings, would be sufficient, by continued action, to produce such a state of constitution as would tend to effusions, suppurations, pyæmia, and peritonitis." "But I believe the truth may be thus stated:—That in ordinary health, and with freedom from deteriorating influences, injuries and local disturbances done by parturition, or by assistance given to it, are recovered from; but if any poison or depressing influence invade the pregnant or labouring woman, then, in addition to the direct influence of a poison, inflammation or suppuration of the parts occur, which, by the local distress they cause, may set up pyæmia, thrombosis, etc."

"There is one fact not mentioned in the reports, but which is worthy of notice, namely, that I have found the whole class more frequent in newly built than in older houses. It might be that the frequency of puerperal diseases in primiparæ may account for this, inasmuch that the newly married more usually take newly built houses. But it is also a fact that the inmates of new houses are more liable to be attacked by

scarlet fever, typhoid, diptheria, etc., and this, I believe, may be well accounted for by the fact that the drains of new houses are more liable, after a short tenancy, to be deficient. I think as regards the married middle class about London, this latter explanation forms a more valid explanation that the fact that primiparæ are more frequently confined in new houses."

Dr. Lloyd Roberts, in his *Practice of Midwifery*, 1875, states the same concisely. "The various malarious exhalations from imperfect drainage, want of cleanliness and ventilation, with other nosocomial influences, are so many other means of producing toxæmia."

In the cases above alluded to I report one where there had been four cases of typhoid in the same house and family, one child being ill on the woman's bed.

I trust that the public will now be induced to look into the matter for themselves, and not throw upon their doctors the unpleasant task of doing what the surveyor, clerk of the works, or architect should have done.—I am, yours truly,

J. Braxton Hicks, M.D., Lond., F.R.S., etc.

THE SUPERINTENDENTS OF IMBECILE ASYLUMS.

Sir,—My attention has been drawn to a paragraph relating to the Institution for Imbecile Children, Larbert, which appears in the British Medical Journal for March 4th, with reference to which I wish to make a few remarks. It appears that, "on the resignation of Dr. Ireland last year, a layman was appointed superintendent". Now, it is the opinion of all those authorities who have studied the matter, that, for an institution of the kind referred to, a medical superintendent is required. Imbecile children are found to suffer, not only from non-development, but from disease of the brain; and to remedy this, constant medical care and attention are necessary. To say that imbeciles, being like children, only require a schoolmaster or attendant to look after them, as Dr. Alexander Wood is reported to have said at the annual meeting of the institution, according to the account of a local paper which has been forwarded to me, argues that the owner of such a sentiment has not sufficiently studied the matter. A medical man skilled in nervous diseases, well versed in physiology, and knowing the whole resources of educational art, is the one required to superintend an asylum for the care and treatment of imbeciles. These patients suffer from nervous diseases of all kinds, and, to alleviate them, a medical man on the spot, not one residing at a distance, is necessary. In my own asylum, and in others with which I am acquainted, a large number who suffer from epileptic fits are treated; and, if there are many such at Larbert, both the lay superintendent and the doctor, three miles off, must now and then have an exciting time. Want of space forbids me from entering more fully into the matter; but I would add that, during the time that Dr. Ireland held the office of medical superintendent, the institution was kept in a high state of efficiency, and, owing to his exertions, it was well known in the scientific world. In the appointment of a layman the authorities have taken a retrograde step, and time alone will show them the mistake they have made.—I am, sir, yours faithfully,

Fletcher Beach,
Medical Superintendent of the Darenth Asylum for Imbecile Children.

Sir,—Your readers of March 4th have been informed that, at a meeting of the supporters of the Institution for Imbecile Children at Larbert, held in Edinburgh, Dr. Alexander Wood "alluded favourably to the choice of a layman as superintendent". From a report in the *Scotsman*, it appears that Dr. Wood stated that he "most thoroughly and cordially approved of a lay superintendent," because he saw "in this the beginning of the possibility of extending these institutions over a much wider range than they at present occupied." "Imbecility resulted from the arrest of the progress of the brain, and that was why they found grown-up persons who were just like children, and who must be treated just like children. It did not require a medical man to do that; it lay more in the province of the schoolmaster or kind attendant."

Dr. Wood's argument apparently is, that imbeciles have to be treated as children, and that this can be done as well by a schoolmaster or kind attendant as by a medical man; *ergo*, he cordially approved of the governor of a poor-house being appointed to be superintendent.

Now, is it true that imbeciles are on the same footing as ordinary children, or is there no medical element in their treatment which Dr. Wood has passed over instead of pointing out to the meeting? It is true that there are some imbeciles in tolerable general health, but do they make up all the inmates of an institution for imbeciles? A very large proportion of these imbecile children are of feeble health, two-thirds are of a strumous constitution, many of them subject to special disorders and incapacities of the nervous and vascular system, to chorea, hydrocephalus, paralysis, weakness of the heart, and cyanosis. One-fifth of them are probably epileptics, and it has been proved by experience that a great part of the improvement which has followed the collection of these children into a separate establishment is owing to the successful treatment of these disorders by medicine, diet, and regimen.

Moreover, if anyone takes the trouble to inquire into the method of education laid down and prosecuted by Dr. Seguin and others for the training of idiots, he will find that it requires to be conducted under the direction of one versed in physiology and medicine. Is it, then, a subject for cordial approval that an institution of this size should not have a resident physician, and that the medical work should be done by a doctor in private practice who lives three miles off? It was shown last year that it was required by the printed constitution of this institution, which the directors alone had no power to alter, that there should be a resident medical officer.

It is stated that the daily average number resident during the year had been 121, and that the death-rate was 10 per 1,000. These two figures, of course, do not agree.—I am, sir, your most obedient servant,

David Bruce, M.B.

STATISTICS OF CHLOROFORM OR ETHER ADMINISTRATION.

Sir,—Just now a great variety of opinions are being expressed upon the relative merits of the various anæsthetic agents. Each special vapour has its own advocates. Having regard to this diversity of opinion in the medical profession, I cannot but think that the public will soon imperatively demand a searching inquiry into this question. Cannot the Association issue circulars requesting the registration of each administration of an anæsthetic in every hospital in the kingdom? The return might be made to the Association Committee at the end of every year.

The particulars should state what anæsthetic was employed and for how long; what length of time it required to bring the patient under; what untoward circumstance occurred during the administration; and in fatal cases should give concise particulars relative to the mishap. I am presuming that only those cases would be recorded for these statistical purposes, in which the drug is given to the full physiological extent. Not only might the practise of hospitals be thus utilised, but also the materials available in the practices of the large mass of so-called practitioners. Personally, I never fail to enter in a private register full notes on each case in which I give an anæsthetic. I venture to think many others do the same; even if they do not, they might easily do so. By a careful examination of statistics thus obtained, covering one to three years, we might accurately estimate the relative merits of our means of producing artificial sleep.—I am, sir, yours truly,

The Infirmary, Blackburn. Robert H. Firth.

HOSPITAL AND DISPENSARY MANAGEMENT.

ADMINISTRATION OF HOSPITALS.

At a recent meeting of the Council of the Social Science Association, the Committee on Public Health, to whom had been referred the institution of an inquiry into the present state of the administration of hospitals, presented an elaborate report, in which, after acknowledging the assistance they had derived from the co-operation of those whom they had invited to join in their labours, they recommended for adoption by the Council the terms of a memorial to the Home Secretary, praying for the appointment of a Royal Commission to inquire into the administration of the metropolitan hospitals. The Council, which was largely and influentially attended, unanimously adopted the memorial, which is based on a series of resolutions indicative of the scope of the inquiry prayed for. The following are the resolutions referred to.

"1. That the hospital accommodation of London is imperfectly distributed, and, in many districts, altogether inadequate. 2. That the want of organisation and co-operation among the medical institutions of the metropolis materially lessens their usefulness, and leads to unnecessary expense. 3. That the present system of indiscriminate relief injuriously affects the independence and self-reliance of those who are able to meet, in some degree at least, the cost of medical and surgical treatment. 4. That the funds at present available, either for proper maintenance of nearly all the existing institutions, or for the extension of relief to districts hitherto unprovided for, are very insufficient. 5. That the hospitals are managed (some of them under Acts of Parliament) on very different systems, and some of these systems can hardly

be worked consistently with the advance which has been made in medical science, and with the change of opinion which is taking place regarding the administration of medical charity. 6. That it is desirable to make more use than is at present made, in the education of medical students, of the materials contained in the numerous hospitals and dispensaries now administered by the Poor-law Department and the Metropolitan Asylums Board; and that there should be more intimate communication between these and the general hospitals. 7. That the operation and constitution of the numerous special hospitals and dispensaries demand inquiry, in order to inform the public as to the advantages and disadvantages of such institutions. 8. That it is desirable that an uniform system should be devised and adopted of keeping the books of accounts and registers of disease in all hospitals."

THE PLAISTOW HOSPITAL FOR SMALL-POX PATIENTS.

THE first annual report of this hospital has recently appeared. The institution was opened for the reception of patients in May 1881. Since that date, 120 cases have been admitted. Of these, 5 were sent by the City of London Union, 6 by the Vestry of Bethnal Green, 8 by the Poplar Union, and the remainder from the Poplar district; 112 were discharged cured, and 8 died. The severe and fatal cases occurred amongst the unvaccinated, or those whose marks were slight and unsatisfactory. Of the 37 confluent cases, 8 proved fatal—4 females and 4 males. The hospital is said to be in perfect condition, and the staff fulfil their duties in a satisfactory manner.

BEDFORD PROVIDENT DISPENSARY.

THE report of this institution for 1881 gives so little information, that it is difficult to form an estimate of the position of the dispensary. Thus, we are not told how many members there are on the books, or how many visits were paid by the medical officers. Indeed, the report is occupied much more with the honorary subscribers than it is with the provident members. It appears, from the balance sheet, that £571 were divided among the six medical officers.

KENT AND CANTERBURY HOSPITAL.

THE annual meeting of this institution was recently held, and it was shown that the general condition of the hospital was satisfactory. It was suggested, however, that, in future, the medical staff should present an annual summary of the cases that had passed under their hands, together with such particulars as might have a bearing upon the sanitary condition or expenditure of the hospital. But the most important question raised at the meeting related to the application of Mrs. Goreley's bequest. During the past year, the dividends arising from this source were carried to the general fund; but the opinion of the governors seemed to be that the bequest should be applied to some specific purpose, which would be a permanent improvement to the hospital, such as the erection of a children's ward.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

BACHELOR OF SURGERY.—The new statutes for the University of Cambridge, which have been approved by the Queen in Council, provide for a degree of Bachelor of Surgery in the University.

UNIVERSITY OF OXFORD.

EXAMINATIONS FOR THE DEGREE OF B.M.—Examinations for the degree of Bachelor of Medicine, both first and second, will be holden in Trinity Term, on days to be hereafter notified. Candidates for either of these examinations are requested to send their names, on or before May 1st, to the Regius Professor of Medicine, Medical Department, Museum, Oxford.

TESTIMONIAL TO DR. HEWITT, LATE OF WINKFIELD.—After over twenty years' practice at Winkfield, Dr. Hewitt, who was alike popular with all classes of patients and friends far and near, who had the pleasure of his acquaintance, has left his arduous country practice, and has established himself at Cheltenham, where we wish him every success, which we have no doubt he will obtain. A very handsome testimonial has been presented to Dr. Hewitt, subscribed for by his late patients and friends at Winkfield, Ascot, Sunninghill, and Bracknell, which comprises a grand clock, with all the latest improvements, for hall or consulting room, and a very handsome balance in the form of a cheque.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS, Friday, March 17th.

Suspected Poisoning.—Mr. ST. AUBYN asked the Secretary for the Home Department whether, in cases of suspected poisoning, when an analysis was directed to be made, he would consider whether it would not be more satisfactory that the suspected person should have an opportunity of being represented professionally at such analysis.—Sir W. HARCOURT: The subject is one well deserving of consideration; but the question was only put upon the paper last night, and, before giving any definite reply to it, I should wish to consult the official analyst on the subject.

Army Medical Service.—Mr. GIBSON asked the Secretary of State for War whether, with regard to the Warrant of January 1880, which directs that "(8) A public and open competition shall be held twice in the year for the admission of qualified medical candidates as probationers, and that the number of appointments so competed for shall not be less than half of the number of vacancies which shall have arisen in the last completed half-year ending on the 30th of June or 31st of December," and that "(9) Not less than half the number of vacancies shall be filled up by competition," he could state how many medical vacancies occurred in the half-year ended the 31st of December 1881, and how many of such vacancies were filled up by competition at the last examination; and whether the terms of the Warrant and the engagements it held out to the candidates had been satisfied.—Mr. CHILDERS: Formerly, when the medical service was not so popular as it is now, and it was difficult to fill its ranks by competition, it was considered desirable that the Secretary of State should have the power to allow some of the first appointments to the medical department to be made by selection through the principal medical schools; but it was provided by the article, that at least half should enter by competition—the word "vacancies", of course, meaning the number of appointments which it was requisite to fill up. As a matter of fact, this power of nomination has never been exercised, and all vacancies have been filled by competition—so that, in the direction of the right hon. gentleman's question, we have gone far beyond what the Warrant required. I may add, that there were in reality no vacancies at the end of the December half-year, thirty medical officers having been thrown on our hands from India; and the gentlemen who succeeded at the last examination will be appointed to vacancies as they occur from time to time. In reply to the second question, it is evident that the terms of the Warrant have been more than satisfied.

MILITARY AND NAVAL MEDICAL SERVICES.

THE death is announced of Deputy Inspector-General William Ruffell Dalton, R.N., aged 69.

DEPUTY Surgeon-General J. L. Holloway, C.B., principal medical officer at Colchester, and late in medical charge of the Forces in South Africa, obtains promotion to Surgeon-General, in succession to the late Surgeon-General Fasson, M.D. It is expected that he will succeed the deceased as Principal Medical Officer at Aldershot.

A SECOND vacancy on the list of Surgeons-General of the Army Medical Department will be created on the 27th March, when Surgeon-General M. F. Manifold, principal medical officer at Netley, attains his sixtieth birthday and has to retire. The vacancy will be filled by the promotion of Deputy Surgeon-General James Sinclair, M.D., who has recently returned home from South Africa.

MILITARY SURGERY.

A REGULATION introduced five years ago in the German military medical service, and systematically enforced since that time, might be copied with advantage in other countries. Twice yearly, in the spring and autumn, there are carried out courses of practice of operations on the dead body at the Royal Charity Hospital at Berlin, for the use of military surgeons. A number of surgeons-major and assistant surgeons-major are detached from garrison service to go through one of these practical courses of instruction. Each course lasts three weeks, and each is followed successively by fresh detachments of medical officers. By these means, the surgeons of the German army are not only prevented from losing familiarity with operative proceedings, and that manual dexterity the possession of which becomes so extremely important on occasions of sudden emergency, but they also acquire a knowledge of the improvements which are introduced from time to time

in the large sphere of surgical practice afforded by the large accumulations of patients which are found in the hospitals of the Prussian metropolis. It is understood that the introduction of this useful regulation was chiefly owing to the instigation of the eminent Baron Langenbeck of Berlin.

THE ARMY MEDICAL SERVICE IN FRANCE.

The French Chamber of Deputies have passed the Military Administration Bill, without any attempt at interference with the modifications of its articles which had been introduced and adopted by the Senate. As is generally known, one of the essential principles of the Bill has been to render the Medical Department of the French Army independent of the Intendance, and to make it self-administrative under the immediate direction of the Minister for War. This independence, for which the medical officers of the French army have been contesting during the last twenty-five years, has at last been achieved. The list of medical officers, together with their grades and numbers, sanctioned by the new law are as follows :—Inspector-general, ranking as general of division, 1; inspectors, with rank as generals of brigade, 9; principal surgeons of the first class, ranking as colonels, 45, and of the second class, ranking as lieutenant-colonels, 45; surgeon-majors, first class, ranking as majors, 320, and of the second class, as captains, 480; surgeon aid-majors, first class, ranking as lieutenants, 300, and of the second class, as sub-lieutenants, 100. The total number of medical officers sanctioned for the corps is, therefore, 1,300. The grade of inspector-general, ranking as a general of division, is entirely new; the highest grade hitherto having been that of *médecin inspecteur*, with the relative rank of a brigadier-general. The change in the military position of the French military medical service, which has just been legalised, is a fundamental one which will make itself felt in every future transaction of the department: it elevates the whole medical corps, and, by freeing it from the control of the Intendance, under which it has been hitherto kept in subjection, will add greatly to its efficiency and reputation as one of the scientific branches of the army. We have already noticed in this JOURNAL that a somewhat similar change has recently taken place in the administrative functions of the French naval medical officers.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

NOTIFICATION OF INFECTIOUS DISEASES.

AT an inquiry held by Mr. DALTON, Local Government Board Inspector, at Rochdale, one of the matters inquired into was the proposed amendment of the town's Improvement Act, with reference to a hospital and infectious and contagious diseases. The TOWN CLERK said it had come to the knowledge of the Medical Officer of Health that there had been 705 cases of small-pox in Rochdale from April, 1881, to March, 18, 1882, and that there were many other cases of which no information could be got. This and other diseases had become so alarming that it had been necessary where isolation could not be secured to get the patients removed to the hospital. Many of the medical gentlemen in the town refused to give information with respect to those patients who were attacked with contagious diseases, so the Corporation were wishful to amend their town's Improvement Act. If they found small-pox raging in a school surely they ought to have the power to close it, or other places of resort where it was likely the disease might be contracted.—Mr. DALTON said that this clause should only apply to schools, for the words "other places of resort" might mean churches or chapels.—Mr. NASH said that the proposed Act would be oppressive. What the medical gentlemen advocated was that the notification of infectious disease should be forwarded by the householder himself, and that he alone should be responsible for his own act. Several medical men were called, who stated that if the duty of reporting disease was thrown upon them it would destroy confidence between them and the persons who employed them, and lead people to defer calling in medical assistance as long as they could.—Mr. DALTON said he held an inquiry in Manchester last year, and the medical gentlemen of that city then assented to the clause with respect to giving information to the officer of health.—Dr. MARCH said that now the medical men of Manchester condemned that clause.—Mr. ROBERTS handed in resolutions which had been passed at a meeting of the Rochdale Merchants and Tradesmen's Association which condemned the clauses generally, and Mr. Roberts added that the meeting regarded the proposed rules as arbitrary, and that they interfered with the freedom of the subbject.—Mr. DALTON thought the Corporation ought to give up the clauses that enforced payment of expenses from the patient.—Mr. Alderman SCHOFIELD said that the Health Committee were unanimous in passing the clauses, and were of opinion that the householder should give the information first of any infectious disease, and that when a medical man was called in the doctor should be responsible.—Mr. ELLIDGE presented resolutions which had been passed at a meeting on the previous evening which had been promoted by the Property Owners' Association, in which the powers sought by the Corporation were described as most arbitrary and oppressive, and protested against further borrowing powers being granted.

THE SANITARY CONDITION OF HULL.

THE recent severe prevalence of scarlatina at Hull has attracted the attention of the Local Government Board, who have, in consequence, sent down Dr. Airy, of their Medical Department, to inquire into the sanitary condition of the towu. The inquiries of the Government medical inspectors are customarily held in private, but, acting on a wish expressed by the local authorities, a public inquiry was also held by Dr. Airy on the 9th and 10th inst., at which a great variety of evidence was offered on matters affecting the health of the town. From what transpired at the inquiry, it is abundantly clear that in many respects the sanitary circumstances of Hull are highly unsatisfactory. A memorial, presented by a deputation of the medical profession, and which has since been signed by, with few exceptions, the whole of the practising medical men in the town, sets forth that the outfalls of the sewers are blocked for sixteen hours out of the twenty-four, and that the ventilation of the sewers is most defective. The present mode of collection of night-soil is very inefficient, being effected irregularly in open carts. Refuse is deposited in various parts of the town, on unused plots of ground. The connection of houses with the main drainage is notoriously inefficient. New houses are not examined during the course of erection as to their drainage and other sanitary arrangements, and building sites are frequently formed by the filling up of disused brick-ponds with animal and vegetable refuse and street scrapings. The Artisans' and Labourers' Dwellings Act, and the Sale of Food and Drugs Act, are not properly carried out; nor are the sections of the Public Health Act dealing with offensive trades and the smoke-nuisance. A reservoir supplying water to the town is uncovered, though exposed to the foul emanations issuing from fish and bone-manure works in close proximity. The hospital accommodation for cases of infectious disease occurring in the town is totally inadequate, especially in view of the special danger to Hull arising from its close and frequent communication with the Continent. Disinfection is not undertaken by the local authority free of expense, and the charge which the corporation makes no doubt deters many people from having their disinfection properly done. There is no mortuary in the town, and the means adopted for the prevention of epidemics are generally inadequate. Finally, the salary of the medical officer of health is ludicrously inadequate for the proper performance of the duties devolving upon an officer charged with the sanitary supervision of a place with a population of 150,000.

These points were all urged with much force by the medical deputation present, and received additional weight from a corroborative memorial by the clergy that was put in. An unsuccessful attempt at defence of the corporation was made by the town clerk and some of the councillors; but the accuracy of the memorial was not seriously impugned. Evidence from the general public went to show that in other departments the sanitary work of the borough is seriously behindhand; and it is to be hoped that the town council will, without delay, set seriously to work to remedy the defects pointed out, and not wait for the publication of Dr. Airy's report before even "considering" the subject. That the health-administration of an important borough like Hull can remain thus faulty for year after year until the visit of Government inspectors brings its imperfections to light, is not creditable to our system of local self-government.

THE CORONER FOR CENTRAL MIDDLESEX AND MEDICAL WITNESSES.

SIR,—"Save us from our friends" is an adage probably "as old as the hills"; still, though the want of discretion frequently manifested by those from whom, being our kinsfolk, one naturally expects consideration, is far too common, yet cases do arise where persons have received such aid from others as should induce the recipients to display at least some approach to gratitude. An instance of the reverse of this appears to have been exhibited recently by Dr. Danford Thomas, who, by the energetic assistance of his professional brethren, has become Coroner for Central Middlesex; that is, if the statements contained in the communications forwarded to me by two correspondents be correct.

One of the complaints in question comes from the medical officer of a workhouse infirmary; the other, from the assistant medical officer of a similar institution. These gentlemen, having been required to make *post mortem* examinations, and give evidence under his warrant, were subsequently refused the customary fees, on the assumption by Dr. Thomas that Section 5, 6th and 7th Gulielmi IV, c. 89, a copy of which I subjoin, precluded him from giving them.

"Provided also, and be it further enacted, that, when any inquest shall be holden on the body of any person who has died in any public hospital or infirmary, or in any building or place belonging thereto or used for the reception of the patients thereof, or who has died in any county or other lunatic asylum, or in any public infirmary or other public medical institution, whether the same be supported by endowments or by voluntary subscriptions" [workhouse hospitals are rate-supported only; an essential difference], "then, and in such case, nothing herein contained shall be construed to entitle the medical officer whose duty it may have been to attend the deceased person, as a medical officer of such institution, as aforesaid, to the fees or remuneration herein provided."

Now I hold that Dr. Danford Thomas, albeit a member of an Inn of Court, and thereby claiming to be a legal expert, is altogether in error in the construction he has thought fit to put on this clause; for, having in my youth had the opportunity of conferring with the late Mr. Thomas Wakley, to whom the profession is indebted for the inception and passage of the Act, I am in a position to assert that the clause on which Dr. Thomas relies was introduced when the Bill was in Committee, and was intended to meet a fear that possessed the minds of members of the House of that day, "that the physicians and surgeons of our voluntary hospitals would be multiplying *post mortem* examinations and coroners' inquisitions for the sake of fees," a suspicion which was at once insulting and degrading to the members of an honourable profession.

I further contend that the wording of the clause does not convey, nor does it admit of the interpretation put upon it by Dr. Thomas; for, if this latter be correct, then the late Mr. Wakley, Dr. Lankester, and Dr. Hardwicke, all Coroners for Central Middlesex, were in error; not to mention Mr. Bedford (attorney) for Westminster, and a host of others in all parts of the kingdom, who have paid fees to medical witnesses under exactly the same circumstances as those which have been refused by Dr. Thomas. Apart from all views entertained by other coroners, I contend that no such institutions as workhouse hospitals, or infirmaries distinct from workhouses, were then in existence, or were even contemplated; and consequently the clause on which Dr. Thomas relies as his justification for refusing payment to Poor-law medical officers, does not apply to rate-supported establishments; added to which, the fact exists that, in fixing the stipends of these ill remunerated officials, boards of guardians invariably take into consideration the possible incidence of fees, whether derived from coroners or otherwise.

I further learn from my correspondent that Dr. Thomas alleges, as an additional ground for this refusal, that the Middlesex magistrates object to his payment of the same. I have been at the trouble of making a special inquiry, and learn, as I expected, that Dr. Thomas has been misinformed, the question in this shape having never been raised at all.

What adds to the injustice in one of the cases reported to me is this, that the medical witness, doubtless with a view to the coroner's convenience, was called on to travel two miles to give his evidence, and that without payment. My correspondents asked, Shall we be justified in declining to make *post mortem* examinations and to give evidence in future under Dr. Thomas's warrants, unless we obtain some security we shall be paid? I do not care to give advice on this point; but for myself, I will state that, were I in the same position, I should certainly ignore the coroner altogether.

Dr. Thomas, I understand, has referred the complainants to the Home Secretary for redress. I should make shorter work of the matter. If it were my case, I should apply to the nearest county court judge, who, I feel pretty satisfied, would speedily decide that the coroner was in error.—I am, sir, yours obediently,

H. S.

OBITUARY.

STANHOPE HUNTER FASSON, M.D.,

SURGEON-GENERAL, ARMY MEDICAL DEPARTMENT.

SURGEON-GENERAL S. H. FASSON, M.D., principal medical officer of the Aldershot division, whose death occurred very suddenly on the 11th instant, at his official residence in the camp, was a distinguished and very highly esteemed member of the Army Medical Department. He was born on the 6th of March, 1824, and had therefore just entered upon his fifty-eighth year at the time of his decease. His services were of a very varied description. Nearly all the early period of his military life was passed with the Royal Artillery. He commenced as an assistant-surgeon in April, 1846, and was promoted to surgeon's rank in March, 1855, while in the Crimea, and to that of surgeon-major in April, 1866. He entered the administrative grade as deputy surgeon-general in September, 1875, and attained the position of surgeon-general in January, 1881. Dr. Fasson was actively employed in the field both in South Africa and the Crimea. He served in the Kaffir wars of 1847 and 1851-2, and was present at the engagement with the Basuto tribes at the Berea on the 20th of December, 1852. He went with the first troops that landed at Old Fort in the Crimea at the outbreak of war with Russia in 1854, and served throughout the campaign, including the battles of Alma, Balaclava, and Inkerman, and all the siege operations until the fall of Sebastopol. For these services he received the Crimean and Turkish medals, and the decoration of Chevalier of the French Legion of Honour.

Surgeon-General Fasson was much respected as a medical adviser, and endeared himself by his personal qualities to all the officers and men who had relations with him. Many old friends and comrades came from a distance to attend his funeral. He had suffered from symptoms of angina pectoris for a considerable period, and had had a very severe attack on the day prior to his decease. On the morning of the 11th instant he rose apparently as well as usual, but, after partaking of breakfast, syncope suddenly supervened, and very speedily proved fatal.

As the deceased officer died while on full pay and actively employed, his remains were interred in the Garrison Military Cemetery with the full military honours due to his rank. Representatives were present from every regiment and corps in the garrison. The funeral procession was under the command of General Spurgin, C.B., and consisted of eleven guns of the Royal Horse Artillery, three squadrons of cavalry, two battalions of infantry, and the whole of the Army Hospital Corps, and medical officers stationed at Aldershot. The corpse was carried on a gun-carriage drawn by six horses of the artillery, and surrounded by the pall-bearers, among whom were General Sir D. Lysons, K.C.B., commanding the station; Major-General Sir F. FitzWygram, commanding the cavalry brigade; and other general officers. The day was a beautiful one, with a clear atmosphere and bright genial sun shining, so that a large mass of spectators was gathered along the line of march to witness the imposing procession as it slowly wended its way from the deceased surgeon-general's quarters to the Military Cemetery; while in the vicinity of the cemetery itself every little eminence was taken advantage of by persons anxious to catch a glimpse of the final part of the ceremony. At the conclusion of the funeral service the horse artillery, who had moved to Gun Hill, being communicated with by signal, fired eleven minute guns, after which the troops left the ground to return to their quarters and the vast assemblage separated. Among the many officers and friends who followed in the funeral cortege were Surgeon-General Dr. Shelton, and Deputy Surgeon-General Dr. Irvine, of the Director-General's office in London, who attended to represent the Director-General, Sir William Muir, on the sad occasion.

It is understood that the vacancy at Aldershot caused by the death of Surgeon-General Fasson is to be filled by Deputy Surgeon-General J. Sinclair, who has recently returned to England from South Africa, and who is on the eve of promotion to the higher rank of surgeon-general.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, March 16th, 1882.

Gravely, Frank, Newick, Lewes, Sussex.
Stewart, Rothsay Charles, Clifton Gardens, Maida Vale.

The following gentleman also on the same day passed the Primary Professional Examination.

Smith, Henry Strode, Royal Infirmary, Bristol.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the usual monthly examinations for the Licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, March 6th, 7th, 8th, and 9th, the following candidates were successful.

For the Licences to practise Medicine and Midwifery.—Charles Granville Clarke, John Bryce Dunlop, Charles Joseph MacCormack.

For the Licence to practise Medicine.—John Edward Snow Barnes, Arthur Kennedy, George Cardwell Porter, William Christopher Thompson.

MEDICAL VACANCIES.

The following vacancies are announced :—

BIRMINGHAM GENERAL DISPENSARY—Resident Surgeon. Salary, £150 per annum. Applications by April 12th.

BRITISH HONDURAS, COROSAL DISTRICT.—Medical Officer. Salary, £150 per annum. Applications to the Secretary, Colonial Office, London, S.W.

BRITISH LYING-IN HOSPITAL, Endell Street.—Honorary Physician. Applications by April 1st.

CHELSEA, BROMPTON, AND BELGRAVE DISPENSARY, 41, Sloane Square, S.W.—Surgeon. Applications by March 30th.

CHELTENHAM GENERAL HOSPITAL AND DISPENSARY.—Resident Surgeon. Salary, £180 per annum. Applications by April 17th.

CHILDREN'S HOSPITAL, Birmingham.—Assistant Resident Medical Officer. Salary, £40 per annum. Applications by April 13th.

DENHOLME AND DISTRICT—Qualified Practitioner. Applications to G. R. Selby, Denholme, Roxburghshire.

ESSEX AND COLCHESTER GENERAL HOSPITAL.—Member of Surgical Staff. Applications by the 29th March.

ESSEX AND COLCHESTER GENERAL HOSPITAL.—Physician. Applications by the 29th March.

GENERAL HOSPITAL FOR SICK CHILDREN, Pendlebury, Manchester—Resident Medical Officer. Salary, £80 per annum. Applications by March 22nd.

GENERAL INFIRMARY, Leeds.—House-Physician. Salary, £100 per annum. Applications by April 4th.

GLASGOW OPHTHALMIC INSTITUTION—Ophthalmic Surgeon. Applications by April 8th.

GREAT NORTHERN HOSPITAL, Caledonian Road, N.—Obstetric Physician. Applications to the Secretary by March 31st.

GREAT NORTHERN HOSPITAL, Caledonian Road, N.—Surgeon. Applications to the Secretary by March 31st.

HACKNEY UNION—Medical Officer. Salary, £80 per annum. Applications to the Clerk.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Clinical Assistant. Applications by April 1st.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT, St. John Street, Deansgate, Manchester.—Honorary Physician. Applications by the 31st instant.

HOSPITAL FOR WOMEN, Soho Square, W.—Pathologist and Registrar. Salary, 50 guineas per annum. Applications by April 3rd.

HUDDERSFIELD INFIRMARY.—Second Junior House-Surgeon. Salary, £40 per annum. Applications by April 3rd.

KENT AND CANTERBURY HOSPITAL—House-Surgeon. Salary, £80 per annum. Applications by April 6th.

KNIGHTON UNION—District Medical Officer. Salary, £40 per annum. Applications by 29th instant.

MERE UNION.—Medical Officer for First District. Salary, £105 per annum. Applications by 27th March.

MERE UNION.—Medical Officer for the Workhouse. Salary, £10 per annum. Applications by the 27th March.

NORTH WALES COUNTIES LUNATIC ASYLUM, Denbigh.—Medical Superintendent. Salary, £450 per annum. Applications by the 29th instant.

NOTTINGHAM DISPENSARY—Resident Surgeon. Salary, £200 per annum. Applications by March 25th.

PARISH OF GAIRLOCH, Ross-shire.—Medical Officer. Salary, £100 per annum. Applications to the Chairman, Osgood H. Mackenzie, Esq.

PIETERMARITZBURG LUNATIC ASYLUM, Natal.—Resident Surgeon. Salary, £400 per annum. Applications to the Crown Agents for the Colonies, Downing Street, S.W.

QUEEN'S HOSPITAL, Birmingham.—Resident Surgeon. Salary, £50 per annum. Applications by April 10th.

SCARBOROUGH FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Resident Medical Officer. Salary, £200 per annum. Applications by April 15th.

SEAMEN'S HOSPITAL (late Dreadnought), Greenwich, S.E.—Resident House-Physician. Salary, £75 per annum. Applications by April 6th.

UNIVERSITY OF GLASGOW.—Examiner in Surgery. Salary, £40 per annum. Applications, by 1st April, to Dr. Anderson Kirkwood, 145, West George Street, Glasgow.

WESTMINSTER HOSPITAL, Broad Sanctuary, S.W.—House-Surgeon. Applications by the 29th instant.

YORK COUNTY HOSPITAL—Honorary Physician. Applications by the 11th April.

MEDICAL APPOINTMENTS.

BARRETT, L., L.R.C.P., appointed Medical Officer to the Monasterboice Dispensary District to the Drogheda Union, *vice* W. J. O'Keeffe, L.K.Q.C.P.I., resigned.

BROADBENT, John, M.R.C.S.Eng., L.S.A., appointed Surgeon to the Hulme Dispensary, Manchester.

CREMEN, P. J., M.D., appointed Assistant-Physician to the North Charitable Infirmary, Cork, *vice* J. P. Golding, M.D., appointed Physician.

DAVIDSON, Charles, M.D., C.M., appointed Medical Officer to the Coventry Provident Dispensary.

DREWITT, F. G. D., M.B., appointed Assistant-Physician to the West London Hospital, Hammersmith, *vice* M. Lubbock, M.D., resigned.

FAIRCLOUGH, J. J. V., M.D., M.R.C.S.Eng., appointed Surgeon to the Hulme Dispensary, Manchester.

GARRARD, C. R. O., M.R.C.S., appointed Resident House-Surgeon to the Rotherham Hospital, *vice* J. L. Jaquet, M.D., resigned.

GRANT, J. D., M.D., appointed Honorary Surgeon to the Poplar Hospital for Accidents, Blackwall, E.

GUNN, R. M., M.B., appointed Surgeon to the Western Ophthalmic Hospital, *vice* J. S. Wilkinson, F.R.C.S., resigned.

JONES, R. R., M.R.C.S., appointed House-Surgeon to the Carnarvonshire and Anglesey Infirmary, Bangor.

LOFTHOUSE, Arthur, M.R.C.S., appointed House-Surgeon and Dispenser to the West Herts Infirmary, *vice* H. E. Paxon, M.R.C.S., resigned.

MAPLETON, G. H., M.B., appointed Medical Officer to the No. 2 District, Montserrat, West Indies.

MIDDLETON, G., M.B., appointed Extra Dispensing Physician to the Glasgow Royal Infirmary.

MUIR, W., M.B., appointed Extra Dispensing Surgeon to the Glasgow Royal Infirmary.

O'CONNOR, G. A., L.R.C.P., appointed Medical Officer to the Workhouse of the Belmullet Union, *vice* J. Mullanny, resigned.

PICKUP, William J., M.B., M.R.C.S., L.S.A., appointed Medical Officer to the Coventry Provident Dispensary, *vice* R. Plowman, L.R.C.P., M.R.C.S., resigned.

SAINSBURY, H., M.R.C.P., appointed Honorary Physician to the Western General Dispensary, Marylebone Road, *vice* C. Y. Biss, M.B., resigned.

STREET, A. F., M.B., appointed Junior Resident Medical Officer to the Radcliffe Infirmary, Oxford, *vice* W. Collier, M.B., resigned.

TAYLOR, J. J., L.R.C.S., appointed Assistant Medical Officer to the Barony Parish Hospital, Glasgow, *vice* T. Millar, L.R.C.P., resigned.

WOOD, John, M.A., M.B.Oxon., appointed Medical Officer of Health to the Walsall Rural Sanitary District.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., *which should be forwarded in stamps with the announcements.*

MARRIAGE.

HELME—LEES.—On the 15th March, at Wesley Chapel, Hill Top, by the Rev. W. George, James Milner Helme, M.D., The Firs, Rusholme, Manchester, to Lydia, younger daughter of the late John Lees, Hill Top, West Bromwich.

LONGEVITY IN IRELAND.—During last quarter, among the deaths registered was one at 100, two at 102, and two at 103 years respectively.

EASTBOURNE must be regarded as exceptionally healthy. During the last twelve months the death-rate there has been only 13 per 1,000.

FLEET-SURGEON WILLIAM ANDERSON, principal medical officer at the Royal Marine Depôt at Walmer, died at his official residence on the 15th instant from acute rheumatism.

THE STATE OF THE THAMES.—Professor Rogers, M.P., at a recent meeting, stated that he was hopeful that before long they would get an inquiry from the Government on the state of the Thames. The superintendent of the *Warspite* told him that the stench from the river was at times sickening to the boys. It was impossible to believe that, if there were an organisation for the whole of the metropolis, such a state of things could exist.

DENTAL HOSPITAL OF LONDON.—The report of this Hospital, read and adopted at its recent annual meeting, speaks satisfactorily of the progress of the institution as regards the funds, which show a considerable increase in the income compared with that of last year. 30,799 cases had been treated during the year 1881. The managing Committee strongly impressed upon the governors and the public that if the dental practice in England is to retain its position, the educational facilities of this hospital must be largely increased. Owing chiefly to the costly nature of the materials, this can only be done by a large expenditure of money. The Hospital is unendowed, and increased funds would enable it greatly to extend its usefulness.

HEALTH OF FOREIGN CITIES.—Trustworthy indications of the recent health and sanitary condition of various foreign and colonial cities are afforded by the following figures, deduced from a table in the Registrar-General's last weekly return. According to the most recently received official weekly returns, the annual death-rate in the three principal Indian cities averaged 36.2 per 1000, and was equal to 31.9 in Calcutta, 34.4 in Bombay, and 44.1 in Madras. Cholera caused 56 deaths in Madras, 27 in Calcutta, and 16 in Bombay, showing a decline from the numbers in previous weeks; 67 deaths resulted from measles in Bombay, and fever fatality showed the usual large excess in each of these Indian cities. The death-rate in Alexandria declined to 26.6, from the higher rates in previous week; 17 fatal cases of typhoid fever were, however, recorded. In twenty-one European cities, the death-rate averaged 32.7, and exceeded by no less than 9.9 the mean rate prevailing last week in twenty-eight of the largest English towns. The death-rate in St. Petersburg was 56.9, and showed a further increase upon the rates in previous weeks; 53 deaths resulted from typhus and typhoid fevers, 24 from scarlet fever, and 20 from diphtheria. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate averaged 24.8; in Copenhagen, 28 of the 126 deaths were fatal cases of measles, and the death-rate was equal to 26.3. In Paris, the death-rate was 28.4, showing a decline from the rates prevailing in the three preceding weeks; the deaths included 60 from diphtheria and croup, 30 from typhoid fever, and 16 from small-pox. The death-rate was equal to 23.3 in Geneva, and 29.8 in Brussels; in the latter city, 8 fatal cases of whooping-cough were reported. In the three principal Dutch cities, the death-rate averaged 27.5, and was almost identical in each of the cities; the 178 deaths in Amsterdam included 7 fatal cases of typhus and typhoid fevers. The Registrar-General's table includes returns from nine German and Austrian cities, in which the average death-rate was 33.3; it ranged from 24.6 and 27.3 in Berlin and Dresden, to 43.4 and 44.5 in Buda-Pesth and Munich. Small-pox caused 20 deaths in Vienna, and 10 in Buda-Pesth; and diphtheria showed excessive fatality in Berlin, Dresden, Munich, and Trieste. The death-rate was equal to 31.0 in Turin, and 26.6 in Venice; 5 deaths from typhoid fever and 12 from diphtheria and croup were reported in Turin. Neither Rome nor Naples contributed the usual returns. The average death-rate in the four American cities was equal to 29.2, the rates ranging from 23.0 in Philadelphia to 38.5 in New York. Small-pox caused 17 deaths in New York and 7 in Philadelphia; scarlet fever was fatally prevalent in New York and Brooklyn, and typhoid fever caused 16 deaths in Philadelphia.

OPERATION DAYS AT THE HOSPITALS.

MONDAY..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S. 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear. Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p. Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M.Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Dr. Radcliffe Crocker will exhibit two examples of Lichen Planus affecting Mucous Membranes. Dr. Robert Lee will describe a new and enlarged form of Inhaling Machine. Dr. Gilbart Smith will give the clinical record of a Pulmonary Cavity that ulcerated through the Intercostal Spaces. Mr. A. Pearce Gould: On the Advisability of Enucleating the Axillary Glands in the Removal of Scirrhous Mammæ.

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Dr. S. Fenwick: On the presence of Bile in the Saliva, and on the Variations in the Amount of Sulphocyanide of Potassium in the Saliva of Persons affected with different Diseases. Mr. Thomas Bryant: On a case of Excision of a Stricture of the Descending Colon through an Incision made for a Left Lumbar Colotomy.

THURSDAY.—Harveian Society of London, 8 P.M. Dr. Morton: Two Cases of Meningitis. Dr. Ferrier: On the Pathology of Lead Palsy.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

MEDICAL ATTENDANCE ON THE ARTISAN CLASSES.

SIR,—Permit me to suggest to "A Young Practitioner", and to others whom it may concern, a method of remuneration for medical services which seems to have escaped his notice; I refer to private medical clubs. The provident principle is—as I have pointed out with some persistence—the only true one both for rich and poor, not only on account of the recognised value of providence in the abstract, but also by reason of the beneficial relation it establishes between the medical practitioner and his clients.

Let "A Young Practitioner" have some cards of membership prepared, and let him propose to those of the artisan class who come to him that they should pay him a certain sum *per annum*, (say five shillings) in half-yearly (or quarterly) instalments, payable in advance; provided always that those who are in need of attendance at the time of application shall pay an additional year's or half-year's fee, and that midwifery and surgical operations shall be extras. I can assure "A Young Practitioner" from my own experience that, from a given number of the working classes, he will obtain at least as much money as by any other system, and that with more dignity and less trouble. The popularity of medical aid associations, of hospitals and free dispensaries—to say nothing of bad debts—is mostly the result of, and a well deserved punishment for, the short-sighted neglect by the profession of the reasonable wants of the working classes.

If "A Young Practitioner" should care to communicate with me, I shall be happy to send him a specimen copy of the cards I use for the working classes.—I am, etc.,

W. F. PHILLIPS.

St. Mary-Bourne, Andover, Hants, March 13th, 1882.

RULES FOR A DISPENSARY.

SIR,—Will you kindly insert the following rules for a dispensary in the JOURNAL? They are intended for a dispensary in a purely agricultural village of about 300 or 350 inhabitants, which is seven miles away from the market town. I shall be glad if it induces the expression of opinions from members who have such a scheme already at work.—I remain, yours, etc.

NEMO.

———— Dispensary: 1. This dispensary is for the benefit of farm labourers, their wives and children. 2. Members will be able to see the medical officer at the dispensary on Mondays at 11.30 A.M., except in the weeks having public holidays, when he will attend on the corresponding Tuesday. 3. Members will be visited at their own homes, if prevented by illness from seeing the medical officer at the dispensary. 4. Members will be able to obtain ordinary medicines at the dispensary on Mondays or other week-days at reasonable hours. 5. An entrance fee will be charged only to persons who wish to join again, after allowing payments to fall into arrear; or who wish to join during an illness. 6. The entrance fee for readmission will be two quarters' payments; for admission during illness, it will be three quarters' payments; both being in addition to the quarter due. 7. The payments for membership will be at the following rates: 5s. *per annum* for one member alone; 4s. 6d. for each if three of one family join; 4s. each if four join; 3s. 6d. each if five join; 3s. each if six or more of one family join. 8. Membership payments must be made in advance, will be due on quarter-days, and may be made in quarterly instalments. 9. If two quarters' payments be owing, the membership will cease, and an entrance-fee will be required on readmission. 10. Members will pay one penny for each bottle of medicine, embrocation, or lotion, or for each box of ointment or pills, they obtain at the dispensary, as they will be saved the expense of sending to the market town. 11. Members of other medical societies having the same medical officer will be given the advantages of the dispensary without payment, except for medicines, under Rule 10. 12. The medical officer reserves the right of admitting people of a different class on this or a different scale, or of refusing the payments of anyone.

SIR,—Could you tell me of any book which would do as a handbook for a course of elementary lectures to ladies on Hygiene? We want to impart a little practical information to district visitors, etc. Any books I have seen are too advanced.—Yours faithfully,

E. MACDOWEL COSGRAVE, M.D.,
Member British Medical Association.

24, Gardiner's Place, Dublin, February 23rd, 1882.

*** Professor Corfield's lectures, entitled *Health* (C. Kegan Paul and Co., 1880), would probably answer the object intended. The *Health Manuals* of the Society for the Promotion of Christian Knowledge might also be useful.

PHTHISIS AND ARCHERY.

SIR,—I should feel much obliged by some opinion in the following case. A lady with some tubercular (inactive) deposit in the right apex, asks me if the exercise of archery would prove injurious to her. I had forbidden any special exertion, such as singing and dancing; but, as she assured me that archery did not affect her breathing unless she were shooting for prizes, I gave it as my opinion that so far it could not have any prejudicial effect. Drawing the bow appears to me a muscular exertion of the arms only, quite unconnected directly with the organ affected, or indirectly with any general exertion which could hurry the action of the respiratory organs.—I am, etc.,

RECREATION.

"PROTECTED" SCARLET FEVER CASES.

SIR,—I believe the solution of the question of so-called "protected" scarlet fever cases is simple. Are they not merely mild cases of scarlatina without erupton, consisting of simple primary fever of two days' duration, followed by the characteristic congested and ulcerated tonsils, and quite as likely to spread the disease as the other forms of scarlatina? As such I have always looked upon them. If so, it is misleading and a misnomer to style a person suffering from scarlet fever as a "protected" person.—I am, etc.,

M.B., M.A.

CHINOLINE (SCHERING'S).

SIR,—Oblige me with further information concerning the above alkaloid, which was referred to in the JOURNAL for March 4th. I am desirous of knowing—1. What dose of chinoline is equivalent to one grain of sulphate of quinine? 2. How the chinoline is to be administered, in solution or pill; whether it is soluble in water without acid; and what correctives are required in dispensing it?—Your obedient servant,

M.

*** The ordinary dose of Schering's pure tartrate of chinoline is from five to fifteen grains. It is best given in a mixture. It dissolves readily in water without the addition of acid. Its taste may to some extent be covered by spirits of chloroform or tincture of orange-peel.

PRACTICE IN THE COLONIES.

SIR,—I believe that some restrictions as to the practice of medicine by men only holding British degrees exist in some Canadian provinces. Are these restrictions in force in Manitoba and other western provinces? and if so, in what do they consist, and how may they be met?—Yours truly,

M.B.EDIN.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

ARTIFICIAL HUMAN MILK.

SIR,—In reply to a letter in your JOURNAL of March 18th, signed "Americus", I have for years been in the habit of feeding infants entirely, from their birth up to nine or ten months, with whey obtained from the cows' milk; and of late I have found the essence of rennett, obtained from Messrs. Lazenby and Co., 6, Edward Street, Portman Square, the most convenient for separating the caseine. It is not expensive; I get a dozen 16-ounce bottles at a time, which will last some months. As regards the quantity required, follow the directions on the bottle. If the curd when firm is placed on a hot stove, it will contract, and the whey separate more rapidly. To an infant under a month old, I give equal parts of whey and water, with one or two teaspoonfuls of cream, according to the quality, and a piece of sugar, increasing the proportion of whey as the child gets older.—I am, sir, yours truly,

W. F. BROOK.

Fareham, Hants.

ENDOMETRITIS.

SIR,—For a few months past, I have had under my care an obstinate case of endometritis which has existed for years. I should be truly grateful if you or some of your numerous readers would kindly afford me assistance in its treatment. I have tried local applications of nitrate of silver, carbolic acid, tincture of iodine, nitric acid, perchloride of iron, and a suppository of lead and opium at bedtime. Internally, I have administered strychnia, ergot, perchloride of mercury, and sarsaparilla, etc., with only partial success. The patient is young and unmarried. Leucorrhœa, lumbar pain, occasional gastric disturbance, and general debility exist. The catamenia are regular; no menorrhagia and no displacement.—Yours faithfully,

A YOUNG MEMBER.

HOMES FOR INEBRIATES.

SIR,—I am really surprised to find a medical man of Dr. S. Rees-Philipps's well known experience expressing himself in so vague a manner in the BRITISH MEDICAL JOURNAL, March 4th, 1882, page 331, viz.: "During the last two years, she has given way to intemperance, and drugs have failed to allay the craving for stimulants. She is desirous of being cured from what she feels to be a disease." Now, if she have given way, that must be from some special cause, not specified in the general statement of the case; hence, probably, the failure of drugs to allay. Next, the woman feeling it to be a disease does not necessarily make it so, any more than it would in the case of an alderman who had exceeded the bounds of moderation with turtle and salmon.—Yours truly,

9, Stanley Road, Bootle. J. HUSSEY WILLIAMS.

DR. FELCE should communicate with the police, who would, we think, take the matter in hand.

MEDICAL ETIQUETTE AND THE INDIAN MEDICAL SERVICE.

SIR,—Could you kindly inform me through your columns if the Indian Medical Service has a deteriorating effect on members of the profession? If so, I fear for the future of our noble profession, and it will require faithful hearts and noble minds to combat the evils which threaten it.

Here in this town there are two civil surgeons, besides some private practitioners. The unwritten rules of the profession, which should govern the actions and conduct of one another, seem a thing of the past. One civil surgeon, for the sake of monetary considerations, meets in consultation as an equal an unqualified practitioner; and the other acts in jealous opposition to members of the profession practising privately here, and is perfectly oblivious of the rules which should govern the actions of medical men when called in to attend another's patients. I shall be happy to learn that the examples I state are only isolated cases; and that, in whatever position a medical man is placed, he still retains that nobleness of character and courtesy to his colleagues which has always commanded respect and distinguished us, whether in the field or in private practice, and has given renown to the great names which have gone before us.

With an apology for trespassing on your valuable time, I subscribe myself,

IN ADVERSIS ETIAM FIDU.

CHARITY BEGINS AT HOME.

SIR,—Being a subscriber to the Royal Asylum of St. Ann's Society, a most valuable charity, which supplements Epsom College by its care of the female orphans of professional men, I am in receipt of an appeal on behalf of one of the five orphans of a medical man lately living in London. This gentleman "died suddenly, leaving a widow and five children totally unprovided for, the youngest only eight months old." He doubly qualified in 1870, and in 1880 obtained another qualification, ornamental because unnecessary, at a cost of fifteen guineas; and was also a member of a learned society, at the annual charge of one guinea.

I am far from wishing to blame a deceased brother, but I wish to point out, for the benefit of others, how different would have been the position of his widow and children, had this gentleman devoted his spare guineas to subscribing two annually to the "Society for the relief of Widows and Orphans of Medical Men", at 53, Berners Street. In that case, his widow would now have been entitled to £50 *per annum*, and each of the five children to a grant.—Yours obediently,

A SUBSCRIBER.

CHLOROFORM.

SIR,—About thirty years ago, Mr. Wingate, chemist, of Liverpool, sent Dr. Simpson some chloroform, asking him to try the effect of it, which, with characteristic boldness, the doctor and a friend tried upon themselves; and both awoke delighted with the experiment. Very soon afterwards, we obtained the drug for the Lying-in Hospital here, and administered it in a case of craniotomy. Afterwards, the patient declared she had had a pleasant dream. I well remember our unbounded joy, having had but poor success with ether. Under these circumstances, and using chloroform ever since, I may claim as lengthened experience as anyone; though perhaps not so extensive as many. During my term of active service at the above-mentioned hospital, we constantly used it in all operations, and some of the patients requiring surgical treatment were under its influence for hours; yet I never in the hospital, nor in private practice, saw the least untoward symptom, excepting after an operation for squinting. The boy, about twelve years of age, fainted; but, on being carried into a cool room, and vomiting his undigested breakfast, he immediately came round.

Now, sir, all I ask is, that my old and tried friend may have a fair field and no favour in the controversy "Ether *versus* Chloroform".—Yours, etc.,

119, Shaw Street, Liverpool. B. BLOWER.

SCARLET FEVER.

SIR,—Dr. Howard's opinion, expressed in his letter in last week's JOURNAL, as to the rarity of a second attack of scarlet fever, is, surely, scarcely well supported by the case which he quotes; for, if the throat-affection from which his eldest daughter suffered in December 1880 was not scarlatinal throat, what was it? It seems to me that the case shows pretty conclusively that a person may have scarlatina a second time, but that, in such a case, the symptoms will be confined to the throat. If this be so, and abundant experience has convinced me that it is so, it is obvious that the term "protected" can only be used in a limited sense, as indicating that persons who have had one attack of the disease are to some extent protected from any second attack; and to a still greater extent protected from all but the purely primary symptoms of sore-throat; but not that they are absolutely protected in any way.

So convinced am I that the great bulk of cases of sore-throat occurring in children are scarlatinal in origin, and infectious in character, that I have for some time made it a point to constantly impress upon the teachers of schools in my district the extreme importance of excluding for some time from the school not only any child who has had sore-throat, but any child coming from a house where a case of sore-throat exists. I should be afraid to say how many deaths come under my notice registered as having occurred from "diphtheria", "croup", and "laryngitis", which I have good reason to believe are simply cases of death from imperfectly developed scarlet fever.—I am, etc.,

THOMAS T. BOND, M.D.

Gloucester.

F.R.C.S. will find in the advertising columns of the JOURNAL the names and addresses of several gentlemen who prepare candidates for the Oxford and Cambridge and other examinations.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. G. A. Gibson, Edinburgh; Mr. Christopher Heath, London; Dr. T. Patterson, Oldham; Dr. A. Wahltuch, Manchester; Dr. R. Beverly Cole, Liverpool; Mr. H. W. Hunt, London; Mr. J. Williams, Brecon; Dr. G. H. R. Dabbs, Shanklin, I.W.; Mr. W. Carton, Oldham; Captain Perrott, Plumstead; Dr. A. Newsholme, London; Mr. Reginald Harrison, Liverpool; Mr. Reid, Newbiggin-by-Sea; Dr. Russell, Birmingham; Mr. H. C. Wilkin, Tottenham; A Gaol-Doctor; Mr. A. Hallowes, Maidstone; The Director-General of the Naval Medical Department; Dr. Irving, Edinburgh; Our Glasgow Correspondent; Dr. J. Paton Watt, George Town; Dr. Fairlie Clarke, Southborough; Dr. A. Carpenter, Croydon; A Candidate; Mr. Mark Judge, London; Dr. Bampton, Plymouth; Mr. G. Holmes, Southbrook; Mr. Blair, London; Mr. H. Coupland Taylor, Todmorden; Dr. Stevenson, London; Nemo; Mr. J. P. Oates, Malvern Wells; X. Y. Z.; Dr. Collie, Homerton; Mr. H. Payne, Ashton; Dr. Mahomed, London; Dr. S. W. Smith, Pershore; M. B. M. A.; Mr. Joseph Smith, Guildford; Dr. A. Hughes Bennett, London; Dr. Crichton Browne, London; Dr. J. W. Langmore, London; Mr. H. Ritchie, London; Mr. W. T. Drew, Egham; Dr. J. Styrap, Shrewsbury; Dr. Bond, Gloucester; Dr. W. Allan Jamieson, Edinburgh; Our Birmingham Correspondent; Dr. Richard Cross, Scarborough; Mr. G. Adams, Clifton; Dr. J. Whitson, Glasgow; Dr. G. Mackay, Inverness; Mr. G. Longbotham, Middlesborough; Mr. Hamilton Miller, Liverpool; Dr. C. Glascott, Manchester; Dr. R. Liveing, London; Miss McDiarmid, West Derby; Dr. A. H. Bampton, Plymouth; Mr. D. Biddle, Kingston-on-Thames; Mr. J. R. Buck, Worcester; Mr. A. Childs, Crewe; Dr. Joseph Coats, Glasgow; Mr. E. J. Halsey, Guildford; Dr. E. J. Tilt, London; Dr. J. C. Ferrier, South Norwood; Mr. Herbert Bracey, Birmingham; Dr. McCombie, Deptford; Dr. James Ady, Rangoon, India; Mr. W. Gowans, South Shields; Dr. J. Rogers, London; Dr. W. C. Grigg, London; Dr. A. H. Hassall, San Remo; Dr. John Wallis, Brentwood; Dr. Stamford Felce, London; Dr. McNaught, Newchurch; Mr. Vesey Fitzgerald, London; Mr. E. P. Young, London; Rev. Dr. Haughton, Dublin; Mr. W. E. Vaughan, Crewe; Dr. R. N. Ingle, Cambridge; Mr. F. St. George Mivart, London; Dr. McCombie, London; Dr. De Chaumont, Netley; Mr. John Furley, Sevenoaks; Mr. W. K. Parker, London; Mr. Malcolm Morris, London; Mr. R. Harris, West Bromwich; Mr. H. E. Norris, Charmouth; Dr. Acland, Oxford; Mr. Edward Smith, Bolton; Dr. J. W. Moore, Dublin; Mr. E. Bellamy, London; Dr. Dick, Colchester; Mr. J. B. Jessett, Erith; Mr. T. Blair, Leeds; Mr. Griffith Morris, Hereford; Dr. Beatson, Glasgow; Dr. Charles Davidson, Coventry; Mr. W. F. Brook, Fareham; Mr. H. Schmitzdorff, St. Petersburg; Mr. R. H. Firth, Blackburn; Dr. Greenhill, Hastings; Mr. J. E. Burton, Liverpool; Mr. E. Stanmore Bishop, Manchester; Mr. A. Harvey, Birmingham; Mr. F. Galton, London; Mr. A. H. Benson, Dublin; Mr. W. Bowman Macleod, Edinburgh; Our Dublin Correspondent; Mr. C. Anderton, Leigh; etc.

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Professor of Physiology in University College, London.

Lecture I. Part II.—Injury and Damage.

4. *The local disorders of the circulation, on which the objective signs of inflammation depend—namely, increased supply of blood with diminished velocity of the blood-stream, dilatation of the blood-vessels, exudation, and stasis—may all be explained either as direct or indirect results of a damaged condition of the vascular wall; but no satisfactory explanation has as yet been given of the mechanism of emigration of the colourless blood-corpuscles.*—In what has been said up to this point, I have endeavoured to present a general view of the effects of injury as they may be judged of, without making any effort to investigate them minutely. But we must not forget that these are made of finer details, to see which it is necessary to come nearer and to penetrate below the surface.

Our forefathers judged that inflamed parts were hot by feeling them; we know how hot they are by the thermometer. So as regards the other two Celsian characteristics. We know how a part swells and becomes red, by watching the process under the microscope. Without its aid, our knowledge of inflammation would be as vague as was Harvey's of the capillary circulation. Microscopical investigation has, no doubt the disadvantage that, the nearer we approach to our object, the narrower becomes our field of vision; and some people imagine that this is apt to associate itself with a corresponding narrowness of intellectual scope. If such a danger exist, the way to avoid it is not to change our method with our instrument. Whether we look at large things or at small—whether we occupy ourselves with general characters or with details—it is alike necessary to bear in mind that our business is with the pathological process itself, not with its results. The history of pathology, from the time of John Hunter to the present, seems to show that a great many of the mistakes that have been made may be attributed to neglect of this principle. The method which consists in inferring from the pathological anatomy of a disease its essential nature cannot be dispensed with; for, in many cases, it is the only method within our reach, but it is an imperfect and uncertain one; for, if we interpret our facts wrongly, we have no means of finding out our mistake. The only certain way of determining the nature of a diseased process is that which is employed in physiology. It consists in getting as close as we can to the seat of action—in taking care that our view is not obscured by surrounding objects, and of watching what happens with the utmost attention of which we are capable. I need not say that, as regards inflammation, this was the method employed by John Hunter, and, more recently, by the elder Thomson, C. J. B. Williams, Wharton Jones, Lister, and indeed more or less, along with the other method, by all who have worked to good purpose. That in later times, and particularly during the last ten or fifteen years, its relative importance has become so much greater, is due partly to the better appliances which we now possess for this close scrutiny of vital processes, partly to the more sceptical spirit of the time, which refuses to accord to inferences, however well founded, the same value as to direct observations.

As affording an excellent illustration of the method to which I have been referring, as showing how clear a view can be obtained at once of all the constituents of a pathological state or process, I would ask your attention to what may be learnt by the microscopical observation of a serous membrane under conditions which, although they apparently approach closely to the normal, yet depart from it sufficiently to determine inflammation. For this purpose, it is necessary that, during the whole period of observation, the membrane to be observed (the mesentery or omentum of a carnivore or a rodent) should be immersed in a liquid which represents as nearly as possible that of its own normal secretion; and that the temperature of this medium should be that of the body. I shall not describe the details of the experiment, but will content myself with stating that the arrangements are similar to those employed by Professor Stricker (*Handbook for the Physiological Laboratory*, p. 231) and myself in 1870; but that the *modus operandi* has been since brought to much greater perfection by Professor Thoma, of Heidelberg ("Ueber entzündliche Störungen des Capillarkreislaufes bei Warmblütern," Virchow's *Archiv*, vol. lxxiv). As a result, he has been able to see the mammalian circulation in a state of unimpaired activity; the velocity of the blood-stream in all the blood-vessels being such, that even in the veins the axial blood-stream appears as a continuous thin red line, with a prismatic border perfectly free from corpuscles.

But, in a very short time, the inevitable changes which are the signs of damage present themselves. If the attention be fixed on a vein, the blood-stream in it seems to flag almost suddenly. At once, the colourless corpuscles "fall out", like tired soldiers on the march, leave the mid-stream, and loiter against the vein-wall, afterwards sticking to it, just as Dr. Williams described the process for the first time in his Gulstonian Lectures in this College in 1841. We know now that the proximate cause of this loitering of the leucocytes against the internal surface of the vascular wall, is the retardation of the current: first, because, by the well known experiments of Schklarewsky ("Ueber das Blut und die Suspensionsflüssigkeiten," Pflüger's *Archiv*, vol. i, p. 603), it is shown that, from the relation which exists between the specific gravity of these bodies and that of the blood, this result is certain to happen; and, secondly, because, by altering the rate of flow, we can produce or abolish the phenomenon at will.

If this were a mere barren problem in vital physics, or even if I could tell you no more about it now than when, nearly forty years ago, Dr. Williams first described it accurately here, I might hesitate in doing more than to make a passing reference to it.

But we now know that it is most intimately connected with the central phenomenon of inflammation, the exudation from the slowly flowing blood-stream of corpuscular liquid. To show this, let me return to the narrative of what happens in the mammalian mesentery. There are three phenomena which demand our attention. The first is, the emigration of the colourless corpuscles. From the moment when these bodies cling to the walls of the veins, in the peculiar way that has been so long familiar, they begin to escape. How it happened that—to as good observers as any who now occupy themselves with the subject, aided by as good microscopes—this wonderful process remained hidden until both it and its meaning were brought to light by Cohnheim, we need not stop to inquire. To the student of the present day, to whom emigration presents itself as a commonplace and elementary fact in pathology, which is shown to him in the course of his first practical lesson on the subject, it seems incredible that it should have been overlooked; while older men, whose microscopes have perhaps remained under their glass shades for a generation, find it equally incredible that what they or their teachers failed to see thirty or forty years ago, can possibly be true now. Both err, in forgetting how slow and gradual is the process by which we come to a right understanding of objective facts. Let us be prepared to give equal credit to the past and to the present, accepting what is new, without losing sight of, much less rejecting, what is old.

The second of the three phenomena to which I referred just now is that of the accumulation of coagulable liquid on the surface of the inflamed membrane, and the separation of its fibrin; in other words, the inflammatory exudation. In other kinds of inflammation, the exuded liquid is discharged from the veins and capillaries into the intervascular parenchyma, where it accumulates or not, according as the mechanism of absorption is adequate or inadequate for its removal; the most important of the three objective signs of inflammation being the expression of defective drainage, or, what amounts to the same thing, excessive leakage from the blood-vessels. But, in inflammation of a serous membrane, no such drainage is wanted; the liquid exuded accumulates, not in the tissue, but in the serous cavity, and finds its way back to the circulation by the lymphatics (situated chiefly in the diaphragm), with which the peritoneal cavity is in communication. For this reason, the study of peritonitis under the microscope affords an opportunity, not elsewhere to be met with, of studying the nature of exudation, and of its relation to what precedes it. If the part of the membrane which is under observation be surrounded by a ring of glass, which rests upon its upper surface, the exuded liquid, instead of being washed away by the constant stream of warm liquid with which it is irrigated, collects on the surface, and soon forms a gelatinous clot, which adheres feebly to the surface of the membrane. You have, in fact, before you, in its simplest possible form, a croupous process.

If you remove this soft coagulum from the membrane and place it under the microscope, it exhibits the characters of blood-plasma which has undergone the same change; nor can there be a moment's doubt that the reason why it coagulates is the same in the two cases—namely, that a certain number of the leucocytes which have escaped undergo disintegration; in doing so, are dissolved in the liquid in which they

are suspended, and thereby communicate to it the property which it did not before contain—that of producing fibrin.

The third of the three microscopical phenomena which presents itself in the mesentery is that of capillary stagnation or stasis—a phenomenon which the earlier microscopical observers (as, *e. g.*, Dr. John Thomson) rightly regarded as of great importance. They were right in so regarding it, for two reasons: first, because it always occurs in inflammations which are of sufficient intensity; and, secondly, because it is in it that the process culminates—by destroying the life of the tissue in which it has its seat.

To avoid confusion, it is necessary to regard the process as consisting of two stages; the first transitory; the second definitive. Transitory stasis is only a local exaggeration of that general retardation of the progressive motion of the blood which we have already studied. Permanent stasis is, as everyone who has watched the circulation in the transparent parts of the frog knows, associated with two other changes in the capillaries. One of these is what has unfortunately been called diapedesis—namely, the often sudden extravasation of a number of coloured blood-discs from a capillary; the other is that strange adhesion of the coloured discs to each other inside the capillaries, so that they look like rods of red coral, which was carefully studied by Mr. Lister twenty-five years ago. Of the truth of the principal conclusion to which these researches led Mr. Lister—namely, that stasis is not due to alteration of the circulating blood, but to a change in the channels through which it has to pass—there can be no doubt; for, in addition to his own most ingenious experiments, it has been since shown that when, in the living animal, corpuscular liquids, such as milk, are substituted for blood, stasis occurs in injured parts, in a similar manner and under similar conditions. I shall have again, in my third lecture, to refer to these facts in their historical relations; for there can be no doubt that, as I have had occasion to state before, they led their discoverer to anticipate the advances which have been made since. What I would now desire to emphasise about stasis is not so much the antecedent changes which give rise to it, as its effect on the tissues which surround the obstructed vessels. Stasis is the mechanism by which inflammation kills, and thereby gives occasion to further pathological changes, of which necrosis is the starting-point.

Time does not admit of our studying other examples of inflammation microscopically. I trust that this one instance, in which I have endeavoured to give as clear an account of what happens as I could, will suffice to show that, just as to the naked eye the visible effects of injuring a vascular part are heat, redness, and swelling, so these have their microscopical counterparts in vascular dilatation and exudation, and in the escape of the fibrin-forming elements of the blood; and that these culminate in capillary stasis. From it, all the destructive after-effects of inflammation have their point of departure. What I have now to do is to show that all these separate results of injury are—not so much by virtue of their dependence on each other as by their common relation to one and the same proximate cause—like the naked-eye phenomena, not disorders of nutrition, but simply signs of damage.

And, first, as regards the retardation of the circulation. As no reason exists why there should be any general retardation of the blood-stream, the condition which determines the local retardation must also be local; and, if so, it must depend on changes of diameter of the blood-vessels, or on increased resistance from other causes in the capillaries. As regards the former, we know by direct observation, first, that there is in inflammation no narrowing either of arteries or of veins; and, secondly, that in all inflammations the quantity of blood which flows through an inflamed part is, in the initial stage of the process, vastly increased. It has been proved by exact experiments, that the blood-stream through an inflamed limb may exceed the normal flow in the proportion of something like four to one. (Cohnheim, *Vorlesungen*, vol. i, p. 222.) Further, we know by measurement that capillary veins and capillary arteries of inflamed parts are much wider than natural, and that many channels come into view which were before invisible. From all these facts, it is evident that, so far as concerns the first stage in the process—the stage during which exudation is going on with greatest activity—the diminution of the velocity of the blood-stream can be due to no other cause than the widening of the blood-way.

If we now proceed to ask, Why do the blood-vessels widen? we get an answer from physiological experiment, which seems to carry us back to John Hunter. They dilate simply because they have lost a power which they possessed before (I am afraid we must be content to call it a vital power) of resisting dilatation. The loss of a vital power is evidence of damage. A damaged blood-vessel in relaxed, for the same reason that a damaged heart or a damaged intestine is relaxed.

Next we come to exudation and escape of leucocytes. We have already seen how the retardation of the stream, particularly in the veins, is a condition *sine quâ non* of emigration. As regards leakage, we have also seen that, on the large scale, leakage is an immediate result of injury; that, in injured parts, the blood-vessels begin to leak at once—*i.e.*, immediately after the injury; so that the element in the act of exudation which remains unaccounted for is the penetration of the vascular wall by the semifluid protoplasm of the leucocyte. Now there are two senses in which a vital phenomenon may be said to be explained or accounted for. The best and most satisfactory is, when we can deduce it from the operation of those properties of matter which are operative outside of the organism. From attempting this we are precluded by want of knowledge, or, more accurately, by want of the means of investigation. We have, therefore, to fall back on the less perfect method, which consists in placing the fact along with others which it resembles. In the present instance, we refer the penetration of the vascular wall of injured parts to the more general fact (of which the examples are very numerous) that leucocytes themselves, and other amœboid bodies which resemble them, possess the power of intruding their own substance into that of dead tissue, and, indeed, of any material capable of imbibition with which they are brought into contact in an active state. The mechanism by which the necessary contact is established has been explained. As to the mode of penetration, we have to content ourselves with identifying it with other well-known but equally unexplained processes.

And, finally, as regards stasis: to understand its relation to the other effects of injury, and to the injury itself, we must bear in mind, first, that it does not form part of the inflammatory state, but is rather a sequela or consequence; and, secondly, that the lagging, the stagnation of the blood-stream, and the final choking of the capillaries with blood-discs, occur only here and there in the inflamed area; and that, when we are able to localise the action of the noxa, we find that stasis, if it occur, is limited to the parts most directly acted upon—*i. e.*, most injured. This localisation suggests what on other experimental grounds we know to be the case; viz., first, that stasis is the expression of a higher degree of injury than that which is required to produce the inflammatory state (*i.e.*, redness, heat, and swelling); and, secondly, that the localised retardation of the circulation which leads to it is the result of a change in the capillaries which renders it more difficult for the blood to pass through them than in the normal state. On the subject of this increased resistance, and the conditions which lead to it, a most important series of experiments have been recently made by Professors Glax and Klemensiewicz of Graz,* who have profited by the fact that in animals the vital properties of the tissues can be maintained by artificial circulation of properly arterialised blood, for the purpose of ascertaining to what extent the capillary resistance is modified by the introduction into the circulating liquid of extremely small percentages of injurious substances, particularly metallic salts. These experiments prove, not merely that the effect of such injury is to produce leakage, but that it shows itself immediately in diminishing the quantity of blood flowing through the blood-vessels of the injured part in a given time, under absolutely constant pressure. These beautiful experiments, though they fail to tell us why a spoilt capillary resists the passage of blood more than a sound one, afford us most exact information as to the condition which leads to this increased resistance. They justify us in saying that although, in the order of time, stasis is a consequence of exudation, the two phenomena owe their relation to each other to their being both alike the direct effects of injury; the former being the sign of a less, the latter of a greater, degree of damage.

I now desire to submit to you one or two consequences which follow from the view we have taken of the nature of the inflammatory state. The first is, that the only direct after-effect of inflammation is necrosis, that being dependent on the arrest of the circulation; and that the processes of restitution of structures which have thus ceased to live cannot, with any regard to accuracy, be regarded as parts of inflammation, or as in any way different from those by which the same structures are restored when destroyed by other agencies. The determining cause in the one case, as in the other, is the power of renewal inherent in the adjacent undestroyed tissue. The second point is, that the process of inflammation is essentially a terminable process—*i.e.*, one which has no tendency either to spread or last beyond the limits of the proximate cause. To this deduction I attach great importance, because it is the foundation of what I shall have to say in my next lecture as to the ætiology of inflammation. For, if it be accepted as true, it necessarily follows that, if we meet with an inflammation which does *not* cease on the removal of its assigned cause, there must be another latent noxa at work, of which we had before taken no cognisance.

* Glax und Klemensiewicz, "Beiträge zur Lehre von der Entzündung", *Sitbz. der k. Acad. der Wissensch.*, vol. 84 (iii Abth.), p. 216

An uncomplicated inflammation is neither reproductive nor infective, neither benignant nor malignant. If it have any tendency, it is the tendency to leave off as soon as the occasion for it ceases.

(*To be continued.*)

CROONIAN LECTURES
ON THE
CLIMATE AND FEVERS OF INDIA.

Delivered before the Royal College of Physicians of London.

By SIR JOSEPH FAYRER, K.C.S.I., M.D., F.R.S.,
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Lecture I. Part II.—Etiology of Fevers.

[*Concluded from page 415 of last number.*]

Facts and Modes of Action of Malaria.—Briefly to summarise the facts about malaria and the methods by which it acts—whatever it be, it seems to be influenced by local and climatic conditions; its activity increasing generally with proximity to the equator, though there are parts of North India, as well as of Europe, where it is most active. Though prevalent in low-lying, marshy, or water-logged ground, or on soil drying up after rains, or on land that is rendered damp by interrupted drainage, it is also found on dry, sandy, or rocky ground, where there is little or no moisture or vegetation of any kind. Of this there are many examples in Europe and in India. Still, water seems to be the prime causal agent, especially when stagnant and near the surface. Water seems to not only determine the generation of malaria, but to hold it in solution. The natives of India attach little importance to atmospheric states, but believe that the water of pools and tanks, or even of streams flowing through certain jungles or marshy places, is charged with the fever-poison, and many believe that the milk of buffaloes or cows fed in these places has the same effect. I have myself heard natives assert this. Malaria is more active near the surface of the ground, in valleys, deep dry ditches or moats, old tanks filled with refuse, silted-up beds of rivers, obstructed watercourses; decreasing in energy with height, it ceases to exist above certain altitudes, variously given at from 1,500 to 5,000 feet. How high it permeates the air above the sea-level surface is not known; but the top of a hill, even the upper room of a house, is less dangerous than the ground-floor. It occurs in some of the hill-stations of India; but, as there is constant communication with the plains and valleys, fever may be the result of importation. It moves like mist and rolls up the hill-sides, nay, overtops those of a certain height, may be dissipated by or travels with the wind, probably some miles, but no one can say how far, though to a greater distance over land than over water, especially salt water, which is supposed to have the power of absorbing and retaining it. Crews of ships lying at a considerable distance to leeward of a malarious shore have been affected by the off-shore wind; and it is said that ships have generated it from certain cargoes of green wood, coals, and other vegetable matter, from rotting timber or bilge, which have developed fever of great severity. Steeping of hemp, jute, and indigo, or other vegetable matter, has had similar effects. Villages and camps have been affected when to leeward of swamps, even at a considerable distance. It is said that burning fires, smoke, or a belt of trees, will arrest its progress; that it clings about trees—hence the danger of sleeping under them; that the growth of trees will destroy or prevent it; and that some trees—the eucalyptus, for example—have a special antagonistic power; but there is probably nothing more in this than the rapid growth of these trees, which makes them quickly available as shelter. A screen of gauze or muslin is said to be protective; a musquito-curtain will keep out malaria as well as insects! A very high temperature does not always cause, it may even prevent it, though the other necessary elements seem to be present. Malaria is more active at night than in the day—more likely to affect those who are exposed to it at that time, during sleep, on or near the ground. It affects the weak sooner than the strong; those of a phlegmatic, lymphatic, or melancholic, rather than the sanguine or nervous temperament; the sickly and ill-fed before the robust; it spares no age; new comers are more liable to suffer than those who have been acclimatised; it affects all races, but it would appear that the negroes in some parts of the coast of Guinea acquire a toleration which has been referred, possibly without sufficient reason, to the colour of the skin. There are certain tribes in the Terai and other forest districts of India who acquire some immunity; the non-Aryan races, inhabiting Assam, suffer, it is said, to a greater extent from malarial disease than the Aryans in the same province. The Tharoos live where it would be death to others, but even they are not altogether exempt.

Malaria is very intense in the belt of low swampy forest ground at the foot of the Himalaya mountains, where the porous soil has a substratum of clay, by which the water is brought near the surface, and where there are dense vegetation and a high temperature; in certain jungle districts, and water-logged land, and where the tides encroach; in the river-valleys, deltas, and debouchures of rivers; and near rice and other cultivation in some stages, though the danger from fresh rice cultivation is probably exaggerated; in the Sunderbunds of Bengal, where the mud is covered with dense jungle and frequently washed by the tide; in the jungles lying at the foot of hill-ranges, and along the sea-coast where salt and fresh water mingle, and where organic matters decompose amid moisture and heat. But it is scarcely less active on high and arid ground, as in the Deccan, Sind, Bicaneer, Peshawur, the Punjab, Bhawulpore; but even in these localities, subsoil, damp, and organic matter seem to be at the bottom of it; though there are places, it must be admitted, which seem so dry and devoid of vegetation, and with the water at such depths below the surface, that it is difficult to believe that the explanation holds good—as it probably does; for, though there may be no great quantity of water, the subsoil is impregnated by a certain amount of stagnant moisture, which is probably the worst of all. It often appears with great intensity, after excavation and turning up of soil, in land that has recently been broken up, or has been denuded of jungle; whilst, on the other hand, cultivation, draining, and cropping seem to diminish or destroy it. The worst malarial dysentery that I have ever seen followed the clearing of some jungle during the last Burmese war. There are localities in India now comparatively healthy, that were formerly dangerous. Malaria is at its worst in the drying-up season after the rains and the beginning of the cold season; whilst, in the dry hot weather, and during heavy rains when the ground is covered with water, or when the land has been for some time cultivated and populated, or covered with trees, it is less severe. Volcanic, rocky, sandy, granitic soils or surfaces, have been thought to favour it, but it seems impossible to ascribe it to any particular soil.

Heyne, in a paper on the Hill-Fevers in India, shows that fevers prevail where granite rocks and ironstone are found in large quantities, and attributes it to magnetic or electric fluid disengaged in excess. Martin thought ferruginous hornblende might be the cause. Volcanic soils and exhalations were supposed by Sir W. Napier and Parkins to cause fever in Sind. Sulphurous vapour has also been suggested. Kuler attributed the endemic fever to limestone rocks. Gordon says: "Fever may occur on rocks, and on the detritus of rocks, as at Gibraltar, Malta, Ascension, the Ionian Islands, Hong Kong, and Cape Coast Castle, when the rock is rotten, and gives out vapours as the sun falls on it after rain." At Port of Spain in Trinidad, the residents enjoy comparative immunity from fever, though the place is surrounded by a swamp; and yet the same persons, if they take up their abode for a single night in La Vantile hill, in the immediate neighbourhood overlooking the Bay of Trinidad, suffer from fever in its severest form. So at Hong Kong, and at Cape Coast in Africa, climatic fevers are severe and deadly, though the soil is dry and hard in both places. At both, the underlying rock consists of decomposing ferruginous granite; and the alternations in meteorological conditions are great and sudden. In Sind and the Punjab, the soil is mostly sandy or alluvium on clay. At Kurrachee it is magnesium limestone, yet malarial fever, neuralgia, and cachexia are common.

Indian experience, however, supports the view expressed long ago by Pringle, that the chief determining cause is stagnant subsoil water at certain temperatures; for when such water moves, however slowly, the evidences of malarial poisoning are less marked. To the stagnant water must be added a certain combination of air and decomposing organic matter. What part may be taken respectively by vegetable and animal matter in the production of malaria is not known, but it is impossible to conceive of miasmata arising from organic decomposition in a tropical marsh, that is not a mixture of both; for low forms of animal life teem among the vegetation in such places, and the slime and ooze of a swamp drying up must contain quantities of animal matter, dying and dead. This may explain the more virulent character of some miasmata, and account for varying phenomena. Those given off from rocky soils, having less of the animal element, may account for differences that characterise the fevers of those regions.*

* Jackson attributed paroxysmal fever to vegetable emanation, typhus and its congeners to animal emanation, miasmata.

Action of Malaria on Lower Animals.—With reference to the influence of malaria on the lower animals, I am indebted to Professors Fleming and Axe for the following most interesting information. MacCulloch also describes its effects on animals.*

Professor Axe says: "With reference to the influence of malaria on the lower animals, I am sorry to say our data are few and unreliable. I am not aware that periodic fever does at any time prevail in the lower animals of this country from malarial influences. Acute splenic enlargement is, as you will be aware, common in 'anthrax' disorders, septicæmia, and pyæmic affections; but I am not aware that it has any enzootic existence in those localities where malarial disorders are known to prevail in man. I may mention that, in the low-lying marshy districts of Lincolnshire, Cambridgeshire, and some parts of Scotland, cattle are frequently the subjects of circumscribed cellular abscesses in the vicinity of the throat and neck, which may possibly have some connection with malarial emanations; but we are much in want of precise data on the subject. The question is a highly important and interesting one, and deserves the fullest investigation. Should an opportunity offer, I will make it a matter of special study, and you shall know the result."

Mr. Fleming says: "The occurrence of malarial fever in animals has been often denied; but a host of observers, in every way trustworthy, have testified to its existence in nearly every part of the globe. Lessona has frequently observed it affecting horses, cattle, and dogs, in Sardinia. Blaise has seen it in the same animals in Algeria; Hamont, also, in Egypt; Bertacchi in the Pontine Marshes; Hildreth in America (affecting dogs). Dupuy and Cleghorn assert that sheep are greatly predisposed to it. Jenisch has seen it in the pig; and Czermak states that he has noticed it, not only in dogs, but monkeys also. The attacks resemble those of paludal fever in mankind, and their duration is usually brief—from half-an-hour to six or seven hours; after which the animal is apparently easier; though, if closely observed, a certain degree of *malaise* will be noted, as frequent yawning, saffron-tinted mucous membranes (this is most marked during the attack); tension of the abdomen, which is often painful on pressure in the region of the liver; often there is gastric disturbance, and, in the dog, vomiting. All the types of fever have been witnessed, quotidian, tertian, etc.

"When the disease continues for some time, a cachexia appears to be developed, chronic congestion, particularly of the spleen, sometimes the liver, in other cases the lymphatic glands. Domestic animals living in malarious regions have the paludal cachexia, and in them intermittent fever often complicates or accompanies other maladies, sometimes even occurs after operations or accidents.

"In 1861, I had several cases, among horses in North China, of what I considered well-marked intermittent. Dogs suffer in the malarial districts from a disease which is evidently malarial. It is more particularly noticed in the Valley of the Limpopo, and north to the Zambesi. It is known to the Boers as the 'hond-ziekte', or dog-sickness, and is very fatal. The liver appears to be the organ chiefly involved, as the mucous membranes are deep-yellow in colour (*geel bec*, or 'yellow-mouth', of the Boers); the abdomen is enlarged; there are aundice, constipation, and high temperature."

Distribution of Malaria in India.—I have endeavoured, in a map, to give an idea of the geographical distribution of fever in India; and it will be observed that no part of the empire can be said to be exempt, though, in some hill-stations above 4,000 or 5,000 feet high, malarial influences must be practically non-existent. Those parts coloured lighter than the rest represent the feudatory states, where there is no registration, or none such as to enable one to estimate accurately the extent of malarial influence. Bengal, Bombay, North-West Provinces, Oude, and Assam, are numbered 3. Assam in many parts, no doubt, should be more, but 3 represents its average; Madras, 2; Burmah, Scinde, and Mysore, each 1. This is a mere approximation, for any attempt to represent the incidence of malaria in this way must be simply a combination of the results of registration and personal experience. Registration, confessedly imperfect, is rapidly improving; it shows that periodic fever prevails everywhere, yet it is not so perfect as to define clearly the actual intensity in any region. If one were to be guided by registration alone, it would show provinces, such as Assam and Bengal, to be much less affected than others known to be healthier. The map, for which I am indebted to Dr. Sutherland and Mr. Trelawny Saunders, is constructed from the returns on the principle described. The different shades of colour indicate the relative intensity in different provinces. The most unhealthy, such as the Terai, is marked as 7; the Doab, where irrigation is prevalent, as 6; Berar, 5; Central Provinces, 4; the others as before mentioned. The annual rates of fever mortality for five years, 1875 to 1879, is as follows:

Bengal	12.20	per 1,000	approx.
North-West Provinces, Oude, including Terai	30.78	,,	,,
Punjab	23.75	,,	,,
Central Provinces	24.45	,,	,,
Berar...	27.99	,,	,,
British Burmah	11.09	,,	,,
Madras	16.31	,,	,,
Bombay	22.97	,,	,,
Assam	8.87	obviously too low.	
Mysore, 1879	10.86	per 1,000	approx.
Coorg, 1879	19.71	,,	,,

General features of distribution only are represented. Certain localities, such as river-valleys, deltas, swamps, jungles, irrigation districts, and all the submontane districts where loose gravelly land with a clayey subsoil might be represented by a darker shade of colour, but this would involve an amount of detail that is not practicable now.

It may be asked, Is malaria always the same? Is that which causes jungle-fever, bilious or ordinary remittent, simple ague, cachexia and neuralgia, one, or are they of different kinds? Is the malaria of the Terai the same as that of the dry soil of Sind? Unless it be proved that malaria is due to organisms, we know nothing of its essential nature. The cause, therefore, of the varying effects must also be a matter of speculation, though the tolerably constant recurrence of effects corresponding to certain recognisable conditions, suggests that the poison is only one, modified by circumstances, that proceeds from drying-up swamps or marshes under the influence of atmospheric conditions, including oxygenation, and that it will most probably cause simple ague; though it is possible that the disease from the same marsh may be more intense under other atmospheric states; and in this way, what are called unhealthy years in the same district may take their origin; but in all such cases there are two factors to be considered, viz., the malarial cause, and the constitutional stamina of the population exposed to its action.

Thus, the malaria of the Terai or of the Sunderbunds causes dangerous remittent; that of the general surface of Bengal, ague, remittent, or malarial cachexia; that of colder climates, a variety of indefinite complaints rather suggestive of general ill-health than of any specific disease; a condition which is insisted on by some at the present day, whilst Macculloch attributed half the ailments in our country to these local developments of malaria.

Contrary to what might be expected, natives suffer more than Europeans in India; no doubt, on account of the unfavourable conditions under which they live. The Europeans are, for the most part, well housed, fed, and guarded against unsanitary influences. The natives are much exposed, poorly fed, and badly housed. Fifty years ago, Europeans died of fever at the rate of 13.25 per 1,000; in ordinary years now less than 3 per 1,000 die of this cause, and there is reason to believe that the mortality will be still further reduced.

Seasonal Prevalence.—What Celsus, quoting Hippocrates, said of Europe, applies to India: "'Igitur saluberrimum ver est, proxime deinde ab hoc hiems; periculosior æstas; autumnus longe periculosissimus. Ex tempestatibus vero optime æquales sunt sive frigidæ, sive calidæ; pessimæ quæ maxime variant. Quo fit ut autumnus plurimos opprimat.'" In the hot months from March till June, fevers are more of a continued and ardent type, and are apt to prove dangerous and fatal from cerebral complications, and seem to be pathologically linked with ephemeral fever on the one hand and insolation on the other, differing, as I believe, only in degree. They are due chiefly to overheating, and are liable to be modified by malarial influences. In the rainy season, and to September or October, forms of intermittent, remittent, and continued type occur; there is also a tendency to dysentery and bowel-complications. After the rains, during evaporation and drying up, fevers of the malarial type become prevalent; when the cold season sets in, they also recur, in many cases re-excited by the cold; especially in the early part of the cold season, before the system becomes habituated to the change, the weak, anæmic, or exhausted suffer, as has been described by Twining and other writers. How such changes re-excite fever in those who have previously suffered is well known here, for who has not heard old Indians say "the cold had brought on a return of former Indian fever, from which they had not suffered for years"?

Effects of Malaria on Man.—In addition to the direct effects of malaria, a diathetic condition seems to be established, which modifies other diseases; that periodicity complicates nearly all disease in India. The effects of malaria are, indeed, most protean in form, not only in

* MacCulloch, *On Malaria.*

its own definite and well marked pathological processes, but in simulating others, from the stupor of typhus, the collapse of cholera, the high temperature of insolation, the sickness of an irritant poison, to the convulsions of epilepsy or of dentition, which may occur in the pernicious forms. It induces anæmia and general cachexia, with structural changes in the liver, spleen, or other viscera. Neuralgia, asthma, and various other symptoms of disturbed innervation and sanguification; and, as I have before said, appears to be in close etiological relation with dysentery, cholera, diarrhœa, beri-beri, hydrocele, elephantiasis, bronchocele, and hepatic disease.

Whatever its nature may be, the action of malaria on the human economy is very striking; it affects the central nervous system, causing disturbance of vaso-motor action, paroxysms of fever, and congestion of the abdominal viscera, which become periodic in recurrence, or pass on to structural changes in the liver and spleen, or intestinal mucous membrane. No one can have resided long in a malarious climate, like Assam, without observing the cachectic, deteriorated aspect of the people, who, although they may never have had a single attack of fever, and do not feel ill, and would resent being told so, are yet victims to the insidious action of the poison, and present evidences of anæmia, degenerate tissues, and chronic visceral disease. In my next lecture, I shall describe intermittent fever as it occurs in India.

THE GULSTONIAN LECTURES
ON
PULMONARY CAVITIES: THEIR ORIGIN, GROWTH, AND REPAIR.

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Lecture II. Part II.

The occasional occurrence of decomposition in the secretion of cavities leads us to inquire into the influences which may be exerted by this cause upon the walls of vomicæ, and particularly into the existence of any absorptive power special to the latter.

I have already pointed out that fluids may regurgitate from the cavity into the open mouths of the bronchioles, and, gaining access into the alveoli, may diffuse into the blood. This circumstance introduces into the problem a serious complication, which will be discussed hereafter. But for the present, I am specially considering the cavity-wall, independently of the bronchi opening into it.

The extent to which simple percolation may take place is determined by the condition of the internal surface of cavities. During the period of formation of the latter, the fluids act locally upon the decaying structures. Dr. Reginald E. Thompson, in his book on *Pulmonary Hæmorrhage*, alludes to this mode of excavation by maceration, leading to the appearance of a "nibbling". If we exclude the more virulent cases of acute phthisis, where the lung-substance literally dissolves away in its own juices, and the œdematous forms of softening, the soakage to which I have alluded does not extend into the depths of the tissues where the work of repair is progressing, but the dead tissue acts as a temporary shield for the living. On the other hand, in the matured cavities, any extensive diffusion of the fluid contents is opposed by the fibrous layer and by the outer zone of fibroid cell-growth, the special function of which is to add thickness to the cavity-wall. The possibility of any direct absorption in these cavities mainly depends upon the tightness or the looseness of the fibrous tissue around them; all fibrous structures are by nature fitted for some degree of absorption, and even the densest are capable of opening up hidden paths under the agency of pressure. Much pressure does not usually exist in vomicæ; neither do they contain many of those cells which have a tendency to force their way through lymph-passages. The current of secretion is altogether from the tissue towards the cavity; and circumstances rarely arise in ordinary phthisis which would occasion a reversal of the stream. The case, however, is different in the bronchiectatic sacculations: these are from time to time filled—nay, distended—with their own secretion, and the pressure within them is periodically increased by ineffectual efforts at expectoration. Although the existence of a limiting membrane has been microscopically demonstrated by Grancher and by Dr. D. J. Hamilton, it remains an open question whether, in its stretched and thinned condition, this membrane opposes an effectual barrier to the more soluble products of decomposition. The clinical evidence appears to justify this doubt; symptoms of putrid infection, such as nausea and diarrhœa, frequently coincide with a period of fulness of the tubes, and disappear with the evacuation of their contents. No such continuous layer exists in the common phthisical cavities. If placed under similar pressure, the meshes of their fibrous coat would probably allow of free filtration. Some filtration actually occurs from simple stagnation in the putrid cavities to which I have referred; and it is significant that, in these cases, the peculiar fœtor is present after death in the other organs, showing that the whole blood is contaminated. From this dangerous degree of filtration of secretion, the vomicæ in phthisis are usually protected by the absence of pressure within them, and perhaps in a slight degree by the false membrane due to necrosis, which their inner surface exhibits.

In connection with the subject of absorption, it is interesting to compare with the cavities, relatively well drained by means of patent bronchi, the deposits which remain permanently isolated from contact with the air, and gradually undergo shrinking within the lung-tissue. Microscopical sections usually show around a caseous nodule a clear space or vallum separating the mass from a zone of fibro-nuclear growth. This space is traversed by wandering cells, which may be noticed on their return laden with pigment and granular matter, and which can be followed into the plasmatic spaces. They are sometimes detected at the periphery of the caseous mass, lodged as it were in recesses, which almost seem to be of their own formation. I have never discovered any evidence at the circumference of cavities of a cell-traffic comparable to that which I have just described. Cell-migration, if it occurs, takes place in the opposite direction from the tissue into the cavity.

But whether active or slow, continuous or intermittent, the slight absorption occurring through the walls of cavities has, for its consequence, a progressive thickening of the surrounding lung-tissue, proportionate to the irritation. I readily admit that mechanical factors have a share in promoting this fibrosis; so contractile an organ as the lung cannot, with impunity, be retarded in its movements by the presence within it of patches of consolidation, or by the uneven traction from a thickened or adherent pleura. These mechanical agencies must, however, be considered as secondary in importance to the more subtle influences of chemical irritation.

Formation of simple fibrous tissue is but one result of irritation by absorption. I propose to devote a few remarks to another more important consequence arising from the same cause: I refer to tubercle, and first to that form of tubercle which is observed with great frequency in the immediate vicinity of the cavity-wall. Tubercle in this situation is clearly local and secondary. We are familiar with its exact analogon in the trachea. When, in a case of excavation at the right apex, we find the trachea deeply ulcerated and tubercular at a point of its left wall, situated about one inch above the bifurcation, in a line with the axis of the right bronchus, as shown on the diagram (see fig. 4), we possess a proof of the formation of secondary tubercle under the direct influence of a primary excavation. A wholesale ulceration of the trachea, and even of the larynx, occurring under similar circumstances, is capable of the same explanation. These observations are of extreme importance as establishing the causation of tubercle from the direct application of the contents of a cavity to the healthy mucous surface. If the comparatively resistent structures of the trachea suffer such marked lesions from this form of irritation, how much more decisive must be the effect produced on the tender wall of the alveolus, or on the bronchiole. Thus we are prepared for the recognition of a form of secondary pulmonary tubercle purely irritative in its origin, not necessarily arising in visible contact with the primary disease, but capable of being generated at considerable distances from it, by the impact of air contaminated with the products of disintegration; and it may be incidentally stated that such is the usual origin of the bunchy or racemose tubercle. Another link in this chain of evidence is supplied by the local tuberculosis observed in the walls of bronchiectatic cavities: from cases of this nature, the suspicion of pre-existing tubercle, independent of the cavity, is absent conveniently to our purpose. These local tubercles do not widely differ in aspect from those belonging to a more generalised tuberculosis, which often affects the pulmonary tissue at a later date; and there is, I believe, no escape from the conclusion, that their presence is indicative of the direct causation which I seek to establish.

But let us return to a consideration of the ordinary phthisical cavities. Bordering upon the latter, I have very commonly found large dense masses of tubercle, resembling, by their pigmentation, by their firmness, and by their tendency to fibrosis, the usual racemose deposits. (Fig. 2.) From these, however, they differ both in their size and in their shape; they present a wider expansion, and a cuboidal rather than a spherical outline. The position in which they are found is remarkably constant in

relation to cavities. Their seat of election is the upper axillary border, external to the cavity very usually found in the outer part of the upper lobe; and they extend from the external wall of the cavity to the visceral layer of the pleura. Next in frequency of occurrence is a tubercular mass in the middle third of the axillary region, commonly filling the wedge-shaped summit of the lower lobe. This mass borders upon the cavities which I have shown to be very constant in the dorso-axillary region. Lastly, I have frequently found a smaller mass at the outer apex, as a dependency of a vomica which did not reach the summit of the lung. The reason for the uniformity of these situations will be readily perceived, if we refer to the diagram of the bronchial distribution.

Fig. 2.—Masses of Secondary "Local" Tubercle at Distal Side of Cavities.

A line drawn through the bronchus supplying the upper axillary region will be seen to traverse the cavity situated in the upper lobe. Similarly, the bronchus belonging to the lower axillary region is interrupted by the dorso-axillary excavation, and the same relation subsists at the apex. With the help of these observations, we can readily appreciate the cause of the tubercular masses. The tubercle is a local consequence of the chronic cavity. At its distal aspect, the cavity-wall intercepts a set of nearly parallel bronchioles, through which irritation is conveyed to the terminal air-sacs; and the cuboidal extended shape of the resulting tubercular deposit is a simple consequence of the mode of its origin. The great constancy of the axillary deposit is obviously connected with the active respiratory function of this part of the lung, owing to which, some irritating matter is inevitably drawn to the periphery along the divided bronchioles.

Much more difficult to explain is the sporadic miliary tubercle, very often affecting the lung towards the termination of cases of pulmonary excavation. Two theories have been advanced in connection with this secondary miliary tuberculosis: the one based upon lymphatic conduction, the other resting upon the assumption of a virus circulating within the vessels. It is not my intention to deny the existence of a lymphatic irritation, such as described by Dr. D. J. Hamilton, in his lectures on Catarrhal Pneumonia and Tubercle, in connection with secondary pulmonary tuberculosis. But, however marked an influence conduction along the lymphatics may possess within restricted areas, a mechanical difficulty opposes the view, that the lymphatic stream from a small cavity in the upper lobe could affect the lower lobe; just as, in scattered tubercle, it would be difficult to account for the large intervals of healthy tissue which in reality occur. Against the view of lymphatic conduction, should also be mentioned the frequent immunity enjoyed by the pleura. Dr. Hamilton describes the pleural surfaces as universally adherent in secondary pulmonary tuberculosis. Such is not my experience. In not a few instances, I have found the lungs free from adhesions, although pervaded with tubercle.

The doctrine of the propagation of tubercle through the blood-vessels, has long acquired a firm footing in science. It is supported by the results of experimental inoculations, of intravenous injections, and by the frequent recognition of a tubercular activity in the walls of the vessels themselves. This theory lends itself, better perhaps than any other, to an explanation of generalised tuberculosis. In my opinion, tubercle may originate, and does originate, in vessels; but the germs of the disease need not be contained within their lumen. The vessels may inflame from causes external to them, as well as from those which act internally. In the rare cases, in which a distinct tubercular embolon occludes a vessel, we perceive a sufficient reason for the localisation of the lesion; but, in the great bulk of remaining instances, we are left to seek an explanation for the development of tubercle rather at one spot than at another.

In the lung, the localising agent appears to be contained within the bronchi. Dr. Reginald Thompson, in a paper on the Auto-infection of the Lung as a Cause of Tubercle (*Lancet*, 1878, vol. ii, page 38), dwells upon the influence of inhalation and of gravitation on the production of the disease; and Rindfleisch, in support of his theory of an infection of the lung by its own secretions, describes the mechanism of this infection, and places the seat of the earliest deposit at the spur separating two ultimate bronchioles. Tappeiner's experiments on the artificial inhalation of tubercular matter, in which the dogs submitted to the poisoned atmosphere developed tubercle, afford direct support to the view which has been mentioned.

I confess that the theory of inhalation is inadequate to explain the sporadic nature of the miliary eruption, and its presence in regions which are not distinguished by any great respiratory activity; but yet more improbable would appear the hypothesis, that the tubercular infection, originating in a cavity, should perform the great circuit of the circulation without generating tubercle, finally to settle once more upon the lung. Whichever way we turn, we are driven back to an assumption of predispositions. There exists a general predisposition to tuberculosis peculiar to the race, to the family, and to the individual; and there exists in the economy an organic predisposition, probably varying with age, but which, in the adult, usually has its seat in the lung. The nature of the determining cause still baffles our search in the case of acute miliary tuberculosis; but, in the other varieties, the localisation of the tubercle usually depends upon irritation of a coarser nature, lending to the deposit its characteristic features, situation and shape.

I have attempted briefly to describe the anatomical peculiarities of cavities, and some of their results. I must now pass to a study of their subsequent growth and multiplication.

In the early stages of excavation, the most frequent mode of *extension* is by simple coalescence of neighbouring vomicæ. The intervening tissue, thinned by ulceration, finally gives way at the weakest point, and the resulting communication rapidly widens, until little remains of the original separation. A similar perforating process may affect the interlobar septum, and throw the cavities which it separates into a huge vomica; but commonly the ulceration of the septum is due to the rapid extension of a single cavity, situated above it, into the lower lobe, as yet free from disease.

Two vomicæ, situated on the divisions of the same bronchial stem, sometimes coalesce by an ascending ulceration of their respective bronchi. The latter are destroyed as far as the bifurcation of their parent trunk, which then opens directly into the vomica.

In a third variety, a cavity, in the course of its extension, encroaches upon a neighbouring bronchial territory, laying open some of the bronchioles. Respiration, which is comparatively more active in the invaded district, hitherto healthy, will lead to an inhalation into the latter of the contents of the cavity, proportionate to the strength of the inspiratory current. Excavation, usually of a moist and rapid kind, will necessarily ensue, and involve the whole bronchial district in question. I have illustrated, by means of a separate diagram, this important mode of the extension of the disease.

The three varieties to which I have alluded are all peculiar to young cavities still in process of formation. The increase in size of the fully formed vomicæ is much more gradual, and generally due to the slow necrosis incessantly at work within them. Occasionally, however, in consequence of the necrosis, outlying caseous masses may be exposed to the action of the air, and a somewhat sudden extension of the main cavity may take place at their expense.

Rindfleisch ascribes the growth of cavities to the influence of atmospheric pressure. His theory cannot be better stated than in his own words: "The cavities therefore continue to enlarge until they reach the pleura, which then usually becomes thickened, and forms their definite limit. The larger they become, so much more exclusively will the inspiratory force destined for that portion of the lung be expended in making them still larger. Like the torn edge of a veil, the remaining parenchyma contracts and is drawn in, partly to the periphery, and partly to the root of the lobe. It serves then to fill up all the corners which are left between the convex surfaces of the cavities, and to restore somewhat the contour of the lung." ("Chronic and Acute Tuberculosis", Von Ziemssen's *Cyclopædia*, vol. v, page 680, American translation.) I confess my inability to reconcile this account with my own observations. In excavation, we have become acquainted with a gradual process, ill comparable to a laceration. Again, far from retracting towards the root of the lung, the spongy tissue rather tends to crowd around the vomica. It is the cavity itself which retracts, not the alveolar tissue. My criticisms are more especially directed against the supposed distension of the cavities under atmospheric pressure. I disagree with Rindfleisch on the fundamental point of the assumed yielding of the cavity

wall. Whosoever will inspect the limiting membrane of a tuberculo-pneumonic softening, will be readily convinced of the comparative toughness of this membrane, which is capable of resisting a greater force than the slight variations in pressure induced by inspiratory efforts. If with these tough structures the delicate alveolar wall be compared, it will become apparent that the atmospheric pressure would dilate the latter rather than the cavity. Exclusively preoccupied with the elasticity of the spongy tissue, Rindfleisch appears to have lost sight of its remarkable expansibility. As long as alveolar substance remains to fill up the space created by inspiration, the atmospheric pressure cannot influence the cavity. I shall have occasion to revert to this point, and to show that the great disproportion between the resistance of the cavity-wall and that of the alveolus, favours the contraction rather than the dilatation of vomicæ.

Cavities in the progress of phthisis tend to increase in *number* as well as in size. The position of the younger cavities is not entirely the result of chance. The prevalence of cavities in the dorso-axillary region, to which I alluded in my last lecture, points to an element of regularity even in the later development of phthisis, and to the operation of definite causes which we may study with profit. A recognition of the extension of the disease from the apex downwards was among the earliest results of improved methods of investigation. In one sense, this is but a corollary of the proposition prominently asserted by Louis, as to the frequency of apex-phthisis. The position of the secondary mischief, not only beneath, but in the vicinity of, the primary lesion, could not fail to be construed in the sense of extension by continuity; and this impression, if I mistake not, is still uppermost in the minds of many. The existence of a progressive tendency in phthisis it is not in my power to deny; but I venture to oppose the view that inflammation necessarily extends by continuity of structure. Among the achievements of modern medicine, we can point with just pride to the recognition and the furtherance of the curability of phthisis. It is now very generally admitted that pulmonary consumption may sometimes be arrested. We have all witnessed the progress and the recession of pulmonary vomicæ. This curability, special to some cases, rests entirely upon the local character of the lesions; in these cases, the disease is obviously not propagated by a creeping process.

The mechanism of the reproduction of cavities from above downwards, especially in the axillary region, will be best understood from a glance at the physiological and anatomical conditions, which so often contain the solution of pathological problems. Just as the affections of the kidney are chiefly connected with their secreting duty, the affections of the liver with its functional activities, so with the lungs, most of their diseases are influenced by their function of aëration. The respiratory energies undoubtedly vary in different parts. This can be proved indirectly by stethometry. Dr. Ransome's tables conclusively show that different excursions are performed by the various points of the surface of the thorax. Collateral proof of the same fact is supplied by the atrophic changes which the lung undergoes in old age, when the requirements fall short of the available breathing space. The atrophy affects definite regions. Hourmann and Dechambre* have shown that the middle lobe is relatively more wasted than other parts. This observation points to a comparative loss of function in this region. In the healthy adult, differences can usually be detected in the regional activities of the lung. If the respiratory capabilities of the various parts of the chest be tested by the combined methods of auscultation and of surface-measurement, we arrive at the following results. Respiration is most active in the lower lobe, least active at the apex, and very active in the axilla; whilst it gradually diminishes towards the sternal border. The importance attaching to these relative respiratory values will become evident, when I have pointed out the anatomical peculiarities of the bronchial distribution (Fig. 3). You will observe, from an inspection of the diagram, that on each side the main bronchus divides essentially into two branches; the upper (A) being destined for the apex; the lower (B), which is, more strictly speaking, a continuation of the main bronchus, supplying its divisions to the base. In any careful dissection, horizontal branches will be seen to traverse the back of the lung from the root to the axilla. In each lung, two of these are present. I will call them, for convenience, the *upper and the lower posterior-horizontal bronchi*. The anatomical differences between the lungs occasion a corresponding difference in the origin and distribution of these tubes. The right upper lobe, possessing posteriorly a greater height than the left, includes the upper posterior-horizontal bronchus, which takes a direction parallel to the septum and immediately above it; whilst the lower posterior-horizontal branch occupies a similar position in the lower lobe. In the left lung, these branches both belong to the lower lobe, which rises considerably higher at the back than the right lower lobe. The upper branch is by far the more important on this side; but the relative size of the two branches is liable to vary. The origin of the upper posterior-horizontal bronchus differs widely on the two sides. Whereas on the right this bronchus is a branch of the bronchial stem A, on the left it usually opens immediately beneath A into the main bronchus continued. I have witnessed its occasional derivation from A, but would consider this an abnormality. The lower posterior-horizontal bronchi present no differences; on both sides, they originate in the posterior wall of B, rather more than one inch below the primary division, being the first tube given off by B, with the exception of the bronchus (L. S.) destined for the lower sternal region, which has its orifice in the anterior wall.

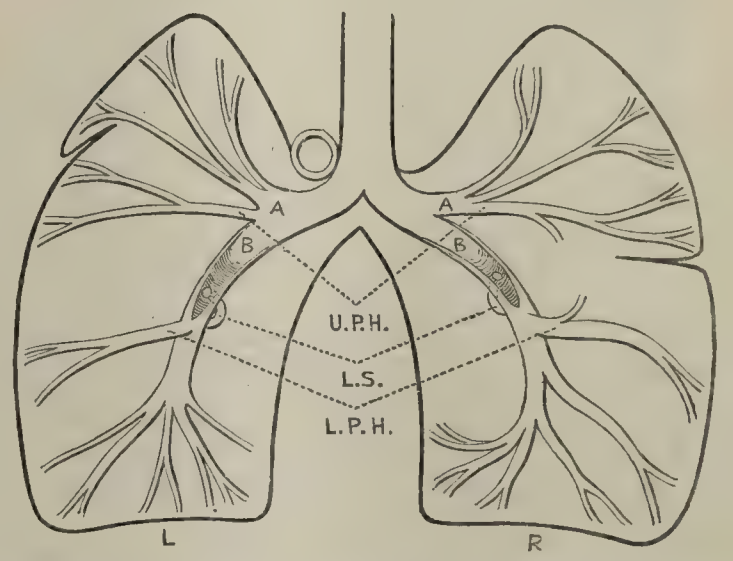

Fig. 3.—Origin and Distribution of Upper and of Lower *Posterior-horizontal* Bronchi (other branches not accurately given). A. Bronchus to the Apex. B. Bronchus to the Base. U.P.H. Upper Posterior-Horizontal. L.P.H. Lower Posterior-Horizontal Bronchus. L.S. Lower Sternal Bronchus.

I would call your attention specially to the close relation existing between the upper branches and the bronchial supply to the upper lobe, and also to their rigidly patent circular orifice—a peculiarity which they share with the bronchial tubes of the apex. All branches originating below this point present a somewhat flattened oblique orifice, the patency of which is probably subject to variations. The posterior wall of the bronchus from which the lower branch arises is liable, owing to its position, to be clogged by viscous secretion during the hours of sleep, when sensitiveness of the membrane is lessened; and mucus would the more readily cling to its surface on account of its fine rugæ. The implication of the lower branches is, however, an event subsequent to the excavation in the distribution of the upper divisions, which should be considered first.

In cases of excavation at the apex, overaction and ultimate distension of the axillary region, result in proportion to the loss of respiratory power at the summit; thus the velocity of the air-current destined for the axilla will be rather in excess of the velocity in the apex-bronchus. Dr. Reginald E. Thompson would even assume that the ventilation of the apex is mainly dependent upon the stronger current which blows from the lower air-tubes over the aperture of the bronchus distributed to the apex. This point, however, is not material to my argument.

Owing to the close bronchial relations subsisting between the apex and the axilla, the enfeebled current through the tubes of the apex, and the exaggerated traffic through the axillary branches, inevitably lead to axillary excavation. (*See* Fig. 4.) The secretions, imperfectly propelled by the deficient expiratory effort of the diseased apex through the main upper bronchial division, are in danger of being sucked, by the deep inspiration which succeeds cough, into the neighbouring bronchus, which supplies the axilla. That such a result really follows is rendered highly probable by the shape of the early consolidation, by its microscopical character, and by its subsequent history. The early deposits are quite distinct from ordinary catarrhal pneumonia. They do not involve a whole lobule forming a polygonal patch of tolerably even consolidation, but distinctly occupy a bronchiole and two or three of its terminal divisions; hence the trefoil appearance of the nodules, often described. In strict harmony with this view of their origin, nodules occur in groups in the district of a bronchial division of mode-

* "Recherches cliniques pour servir à l'histoire des maladies des vieillards; Maladies des organes de la respiration"—*Archives Générales de Médecine*, ii, t. 8, p. 417.

rate size, which is often thickened in the vicinity of the deposit for a short distance, but higher up is practically free from disease. The nodules present a remarkable combination of very perishable catarrhal cells, with a well defined fibroid cell-growth and with giant-cells; in fact, they unite the characters of a tubercular with those of a catarrhal inflammation, and are consequently liable to a moister and more rapid softening than is possible in pure tubercle.

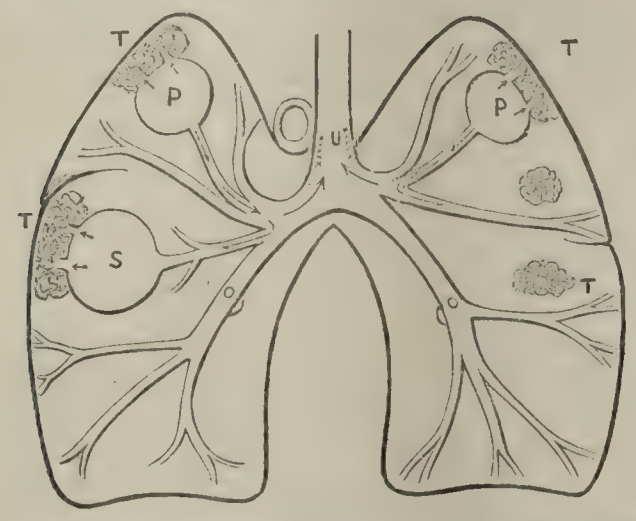

Fig. 4.—Mode of Origin of Secondary Cavities in *Dorso-axillary* Region. Local Tubercle as in Fig. 2. Local Tubercular Ulceration of Trachea. P. Primary, S. Secondary Cavity. T. Tubercle. U. Tracheal Ulcers.

In the axillary districts thus infiltrated by deposits and deprived of expiratory vigour, excavation is brought about in the following manner: a small bronchus, under the irritation of the residues of imperfectly expelled secretion, becomes the centre of considerable congestion; ultimately ulcerates, and opens up the chief bronchus of the district at a point above the nodular masses. From this point, the softening rapidly extends to the mass itself, which is destroyed by maceration rather than by true caseation.

Such is the history of the common dorso-axillary cavity. The cavity is subject to variations as to its exact position; it often originates in the mid-dorsal region, or it may begin at the side and subsequently extend into the back. These differences are mainly determined by the course taken by the inhaled particles into one or into the other bronchiole. Cavities in this situation are commonly destitute of trabeculæ, probably as a result of the early undermining of the chief bronchus of the district, which I have attempted to describe.

The extent of the irritation set up by insufflation of the secretion of cavities depends, as I have elsewhere stated, upon the regional activities of respiration. The axillary district, which is remarkable for its respiratory energies, is also distinguished by the frequency within it of secondary changes. Secondary tubercle in this region invariably occurs on the distal side of the cavity, that is to say, rather to the front than to the back of the axilla, and if a transverse section be carried through the lung parallel to the front of the chest, it will divide the tubercle in the angle of the lower lobe situated between the septum and the axillary border. The mass of tubercle encountered by the section is often but the zone of irritation of a cavity which a deeper section will bring into light. In proportion as the cavity extends and intercepts fresh bronchi, the tubercular masses progress towards the sternum, and, if time be allowed, the greater part of the outer portion of the lower lobe may become infiltrated by bunchy tubercular deposits.

I have attempted to explain, on the data of physiology, the common mode of extension of the phthisical process to the mid region of the lung, and have clearly shown, I hope, that in the majority of cases phthisis is not due to gradual creeping of inflammation, but to the following sequence: 1. Nodular consolidations from the irritation of inhaled particles; 2. Loss of respiratory activity and diminished expiratory current in the corresponding bronchioles, whilst the original infecting influence continues unabated; 3. Acute irritation of the small tubes from stagnation, ending in their ulceration; 4. Deposition of secondary tubercle on the distal side of the cavities thus formed.

The disastrous agency of insufflation of morbid secretions from vomicæ is not limited to the production of a dorso-axillary cavity. Some of the lesions belonging to the latest stages of phthisis are under the same influence. With the progress of disease, the increasing respiratory distress renders the unaffected regions more and more liable to inhalation of secretion. During the attacks of dyspnœa which mark the last days of the unfortunate patient, the expiratory efforts of the diaphragm produce an appreciable current towards the sternal and basic fringes, and abundant secretion is drawn and impacted into the distended alveoli. The resulting pneumonic masses present well marked characters: as large as a pea or as an almond, they stand out boldly in the midst of the hyperinflated tissue, and they are remarkably deficient in colour, probably owing to the anæmia induced in the pulmonary alveoli from distension. In these respects, they present a striking contrast with the deposits due to more chronic irritation. The softening of these masses, if death should be sufficiently delayed, and if œdema should supervene, proceeds with great rapidity.

The lesions which I have last described occur so late in the disease, that their recognition is seldom possible, nor is this of any special importance. Of vital moment is, on the contrary, the discovery of a cavity in the axillary region.

The absence of this lesion in any case of phthisis adds greatly to the chances of the patient; its existence in cases where youth or a naturally strong constitution does not establish a redeeming influence, is almost equivalent to a warrant of death.

ABSTRACT OF LECTURES
ON THE
MORPHOLOGY OF THE MAMMALIAN SKULL.

Delivered at the Royal College of Surgeons of England.

By W. K. PARKER, F.R.S.,
Hunterian Professor of Anatomy in the College.

Lecture VI.—The Sense-Capsules of the Vertebrata.

There are, as a rule, three pairs of sense-capsules in the vertebrata: the olfactory, the optic, and the auditory. Only the first and second of these need be treated of, as the eyeball, although it becomes cartilaginous in all types but marsipiobranchs and mammals, yet only affects the form of the skull by pressing against the sides, and so gaining a lodgement in the orbit. But the other capsules form most intimate connections with the skull.

One of the most remarkable forms of nasal capsule is seen in the lowest types of fishes—viz., the myxinoids—in which, as well as in the lampreys, there is only *one*. This single capsule is a tubular structure very similar to the trachea of a mammal, being composed of cartilaginous rings, which are imperfect on their deep face for a small extent. These rings, of which, both in Myxine and Bdellostoma, there are about twelve, are only imperfectly separate from each other in some parts; the two hindermost are a considerable distance apart, the tract between them being enclosed partially by about nine narrow parallel bands of cartilage, the lowermost of which is the broadest. These form a nearly perfect capsule for the proper olfactory region, which bulges so as to be wider than any part of the membrano-cranium behind it. In Bdellostoma, the foremost rings are separated and united by three parallel bands; in Myxine, the foremost ring sends forwards a rostral process. There are in both types two closely approximated external openings at the anterior end of the head, and there is a partial septum separating the two nasal passages in front. In the region of the capsule proper, a fold of membrane passes downwards from each parallel cartilaginous bar; these nine Schneiderian folds are strictly comparable to the folds of the nasal sac in other fishes. The nasal cavity does not end here, but passes backwards under the skull, and opens into the pharynx beneath, in front of the velum.

In the lamprey, the single nasal sac at first appears under the head; but, by the rapid growth of the upper lip, it is carried to the dorsal surface, and its short tubular passage opens by a single aperture. In the ammocœte, the capsule is simply a narrowish transverse band, imperfect below, similar to one of the bands in Myxine. After transformation, however, this narrow band is developed into a bilobed pouch of soft cartilage, the two sides of which do not quite meet below; within these are about eighteen (in Petromyzon fluviatilis) Schneiderian folds, converging to a common centre. As in Myxine, a tube passes backwards from the capsule; but, instead of opening into the pharynx, it ends blindly below the junction of the cranial and spinal regions. The hinder part of the capsule grows downwards to form a partial septum between the olfactory bulbs.

In cartilaginous fishes the olfactory capsules are paired, and form dome-like cartilaginous structures. In adult sharks, they are united by their upper edges; but not in the young shark, or adult skate. The

Schneiderian folds are protected below by special valvular cartilages. The cornua trabeculæ lie between and below the capsules.

Neither in Ganoids nor in Teleostei are there any special cartilaginous nasal capsules; but, in Acipenser and the Teleostei, a recess is formed in front of the antorbital (lateral ethmoid) cartilage, in which the membranous capsule is lodged. But, in Lepidosteus, the long nasal capsules travel to the end of the snout, and are lodged on each side of the rostrum terminally.

The essential nasal capsule in the Amphibia is primarily a distinct crescentic cartilage; but the walls, floor, and septum of the olfactory region are largely constituted by the skull proper.

In the snake, the nasal capsules are simple curved cartilages, so bent as to appear reniform, the "hilus" being the external nostril; they are well bent over the membranous lining, and, by their inner edges, grow down and meet the coalesced trabeculæ.

In the rest of the Sauropsida and in the Mammalia the essential nasal capsule is a more or less tubular cartilage, which combines above with the large intertrabecular or ethmo-nasal septum, and behind with the lateral cranial outgrowth in the ethmoidal region. Turbinal growths of the capsule may be seen in a rudimentary form in lizards, turtles, and crocodiles, but these are in the region of the inferior or maxillary turbinals, which are supplied by the fifth nerve. In birds, very perfect turbinals are formed, which are highly complicated in the Ratitæ, but these are mainly outgrowths from the vestibular region, and are also supplied by the fifth nerve, so that the true olfactory region is not complex. In the Mammalia, the hinder region, which alone is supplied by the olfactory nerve, is highly complicated by ethmoidal turbinal outgrowths, as well as the nasal and maxillary regions in front of it.

In both Myxine and Petromyzon, the small and oval auditory capsules coalesce with the skull, and are composed of hard cartilage; but each only contains a double semicircular canal, comparable to the anterior and posterior canals of other types.

In Selachians and Sturgeons, the large cartilaginous auditory capsules are imbedded in and coalesced with the side walls of the very perfect chondrocranium. There is a very small opening above into each, the *aqueductus vestibuli*, representing the primitive auditory involution, and there are three perfect semicircular canals.

In Lepidosteus, the cartilaginous capsules are perfect and ovoidal, and become ossified by centres which are called pröotic, epiotic, opisthotic, and sphenotic. Teleostei agree with Lepidosteus in these respects, but they have also a pterotic. These ossifications are not confined to the capsule proper, but extend also to the chondrocranium with which the capsules are completely blended.

In the Urodeles, there is a pröotic, which also belongs to the alisphenoidal region, and an opisthotic, belonging also to the exoccipital region.* Each capsule, which chondrifies from below upwards, becomes perfect, and then opens infero-laterally to form the fenestra ovalis, which appears in this group for the first time, and is closed by the stapes, a separately developed cartilage belonging to the hyoid arch. This description is equally applicable to the auditory capsules of the Anura, but in several of the lower and more generalised types of these, the greater part of the occipito-otic region becomes converted rapidly into bone, without distinction of elements. In this case, however, the bone divides afterwards into regions.

In the Sauropsida, each cartilaginous auditory capsule can be distinctly traced from the contiguous parts of the chondrocranium, but coalesces more or less with it, especially below. It soon loses the ovoidal form, on account of the huge development of the semicircular canals. In all, a fenestra ovalis is formed as a secondary space which becomes closed by the stapes. There is nearly always a fenestra rotunda, and this is a primary and not a secondary opening; it is only closed by membrane. The normal ossifications of the capsules in reptiles are a pröotic in front, an opisthotic behind, and an epiotic over the junction of the anterior and posterior canals. The stem of the Y-shaped suture dividing these is vertical; the opisthotic surrounds the fenestra rotunda, and divides it from the fenestra ovalis, which latter is bounded behind by the opisthotic, and in front by the prootic. These three periotic centres, which do not unite with each other, coalesce as a rule with the bone nearest to them—viz., the prootic with the alisphenoid the epiotic with the supra-occipital, and the opisthotic with the exoccipital.

In Birds, the auditory capsules correspond very closely with those of reptiles, but the epiotic and opisthotic are very small. All the centres of this part of the head speedily unite with the surrounding bones before they unite with each other.

In Mammals, the auditory capsules are modified very largely by the size of the highly developed cochlea, and by the frequently large development of the mastoid region. The lobulated cartilaginous capsules early become continuous with the adjoining parts of the chondrocranium. Ossification, which begins in the substance of the cartilage endosteally, is extremely irregular, and the centres very soon coalesce; but, as a rule, three can be made out in the upper part of the proper petrous region—a distinct prootic, a small epiotic, and a much larger opisthotic tract, the latter occupying nearly all the mastoid region except its upper part, as well as the lower face and greater part of the cochlea. In certain types, the ossified auditory capsule ankyloses more or less with contiguous parts, especially with the tympanic; but, in the largest and the smallest of mammals—in whales, on the one hand, and in shrews and bats on the other—the petromastoid, or whole ossified capsule, is quite distinct both from the tympanic and from the surrounding cranial bones. The relations of the fenestræ to the bony elements is the same as in the Sauropsida.

* There is a separate pterotic in the Axolotl

THE ANTIDOTES FOR STRYCHNINE.

By ROBERT BARNES, M.D.,
Obstetric Physician to St. George's Hospital.

HAVING had occasion to study, experimentally and clinically, the action of strychnine, I was much interested in the notice of the experiments of Messrs. Greville Williams and Waters on the antidotal action of "β lutidine", in the number of the JOURNAL for March 11th. I earnestly hope that further experiments will be carried out, to test the correctness of their theory, in some country in which scientific research is not yet paralysed by the tyranny of ignorance. My immediate object is to invite attention to the value of nitrite of amyl in strychnine-poisoning. This agent is not mentioned in the text-books; but it is probably much more efficacious than any of those which are commonly specified. Antidotes, it must be premised, are of two kinds: 1. The true antidotes; those which destroy the poison by decomposing it, or by annihilating it in essence, or by producing inert combinations. These are the chemical or mechanical antidotes. 2. Those, which, not altering the poison in its essence, counteract its action upon the organism. These are the physiological antidotes. In our endeavours to rescue a patient from the action of a poison, we have three indications: 1. To discharge the poison from the stomach, if it have been introduced by that organ, by the aid of the stomach-pump and emetics; 2. To administer antidotes that destroy or neutralise the poison in the stomach, or in the system; 3. To administer means that will sustain the patient against the action of the poison—in short, keep him alive until the poison is exhausted.

To apply these principles to strychnine, I am unable to judge how far the new organic base β lutidine belongs to the chemical or physiological class of antidodes. Strychnine is, unfortunately, a very stable substance, not easily attacked in its integrity; nor is it easily discharged in substance by vomiting or the stomach-pump. By the time that symptoms of strychnine-poisoning are developed, enough may have entered the circulation to lead to a fatal result, without absorbing more from the stomach. In practice, we shall commonly be reduced to the use of those means which counteract its toxical influence.

There is good evidence to show that strychnine kills by repeated violent shocks, exhausting the nervous centres, especially the respiratory and spinal centres; and that, if these shocks could be moderated or averted, the patient might be kept alive until the danger had passed, by the elimination of the poison. I had the good fortune, in the præhysterical epoch of legislation, occasionally to assist Marshall Hall in his experiments *ad hoc*. It is well known now that a frog, poisoned by strychnine, may not exhibit any tetanic action if it be kept absolutely quiescent; but that the same dose will kill it, if, by stimulating the diastaltic functions, as by touching its body, or even by shaking the table upon which the frog rests, tetanic action be evoked.

The first imperative rule to observe, then, is to avoid every possible cause of physical or emotional disturbance. Agents that have to be administered by the mouth contravene this rule; the attempt to swallow will excite a tetanic fit. Agents that act by inhalation do not contravene this rule. Of all the agents with which I am acquainted, which possess any virtue in stilling the diastaltic function, and in subduing muscular spasm, not one equals the nitrite of amyl. In obstetric practice, we are met by the formidable conditions of morbidly exalted, diastaltic, and spasmodic action: puerperal convulsions; and that irregular action of the uterus called hour-glass contraction. Both these conditions are physiologically allied to tetanus. In my *Obstetric Operations* (third edition), I recommended nitrite of amyl to subdue irregular and excessive action of the uterus. The value of chloroform in counteracting puerperal convulsions is now familiar; but I believe nitrite of amyl is even more valuable. By applying this principle, I have had the satisfaction, as I believe, of saving several lives; and

amongst them one or two women who had signed antivivisection petitions. I did not stop to inquire if they were willing to be saved by practice based upon vivisection; but I should hope to be forgiven. The means by which the necessary knowledge was obtained may, in their particular cases, be condoned by the end to which that knowledge was applied.

I have had the rare opportunity of treating a case of strychnine-poisoning. I was called to a gentleman who had inadvertently swallowed a poisonous dose. I saw him within a short time of the accident. He was in the most violent tetanic spasms; opisthotonos was so marked that his body was arched back, and respiration was nearly suspended. Pending the fetching of the nitrite of amyl, the fits recurred at short intervals with unabated energy. I obtained the assistance of a young medical friend, who sat by the bedside, diligently watching, and making the patient inhale nitrite of amyl the moment the premonitory twitchings or facial expression appeared, and always with the effect of averting or greatly moderating the fits; and, to make the evidence complete, when the warning was not seized in time, the fit appeared in nearly its original intensity. This treatment, continued during sixteen hours, resulted in the recovery of the patient. It was impossible to determine with precision the dose taken. We had only the physiological test to satisfy us that he had taken enough to destroy life.

The spasm-subduing virtue of nitrite of amyl has lately been most happily illustrated, in a case of *enchâtonnement* of the placenta by hour-glass contraction, by Dr. Fancourt Barnes. This case was published in the JOURNAL for March 18th, page 377.

ACUTE TRAUMATIC MALIGNANCY.

BY HENRY B. WALKER, L.R.C.P. & S.ED., Lowestoft.

SOME cases seeming to confirm the theory implied in the heading of Mr. Barwell's paper in a recent number of the JOURNAL, have fallen under my notice, and may be interesting.

CASE I. Mr. H., a master mariner, aged 53, was always healthy until fourteen weeks before death, when he was struck violently in the right hypochondrium by the shaft of a cart. The blow felled him, rendering him insensible, and it was some time before he could be removed to his own house. Here he was laid up for two days, and, though feeling "very sore and ill", he then started in charge of his ship on a trip to Sunderland. During the voyage, he was in much pain, and on his return to Lowestoft was again laid up at home; feeling better after some rest, he took another voyage, but was so ill that he had practically to give over the command to his chief officer, and when he reached port, to place himself under a doctor's hands. His symptoms were frequent vomiting, complete loss of appetite, and intense pain in the region of the liver, shooting across the epigastrium. He was much bruised, and very tender. I saw him on his return to Lowestoft, and he was then very ill, with high temperature, thirst, constant vomiting, and wasting. On examining the abdomen, I found there was some remaining sign of the bruise—discoloration, etc.—and he was extremely tender all over the region of the liver in front, the tenderness extending to the left hypochondrium and down nearly to the navel. I could not detect any sign of enlarged liver, but there was some jaundice, with pale stools and constipation. A fortnight later, his condition becoming gradually worse, a well defined hard and tender bossy mass with rounded edges, under which the fingers could be passed, was found projecting below the ribs (at a point which would be intersected by a line drawn perpendicularly from the anterior superior spinous process of the ilium), and extending well into the left hypochondrium. This mass, which was taken to be liver, extended downwards and to the left side, till it filled the abdomen in front to a level with the umbilicus. Its extreme hardness, and the constant presence of sharp lancinating pain, together with the cachexia accompanying it, led to a diagnosis of malignancy, which was confirmed by an eminent consultant. Towards the last week of his life, the patient vomited a quantity of blood, containing pyriform and oval multinucleated cells. After the last hæmorrhage, the patient died exhausted.

I could get no *post mortem* examination, but there was no doubt in the minds of three medical men as to the nature of the disease, and it was believed to be carcinoma of the liver, invading the stomach secondarily. There was no history of malignancy in the family, though several members had died about the same age as my patient. No history of dysentery or syphilis was attainable. I may state that both the patient and his friends assigned the accident as the cause of his illness, and certainly facts seem to warrant them in doing so. He certainly never recovered the effects of his bruise, had not complained before, and died fourteen weeks after he received it.

CASE II. Mr. F., a farmer, was out shooting; and, while he was trying to force his way through a hedge, a thorn penetrated his trousers and wounded his prepuce, causing blood to flow. He took little heed of it at the time; but a few days later, feeling some heat and uneasiness, he found swelling and irritation about the wound. This rapidly increased, and he then consulted his medical man, who advised certain remedies. The penis grew worse, and the whole glans presented a mass of carbuncular hardness in a short time, and was very painful. An incision into it giving no relief, and suspicion being confirmed on consultation, the penis was amputated, and the growth proved to be an epithelioma. This was only a few weeks from the date of injury.

CASE III. A gentleman rode to hounds, mounted on a very broad-backed horse, and in the evening felt the inner side of his left thigh stiff and sore. The stiffness persisted, and was followed by a slight fulness, and finally by a well defined tumour about the size of an orange, nestling amongst the deep muscles of the thigh. This was removed by operation, and proved to be a small spindle-celled sarcoma.

CASE IV was related to me by a lady whom I was attending in labour. Her brother was playing football, when he received a kick on the shin. This led to severe inflammation, which laid him up for some time. On apparent recovery, a hard swelling remained on the tibia, which soon began to cause pain and enlarge. As it increased and bore suspicious characters, the limb was amputated at the knee-joint, but the growth recurred, and the patient lost his life. I asked the lady what the growth was, and she said, "The doctors did not call it a cancer, but by a queer name—'sarcoma'".

In all the foregoing cases, the patients confidently referred to their injury as the cause of their trouble; and in all except the last, I can state that minute inquiry failed to trace a family history of malignancy. In the last case, I have no note on this subject, and therefore cannot speak with certainty, but I believe I was assured that such was the case in this one also.

A DISPLACED LEUKÆMIC SPLEEN, CAUSING OBSTRUCTION AND DEATH.

BY M. COLLINS, M.D., Scarborough.

ON February 15th, I received a message to "come at once and attend K.P., who was in labour." I found the patient, aged 36, very much emaciated, and presenting a peculiar but very suggestive waxy appearance. A quick and feeble pulse, dyspnœa and urgent fæcal vomiting, had set in already. The os was patulous, so as to admit the examining finger readily: the posterior lip was hard and nodulated. Otherwise the uterus was in its normal unimpregnated condition.

On inspection, the abdomen appeared to be as large as at the sixth month of utero-gestation; but by manipulation, I could detect a solid mass in the left inguinal, and half the left lumbar regions. Its upper margin was sharp and well defined, corresponding to a line drawn from the umbilicus to the crest of the ilium. The right lumbar and inguinal regions were tympanitic. The liver was visibly enlarged, projecting below the ribs, and filling up the left hypochondriac region.

That there was neither labour nor pregnancy, was manifest; and it was equally evident that the patient was *in articulo mortis*. As the hand of death was upon her, I deemed all operative interference imprudent. Enemata, draughts, etc., were administered, but in vain. She died within forty-eight hours.

The patient died, as she had lived, in the belief that she was *enceinte;* for the patulous condition of the os, pain, a gradually increasing abdominal tumour, etc., led a certified nurse to an erroneous diagnosis. I could not dissuade either from their mistake. The nurse stoutly and rudely maintained that the patient was *de facto* in labour.

Post Mortem Examination.— On opening into the abdomen, I found the spleen filling up the left inguinal and half the left lumbar regions. Its internal surface was uppermost, and its external undermost. The gastro-splenic and suspensory ligaments were elongated. The spleen weighed two pounds and eleven ounces. Its external surface was traversed from above downwards by a well marked fissure, which gave the organ a bilobed appearance. On section, considerable resistance was offered to the knife by a thickened capsule and trabeculæ: it presented a bloodless, homogeneous, reddish-brown appearance. The intestines and omentum were pushed to the right side, and those lying contiguous to the spleen were dark and considerably congested. Part of the descending colon and sigmoid flexure were pressed upon; and the latter was atrophied to about the size and thickness of the finger of a glove. There were some scybala in the colon. The uterus was normal, with the exception of a patulous os and nodulated posterior lip. A small abscess, nearly as large as a pigeon's egg, was found in the left broad ligament. It contained about a drachm of horribly offen-

sive pus. The liver weighed five pounds and five ounces. From its cut surface a greyish-white infiltration could be squeezed out. This whitish fluid, as pointed out by Virchow and Böttcher in leucocythæmic cases, consisted of closely packed free nuclei and small cells. The naked eye appearance was remarkably purulent. Section of the kidney gave a somewhat similar material, which, however, more resembled thickened greenish pus. The lymphatic glands were not appreciably enlarged. I did not then examine the blood; but when I sent for some after a little time, the cadaver was removed to its final resting-place.

No reliable history of the case was obtainable. It was said that her circumstances was somewhat straightened; that she suffered hunger and privations at times; severe and prolonged trials for years. Her appearance was always cachectic. The pain in her side dated from a fall (uncertain) or some sudden exertion (?) months previously. It is probable that a fall was the starting-point in the displacement of this leukæmic spleen; and then that its own increasing weight, with that of the superincumbent enlarged liver, caused it to be jammed deeper and deeper into the pelvis, till gradual pressure on the sigmoid flexure ended in obstruction and death.

SALICYLIC ACID TREATMENT CONTRASTED WITH OTHER REMEDIES IN THE TREATMENT OF ACUTE RHEUMATISM.

By JAMES RUSSELL, M.D., F.R.C.P.,
Physician to the Birmingham General Hospital.

THE following observations are based upon 90 cases of acute rheumatism; 35 (uncomplicated) having been treated by remedies in use before salicylic acid, 55 treated by salicylate of soda or ammonia. The circumstances of the cases are alike in all.

I compare the two groups (1) with reference to the number of hours occupied by the temperature in dropping to 99°; (2) with reference to the respective stay in hospital.

1. In 35 cases treated by various remedies (uncomplicated) the average number of hours occupied in the temperature falling to 99° was 248; the extremes, 12 and 1,056 hours. The average stay in hospital (27 cases) was 39 days.

2. The cases treated by salicylate salt must be subdivided into (*a*) 43 cases in which the remedy acted successfully; and (*b*) 12 in which it failed; but, as in 4 the failure probably resulted from imperfect administration, the number of failures must be reduced to 8.

(*a*) In 43 successful cases, the average number of hours in temperature reaching 99° (39 cases) was 38; the extremes were 6 hours and 72. In 16 cases, it was 30 hours or fewer. The average stay in hospital (37 cases) was 38 days; the extremes, 10 days and 138. The reduction of the local symptoms, particularly of pain and heat, generally kept pace with the decline of temperature, or even anticipated it. In 20 cases, it is expressly stated that the relief of pain was effected within 24 hours; the same thing probably occurred in others. In 4, it began with the first dose. Hence, whilst the average residence in hospital was hardly lessened by the salicylic acid, the period was passed in comparative immunity from the symptoms of the disease. The duration of residence was determined by relapses, and also by the need of caution in guarding against their occurrence. Of the 43 cases of successful treatment, a relapse occurred in 11; a second in 4. In all, the relapse was brief and speedily controlled. The duration of the salicylate treatment strikingly attests the varied character of the disease. Taking 22 cases in which no relapse had occurred, the number of days during which the remedy had been given varied between 2 and 17. In two cases of relapse, the salt had been taken for 19 days.

(*b*) In 8 cases, the remedy failed. They were severe. The average residence in hospital (6 cases) was 75 days. One death occurred. Four patients were abnormally neurotic.

Accidents.—Of the 55 cases in which the salicylate salt was given, vomiting occurred in 9, chiefly after doses exceeding 10 grains. Delirium occurred in 6; in 2 it was protracted, but was free from alarming element; in 1 it was followed by death.

Two deaths have occurred whilst the patient was taking the medicine. One was in a boy, aged 15, of weak intellect, who had been taking ten grains every four hours with great relief, and without any sign of disagreement except slight vomiting for six days. After screaming through the night, without apparent cause, he died suddenly in the morning; temperature 99.6°. The lungs were highly œdematous, and much congested. The right auricle was gorged with blood. In the second case, a man of nervous temperament had taken ten grains every two hours for two days without relief. The dose was then doubled, and two days after was raised to 25 grains. The rheumatism was relieved, and the dose was lowered to 12 grains on the same evening, and to 8 on the following morning. He had been depressed and delirious through the night. The delirium continued severely through the day, and he died suddenly in the night; the temperature, which had sunk to 100°, rising to 111.5° immediately before death. The right side of the heart was moderately full of dark tarry blood; considerable ecchymoses under the serous membranes.

Among the 43 successful cases are 5 of pericarditis, in all but 1 slight and of brief duration. In 3, it preceded the remedy; in 1, it was discovered on the day after commencement; in the fifth case, severe and ultimately fatal pericarditis set in three days after the rheumatic symptoms had been removed by the salicylate.

OBSTETRIC MEMORANDA.

PUERPERAL ZYMOSES.

A VERY painful case has, within the last few days, come under my notice, which illustrates many of the points ably laid down by Dr. Braxton Hicks in the JOURNAL of March 25th. Mrs. B., a lady, aged 26, was attended in her second confinement by her regular medical man, who was a friend of mine. For several days all went on well; then, all of a sudden, without any apparent cause, her temperature began to rise, and was soon between 104° and 105°. This condition caused my friend considerable anxiety, and an examination of the sanitary condition of the house—one in a row of new ones—was immediately made, with the result of finding sewer-gas pouring up from the sink in the scullery almost sufficient to blow out a candle held over it.

On the next evening, I believe it was, I was sent for in great haste to see the patient. I found her screaming at the top of her voice, and so violent that it was as much as several attendants could do to control her movements by force; in short, she was suffering from an attack of acute mania. By means of chloroform and hypodermic injections, we managed to quiet her, and I then had no difficulty in agreeing with my medical friend—who had diagnosed typhoid fever—as to the cause of these terrible symptoms, the typhoid spots on the abdomen being but too characteristic. The delirium lasted about eighteen hours, after which the patient became conscious and took nutriment well; but such was the fearful exhaustion caused by her condition as described above, that she sank slowly but surely, and eventually died in spite of every care and attention bestowed upon her. Now, surely, it is time the law took cognisance of cases like this. The poor young couple only removed into the abominable house at Christmas, and had they remained where they were, there is every reason to suppose that the wife would at this present moment have been alive and well. Surely something may be done in the way of compelling builders and landlords to produce a certificate from a surveyor or other competent person to the effect that their property is properly drained, previously to a new tenant going in. The public are more careful of their stables in as much as they relate to the health of their horses, than they are of the sanitary conditions of their houses.

W. BARRETT ROUÉ, M.B., M.S., Physician to the Bristol Hospital for Children and Women.

THERAPEUTIC MEMORANDA.

RECTAL ALIMENTATION.

IN the course of an able article on the above subject in the JOURNAL of March 25th, Dr. Tyson observes that the coating of cacao butter with which Mr. Slinger endeavoured to improve the appearance of my "nutrient suppositories" was calculated to interfere with their absorption. Whether this be correct or not, I may be allowed to mention, perhaps, that in consequence of a suggestion made to me by Dr. Tyson privately, the suppositories made by Mr. Slinger have now for some months been sent without any coating. The earlier attempts made under my directions were to a great extent failures, owing to the too great dryness of the suppository. The suppositories now made under improved methods are such that, without opium, 90 per cent. of them are retained and absorbed. Messrs. Slinger also make them with the addition of half a grain of extract of opium.

H. E. SPENCER, York.

SNAKE BITES IN THE PUNJAUB.—During 1880 no fewer than 968 deaths were registered from snake-bite in the provinces of the Punjaub, against 818 in 1879, and 752 in 1878. The deaths from hydrophobia show, unhappily, an enormous increase, the number of victims from this cause amounting to 107, against 69 in 1879; 286 deaths were caused by suicide, and 67 by wild beasts.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

SIR P. DUN'S HOSPITAL, DUBLIN.

CASE OF ANÆSTHESIA: TREMOR: PARESIS: ANALGESIA: ACHROMATOPSIA: AMYOSTHENIA: ISCHÆMIA: AND HYSTERO-EPILEPSY.

(Under the care of Dr. WILLIAM MOORE, King's Professor of the Practice of Medicine.)

LIZZY F., aged 26, unmarried, was admitted on May 3rd, 1880. The patient was of medium size, fairly nourished; complexion fair, but pale. She lost the sight of the right eye when a child, from an accident. Her father died of heart-disease; the cause of her mother's death she did not know. Her sister died in childbirth. She had been a domestic servant for some years, and stated that she was healthy up till three years previously, when she got a great shock in trying to save a child from drowning. On admission, she appeared irritable and whimsical. She suffered from tremor affecting the head, both arms, especially the right, and both legs, more especially the left. She could not stand without support; and, when the heels were approximated, she reeled, and would have fallen. This tremor in many respects simulated paralysis agitans, especially in the right arm and hand, the right forefinger and thumb approximating. This choreic tremor was most marked when she was at all excited, and when the extremities were extended. She could not write her name intelligibly, owing to tremor. The head and neck were kept bent forward. Sensation was lost over the right hand, both on the dorsal and palmar aspect and between the fingers, and over the right arm generally. The same condition applied to the left arm, except over the anterior part of the head of the radius. Both cheeks and temples were anæsthetic; the gums were sensitive. Pressure on the eyelids and stroking the temples induced a semi-mesmeric state. Over the anæsthetic parts, pricks of a pin did not bleed; and these parts were insensible to heat and cold. Her colour-vision was very defective; she called blue paper "black", white paper "dark", yellow paper "colourless"; in short, she could not define any colour, whilst she complained that objects danced before her eyes. Taste was partially lost; at times, totally lost. She could not taste quassia, turpentine, or camphor. Smell was gone, and hearing was imperfect. She had complete anæsthesia over both legs, except the soles of the feet; the chest and abdomen were anæsthetic, except a circle round the mammæ, which were painfully hyperæsthetic. Along the spine, hyperæsthesia prevailed, and pressure over the lowest cervical and upper dorsal vertebræ induced a scream. Sensation was lost over the abdomen generally; but, on pressure over both ovaries, great pain was felt. The pressure, if kept up, induced a hystero-epileptic fit. The temperature over the right ovary was 95.4°; over the left, 96.2°. Menstruation was regular, and unattended with pain. There was appreciable contraction of the right arm and left leg, over both of which extremities reflex action was slight; and the dynamometer placed in both hands showed complete amyosthenia. Faradisation showed more response in the left arm and right leg. In the presence of Dr. Sigerson, the patient having been blindfolded, punctures were made over the back of both hands and arms generally, where loss of sensation prevailed; these pricks did not bleed. A silver coin was then placed over the biceps, a sovereign over the extensor (near the elbow), and a copper penny over the wrist. After ten minutes' application, a zone of hyperæmia formed under and around the copper; the punctures within this zone bled, and sensation was restored to this part. No such results attended the continued application of the gold and silver. The same results attended the application of the copper to the left arm, lower extremities, and both cheeks. One-quarter of a grain of sulphate of copper was given to the patient three times a day, whilst she got ten grains of the bromide of ammonium at bedtime.

On June 13th, Professor Sigerson again saw the patient in consultation. She looked better; the temperature of both arms was higher; there was slight moisture in both palms, and only partial anæsthesia of both arms persisted. The left half of the spine was now anæsthetic; the right half hyperæsthetic, and the application of the needle excited great pain. General anæsthesia was not so complete over the abdomen. The sole of the right foot was very sensitive; the left was anæsthetic. The senses of smell and of taste were absent. The sulphate of copper was now omitted for some days.

On June 15th, the extremities were anæsthetic and colourless, and the other conditions remained much the same as on admission.

On June 19th, complete anæsthesia prevailed over the face, arms, and legs. Sensation was restored after the application of steel to the temples, and she could discern a red colour; other colours she could not distinguish. However, the continued application of the steel restored left facial sensation, with restoration of taste, smell, and sight for colours. This recovery of sensation, however, was very transient. She was now put on small doses of the tincture of perchloride of iron.

On June 23rd, the patient responded to the continuous current. Zinc restored sensation, and the part bled, having been previously punctured. Zinc also applied to the temple restored taste, and eyesight for red colours only.

On June 24th, zinc, with copper overlaid, restored sensation, and kept it restored for half an hour.

On June 26th, anæsthesia was present over both sides of the face and upper and lower extremities. There was also loss of vision for colours, of taste and smell, but not of hearing. At Dr. Sigerson's suggestion, the left arm was placed in a solenoid, to which was attached a battery of thirty cells. Within fifteen minutes, sensation was restored to both arms, but not to the face or lower extremities; and the punctures bled. A roll of paper was applied to the solenoid and to the patient's mouth; and, after five minutes' inhalation, sensation returned to both sides of the face; and sight, taste, and smell were restored. Still the lower extremities were not affected by these experiments.

On June 27th (after twenty-four hours), sensation in the parts above mentioned persisted; but the day following (the 28th), anæsthesia again pervaded both upper and lower extremities and the soles of both feet; to the latter, sensation was quickly brought by the application of mustard. She was again given small doses of sulphate of copper.

On July 3rd, the clinical clerk, Mr. E. F. Pigot, again applied the solenoid, using thirty Leclanché's cells, in the same manner as on the former occasion, and with the following results. Before inhalation, the cutaneous "sensibility was completely absent along the ulnar borders of both forearms, and over both cheeks; yellow was called white, and green black; hearing was imperfect on both sides; taste was apparently absent on the left side of the tongue, but fairly good on the right half; smell was almost, if not entirely, absent on both sides." After inhalation, "when the patient had been breathing through the tube for about ten minutes, she began to complain of a sensation of great heat, first in the head, then in the hands and arms, and finally in the feet, accompanied by more or less pain; but these sensations appeared to diminish in intensity after a short time; and, on testing the different senses, after about twenty minutes' inhalation, the following was the result: cutaneous sensibility perfectly normal over head, neck, arms, hands, feet, and calves of legs; the thighs and trunk (except along the spine) remained completely anæsthetic. A sharp line all round, on the level with the spines of the scapulæ, separated the anæsthetic thorax from the normally sensitive neck. Achromatopsia had entirely disappeared—all colours at once recognised; hearing and taste were slightly improved. Her temperature was taken in the palm of the hand: first, after stopping the current for some time, and allowing the feeling of heat above described to subside; secondly, after reproducing it by closing the circuit again. In the former case, the temperature was 98° Fahr.; in the latter, 98.6° Fahr."

On July 4th, sensation still persisted in the regions above named, and the special senses were retained; there was less tremor, and the patient could write her name legibly. This improvement as regards sensation was transient; for, on July 7th, the patient was again generally anæsthetic, all the special senses either impaired or totally lost; and she now left the hospital of her own accord for the country, the only visible amendment being a diminution in the tremor, and that she could write her name legibly. All treatment was now omitted.

On July 20th (after the lapse of a fortnight), the patient had lost all tremor and paresis; sensation had returned to both upper and lower extremities; smell, taste, hearing, and eyesight were restored (the latter sense not perfectly, as she called a "magenta" colour crimson). Ovarian and spinal hyperæsthesia was inappreciable; she was then anxious to get employment.

CLINICAL OBSERVATIONS.—1. A complaint of headache was always made after the application of certain metals—zinc, copper, and steel—and after faradisation and magnetism. 2. The temperature of the limb rose, and sensibility was invariably restored, on the application of copper and steel; not so remarkably after zinc, and not at all after gold or silver. 3. No restoration of muscular power took place *pari passu* with the restoration of sensation. 4. Restoration of sensibility, no matter how brought about, was transient; but the superimposing a neutral metal helped to retain it. 5. No phenomena of transference could hold in this case, inasmuch as the anæsthesia was double. 6.

Punctures made (previous to the application of copper and steel) invariably bled after the metals were applied for some minutes; ischæmia having prevailed before their application. 7. Recovery of sensation was simultaneous on both sides of the face after inhalation through the solenoid, and a marked rise of temperature took place, but no appreciable change in the condition of the contracted muscles. 8. As regards the achromatopsia, it was removed by the application of metals and the solenoid; the colour "red" being invariably the first restored.

In conclusion, Dr. Moore wishes to return his best thanks to his clinical clerks, Messrs. Godfrey Reid, Frank Jenken, and J. E. Pigot, for the care and attention they bestowed on this case.

LEFT HEMICHOREA: HEMIANÆSTHESIA (LEFT): ISCHÆMIA: HYSTERO-EPILEPSY.

(Under the care of Dr. MOORE.)

Mary H., a milliner, aged 22, a well formed girl, without any signs of anæmia, disturbance of menstruation, or history of nervous disease, applied, suffering from pain under the left breast, and pain on pressure over the left ovary. Three months earlier, whilst engaged at her ordinary occupation, she was suddenly seized with a "jerking" sensation in the left shoulder and left arm generally. These "jerkings" occurred, without any previous warning, eight or ten times in the twenty-four hours, leaving the arm with a sense of weariness and numbness, and, for a time, partially contracted. After repeated attacks, the girl became generally hysterical, and afterwards semisomnolent. On a careful examination, the arm generally felt cold, and pale, but not wasted. Over the extensor aspect of the forearm, there was generally well marked anæsthesia and ischæmia. Pin-punctures (which did not bleed) were made over the extensors of the forearm; then gold, silver, and copper were applied. The latter restored sensation to the part, and the punctures bled; there was no transference of the anæsthesia. Both arms responded to faradisation, the left more feebly than the right. Under the use of bromide of camphor, the choreic attacks disappeared, normal sensation was restored to the arm, and the patient was, when last seen, in perfect health.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MARCH 28TH, 1882.

JOHN MARSHALL, F.R.C.S., F.R.S., President, in the Chair.

Case of Excision of a Stricture of the Descending Colon through an Incision made for a Left Lumbar Colotomy: with Remarks. By THOMAS BRYANT, F.R.C.S.—Mr. Bryant read the record of a case of stricture of the descending colon, in which he excised the diseased segment of bowel through the wound made for a left lumbar colotomy, the patient recovering. The operation was performed on a lady aged 50, who had suffered from complete obstruction for eight weeks, and was very feeble. The stricture could not be felt from below. The bowel was removed through the oblique incision made for left lumbar colotomy, by simply pulling the segment strictured through the wound, and stitching each portion of the bowel, with its two orifices as divided, to the lips of the wound. The stricture was of the annular kind, and involved about one inch of the bowel; it was so narrow as to admit the passage of a No. 8 catheter. The preparation was exhibited, with microscopical appearances of the growth in section, as made by Dr. Goodhart. Mr. Bryant said he believed the operation he had performed was a new one, and that it was applicable to not a few of the cases of stricture of the descending colon. It had suggested itself to his mind from seeing cases of localised or annular stricture of the bowel which were free and movable, both in operations of colotomy as well as in the *post mortem* room; but the case read was the first in which he had put the suggestion into practice. He pointed out how these annular strictures were generally local diseases, and consequently how desirable it was that they should be removed where possible. He suggested that the question of excision of the diseased growth should be entertained as soon as the diagnosis of the case was made, and that, in every case of colotomy for chronic obstruction of the descending colon, the possibility of being able to remove the diseased bowel by operation should be considered before the bowel was opened for a colotomy operation. He then showed how desirable it was that the question of excision or of colotomy should not be postponed till the patient's powers were too feeble to bear either, as was too often the case. He stated that he did not regard the operation he had performed in a more serious light than he did a colotomy in which the peritoneum was wounded.—Mr. G. D. POLLOCK thought the operation creditable to Mr. Bryant; he was not aware of a simila case in British surgery. The history of some cases of colotomy for stricture was in favour of Mr. Bryant's proposal. He hoped that the case recorded would encourage other surgeons in dealing with similar cases, and in operating early.—Mr. HARRISON CRIPPS referred to the pathology of stricture of the large intestine, and recommended that, instead of lumbar colotomy, which afforded insufficient room, an incision should be made in the front of the abdomen, along the outer side of the rectus muscle.—Mr. HOWARD MARSH agreed with Mr. Cripps in recommending the anterior incision, and said that cases in which Mr. Bryant's operation would be admissible were very rare. He agreed with Mr. Pollock that the operation ought to be performed early.—Mr. HENRY MORRIS said that in such cases as that of Mr. Bryant the lumbar incision was preferable; one incision into the peritoneum was better than two.—Mr. BRYANT briefly replied.

On the Presence of Bile in the Saliva, and on the Variation in the Amount of Sulphocyanide of Potassium in the Saliva of Persons affected with different Diseases. By SAMUEL FENWICK, M.D., F.R.C.P.—Dr. Fenwick said that it was generally believed that, in cases of jaundice, the saliva did not contain any of the colouring matter of the bile. The author had, however, found a yellow colouring matter in the saliva of every case he had examined, after evaporating it by means of a gentle heat. A bitter taste was often complained of by patients affected with jaundice, and it had been suggested that it might result from the presence of the biliary acids in the saliva. The author had not been able to prove whether this opinion was correct or not, but he detailed a case in which an intense bitterness was complained of by a person unaffected with jaundice, in whose saliva he found traces of the biliary salts by the ordinary tests. It having been proved that both the colouring matter and the salts of the bile occasionally presented themselves in the saliva, an attempt was made to ascertain whether the amount of the sulphocyanide of potassium, usually present in the saliva, varied in different diseases, and whether such variations coexisted with any particular diseases. For this purpose, the saliva was examined in a large number of patients treated in private and in hospital practice, and the results were afterwards analysed. As it had been stated by one physiologist that the sulphocyanide was only the result of decomposition set up in the saliva by decayed teeth, and by others that it was produced by tobacco-smoking, these two conjectures were first examined. The state of the teeth was carefully remarked in 87 hospital patients, and it was found that there was no relation between the amount of decay in them and the quantity of the sulphocyanide in their saliva. The habits of 213 persons were inquired into respecting their use of tobacco, and it was found that the amount of the sulphocyanide was not affected by the habit of smoking. The quantity of sulphocyanide was almost always deficient in cases of jaundice arising from obstruction; thus, of 23 cases, it was very deficient in 18, and in some scarcely a trace could be found. From this, the author conjectured that the amount of this salt in the saliva depended on the quantity of the bile that reached the intestines; a conclusion that seemed to be supported by two cases of hepatic fistula, in both of which it was also very deficient. Where jaundice was absent, one of the chief circumstances that appeared to regulate the amount of the sulphocyanide was the quantity of food taken by the patient; thus, it was always deficient in œsophageal stricture, and in cancer of the stomach. Persistent vomiting, diarrhœa, and dysentery produced a similar result, probably by removing the food before it could be fully digested. It was also deficient in cases of severe atonic dyspepsia, and in all cases of chronic disease where the appetite was very bad. The sulphocyanide was found to be in excess in fat persons, and in those who were gaining flesh; deficient in those who were thin, or rapidly losing weight. It was greatly in excess in all cases of acute rheumatism (36 cases examined), and reached the maximum in the second week of the disease. It was also in excess in all the cases of acute gout, and in most of the persons liable to "bilious headaches". In the early stages of all inflammatory disorders, there was an excess; for instance, in gastric catarrh, in acute pleurisy, erysipelas, diseased kidneys, and in phthisis; but it sank below the average in the later stages of these diseases. The author pointed out that the fibrine of the blood had been found to be in excess in most of the above diseases, such as acute rheumatism, gout, erysipelas, and acute inflammation; and he suggested that an unusual amount of the sulphocyanide in the saliva was, perhaps, the consequence of an excessive excretion of unoxidised sulphur, resulting from the large amount of albuminous material of the blood that had been altered by the inflammatory process, and thereby rendered unfit for organisation into healthy tissue.—Dr. MARCET said that Dr. Fenwick had proposed a new method of diagnosis. Very little was known about the sulphocyanide of potassium in the saliva. Its presence was inferred in consequence of the chemical reaction; but it had never been isolated. For clinical purposes, it would be useless

to attempt to separate it; the colour-test must be sufficient. The test, however, could only be regarded as a short road to results; but Dr. Fenwick's observations had been numerous, and were trustworthy. Sulphocyanide of potassium seemed to have some connection with digestion; but no one knew its precise action. It seemed to be rather a product of excretion, and to have some important use, though it was unknown what that use was.—Dr. FENWICK said that the quantity of sulphocyanide of potassium in the saliva was so small, that it would be difficult to apply any other than the colour-test. It was only by collecting a large number of facts that he had been able to get any light thrown on the subject.

CLINICAL SOCIETY OF LONDON.

FRIDAY, MARCH 24TH, 1882.

J. LISTER, D.C.L., F.R.C.S., F.R.S., President, in the Chair.

Splenectomy.—Mr. WARRINGTON HAWARD read notes of this case. The patient, a woman, aged 49, had usually enjoyed good health. She had never suffered from ague or any intermittent fever. The catamenia had ceased three years. She had been seven years married, but had no children. For eighteen months she had suffered pain in the left side of the abdomen, and for ten months had been aware of an abdominal tumour, which had been steadily increasing in size, and which distressed her by its weight. When admitted into St. George's Hospital, she was a rather stout woman of good complexion. She did not look at all anæmic, and although the number of the white corpuscles of the blood was increased, she showed no other sign of leucocythæmia, excepting a greatly enlarged spleen. The spleen occupied the greater part of the left side of the abdomen, and extended from the loin to three inches beyond the middle line, and from the ribs to the groin. The tumour was firm, well defined, and moderately movable. It produced great discomfort from its weight, and a dragging sensation whenever she moved about. There was no other glandular enlargement, and the rest of the viscera were healthy. She had no palpitation nor dyspnœa, nor had she suffered any hæmorrhage. Her temperature, pulse, and respiration were natural. The urine was natural. It having been decided to remove the spleen, Mr. Haward performed abdominal section for the purpose. An incision was made in the middle line of the abdominal wall, extending from two inches below the ensiform cartilage to within two inches of the pubes. The enlarged spleen at once presented, and was found free from adhesions. In endeavouring to tilt up the lower end of the tumour, a rent occurred at its upper margin, from which free hæmorrhage took place for a moment, but the bleeding was speedily arrested by the pressure of a sponge upon the torn part. The vessels at the pelvis, which were enormously enlarged, were then clamped and ligatured, after which those of the gastro-splenic omentum were secured by passing an aneurysm-needle threaded with silk through the membrane, and tying it in several separate portions. The connections of the spleen were then severed, and the organ was removed without further difficulty. Carbolised silk was used for the ligatures, and the only hæmorrhage of any consequence was that which occurred from the rent in the spleen. While the wound was being closed the patient suddenly became profoundly collapsed, but was revived by artificial respiration and the subcutaneous injection of ether. Five hours after the operation vomiting commenced, and, persisting with great frequency, rapidly exhausted the patient, who died in the evening of the day of operation. The spleen, both to the naked eye and microscope, presented the appearance of simple hypertrophy. *Post mortem*, no disease of any organ other than the spleen could be discovered. There had been no hæmorrhage after the closing of the wound, but the abdomen contained some thin blood-tinged fluid. With the exception of slight ecchymosis in the immediate neighbourhood of the wound, the peritoneum and abdominal viscera showed no sign of injury. The indications for and against the operation were considered, and it was shown that, although there was an increase in the white corpuscles of the blood, the patient exhibited none of the other signs of leucocythæmia excepting the large spleen; that there was no sign of anæmia nor tendency to hæmorrhage; and that the condition of the blood would not have been suspected excepting on microscopical examination. The woman's suffering seemed entirely due to the dragging weight of the tumour, and there was no sign of any other visceral disease. The fatal result was certainly not caused by hæmorrhage, which was the chief danger in cases of leucocythæmia, but seemed to be due rather to the disturbance of the great sympathetic plexuses, and the consequent shock and vomiting. The paper concluded with some remarks upon the method of the operation.—Dr. STEPHEN MACKENZIE was glad of the opportunity of raising the question, whether removal of the spleen in leucocythæmia was justifiable. Recently, a patient had been sent to him with a greatly enlarged spleen, and the blood was found to contain a great excess of colourless corpuscles. He informed the friends of the patient that, though ordinary methods of treatment might afford palliation and delay the progress of the disease, an unfavourable issue was inevitable. At the same time, he mentioned that, in a few cases, the enlarged spleen had been removed, and the patient recovered; further, that the operation was a very serious one, often fatal, and that very rapidly. After due deliberation, both the patient and his family desired that the operation should be performed. He (Dr. Mackenzie) asked his colleague Mr. Reeves if, in these circumstances, he was willing to operate; and Mr. Reeves expressed his readiness to do so. The patient was admitted into the London Hospital for the purpose. He was then found to have a little œdema of the feet, and it was decided to defer the operation until attempts had been made to improve his condition. At this time, the proportion of colourless to coloured corpuscles was about one to seven, the coloured corpuscles being about 65 per cent. He was kept in bed, and dialysed iron was given. Under this treatment, the blood-state improved, so that the proportion of colourless to coloured corpuscles fell to one to eighteen or nineteen, and the coloured corpuscles rose to over 70 per cent. Meanwhile, Mr. Collier's tables, giving the results of the whole of the recorded cases in which the spleen had been removed, appeared—showing that, though the spleen had been excised successfully in several cases, in no case had the operation succeeded when it had been performed for leucocythæmia. On conferring with Mr. Reeves, it was felt right to inform the patient that, since the operation had been mentioned, the subject had been carefully investigated, and it was found that no case of exactly the same nature as his had recovered; and that, in these circumstances, it was felt right to advise him not to undergo it. The patient and his father, however, made up their minds that, in spite of this information, they wished the operation performed, seeing that, if it were not done, death would only be delayed. He (Dr. Mackenzie) noticed on this occasion, however, that the œdema of the feet, which had disappeared, had returned, and that there was slight puffiness of one hand; and that, though the state of the blood had improved, the patient's general condition was not so satisfactory, and leuchæmic retinitis and retinal hæmorrhages had made their appearance. In these circumstances, he strongly advised Mr. Reeves not to accede to the patient's request, believing that the operation would be rapidly fatal. As regarded theoretical considerations, it must be admitted that, to a certain degree, the operation was an experimental one, and the very unfavourable results hitherto obtained did not offer any encouragement. But if, as was asserted, the disease took its origin from malarial infection, there were grounds for believing the spleen was primarily at fault, and removal of the organ might be expected to benefit the patient, provided it could be safely performed. It therefore seemed to him desirable to raise the point whether the operation was justifiable when the blood-disease was not too advanced, in young subjects.—Mr. CLEMENT LUCAS said the terrible mortality which followed excision of the spleen in leucocythæmia—a mortality which left no case of recovery—ought not to discourage surgeons from attempts to relieve a fatal disease, but rather to direct their attention to less serious operations than excision, which might possibly effect a cure. If the disease were a simple hypertrophy, would not ligature of the splenic artery reduce the size of that organ and bring about relief? Ligature of the main artery in cases of Barbadoes leg was followed by great reduction in the size of the limb, and a similar operation for the spleen held out hopes of cure. The operation might be difficult, but, with a free incision, ought not to be impracticable, and could scarcely be so serious as that for the removal of the whole organ.—Mr. REEVES now had a case in which the operation had been seriously contemplated; but, as Dr. S. Mackenzie had given such a good account of it, there was no need for him to say anything on that head. His reasons for desiring to operate were the youth of the patient, the fact that the disease was not far advanced, and the physical vigour, as well as the determined mental condition of the patient, and his friends, who—after every risk was plainly put before them—decided to have the operation done. Mr. Reeves had looked up twenty-one cases of splenectomy, and found that about a quarter had recovered. But, very shortly afterwards Mr. Collier's paper appeared, pointing out that all the leucocythæmic cases operated on had died. This, of course, made him hesitate; but on analysing the table, he found that most of the cases were much older than his patient, and were in a more advanced stage of the disease, so that he was still inclined to give his patient the forlorn hope offered by operation; but, on consultation again with Dr. S. Mackenzie, it was decided that, although the condition of the blood had much improved, still, on the whole, operation must not now be thought of. He thought that, if patients were seen in an earlier stage, the operation would have a much better chance, but at present our knowledge was

very imperfect; and, seeing that leucocythæmia was very common among some of the lower animals, it was highly desirable that observations and experiments on them should be made, with the view of ascertaining if removal of the diseased spleen was followed by permanent benefit. He had thought of tying the splenic artery, but shrank from it, because he feared that the spleen might necrose and necessitate its removal, thus adding a second severe operation to one which would, no doubt, be difficult, and, under the circumstances, very hazardous. It was most desirable, by selecting proper cases, to ascertain if surgery could be of use, where medicine had, unfortunately, been hitherto invariably unsuccessful. Malaria was said to be a frequent cause of the disease, and without denying this he would ask, was it a common cause, or a cause at all, in the lower animals? He had recently been consulted by a medical man with reference to a case of a strong well-built gentleman, aged 29, who had never been exposed to malarial influences, whose circumstances had always been unusually good, and who had never had syphilis. At one time this patient was extremely weak, and looked very like dying; but lately he had much improved in the condition of his blood, and in general strength. His spleen was only about three and a half times its normal size. This case was quoted as showing that something other than malaria, insufficient food, bad hygienic surroundings, and syphilis, was at work in this instance.—Dr. GOODHART said that Mr. Warrington Haward had asked the question, a very important one, whether a mere excess of colourless corpuscles in the blood was of itself sufficient so to interfere with the coagulability of the blood as to condemn an operation. Dr. Goodhart thought that that question was capable of answer by the experience of the *post mortem* room. This, now, in his experience, amounted to five or six cases, and in all he had observed that the coagula in the heart and great vessels were peculiarly flimsy, and in general appearance more like pus than blood. Of course it might be said that this was hardly an argument, seeing that by the time a case arrived at a fatal issue it had probably overstepped the distinction drawn by Mr. Haward between early and late leucocythæmia. But that was not the case. So far as the blood was concerned, cases were fatal with a far less proportion of white and red corpuscle than one in six. The proportion exists in Mr. Haward's case, and therefore, so far as the blood was concerned, he thought it might always be said of it that it was in a similar condition to that found in fatal cases. Looking, also, as he did, upon the existence of leucocythæmia as a late symptom, he doubted whether any case of leucocythæmia could, with propriety, be called early. But there was also another point to be considered, and that was the effect of an operation and the resulting pyrexia upon the condition of such blood as existed in these cases. He thought he had observed that they bore fever badly, and that the blood had a tendency to be more pus-like under such circumstances. Now that antiseptic treatment had reduced in great measure the risk of fever, such an argument had less weight. —Dr. MARCET related particulars of the case of a dog from which the spleen had been removed about thirty years ago; the animal had subsequently lived many months, without apparently being in the least degree altered by the operation. It had then died from another cause altogether.—The PRESIDENT thought it most unfortunate that Mr. Haward's case had been fatal. Death had apparently resulted from shock, although ether, not chloroform, had been given. The case was discouraging, as it was one favourable for the operation, and no hæmorrhage had followed. Ligature of the splenic artery would be a dangerous proceeding. Experiments should perhaps be performed on the lower animals, to see if the spleen could live after ligature of its main artery, and if animals afflicted with leucocythæmia were cured by the removal of the spleen.—Mr. HAWARD said it was not at first suspected that the patient had leucocythæmia, although she had a large spleen. It was true that, in Mr. Collier's tables, the mortality after splenectomy in leucocythæmia was very great; but in this case there was no evidence of change of blood in the direction of leucocythæmia than that given by the microscope. The cause of death was not due to hæmorrhage. The spleen was easily torn; and, at the rent which occurred in its substance during the operation, the hæmorrhage was quite momentary, and no great amount of blood was lost. There was no oozing from the abdominal wall, and no difficulty in arresting the hæmorrhage. Ligature of the splenic artery would be a very difficult operation, if the spleen were much enlarged. Perhaps in future operations a clamp might be placed around the vessels; the spleen removed, and the vessels subsequently tied. The spleen had been removed in many cases, and the patients had recovered; so that the spleen did not appear to be a very essential part of the human economy. But, if there were an early stage of leucocythæmia, it came to be a question whether the operation should be attempted. Dr. Goodhart's remark as to the feeble clotting power of the blood after death from leucocythæmia should be remembered.

EPIDEMIOLOGICAL SOCIETY.

WEDNESDAY, MARCH 1ST, 1882.

GEORGE BUCHANAN, M.D., President, in the Chair.

On the Probability that the Infection of Diphtheria is sometimes Transported by the Wind.—Dr. HUBERT AIRY read a paper on this subject. If, as the result of the Royal Commission on Small-pox Hospitals, conclusive evidence should be forthcoming of the dissemination of small-pox by the outer air, it would become necessary to note if other infectious diseases might not spread in the same way. As regards diphtheria, the possibility of the disease being conveyed by wind was first suggested to the author, in 1880, by an account, given by Mr. Wynter Blyth, of an outbreak at an isolated farmhouse, on a hill near Woolfardisworthy, in North Devon, where, after careful investigation (first by Mr. Blyth and afterwards independently by the author) no clue could be found to the origin of the disease, except in the fact that, for five or six days before the outbreak, the wind had been blowing strongly from the south-west, in which direction it was afterwards learnt that a death from diphtheria had recently occurred. Later in the same year, the author met with another even more suggestive case, near East Grinstead, in Sussex. Diphtheria broke out at an isolated farmhouse on a northern spur of Ashdown Forest, after the wind had been blowing from the Tunbridge district, where there had been much fatal diphtheria. The disease afterwards appeared successively on two hills to leeward of the farmhouse first attacked, without any traceable personal communication; whereas the shape of the ground favoured the idea of conveyance of the infection by the wind. For other instances, the author referred to Mr. Wynter Blyth's paper on "The Prevention and Propagation of Diphtheria" (*Sanitary Record*, May 1880), and Dr. Slade King's "Notes on the Spread of Diphtheria" (Meeting of Sanitary Institute at Exeter, September 1880). An instance of diphtheria being caused apparently by the entrance into a house of air, which had blown over an adjacent offensive midden, was reported in the *New York Medical Record* for January 22nd, 1881. In Southern Russia, the spread of diphtheria was said to have followed the direction of the prevailing winds. The theory of aërial infection, suggested by these picked cases, required to be tested by being applied to a large number of cases, not picked, but taken as they came, none being rejected but such as involved doubt as to the date of the first attack, or as to precedent cases of sore-throat in the same locality, or clear evidence of dependence on some other known mode of diffusion. The question would remain for later examination, whether the evidence did not point to the existence of a class of original cases, occurring in certain favourite regions, at a certain season of the year, showing no dependence on conditions of wind, but possibly due to some local malaria comparable to that of ague. Possibly, also, it might be found necessary to classify separately urban and rural outbreaks. Referring to the list of thirty outbreaks named in a previous paper (*Transactions of the International Medical Congress*, 1881), the author described the mode of analysis adopted—comparing the direction and force of the wind during the fortnight preceding each outbreak with the direction of recent previous diphtheria, and noting the topographical features of each locality. For example: the outbreak at Coggeshall was preceded by fatal diphtheria at Braintree and Black Notley, six miles to the west and west-south-west; and, on the fifth day before the outbreak, the direction of the wind was west and west-south-west; and the wind was blowing at the rate of twenty-four miles an hour. In a quarter of an hour, it might have wafted infectious matter from Braintree or Black Notley to Coggeshall, which latter place, though not on a hill, was decidedly exposed to the force of a west wind. The analysis of these thirty outbreaks gave results favourable to the wind-theory. The curve obtained, by taking the mean for the whole thirty cases, of the number of miles travelled by the wind in each day of the fortnight preceding the date of outbreak, showed a velocity above the average in the five days immediately preceding that date, and below the average in the eight days previous; and this appeared to indicate a relation of some kind between the velocity of the wind and the occurrence of outbreaks of diphtheria. This indication might admit of various interpretations, but for the fact, that, in a large majority of the thirty cases, there was an actual focus of recent previous diphtheria, from which the infection might have been brought by a wind which was actually blowing in the right direction at the right time. This made it probable that the relation in question was a relation of conveyance by the wind of infective germs from previously infected places. This inference was confirmed by the test of applying arbitrary dates, with new conditions of wind, to the thirty actual local conditions of outbreak, and finding that they fulfilled the requirements of the wind-theory only half as often as the real diphtheria dates. But, if the theory were groundless, the results

ought to be very much the same with either set of dates. It must be confessed, however, that thirty cases were too few to base conclusions upon; three hundred were wanted to eliminate all error. The preference of sporadic diphtheria for high bleak situations could hardly be explained, except on the supposition that the disease was caused by something that is wafted thither by the wind. The theory gained support from what was known of some other diseases, notably ague, which resembled diphtheria in its preference for certain localities, and for a certain season of the year, in its conveyableness by water, and in its origination independently of any previous case. Ague was certainly conveyable by the wind, sometimes to hill-tops several miles away. Might not diphtheria be conveyed in the same way? The author met with an instance (at Bourne Bridge, in Essex, in March 1881), in which the infection of small-pox appeared to be conveyed a distance of two hundred yards by the wind wafting the smoke and smell of some infected bedding that was being burnt. Hay fever, though not contagious, was yet a certain example of illness caused by the inhalation of particulate matter carried by the wind. The objection, that exposure of infection germs to air, oxidated and destroyed them, required proof. If proved for one kind of infection, it would not necessarily attach to another. The evidence for each infection should be considered on its own merits. The theory of aërial infection should not be regarded as opposed to, but as supplementing, established ideas concerning the spread of zymotic diseases. It sought to explain phenomena which, without it, baffle all inquiry. Scarcely enough was known about the state in which disease-organisms were given to the air, to enable us to say what would become of them. Possibly, the adult and growing ones might be killed, and the germs left alive, as Profesor Tyndall found to be the case with non-infectious bacteria exposed to a certain heat. Doubtless, the duration of the exposure would in some cases affect the result. The wind-theory only demanded an average exposure of about half an hour. Those who suspected for the diphtheria organism the possibility of an independent life-history, external to the human frame, would not regard exposure to the air as more dangerous to this organism than it was to the bacillus malariæ. As to the probability of wide separation of the morbific particles in the air, in the first place, it was not known that a single particle inhaled by a susceptible person might not suffice to cause the disease, and, in the second place, the separation might not always be so very wide; but, in certain conditions of the air, a cloud of germs might hang together, and be drifted by the wind to the very door of the farmhouse on the hill.—In the discussion which followed, the President, Dr. Scriven, Dr. Squire, Inspector-General Watson, Surgeon-General Murray, Mr. Wynter Blyth, and Mr. Shirley Murphy took part.

SOUTH-EASTERN BRANCH: EAST AND WEST SURREY DISTRICTS.

THURSDAY, MARCH 9TH, 1882.

CHARLES W. CHALDECOTT, M.R.C.S.Eng., in the Chair.

Observations on Migraine.—Dr. HUGHLINGS JACKSON showed a drawing of visual projections made by a patient subject to attacks of migraine, popularly, "sick" or "bilious" headache. He said that a typical case of migraine had three stages: *a.* Visual projections, usually beginning on one side, frequently with zigzag or "fortification" outline; these positive conditions were in some cases preceded by a negative condition of darkness of part of the field; *b.* Headache, usually one-sided; *c.* Vomiting, usually ending the attack. There were subtypical cases: *a.* The visual projections alone; *b.* The headache alone. Again, there were supratypical cases. In some cases, in addition to visual projections, there were one-sided numbness, tinglings, coldness, etc.; and sometimes aphasia. In one such case, the patient was writing when a paroxysm set in, and mixed up two words (March and hamper) into one (mamper). He then related a case which looked like artificially produced migraine. There had been an injury to the head, a slight depression of the skull remaining on the left side near the middle line, in a line with the external auditory meatus. The patient had attacks of visual projections on the right, coldness of the right hand, and partial aphasia. In one of them he wrote "aphasially". Dr. Hughlings Jackson believed that migraine was allied to epilepsy. He gave details of a case he had published the *Lancet* of August 14th, 1875, which seemed a "mixture" of migraine and epilepsy. He referred to the previous researches of Drs. Liveing and Latham. Dr. Liveing believed that there was the paroxysm of migraine—a "nerve-storm"—traversing the optic thalamus, and other centres; Dr. Latham, that there was arterial contraction in the region of the posterior cerebral artery. Dr. Hughlings Jackson thought there was a discharge of nervous elements in some convolutions, probably in Ferrier's visual centre.

Lunacy from Lead-Poisoning.—Dr. J. F. GOODHART read notes of four cases in which poisoning by lead had been associated with various forms of lunacy; mania in two; dementia in one; and delirium tremens in another. He pointed out that these cases bore out the remarks of Drs. Rayner, Savage, and others: 1. That lead caused lunacy; and 2. That the form was very like that of chronic alcoholism, and of early general paralysis; and that this likeness was very suggestive with regard to the pathology of saturnine lunacy. Alcoholic poisoning and general paralysis were known to be associated with thickening of the membranes, or wasting of the cortex cerebri. Lead-poisoning was known to produce a granular kidney, both on experimental and on clinical grounds. Dr. Goodhart thought that the sequence of events was as follows: introduction of lead; vascular tension; arterial spasm, followed by convulsion or mania, leading to permanently impaired nutrition of the brain by reason of a permanent spasm of the cerebral arteries; and thus would be brought about a condition of cerebral cortex quite comparable to that of alcoholic poisoning, and, in chronic cases, probably not unlike the wasted condition which is found in cases of general paralysis. Dr. Goodhart was therefore quite inclined to agree with Dr. Savage in thinking that general paralysis might be produced by chronic lead-poisoning. Finally, it was contended that, if it were allowed that lead circulating in the system gave rise to advanced lesions and severe symptoms, such as those narrated, it was not unlikely that there were less pronounced types of disease, and less advanced forms of mental aberration, which might be equally worthy of study, and to which attention should be directed.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

FLETCHER AND FLETCHER'S SYRUP OF HYDROBROMATE OF IRON AND QUININE.

THIS is by no means an unpalatable preparation, and affords a convenient mode of administering an useful remedy. Each fluid drachm contains two grains of hydrobromate of iron, one grain of hydrobromate of quinine, with thirty minims of dilute hydrobromic acid. The dose is a teaspoonful or more in water.

CORRY'S RECARBONATED FLUID MAGNESIA: CORRY'S CONCENTRATED LEMON SYRUP.

A WINEGLASS of fluid magnesia in a tumbler of water, to which a teaspoonful or more of the lemon syrup is added, forms a very pleasant and reliable effervescing saline aperient. It is a good way of giving "medicine" to children, and has many advantages over the old-fashioned powder. Messrs. Newbery and Son are the London agents.

WRIGHT'S LIQUOR CARBONIS DETERGENS.

THIS is by no means a new preparation; for it has been in extensive use for many years. It is an alcoholic solution of coal-tar, and is a disinfectant of considerable value. Medicinally, it is often used for the destruction of pediculi, and as an external application in eczema, psoriasis, and other skin-diseases.

LEHMANN'S UNSWEETENED SWISS MILK.

THIS is a convenient preparation: for, when diluted with an equal quantity of water, it makes a rich cream; whilst, if four parts of water be added, the result closely resembles milk. It is quite free from added sugar, and will be found useful in the nursery when ordinary Swiss milk disagrees.

MILK-FOOD FOR CHILDREN AND INVALIDS, PREPARED BY THE PURE FOOD COMPANY.

THIS food, although it contains a large proportion of milk, is not intended for infants. It is claimed for it that it is a complete food, representing the nitrogenous, fatty, saccharine, and mineral elements; and that it is thoroughly cooked. The directions for its preparation are simple enough. For children, one or two tablespoonfuls should be put in a basin and a little hot water added, stirring and pressing till the whole is dissolved, when more hot water is poured in, so as to make

it up to half a pint. It may be boiled for a few minutes, if preferred. For adults, from two to three tablespoonfuls should be used to the half-pint. We find that the food so prepared is palatable, is destitute of bitter or disagreeable taste, and is readily digested by children.

GARDNER'S SYRUP OF HYDRIODIC ACID.

ALTHOUGH very little is said about hydriodic acid in our text-books of materia medica, it is undoubtedly a valuable drug, and affords an admirable mode of administering iodine when it is desired to obtain its constitutional effects. It has of late been employed, with considerable success, in the treatment of asthma, bronchitis, and hay fever. It is frequently prepared, on a small scale, by the action of sulphuretted hydrogen on iodine mixed with water. When pure, it is a colourless, inexpirable, and uninflammable gas, having an odour not unlike hydrochloric acid. When dissolved in water, the solution is colourless, has a strong acid reaction, and a pungent styptic taste. When exposed to the air, it quickly decomposes the hydrogen, taking up oxygen to form water, and setting free the iodine, which imparts its characteristic colour to the fluid. It has been but little used in medicine, from the difficulty experienced in obtaining it in a stable form. This difficulty has at length been overcome; and we have received from Messrs. Allen and Hanburys a specimen of Gardner's syrup of hydriodic acid, which is all that could be desired. It is of a light straw colour, is free from smell, and has a sweet styptic taste, which is by no means disagreeable. Each fluid ounce contains forty minims of dilute hydriodic acid, equivalent to about six and a half grains of iodine, or eight and a half grains of iodide of potassium. The dose is from two to three teaspoonfuls in water, three times a day.

BENGER'S PREPARATIONS OF THE DIGESTIVE FERMENTS.

MESSRS. MOTTERSHEAD AND CO., of Manchester, have now for some time issued a series of preparations of the natural digestive ferments prepared by ingenious methods to fulfil the indications described by Dr. Roberts in his Lumleian lectures on the artificial digestion of food. Time and use have justified the claims put forward for these preparations. Dr. Roberts describes the liquor pancreaticus of Mr. Benger as being an almost faultless pharmaceutical preparation, in preparing which mechanical difficulties of manufacture have been overcome, so that it possesses the diastasic and protein properties of the pancreas in a highly concentrated degree. Dr. Saundby, of Birmingham, has recently borne practical testimony to the great therapeutical value of the peptonised milk gruel and beef tea prepared by means of this liquor pancreaticus, and sold, with full directions for use, by Messrs. Mottershead. With the aid of this liquor pancreaticus, peptonised milk, gruel, beef tea, soup, jellies, and blanc-manges may be prepared without difficulty, and according to the precise directions which are given. Food thus prepared is in a condition for rapid absorption, and by the use of these preparations nutrition is maintained, while the digestive powers are gradually restored. The latest of these preparations is a peptonised beef jelly, which contains much of the fibrine of the beef in an absorbable and partially digested state, and therefore has a superiority over the ordinary beef extracts. The self-digestive food for infants and invalids consists of wheaten flour carefully cooked, and impregnated with the digestive principles of the pancreas. When mixed with warm milk, the starch of the flour and the albuminoids of the flour and milk are acted upon by these trypic and diastasic properties of the pancreatic extract, and undergo solution, and are readily absorbed in the partially digested state. Such a preparation warmly recommends itself in conditions of defective digestive activity. In nothing is a high degree of pharmaceutical skill and special accuracy more needed than in the preparation of these peptonised foods, and it is satisfactory to have the assurance of Dr. Roberts that these qualifications have been adequately brought to bear in the preparation of Benger's products.

THE Corporation of Wells has approved of plans for new sewage works. Application is to be made to the Local Government Board for a loan of £5,000 to carry them out.

SMALL-POX IN THE UNITED STATES.—It is estimated that 15,000 cases of small-pox came to the notice of the authorities in the United States during 1881, and that of these over 4,000 persons succumbed to the disease. Bearing in mind that the epidemic tendency of the disease has not subsided, more stringent measures seem called for than the establishment of quarantine stations. The present moment seems opportune for the introduction of a compulsory system of vaccination in the States, though it may be doubted whether united action is possible in view of the legislative peculiarities of the country.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1882.

SUBSCRIPTIONS to the Association for 1882 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, APRIL 1ST, 1882.

THE PROMOTION AND PROTECTION OF MEDICAL RESEARCH.

THE important meeting of leaders of the medical profession which was held at the College of Physicians on Tuesday last, and of which a report appears in another column, is an event of signal importance, and one which will, we hope, be memorable in the history of medicine in this country. It cannot be said that it is premature. For several years now, medical men, and especially those who have engaged in scientific medical research, on which the progress of medicine largely depends, have been subject to public obloquy and unmeasured abuse by persons, many of whom have a social position and a degree of general culture and literary influence which have given importance to their attitude and to their language. It has of late been persistently, loudly, and violently asserted that the practical progress of the healing art is little advanced by experiment upon animals; the noisy declamations of a few persons who possess medical degrees have been accepted as, in some way, representing the general voice of the profession, or, at any rate, of a large section of it. Publicists of high repute, lawyers, military men, peers, poets, and politicians have been drawn in to swell the army enlisted for the crusade against that which all reasonable and educated men well know, and are profoundly convinced by their knowledge, their experience, and their daily observation, to have been the basis of the greatest advances of medicine in the past, and to be the surest foundation for its future progress. The existing law imposes restraints upon investigation which have been felt to be irksome, and even destructive of the necessary freedom of research, mainly because the working of the law has been rendered unnecessarily cumbrous and obstructive. This is partly due to misconceptions in the minds of some of the officials with whom its administration rests, and partly, it is presumable, to the impression that public sentiment would approve a very restrictive interpretation of the action of the law. However this may be, there can be no doubt that the need for the formation of an association specially destined to protect those engaged in physiological and medical research from public obloquy and undue obstruction, was made plainly evident by the circumstances of the prosecution of Dr. Ferrier. The British Medical Association stepped in to throw its shield over that eminent physician, and to protect him from the unjust attack made upon him. Its action was fully endorsed by the whole profession, and accepted as just and useful by the public. But from that moment it was felt that some public, universal, and powerful protest from the combined universities, corporations, and scientific societies was needed against such a course of action and such an organisation of public opinion as lay at the bottom of that most painful proceeding. Many voluntary offers were addressed to this JOURNAL on that occasion from individuals, and it was proposed to raise a fund and organise an association for the purpose. Out of these proposals, from the letter of Dr. Wilks, and from the action then taken in connection with these letters by Dr. Pye-Smith and Dr. Lauder Brunton and others, this association has arisen, with the aid and under the guidance of the recognised leaders of the profession. With excellent judgment, great prudence, and much deliberation, it has been so organised as to

include representatives of all the great societies and associations throughout the United Kingdom, and of the friends and leaders of science generally. A full representation has been given to our own British Medical Association; and it is intended and desired by those who have organised this association, that it shall always carry with it not only the whole force of the united medical profession in the three kingdoms, but also that of the associated societies connected with biological science outside the pale of the profession. The presence of the President of the Royal Society, of the Master of the Rolls, of Sir John Lubbock, of Professor Tyndall, the adhesion of other names eminent in science and in politics, and especially of that most kindly, venerable, and illustrious biologist, Charles Darwin, afford an ample guarantee that this association will be conducted with that full recognition of all the social and humanitarian sides of the question, as well as of the claims of society that the progress of knowledge in directions calculated to increase the power of relieving human suffering shall be aided, and not scorned and flouted as they have been in the last few years. The speeches speak for themselves, as do the names of those who took part in the meeting. It is unnecessary for us to do more than call the earnest attention of all our associates to this most interesting and important meeting, and to express the firm conviction that the association as a whole, and the members of it individually, will be ready to act under the banner of the distinguished body of leaders who are here banded together in advancing the joint interests of science and humanity, by protecting and promoting research on subjects connected with our knowledge of life and our powers of diagnosing and treating disease.

THE LATE COMPETITIVE EXAMINATION FOR COMMISSIONS IN THE ARMY MEDICAL DEPARTMENT.

THE fact that more than sixty surgeons competed for fifteen vacancies at the recent competition for commissions in the Army Medical Department continues to attract attention. The Secretary for War, Mr. Childers, was, a few evenings since, asked a question in the House of Commons, on the small number of appointments offered for competition; and various letters and comments on the subject have appeared in the columns of our military contemporaries. It does not appear to us that there is any real ground for astonishment either in the circumstance of the large number of competitors who appeared on the occasion, or in that of the relative fewness of the appointments placed at their disposal. Ever since the publication of the last Army Medical Warrant, the number of candidates for commissions who have presented themselves at the competitive examinations has been very large; but, as the commissions conferred by the War Department have also been numerous in proportion, general notice has not been called to the occurrence. The large gaps which existed a few years ago in the ranks of the medical service of the army have thus been filled up, and only the vacancies from the current casualties have now to be provided for. This, perhaps, has not been sufficiently considered. The more satisfied tone which prevails among the army medical officers, the improved rates of pay and allowances in case of sickness or injury conferred by the last warrant, the prospects of constant remunerative employment, and the opportunities of taking early retirement if wished for, have produced, and are still producing, their natural results. The Army Medical Department has become popular as a service; and it manifestly now wholly depends upon the manner in which it is ruled, and dealt with, by the authorities in whose hands its management is placed, how long this popularity shall continue.

One of the subjects of complaint with regard to the recent competition is, that no public announcement was made of so limited a number of appointments being available for distribution. It is also stated that the physical examination of the candidates was held several days prior to the professional competitive examination; and that, as a consequence, all who were not habitually residing in London—and many had come from long distances, even from remote parts of Scotland and Ireland—were subjected to needless detention and expense. There seems to be a good deal of reason for dissatisfaction under these heads. It is mortifying enough to a candidate to fail in obtaining a place for which he has competed after a long preparation, without the additional discomfiture of discovering only at the end of the struggle that the number of vacancies to be filled up has been far less in number than he had been led to believe them to be; and of feeling, at the same time, that some of the outlay he had expended in making the effort might easily have been avoided by better management on the part of those who had conducted the competition. The professional part of the competition might surely be immediately preceded by the inquiry into the physical fitness of the candidates for public service. A single day before the commencement of the competitive examination would suffice for the physical tests, and all ground of complaint on this head would then disappear. Neither does there seem to be any real difficulty in removing the grievance as to the secrecy maintained, concerning the number of appointments intended to be conferred at each competition. The numbers of vacancies to be competed for in the medical services of the Royal Navy and Indian Army are always advertised a long time prior to the date of the examination. It was announced, long before the late competition, that there were only six appointments to be made in the Naval Medical Service; and although, at the examination, twenty-one candidates proved themselves to be qualified for receiving commissions, the original number of six appointments was strictly adhered to. No dissatisfaction has been expressed on this subject; for no sense of unfairness has been felt by those who presented themselves for this branch of the service, knowing, as they did, the number of appointments open to them at starting. It cannot be expected that the heads of the Army Medical Department can be aware of the precise number of vacancies until close upon the time when the competition is to commence. Casualties in the ranks of the department may take place at any moment; and many that occur in remote stations cannot be officially known at head-quarters until long after their occurrence. Neither can it be expected that those who are charged with the management of the funds allotted to the War Department will run a risk of issuing more commissions than are actually required to meet the wants of the public service. But, whatever uncertainties may spring from these considerations, similar sources of doubt must exist in the other branches of the public service, in the Indian Army and in the Royal Navy; and in these branches the numbers of commissions available for competition are always, as before mentioned, previously announced. An approximate number of vacancies to be filled up, it is presumed, is agreed upon and published; and should circumstances arise to cause a deviation from it to be necessary at the last moment —a most improbable event—a simple explanation would put the matter right with those interested. It was evidently known beforehand, as regards the recent competition for vacancies in the Army Medical Department, that there would be very few indeed to be filled up; for the Secretary for War stated, in the House of Commons, in reply to Mr. Gibson, that there were actually no vacancies in the department at the end of December last, owing to a considerable reduction of the British medical establishment in India; so that thirty medical officers who had been struck off the roster at home for service in that country were no longer required there. The number of surgeons available for general duties thus became suddenly increased in proportion. There is every reason for believing that, if the young surgeons who contested in the late competition for commissions had not been misled by vague and unreliable reports into an expectation of a greater number of appointments being forthcoming, had the true number been published previously to the examination, some who came from Ireland and Scotland would not have been present to undergo the ordeal. The loss of time, and the expenses entailed by the journey, sometimes falling on parents who could ill afford them, would have deterred those especially who were not very confident of success in obtaining a prize where there were likely to be so many blanks. We believe we are right in saying that Colonel Stanley, when Secretary of State for War, gave a distinct promise in the House of Commons that the number of vacancies to

be competed for in the Army Medical Department should always be published beforehand. It may have been regarded as a matter of policy not to announce the number of surgeons wanted when the service was unattractive, and few cared to come forward as candidates for appointments in it; but this condition of things is altered now. The present advantages of medical employment in the army are generally known; and no good reason, that we are aware of, can be alleged for withholding the required information on the subject. We know that the fact of the number of vacancies in the Army Medical Department not having been published beforehand on the occasion of the late competition, as was done in the Naval and Indian branches of the service, has given rise to a vast amount of irritation and disappointment; and, in the interests of the department itself, as well as out of consideration for candidates and their relatives, we are led to express a hope that this cause of complaint may be avoided in future.

THE SALE OF POISONS.

THE unusual prominence given to the sale of poisons by the facts revealed by the recent trial of Lamson demands more than a passing notice. The jury at the Old Bailey made a presentment to the presiding judge, which was forwarded to the Home Secretary, that received the attention of Sir William Harcourt; for a circular letter has been addressed to various public bodies, inviting them to express their views as to the sufficiency or insufficiency of existing statutes regulating the sale of poisons. The public expects that something will be done in the matter by the Home Secretary; and no doubt something ought to be done, either by way of enforcing existing legislative enactments, or by way of amending the law.

Nevertheless, it is anticipated that an attempt will be made to snub the Home Secretary, by informing him that the Sale of Poisons Act, usually known as the Pharmacy Act, 1868, vests all powers relating to the sale of poisons, not, as before, in a Secretary of State, but in the Privy Council. We anticipate, however, that the Home Secretary will not be deterred by receiving this information from those interested in the sale of poisons. He has an important function to perform when he finds that the public safety is endangered by careless sale; and, although he may now have no direct power to interfere in the matter, yet, if such power be needed to protect the public, there is no doubt that the law will be altered to meet the difficulty. It would be monstrous to assume that any technical difficulty of that sort—any jealousy of departments—will be allowed to frustrate an effort to secure the safety of the public.

Before entering upon the discussion of the questions as to the sufficiency or insufficiency of the existing law to protect the public, it will be well to inquire as to what is the present state of the law, and how it is carried out, and whether its provisions are neglected. Much ignorance is often displayed by medical men—even those holding official positions—as to the law regulating the sale of poisons; and even pharmaceutical chemists, and chemists and druggists, who are supposed to be familiar with the matter, are sometimes at fault.

The statute 31 and 32 Vic., cap. 121, cited as "The Pharmacy Act, 1868", and headed "An Act to regulate the Sale of Poisons, and alter and amend the Pharmacy Act, 1852", is the statute which regulates the sale of poisons. Its preamble, beginning thus: "Whereas it is expedient for the safety of the public", lays down the principle of the Act; the safety of the public is the sole thing contemplated by the Act, and to this all else is subsidiary. We wish we could add that those who have been concerned in the administration of the statute in question had always had clearly before their eyes the safety of the public, and made all other interests subsidiary to this. In carrying out the object thus specified, provision is made to secure the qualification and registration of persons selling or compounding poisons; and the several articles which shall be deemed to be poisons are named or described in the Schedule (A) of the Act. The Council of the Pharmaceutical Society may also, from time to time, add to the list of poisons in this schedule, with the approval of the Privy Council. It must be clearly understood that for anyone but a registered chemist and druggist to retail or compound any poison in the schedule is a misdemeanour, and punishable as such. At the present time, the Council of the Pharmaceutical Society has declared that certain articles, including the ordinary mineral acids, ought to be deemed poisons within the meaning of the Act; but the Privy Council has, perhaps wisely, or it may be unwisely, as yet not acceded to the demands of the Council.

The rights of certain persons are, however, reserved; and the statute enacts that "nothing hereinbefore contained shall extend to or interfere with the business of any legally qualified apothecary or of any Member of the Royal College of Veterinary Surgeons of Great Britain, nor with the making or dealing in patent medicines, nor with the business of wholesale dealers in supplying poisons in the ordinary course of wholesale dealing." A wide door is here opened. *Bonâ fide* wholesale dealing—*e. g.*, the supply of strychnine by the pound—is not touched by the Act. The admissibility of the use of scheduled poisons —*e. g.*, chloral-hydrate—in patent medicines, without conformity to the supposed provisions of the Act, is still a matter of dispute; and a case of the vending of Hunter's syrup of chloral-hydrate is still before the law courts. What constitutes interference with the business of an apothecary is a still greater unsolved mystery. Apparently, the provision applies solely to the licentiates of the Apothecaries' Company; and they, and they only, are to be allowed unlimited access to poisons sold by retail.

The Schedule (A) of the Act referred to places poisons in two classes. Those of the first class (Part 1 of the Schedule) may be spoken of as deadly or potent poisons; and it is unlawful to sell any poison named in this first part of the schedule to any person unknown to the seller, unless introduced by some person known to the seller; and on such sale an official entry of the transaction must be entered in a book, and the entry is to be signed by the purchaser. Any poison, in whichever part of the schedule it may be contained, and whether sold by wholesale or retail, is to be labelled with the name of the article and the word "poison", and the name and address of the seller. This is a provision which is very frequently neglected in wholesale dealing, when the articles are supplied to those who are acquainted with their nature and uses. A special Act deals with the sale of arsenic.

We believe the Act to be a good one; and, with a few alterations, it might, with efficient carrying out, fulfil every useful function. Cases of infringement of its provisions should be visited most rigorously by prosecution at the hands of some person, or body of persons, not interested in the sale of poisons; and it would be well for the Government to consider whether the police, under the direction of the Public Prosecutor, cannot do something for the more effectual carrying out of the Act. In this respect, the Home Secretary may do useful service.

Manifestly the Statute is deficient in this respect, that it gives no definition of what constitutes a wholesale transaction. Even pharmaceutical chemists differ as to what is, and what constitutes, this transaction. But, whatever may be the particular view held as to what constitutes a wholesale transaction, there can be, we conceive, none as to the meaning of the 17th Section of the Act, which states, that it shall be unlawful to sell any poison, *either by wholesale or by retail*, unless marked "poison". To illustrate how the Act is carried out, we may remark that we ourselves are in the habit of purchasing chloroform wholesale from two firms. One of these conscientiously labels our supply "poison"; the other always serves it unlabelled. Again: the same section prohibits the sale of deadly poisons—those in the first part of the schedule—to any person unknown to the seller, unless introduced by some person known to the seller, and without a record being entered in the sale of poisons book. The reservation in the previous (16th) section of the Act, that nothing *hereinbefore* contained in the Act shall extend to, or interfere with, the business of wholesale dealers in supplying poisons, has clearly no bearing upon the 17th Section. It is, therefore, astounding to read, in the case of the Lamson trial, that two of Messrs. Allen and Hanburys' assistants stated that the fact that Lamson was, or was assumed to be, a medical man, and

purchased two grains of aconitine—termed a wholesale transaction—though the buyer was personally unknown to the seller, rendered compliance with this section unnecessary. This 17th Section applies, as we believe, to every sale of poison, wholesale or retail, and by whomsoever the sale is made, be he medical man or not. This is a point which ought not to be left untested; and the question should certainly be raised, and determined by our law courts, before fresh legislation is demanded.

To our minds, the present statutory powers are ample, if only properly enforced; and at present they cannot be said to be enforced with any degree of rigour. It is hopeless to prevent access to poisons by the public; the use of these articles for legitimate purposes is too universal to permit of this; and anything which would prevent medical men from obtaining them, when needed for curative purposes, would be deplorable. Nothing whatever can prevent, now and then, some reprobate of our profession—or, indeed, of any other profession—from misusing his special knowledge for the purposes of crime. All that can be done is to prevent accdient by the careless use of poisons, and to provide for a ready and effective way of tracing the purchase of poisons by those who are entitled to use them in a legitimate way; and thus to put a check upon their improper use for criminal purposes. In the present agitated state of the public mind as to the sale of poisons, the medical profession must be careful to see that their interests, and those of the community at large, are not unduly interfered with; and, on the other hand, it behoves us to use our best endeavours to secure the more efficient administration of the existing law. If this be done, Percy Malcolm John will not have died in vain.

POST MORTEM EXAMINATIONS.

THE importance of making inspection after death of persons dying in hospitals from disease is so palpable, to the unlearned as well as to the learned, that it is always greatly to be regretted when any circumstance occurs which can arouse prejudice in respect to it. Our hospital authorities are always rather overanxious than otherwise to consult the feelings of relatives in respect to such *post mortem* examinations, and in this they show a wise deference to sentiment.

The law on this subject is to be found in "An Act for Regulating Schools of Anatomy", passed in 1832, which, among other enactments, provides that the executor or other person having lawful possession of a corpse, and who is not merely entrusted with it for interment only, may permit the same to undergo anatomical examination, unless, to the knowledge of such executor or other party, the deceased shall have expressed his desire to the contrary, in writing or verbally, in the presence of two or more witnesses, during the illness of which he died; or unless the surviving husband, or wife, or other known relative of the deceased person shall require the body to be buried without such examination. The secretary or resident house-surgeon, therefore, or other officer in a hospital having the legal custody of a dead body, may, subject to the objections before mentioned, allow a *post mortem* or anatomical examination of it to be made by a medical man.

An important case on this subject was brought before the notice of Mr. Flowers, the magistrate at Bow Street, on the 18th instant, by a Mrs. Maddocks, who complained that such an examination had been held on the body of her child without her consent, at the Hospital for Sick Children in Great Ormond Street. It appears from her statement that she took her infant to this institution at nine o'clock in the morning of the 7th instant, and stayed with it until noon, when she had to leave to attend to her work. On account of some misunderstanding between her and the porter, she was unable to see her child between six and seven the same evening, but was told by a "sister" that the infant had died at twenty minutes to one o'clock. Upon calling the next day between twelve and one o'clock, she was informed that, as the doctor was engaged, she could not see the body. Upon looking at it some hours subsequently, she found that it had been cut open, and that all the hair of its head had been cut off; and said that the child had been subjected to this treatment without her consent. According to the evidence of a gentleman from the hospital, the committee of the board had instructed him to hand a written statement to the magistrate, to show that the infant was dying when admitted to the hospital; and the non-permission for the mother to see it was owing to a misunderstanding of the name by the porter. The witness further said that, upon her being informed of the death of the child, the "sister" offered to take its body to the mortuary, but the mother objected to this under the advice of a friend. The refusal to allow her to see the body, the second time she called, was because the doctor was engaged in its examination, which was twenty-six hours after death, thinking that the mother had been informed of it, and that it was the general practice to make such examination unless the parents of a child objected to the same. It was also said that it was necessary to make this examination, as the medical officer could not otherwise have any certain opinion of the cause of the infant's death, and therefore would have been unable to give the necessary certificate.

In his remarks upon this case, Mr. Flowers said that, if it were generally necessary to examine a corpse before giving a certificate of death, he scarcely thought that such a course should be adopted without consulting the parents, and added that, as it was not suggested in this case that the body had been dissected, but only subjected to a *post mortem* examination without the mother's consent, the only question was whether this proceeding was legal; and that, while he thought he could not interfere criminally, he would not say that it was not a case for a civil action, and concluded by suggesting to the applicant, who wished to make a reply to the explanation, that she should communicate the entire facts in a formal information, and he would reconsider the case.

Now, with all due respect to the observations of the magistrate, we are of opinion, after a careful reading of the before-mentioned statute, and the case of "Regina *v.* Feist", which came before the Court for the consideration of Crown Cases Reserved in 1858, respecting the anatomical examination of the body of an inmate of a workhouse by the implied permission of the master of the establishment without the assent of any of the relatives of the deceased, that the *post mortem* examination of Mrs. Maddock's infant was quite lawful under the circumstances under which it was made, provided the consent of the officer having legal possession of it was obtained for making it; and we need scarcely say that, if an examination of this kind were decided to be otherwise by an appellate court, such a judgment would be very injurious to the progress of the healing art and the interests of the people generally, as, we repeat, it is most essential that every due facility should be given for the necropsy of corpses when deemed necessary.

WE are informed that the sum to be received by the National Consumption Hospital, Ventnor, under the will of Mr. Jones, is less than that reported to us, and will probably not exceed £50,000.

HIS Royal Highness the Duke of Connaught has signified his intention to patronise an Exhibition of Means and Appliances for the Protection and Preservation of Human Life, to be held at the Alexandra Palace in June.

ON Tuesday last, Mr. Bartleet ligatured the external iliac artery in a case of aneurysm of the femoral artery, either above or just at the point of division. The ligature used was catgut, prepared in the way recently described by Professor Lister, and kindly supplied by him for this operation. The operation was performed antiseptically.

M. SCHLAGDENHAUFFEN of Nancy has studied the seed of an African plant known by the name of la pola. Its cotyledons contain caffeine and tannin. The Arabs use it to improve impure water. M. Schlagdenhauffen, in a note from him read at a meeting of the Académie des Sciences, stated that he considers la pola may rank in utility with tea and coffee.

THE Queen has been pleased to approve of the appointment of Mr. E. Ray Lankester, M.A., F.R.S., to the Chair of Natural History in the University of Edinburgh, in the room of the late Sir Wyville Thomson, LL.D. This Chair has been described as the "blue riband" of zoology. It is the most highly remunerated, and the class is the largest in Great Britain. Professor Lankester owes his appointment entirely to the irresistible claims of his scientific achievements and reputation at home and abroad. There are many old friends of the late Coroner for Central Middlesex who will rejoice at the high position which his son has attained in a department of zoological science which the father cultivated with much success, while retaining his direct connection with the medical profession.

NOTIFICATION OF INFECTIOUS DISEASES.

IN an excellent letter to the *Times*, Dr. Alfred Carpenter deals with the subject of the notification of infectious disease, and the injustice of requiring the medical man to give, under compulsion, such notification to the sanitary authorities. We shall again refer to this subject; meantime, we may say that the Parliamentary Bills Committee is about to arrange for a conference of the provincial and metropolitan members of the Association and others, at which the increasing objection which is evidently felt by a large number to any form of compulsion whatever, in connection with the notification of disease, may be fully discussed. Dr. Carpenter writes: "It is absolutely necessary to have the assistance of the medical profession in procuring the repression of infectious disease, but it is not be obtained by preventing a certain class of people from consulting the doctor at all; it will defeat its own object unless the doctor is made the ally of the law. This alliance will be best brought about by giving the patient, or rather the person in charge, a right to request the assistance of the doctor in making the disclosure, and thus relieving the former of the responsibility and the expense. The doctor then becomes the agent of his patient in making the disclosure; while, if the latter does not do this, and the doctor becomes aware that the householder is disobeying the law, he will be very earnest in urging upon him the duty of preventing the spread of the disease to other people. The penal enactment against the doctor may be beneficial in certain cases; but it will lead to injustice to a noble profession, and will fail to effect its object. The result cannot be obtained unless the goodwill of the profession goes with it; and I respectfully ask that the one barrel may be tried before the other be pointed in the same direction."

OFFICIAL ANALYSTS.

THE reply of the Home Secretary to Mr. St. Aubyn in the House of Commons on Monday last, is not altogether reassuring. Hitherto, it has been customary for the Home Office to depute analysis in suspected cases of poisoning to one analyst; and, since the retirement of the late Dr. A. S. Taylor in 1870, Dr. Stevenson has usually been the analyst selected. In the Lamson case, this gentleman applied for, and obtained, the assistance of a second expert; and the profession has to thank Dr. Stevenson for having thus endeavoured to create a precedent for the appointment of two analysts in all difficult cases. In the future, this is to be changed. There are to be two official analysts, it is true, but their appointment is to be a yearly one, and they are to be nominated by the Presidents of the Royal Colleges of Physicians and Surgeons for the time being. There are, however, but few men competent to conduct all the pathological examinations, chemical analyses, and physiological investigations, necessary to a successful toxicological investigation. No doubt the two Presidents of the Royal Colleges will nominate persons of high reputation to the posts of analyst; and it may be expected that, having once made the appointment, the public safety may not be endangered by capricious changes, and the possible introduction of such untried men as may happen to have influence in high places, and a hankering to cultivate practice in the courts of justice. In making his announcement, the Home Secretary, we are glad to observe, expressed his entire satisfaction with the ability and impartiality of the persons hitherto employed by the Home Office. The late Dr. Alfred Swaine Taylor enjoyed a justly high, and indeed an European reputation; and Dr. Stevenson's appearances as his successor, and notably in the Lamson trial, have been such as to earn confidence and admiration from counsel on both sides, and from the bench, for his moderation and sense of justice, no less than his scientific skill.

THE INTERNATIONAL MEDICAL CONGRESS.

MR. BARRAUD of Gloucester Place has just completed his great portrait picture commemorative of the International Congress of 1881. This remarkable effort of photographic portraiture includes in one picture 684 portraits of members of the Congress. The portraits are all taken from life, and were taken specially for this purpose. The popular size of the picture is 29 by 20 inches, and an extra size 47 by 30 inches; thus some idea may be formed of the importance and interest; and this is the most remarkable collection of portraits which has, we believe, ever been brought together in one plate. The work has been executed with very great skill and success. There is not one portrait among the many hundreds of persons whom we can recognise that may not be pronounced a good likeness, and some of the portraits are certainly strikingly good; especially may be noticed for their life-like character the portraits of Owen, Spence, Struthers, Charcot, Savory, Bucknill, Lister, Donders, Hebra, Andrew Clark, Billings, Virchow, Sir W. Mac Cormac, Bigelow, Esmarch, Langenbeck, Sir James Paget, Sir George Burrows, Sayre, Spencer Wells, Grainger Stewart, Sir William Muir, John Simon, Sir Henry Thompson, and Austin Flint. We have no doubt that a very large proportion of the members of the profession will be tempted to possess themselves of this interesting commemorative picture.

THE CONSTITUTION OF THE NEW ASSOCIATION FOR THE PROMOTION OF RESEARCH.

WE have referred elsewhere to the great importance of the new Association for the Protection and Promotion of Medical Research. We cannot, however, omit to say a word as to the peculiarity of its constitution. No doubt there are special circumstances connected with the very delicate nature of the subjects which will have to be handled, and the necessity for extreme prudence, which called for great care in the constitution of this new Association. In one respect, it is eminently and highly representative; it includes the heads of the great medical universities and associations throughout the country. There is, however, a failure to recognise the real value of representative and elective principles, and the right of the great body of general practitioners to have a share in the government as well as in the membership of the professional bodies of which they are, or are expected to form, a part; and we should be false to the principles which we hold to be of the highest value in the construction of all such Associations, if we failed to notice it. In our opinion, this constituton is defective in assigning to the presidents of two special bodies—the College of Surgeons and the College of Physicians—the duty of nominating the twenty-four other members of Council besides its *ex officio* members. Strangely enough, the propriety of making such members of Council representative is recognised in the fact that they are described as twenty-four "representative members". This is, however, a curious misnomer, as they are in fact twenty-four nominated members, and members not even nominated by the whole of the Council, but nominated by the two alternating presidents. That this discretion will be exercised wisely, we do not for a moment doubt; but we cannot but think that it would be wise, at an early stage of the existence of the Association, to modify this power of nomination, and to give to the Council the right of at least nominating one-half of these twenty-four members, and to give the members of the Association at large the power of electing or not electing them when so nominated. We do not recall any instance in which a nominated list has not been accepted by its members, and we see no reason to doubt that this Association will be any exception to it. But in the present constitu-

tion of this Association there is not that recognition of the profound interest in this question of the great body of general practitioners which we think it would be at once wise, graceful, and just to afford. Nor can we think that it will be difficult to devise a plan by which such recognition of representative principle, and of the right of members of an association to elect some part of its executive body, should be recognised in an entirely unexceptionable manner. It must be expected that means will be taken to add to the Council a just proportion of general practitioners and of professional practitioners; but the constitution of the Council as presented does not afford such a representation of the general body of the profession, or such recognition of the elective and representative element, as we think every association, and especially every medical association, ought to possess. The defect is one which is by no means incapable of remedy, and no doubt means will be taken for perfecting the constitution of an Association which we cannot but regard as one of the most important and one of the most useful and well-devised that has for a long time been suggested or brought into operation in connection with our profession.

A TEST OF CIVILISATION.

LORD DERBY, on Saturday, in opening the new hospital at Bury, which has been erected at a cost of £13,000, pointed out that, although a man ought to lay by something for unforeseen difficulties, yet to say "if they could not pay to be looked after, let them die," was certainly not the feeling of Englishmen, still less of the medical profession. Hospitals were thus not only safeguards against bodily disease, but against the decay of patriotic feeling, and the antagonism of classes. Various tests have been proposed for indicating the progress of civilisation. That which Lord Derby initiated on the occasion of the opening of the Bury Hospital is an essentially nineteenth century test. "We recognise", he says, "the fact that there is no better test of a true civilisation of a country than its death-rate; and there is no such evidence, and at the same time no such cause, of true national well-being, as the health of the population." It has taken half a century for medical men to impress this view upon the minds of our statesmen; and it is to be feared that there are even yet only a few who recognise it as frankly and fully as it is stated here by Lord Derby.

SANITARY LEGISLATION THROUGH PRIVATE BILLS.

MR. SCLATER-BOOTH has been appointed Chairman of the Committee of Selection, whose duty it will be to report on any provisions in private Bills, promoted by municipal and other local authorities, by which it is proposed to create powers relating to police or sanitary regulations which deviate from, or are in extension of, or repugnant to, the general law. It was while Mr. Sclater-Booth held the reins of the Local Government Board that the Public Health Act of 1875 passed into law, and the new system of local tinkering of general enactments began; so that he may be expected to bring much valuable experience to the help of the committee, and to guide its investigations into proper channels.

THE LIVERPOOL LYING-IN HOSPITAL.

A SPECIAL and adjourned meeting of the Liverpool Lying-in Hospital was held at the Town Hall, Liverpool, on March 27th, to consider a proposal which had been brought forward by the committee at the annual meeting in February last. The committee had recommended that the hospital should be converted from a lying-in to a special hospital for diseases of women. The subscribers appointed a subcommittee of delegates to confer with the committee and the ladies' committee, and to seek such further information as might be useful with reference to such a serious change. This they did, and presented their report to the subscribers on March 27th. They stated that they were of opinion that the hospital should continue to be carried on as a lying-in hospital, the purpose for which it had been founded. In support of this, they referred to the fact that the maternal mortality in the Liverpool Workhouse during the past six years had only been 3.2 per 1,000, including one case from fever. The subscribers, after some discussion, rejected the proposal of the committee to change the constitution of the hospital, and adopted the report of the delegates. The hospital has, therefore, been saved to the town of Liverpool as a lying-in institution. We congratulate the subscribers upon the decision at which they have arrived. Lying-in hospitals have proved an incalculable boon to large numbers of poor women who cannot be delivered at their own homes, and who yet shrink from the social stigma of entering the workhouse. No doubt the new committee of the Liverpool Lying-in Hospital will energetically set to work to bring the hospital up to the level of the obstetric knowledge of the day. When this is done, there can be no doubt that the institution will again take its place among the well managed and successful hospitals of its kind.

THE UNIVERSITY OF LONDON.

AT a meeting of the Senate on Wednesday, the 29th instant, Dr. George Buchanan took his seat as a member, in the room of the late Dr. Billings, who was one of the members named in the original charter. At the same meeting, Mr. F. V. Dickins was appointed to the office of Assistant-Registrar, in the room of Mr. Arthur Moseley. Mr. Dickins is a Bachelor of Medicine and also a Bachelor of Science of the University. He is a barrister-at-law, and an accomplished linguist. The appointment can scarcely fail to be gratifying to the graduates, inasmuch as that this is the first occasion upon which an office of importance and emolument in the University has been conferred on one of their own body.

THE GERMAN MEDICAL CONGRESS.

THE programme of this Congress, which will meet at Weisbaden on April 20th, 21st, and 22nd, has been issued. A reception of members will take place on the 19th, at 8 P.M. On the 20th, at 10 A.M., the Congress will be opened by Professor Frerichs of Berlin; after which a report on the Pathology of Bright's Disease will be read by Dr. Leyden of Berlin, and Dr. Rosenstein of Leiden; and a discussion will follow. The time after this until 1 P.M. will be occupied with the reading of papers; and the afternoon from 3 to 5 will be devoted to papers and demonstrations. On the 21st, the morning meeting will be held from 9 to 12. The subject for discussion will be the Antipyretic Method of Treatment, reported on by Dr. Liebermeister of Tübingen, and Dr. Riess of Berlin; after which, and also from 2 to 4 P.M., papers will be read and specimens exhibited. The meeting on the 22nd will be for business purposes—the organisation of the Congress, adoption of rules, etc. The charge for membership is fifteen marks. The Committee of Arrangement consists of Drs. Gerhardt of Würzburg, Kussmaul of Strasburg, Leyden of Berlin, and Seitz of Wiesbaden; to the last-named of whom communications are to be sent.

MANSLAUGHTER BY NEGLECT.

THE conviction in the case of "The Queen *v.* Morby", where Morby, one of the "Peculiar People", was charged with manslaughter, in feloniously causing the death of his child by neglecting to provide proper medical assistance, has been quashed by the Court for the Consideration of Crown Cases Reserved. Five judges concurred in the course now taken. It was not enough, they said, in order to sustain a conviction for manslaughter, to show a neglect of the legal duty; there must also be evidence to show that the neglect to take reasonable means to prolong life had the effect of shortening it. In this case (small-pox), two medical men saw the child during life; but Dr. Sharpe, who made a *post mortem* examination of the body, stated that the chances of the boy's life would have been increased by having medical advice; and that, in his judgment, if medical advice and assistance had been procured, death might have been averted altogether. He was unable to say that life would probably have been prolonged, because he did not see the child during life. It would be dangerous, the Court laid down, upon such evidence, to allow the conviction to be sustained. They must, before doing so, be satisfied by affirmative proof that the death was caused by the neglect; and, when all that a skilled and

competent witness, giving his evidence under a strong sense of responsibility, could say was, that "probably" it "might" have been so, the Court could not be so satisfied; and, therefore, the conviction could not be sustained. Notwithstanding that the conviction is quashed, and apparently because the death of the child destroyed all evidence of the particular offence having been committed, the prosecution will have had a salutary effect; and none the less because Mr. Justice Stephen remarked that it was probable that there was an offence, under the statute, in not providing medical aid.

SEATS FOR SALESWOMEN.

THE question of seats for saleswomen in linendrapers' and other shops has been agitated more than once in this country, but up to the present time without any practical effect. We note that the Americans, with their rapid method of obtaining results, have proceeded further in this matter than ourselves, and that, in New York State, there is a law requiring employers to provide seats for their saleswomen to use, when not engaged with customers. Further, we learn from the *Philadelphia Medical Times* that proceedings have been taken against seven prominent firms to enforce the law. It might be worth the while of the association which is taking this question in hand in England to procure a copy of this law, and see how far its provisions are applicable to the alleviation of an acknowledged evil, for which no remedy has yet been found in this country.

SUPERNUMERARY FINGERS AND TOES.

In the recently published volume of the *Guy's Hospital Reports*, Mr. Clement Lucas gives the history of a family in which there exists a remarkable tendency to the development of supernumerary digits. He traces the abnormality through five generations, to the maternal great-grandmother of the man whose children were brought for treatment. The tendency was transmitted, without rule, through both males and females. Altogether, the great-great-grandmother was responsible for abnormalities occurring in twenty-four persons out of a total of eighty descendants, or 30 per cent of those carrying her blood. The persistency with which this deformity has asserted itself is very remarkable, when it is considered how many times the blood must have been diluted by marriage. The paper is illustrated by a genealogical tree; and the author, thinking that other observers may meet with different members of the same family, gives the names of those whose descendants have incurred a liability to this excess in development.

DEFENCE ANALYSTS.

THE refusal of the Home Secretary to permit a third analyst to be present on behalf of the defence during the analysis of the viscera of Percy Malcolm John, has elicited adverse comments in the public press. The reply of the Home Secretary to Lamson's solicitor, stating that the application must be refused, as it was contrary to precedent, is of course indefensible. The refusal might, however, have been made on other and better grounds. The right course was pursued of having a second analyst present in a case of such a serious nature. In his evidence, Dr. Stevenson stated that it was at his request that Dr. Dupré was appointed to assist. Both of these gentlemen were in the position of independent experts appointed by the Home Office, at the request of the coroner, to assist in the determination of the cause of death; and they were not responsible to the actual prosecuting authority, viz., the Treasury. It was not until nearly a week after the analyses were entrusted to Dr. Stevenson, that application was made for the presence of a third analyst on Lamson's behalf. By this time, the analyses must have been well in hand; and we fail to see what good result could have ensued from the presence of a gentleman responsible only to his employer, the prisoner. Were the rule introduced of having an analyst present on behalf of the defence, grave results might ensue, and the public interests would not be subserved by the change. The third party would usually be introduced at a late stage in the analysis; he could have no voice in, or control of, the analyses; his objections might or might not have weight with the official analysts. Moreover, it would be practically impossible to secure the collective attendance of three analysts eminent in their profession day by day for perhaps two or three weeks. The semblance of injustice done to Lamson by the refusal of the Home Secretary was, we believe, a semblance only; though we must admit that the refusal was made on quite insufficient and erroneous grounds.

TESTING A DOCTOR'S CERTIFICATE.

AN inquest was recently held at Church Coppenhall, Cheshire, touching the death of a girl named Mary Owen, aged 15, the daughter of a labouring man. Mr. Vaughan of Haslington had been attending the deceased for twelve months previously to her death, and had given a certificate ascribing death to epilepsy, hysteria, and cerebral congestion; but the circumstances came to the knowledge of the police, the case was represented to the coroner as "suspicious", and that gentleman ordered a *post mortem* examination by another medical man. Mr. Vaughan was not present at the inquest, it being said that he was not cognisant of the matter. The mother of the deceased girl said her daughter had been attended by Mr. Vaughan for the past twelve or eighteen months. She had been subject to violent fits, which occurred every Wednesday morning at 10.30. Lately the doctor had been trying to avert them, and had given her medicine to take every Tuesday evening on going to bed. During the past six weeks, she had had only one fit, and she thought the deceased was beginning to get better of them. She took her to the doctor's surgery on the previous Tuesday, and he refilled the old bottle, saying it was the same kind of medicine, and must be taken as before. The medicine was taken at bedtime as usual, but about half-an-hour afterwards, deceased became very violent, knocking her head against the wall, and talking childishly. She stayed up with her till half-past three o'clock in the morning, when the deceased lapsed into sleep. She never awoke, but died the same evening about five. She was positive she did not give her an overdose of the medicine. The seizure did not seem like one of her ordinary fits, and she did not send for the doctor until late in the afternoon. He was not then at home. The doctor did not see the deceased again; but gave her (witness's) husband the certificate of death. The husband corroborated the evidence of his wife. After taking the medicine, the deceased sometimes slept for twelve or fifteen hours. The time for the fit would then be passed. Dr. Hodgson of Crewe said he had made a *post mortem* examination of the body. He could not find any external marks of violence. Rigor mortis was well marked. The pupils were fairly dilated. The brain was very much congested. The sinuses were well filled. There was no fluid in the ventricles, and no apparent disease of the substance of the brain. The heart was larger than usual for a girl fifteen years of age, and, he thought, rather hypertrophied. The right auricle was distended with dark blood, and also the right ventricle. There was hardly any fluid in the left ventricle and auricle. There were the remains of two small clots of blood, formed some time previously, in both the right and left ventricle. These were quite fatty. The right lung was much congested, and floated in water; the left was very much more congested, and sank in water. Some portion of the congestion was not of recent formation. He tied the stomach at both ends, and removed it. On opening it, a quantity of gas escaped. There were only about two teaspoonfuls of fluid in the stomach, and this he placed in a bottle, and handed it to the police, sealed. The liver was congested, but not enlarged. The left kidney was slightly congested; the right kidney was very much so. He took a portion of the liver and spleen and the right kidney, placed them in a sealed jar, together with the stomach, and handed them to the police. In the bladder he found about a pint of urine, a portion of which (about six ounces) he also assigned to the care of the police. He found a long red worm in the bowels, and one or two segments of tapeworm. The intestines were not diseased. Death might have been due to an epileptic fit, or to some other cause. He had no doubt that there had been epilepsy and hysteria, and that the immediate cause of death was the congestion of the various organs; but what produced that congestion he was unable to determine. A fit of epilepsy might have caused

death. He had not examined the medicine which the deceased had taken. The coroner, in summing up, told the jury that, if they were not satisfied with the evidence, he would direct that the contents of the stomach should be analysed, and also the doctor's medicine. The jury deliberated in private for over an hour, and then returned a verdict that the deceased had died from epilepsy, hysteria, etc., as set forth in Mr. Vaughan's certificate. If we are correctly informed, that the inquest in the above case was held without the cognisance of Mr. Vaughan, we must express our astonishment. In justice to that gentleman, he ought to have been informed of the inquiry, and to have been allowed to state what medicine he had administered to the deceased child. As the case stands, the result is most unsatisfactory.—Since writing the above, we have received a copy of the prescription for the medicine given by Mr. Vaughan—a mixture of acetate of morphia and chloral-hydrate. Surely this prescription ought to have been before the jury; and care should have been taken that Dr. Hodgson, who made the necropsy, should have been in a position to account for the appearances noted, by having before him a history of the case. Epilepsy and hysteria, the causes of death stated in Mr. Vaughan's certificate, might afford sufficient explanation of the appearances met with. The readers of our impression of February 25th last may remember that, under the heading "A Perverse Jury", we made a previous comment respecting a case in which the same coroner and the same doctor were concerned.

NAVAL MEDICAL DEPARTMENT.

WITHIN the current month we have had occasion to criticise the severity with which a medical officer of H.M.S. *Cambridge*, at Devonport, was treated, by sentence of court-martial, for allowing a seaman, convalescent from rheumatism, to be conducted from one part of a town to the naval hospital at another part of it, by a sick-berth steward, in lieu of a medical officer. We then asserted that the error was due to the system in vogue at our sea-ports rather than to any direct dereliction on the part of the young officer, who seemed to us to have been the selected scapegoat for irregularities, for which the executives of the ship appeared to have been primarily responsible. The series of changes consequent on this event, as we may believe, is now completed by the sacrifice of another medical scapegoat, as we find in "Admiralty Appointments," on the 28th inst., that the fleet-surgeon of the ship has been dismissed from this harbour-ship and sent afloat once more, after serving twenty-five years in the Royal Navy. A case has also happened at Portsmouth, proving that the practice thus condemned with summary punishment is but the recognised custom of the service. This week, an inquest has been held at Haslar, on the body of a workman who fell from a ship's side into the dock, receiving a fracture of the skull, with bleeding from the ears, nose, and mouth. He was unconscious from the moment of his fall. He was carried across the harbour to Haslar Hospital, without any medical officer conducting him. Thus we find that, in a national establishment, with over 4,000 workmen, among whom very severe accidents occur, the strength of the surgical staff is insufficient to admit, at all times, of a surgeon being detached to conduct a man mortally hurt to the port hospital; while, at another port, two medical officers are dismissed their ship, because a convalescent seaman was removed in a vehicle, not under charge of a surgeon. We do not imagine that inconsistency could take a longer leap than this.

THE LEGAL RIGHT TO HEALTHY HOUSES.

AN action was lately brought against the owner of a house at New Cross for letting, through his agent, a house which was imperfectly drained. The precise defect in the drainage was not mentioned; but the plaintiff stated that the agent had assured him, before he took the house, that it had lately been thoroughly examined, and all defects remedied, and that it was in a perfect sanitary condition. There was not any written statement to that effect; and, although the owner asserted that he had not authorised his agent to warrant the efficiency of the drainage, a verdict for £50 for loss and damage sustained through illness was given against the owner, subject to proof that the house was in a bad sanitary condition. This is not the first case in which such a decision has been given; but it is important as showing that, if an agent represent a house to be well drained, when it is not, the owner is responsible. All who take houses should therefore obtain a warranty before a third person, or in writing. Medical men should be aware of the law in the matter, and, when consulted, should advise their patients to take this course, even although the drainage might appear to be good on such a cursory examination as can ordinarily be made without disturbing any structural part of the premises. If this were usually done, much illness, suffering, and danger to health would be prevented.

SANITATION JUSTIFIED.

A NOTEWORTHY instance of the effect of improved sanitation upon the rate of mortality at Carlisle is mentioned by Dr. Elliot in his last report on the health of that town. In 1841, the census gave the population as 23,959, and during the seven years (1842-1848) the average yearly mortality was 728; whereas in 1881, thirty years later, the mortality was only 717 amongst an increased population of 35,866.

M. PASTEUR'S DISCOVERIES.

AN application to man of M. Pasteur's researches on the preservation of animals from malignant pustule has been reported by M. Casson, in a note read at a meeting of the Académie des Sciences. He described the case of a farmer who had been twice attacked by charbon. The first attack was slight; the second was very serious, and expected to be fatal. However, the dangerous symptoms speedily disappeared, leaving two deep ulcers on the back of the hand. M. Casson considers that the rapid improvement indicates an actual vaccination resulting from the first attack of charbon, and suggests that the case confirms the facts established by M. Pasteur's researches on the preservation of animals by the inoculation of attenuated virus.

IODOFORM AS AN ANTISEPTIC.

DR. MIKULICZ has recently published in the *Berliner Klinische Wochenschrift* a paper in which he discusses the uses of iodoform in surgery, and sums up as follows. 1. Iodoform is an excellent remedy in all conditions in which the direct application of an antiseptic to a wound is required, and in this matter deserves to be preferred to all other means at present in use. 2. Lister's carbolic gauze dressing may be completely replaced by iodoform dressing, which has the additional advantage of being simple and certain. 3. Iodoform dressing ensures an aseptic course to wounds, even in conditions where it has not hitherto been possible to carry out antisepsis strictly. 4. In cases of wounds and ulcers which have already become septic, iodoform acts, as a rule, more rapidly and certainly than other antiseptics, and does not irritate the tissues. 5. Iodoform acts as a specific on syphilitic, tuberculous, scrofulous, and lupous infiltrations.—Dr. Zeissl relates in the *Allgem. Wiener Med. Zeitung* two cases in which toxic symptoms —erythema, fever, and albumen and iodine in the urine in one case, urticaria and iodine in the urine in the other—followed the application of iodoform after operation. The quantity used, however, is not stated.

ERRORS AS TO SMALL-POX MORTALITY.

IN an article communicated to the *New York Medical Record*, entitled "A Plea for Improved Vaccination", Dr. S. Baruch calls attention to what appears, in some countries, to be the increasing mortality among vaccinated persons attacked with small-pox. He states that in the various epidemics from 1818 to 1870, the mortality among the vaccinated was 4.32 per cent., while from 1870 to 1880, the mortality was 12.52 per cent. The mortality varied, he states, in different countries; for instance in Prussia from 1848-59 it was 6 per cent., and during 1871-72, he alleges it to have been 14.55 per cent. In London, he states that, from 1836 to 1856, the mortality was, among the vaccinated, 5 per cent., while from 1871 to 1878, it was 10.93 per cent. As regards London, at any rate, we think Dr. Baruch has considerably overstated

the mortality from 1871 to 1878, and understated it from 1836 to 1856. In the Asylums Board Small-pox Hospitals from 1871 to 1878, the mortality among those with vaccination marks has been, we believe, 8 per cen.; and Mr. Marson states that, at the London Small-pox Hospital from 1836 to 1856 it was 4.6 per cent., excluding those that died of superadded disease, amounting, he states, to 2 per cent. Now in the London statistics, from 1871 to 1878 all who died of superadded disease are included in the mortality, and if we add the 2 per cent. of deaths from superadded disease to Mr. Marson's 1836 to 1856 mortality, we find that it becomes 6.6 per cent.—that is an increase of 1.6 per cent. in 1871-78 over the years from 1836 to 1856. It should be borne in mind that the statistics for 1871-78 include the exceptionally fatal epidemic of 1871.

SCOTLAND.

UNIVERSITY OF EDINBURGH.

THE winter session in the University of Edinburgh and in the Medical School terminated yesterday; the only way in which the closing day differs from others being in the distribution of medals, prizes, and certificates of honour and of attendance. The Senatus Academicus has resolved to confer the honorary degree of Doctor of Laws upon Dr. Angus Smith, and Mr. John Simon, F.R.S., late medical adviser to the Privy Council. The degrees will be conferred with the ordinary examination degrees in arts, sciences, and divinity, at the graduation ceremonial to be held on the 21st of April.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.

AT the next meeting, on Tuesday, April 11th, it is proposed to have a demonstration of cases of pseudo-hypertrophic muscular paralysis. It is expected that patients from the Western and Royal Infirmaries will be shown, and likewise from Lenzie Asylum and the Towns Hospital. Two patients are also promised from private practice. If there be any other cases in the neighbourhood available for this meeting, a communication to the secretary of the Society, addressed to the Faculty of Physicians and Surgeons, in order that they may be included in the circular calling the meeting, will receive attention.

THE NORTHERN DISPENSARY, EDINBURGH.

THE annual meeting of the supporters of the Northern Free Dispensary, Edinburgh (the youngest of the Edinburgh medical charities), was held last week. The secretary, Dr. Black, in his report stated that, up till the 15th March (the end of the year), patients to the number of 1,300 had sought and obtained relief at the dispensary, being an increase of 400 on the number of the previous year. Of the entire number, 400 were visited at their own homes. Midwifery cases numbered 50, and vaccinations 30, while as many as 1,500 prescriptions were dispensed. Unfortunately, the otherwise promising dispensary is crippled in its funds, as the total income for the year was only £38, and the expenditure £81. Situated as it is in a district where there is ample scope for its usefulness, it is to be hoped that vigorous efforts will be made to place it on a sound financial basis.

EDINBURGH ROYAL INFIRMARY.

ON Monday, the managers of the Royal Infirmary elected an assistant-physician to fill the place of Dr. Wyllie (advanced to the position of Ordinary Physician to the Infirmary). As noticed in last week's JOURNAL, there were four candidates for the appointment; but the contest practically was confined to two of them—Drs. Byrom Bramwell and James. The Lord Provost proposed and Professor Rutherford seconded Dr. Byrom Bramwell, while Dr. James was proposed by Dr. Haldane, President of the Royal College of Physicians, and seconded by Sir James Falshaw, Bart. It would be impossible to find a more equally balanced vote than was taken, nine managers voting for each candidate—so that the matter had to be settled by the chairman's casting vote. He decided in favour of Dr. James, who is therefore third assistant-physician, an appointment which has been well received by the staff of the infirmary and by the profession in Edinburgh. As showing, however, how uncertain anyone can be beforehand in such a matter, it may be mentioned that, had voting by proxy been allowed, Dr. Bramwell would have received ten votes, and thus secured the coveted position, as one of the managers who was out of town had sent a vote in his favour. This, however, was not allowed to be reckoned.

EDINBURGH EYE DISPENSARY.

AN addition has been made to the staff of the Edinburgh Eye Dispensary by the appointment of Mr. G. A. Graham Berry, M.B., F.R.C.S.E., as assistant-surgeon to the institution.

THE NOTIFICATION OF INFECTIOUS DISEASES.

IN Edinburgh the Police Act, which requires notification of infectious diseases by medical practitioners, came into operation in November 1879. During the time that has elapsed since then no fewer than 11,400 such cases have been notified to the medical officer of health, and this has doubtless led to important practical results. The sum which the members of the profession in Edinburgh have received (at the rate of 2s. 6d. for each case) amounts to £1,400 fully. There are, perhaps, still some cases which, owing to their being overlooked, or through carelessness, are not notified, but there can be little doubt that the profession has backed up Dr. Littlejohn thoroughly in this matter.

THE PUBLIC HEALTH OF ST. ANDREW'S.

DR. D. ARCHIBALD, the Health-Officer for St. Andrew's, obligingly sends us a tabular view of the annual death-rate of the city of St. Andrew's, and eight other Scotch towns with about the same population, for the years 1871 to 1881 inclusive. It would appear from this statement that St. Andrew's has the lowest death-rate of any of these nine towns, the rate amounting, in 1881, only to 12.24 per 1,000. Of the other towns, Row comes second, with a death-rate of 15.80 per 1,000; Kirkintilloch having the highest death-rate (22 per 1,000). The remarkably low death-rate of St. Andrew's in 1881 was partly due to the absence of epidemics, there being no deaths from scarlatina, measles, or diphtheria, and to the deaths from bronchial and pulmonary affections being considerably below the average. The chief mortality, in fact, occurred in infants under five years of age and in old people. Dr. Archibald ascribes the low death-rate in St. Andrew's chiefly to the healthy situation of the town; to the invigorating sea-breezes laden with ozone; to a more or less equable temperature; to the facilities afforded for out-door exercises and amusements; and to the absence of manufactories, and the smoke and confinement which inevitably follow in their train. In fact, as a health and educational resort, he regards St. Andrew's as one of the first places in the kingdom.

HEALTH OF THE PRINCIPAL SCOTCH TOWNS IN FEBRUARY.

IN the eight principal Scotch towns, there were registered during the month of February the deaths of 1,101 males and 1,059 females; the total, 2,160, is 544 under the average for the same month during the preceding ten years, due allowance being made for proportionate increase of population. The mortalities of the individual towns were, per thousand of the population, Dundee and Aberdeen, 18; Edinburgh, Greenock, and Leith, 19; Glasgow and Paisley, 24; and Perth, 27. Of the entire mortality, 39.4 per cent. was of children under five years of age, the respective percentages being—Leith, 24; Edinburgh, 29; Paisley, 35; Dundee, 36; Aberdeen, 39; Perth, 43; Glasgow, 45; and Greenock, 47. Zymotic diseases caused 14.7 per cent. of the entire mortality; but in Glasgow, Leith, and Perth this rate was exceeded. Whooping-cough was, as usual, the most fatal, itself causing 3.5 per cent. of all the deaths; in Glasgow and Aberdeen, it caused respectively 5.1 and 5.7 per cent. of all the deaths. Of 50 deaths due

to fever, 16 were registered as typhus, 33 as enteric, and 1 as simple continued fever. In Perth, 11.9 per cent. of the deaths were caused by measles (it may be mentioned that in the public press the insanitary conditions of several parts of Perth have been strongly commented upon recently). Croup caused 34 deaths, diarrhœa 32, diphtheria 31, and scarlet fever 28 deaths. Apoplexy was the cause of death in 45 cases, paralysis in 62, cardiac diseases in 130, hydrocephalus in 60, and premature birth debility in 65 cases. Phthisis pulmonalis contributed 11.6 per cent. of the entire mortality, and inflammatory affections of the respiratory organs (other than those already referred to) 21.2 per cent. of all the deaths. Six individuals (the oldest of them aged ninety-four) died over ninety years of age, four of them being females. The births of 1,700 males and 1,573 females were registered during the month. As to meteorological conditions, the mean barometric pressure was greater by 0.168 inch, the barometric monthly range greater by 0.307 inch, the mean temperature greater by 4.6°, and its mean daily range greater by 1.2°, the mean humidity less by 2, the rain-depth less by 0.48 inch, and the wind-pressure greater by 0.65 than the averages of the same month during the preceding twenty-five years. The chief characteristics of the month have thus been the unusually high mean temperature, which is the highest ever recorded, the high barometric pressure, the large barometric range, and its concomitant increase in the strength of wind. The diminished rainfall, rainy days, and humidity are also noticeable. Greenock had the largest rainfall (6.31 inches), and Aberdeen the least (0.8 inch).

IRELAND.

DR. J. E. KENNY was last week unanimously re-elected Medical Officer of the North Dublin Union Workhouse Hospital.

THERE are at present six patients suffering from small-pox in Lisburn Workhouse; but no fresh cases have been admitted for the past week.

IN consequence of the want of accommodation recently felt in Armagh, during the late outbreak of small-pox, a committee have been appointed by the board of guardians to confer as to the desirability of building a hospital for infectious diseases. The governors, also, of the county infirmary have under consideration the propriety of erecting a separate ward for the purpose of receiving patients suffering from fever and other contagious affections, willing to pay for their maintenance.

THE NOTIFICATION OF INFECTIOUS DISEASES.

THE Executive Committee of the Dublin Sanitary Association have addressed a letter to the Chief Secretary for Ireland, urging him to take up the Bill introduced by Mr. Meldon on behalf of the Dublin Branch and the Irish Medical Association for the compulsory notification of infectious diseases in Ireland.

ST. JOHN'S AMBULANCE ASSOCIATION.

IT is announced as a gratifying fact that, under the auspices of the above association, a class has been formed in Dublin to give the military instruction in first aid to the sick and injured. The first class of this kind is composed, it is stated, of forty-one officers and men of the Royal Artillery. The instructor is the house surgeon of a Dublin hospital. If the information to be thus acquired by the military is of such importance to them that it can hardly be overrated, it seems strange that it should not be general throughout the service, and, stranger still, that trained military medical officers should not be the instructors of soldiers.

CORK WORKHOUSE.

DR. BRODIE, Local Government Board Inspector, recently held a sworn inquiry into the management of this workhouse; and from his report it appears that a laxity of discipline and absence of supervision prevails, which is much to ber egretted. Dr. Brodie calls attention to the indiscriminate admission of visitors to the workhouse, and states that many of them have been, up to the last few weeks, allowed access to the wards of the fever hospital; and that he has seenas many as six surrounding the bed of one fever-patient, which is not only directly opposed to the isolation of contagious diseases for vhich the fever hospital is intended, but must interfere with the patients' treatment, and seriously impede the staff in the discharge of tleir duties. These are very serious charges; and the Local Government Board suggests that the guardians should appoint a special committe, and refer the whole question to them of the discipline and managment of the Cork Workhouse.

PATHOLOGICAL SOCIETY OF DUBLIN.

THE final meeting of this Society for the current sessior was held last Saturday. A large number of interesting specimens vere exhibited. The President, Mr. Stokes, in declaring the session closed, expressed his thanks for the honour which had been done him b' electing him to the chair of that society, which was the parent Pathoogical Society of Great Britain. He believed that the return to the od practice of admitting medical students to the meetings of the society had been attended with the greatest advantage. He could not avoid alluding to a topic which had been a matter for serious consideration to himself and others, namely, that instead of having, as at present in Dublin, separate societies for the discussion of medical, surgical, pathological, and obstetric subjects, all these societies should b: united into one. He believed that, if they were amalgamated into one Institute or Academy of Medicine, the amount of work done would be larger than at present, and it would also be better done, and a greater amount of interest would be excited in it. Should this academy ever come into existence, it would be a matter of pride for the Pathological Society that they had taken the first steps to bring about that result. He was happy to be able to say that, during the past session, not only had many old members of the society rejoined it, but a number of new members had been enrolled.

ADULTERATION IN THE COUNTY DOWN.

FROM July to December last, Dr. Cameron, analyst for the county, examined twenty-five specimens for the local sanitary authorities, one hundred and five for the inspectors of weights and measures, and two for private parties. A specimen of so-called brandy was found to be composed chiefly of grain spirit, and not of spirit distilled from wine. Some of the mustard was adulterated with forty per cent. of wheat-flour, cayenne-pepper and turmeric being added. As compared with previous returns, there was an improvement in the quality of the articles submitted for analysis. Dr. Cameron applied to the grand jury last week for an increase of salary, and stated that he was appointed six years ago at a salary of £40 *per annum*, while since 1879 the work had largely increased. Twenty-five analyses were made for local authorities, the fee for which varies from two to five guineas, but Dr. Cameron did not receive any fee for them. He is also liable to be called upon to give evidence in support of his certificate, and is bound to make analyses, free of charge, for the boards of guardians, towns commissioners, lunatic asylums, county infirmary boards, coroners, and other county authorities and officials. In consideration of the extra duties to be performed, the grand jury decided to increase Dr. Cameron's salary by £40 *per annum*.

THE NATIONAL EYE AND EAR INFIRMARY, DUBLIN.

THIS valuable institution—one of the oldest of its kind in the United Kingdom, having been founded in 1814—has been recently moved to new premises in Molesworth Street, where it is now in full working order. For the previous nine or ten years, it occupied a house in Stephen's Green; but the accommodation there afforded—twelve beds—was for some time past quite inadequate to the demand made upon the hospital; and the limited space available for the large number of persons attending the extern department caused great inconvenience and delay. Owing to the energy of the committee of management,

and especially of the honorary secretary, sufficient funds were raised to purchase the large town house recently occupied by the registrar-general; and, by judicious alterations and additions, it has been made a most complete ophthalmic hospital. It contains twelve male and twelve female beds, a private ward for a pay-patient, with separate day-rooms for men and women, operating-room, board-room, matron's apartments, accommodation for a resident surgeon and for nurses, a food-lift, bath-room, arrangements for fire-hose, etc. The lavatories and water-closets are detached from the wards, and well ventilated. The extern department or dispensary has been newly built, and is quite distinct from the hospital proper, occupying the site of the former stables and coach-house, and has a separate entrance. In this department, which has been most carefully planned to meet all possible requirements, separate waiting-rooms for men and women are provided; also a large consulting-room for diseases of the eye, and distinct waiting and consulting rooms for diseases of the ear. The entire hospital and dispensary is heated with hot-water pipes, which, besides being more economical than open fireplaces, are much safer when people of imperfect sight are to be considered. Ample provision is made, in suitable apartments adjoining the consulting-room for diseases of the eye, for ophthalmoscopic examinations, and for clinical instruction—all the arrangements for gas, water, and regulation of daylight, etc., being most complete. We were much pleased with the method adopted for recording extern cases. It ensures, not alone regularity and order on the part of each patient, the subject of either eye or ear affection, attending the dispensary, but also forms a valuable record of disease, which is preserved in the hospital, and which can be instantly referred to, and, if necessary, added to at any future time.

HEALTH OF PROVINCIAL URBAN SANITARY DISTRICTS.

DURING last year, of 832 deaths from all causes registered in Belfast, 25 were caused by small-pox (being 20 over the number for the previous year), 123 by whooping-cough, and 110 by fever. Small-pox also caused 9 deaths in Waterford, and 2 in Lurgan. Measles caused 79 deaths, and scarlatina 248, of which 30 took place in Cork, being a considerable decrease in that town, as compared with 1880, when 204 deaths were registered from the disease. Whooping-cough caused 231 deaths, against 453 in 1880; diarrhœa 421; and fever 380, the mortality from the last-named being, in proportion to population, most numerous at Waterford, the rate being 1.9 per 1,000.

STATISTICS OF THE DUBLIN HOSPITAL.

THE twenty-third annual report of the Board of Superintendence of the Dublin Hospitals receiving Parliamentary grants has been just issued. During the past year 10,708 patients were admitted into the wards of these hospitals, exclusive of 785 who had been remaining at the beginning of the year. Of the total number, 10,428 left the wards cured, relieved, or were dismissed for other causes. The number remaining under treatment amounted to 798, and the average mortality was 6.39 per cent. There were no fewer than 61 patients under treatment suffering from alcoholic poisoning, or affected with delirium tremens. The report points out the necessity, for various reasons, of having separate and special apartments in hospitals for patients labouring under that disease.

HEALTH OF DUBLIN.

THE state of the public health in this city during the five weeks ending March 4th shows, according to Dr. Cameron's official report, a death-rate within the metropolitan registration area in the ratio of 34.32 per 1,000, and within the municipal or city area in the annual ratio of 39.14 per 1,000. A recent statement of a Dublin correspondent, that Dr. Cameron had published unrealised "roseate anticipations" as to the improvement of the health of Dublin (JOURNAL, February 18th, 1882, page 247, and March 4th, page 326), was contradicted by that gentleman. Dr. Cameron, however, has now published an "anticipation" which we sincerely trust may be realised; and as we know, on his own authority, that he has been "most guarded in venturing upon any speculation as to the future state of public health in this city" (Dublin), we presume the following statement must be regarded as being based upon higher scientific and more logical grounds than would appear from the context. "The mortality in February, though high, and to a large extent raised by an epidemic of measles, now declining, was much lower than in February of last year; as the latter (month? *sic*) had a much lower mortality than the two previous years (*sic*), *there is no reason why we should anticipate a high death-rate in 1882.*"

HEALTH OF IRELAND: QUARTERLY REPORT.

DURING the quarter ending the 31st of December last, there were registered in Ireland 28,690 births, being equal to an annual birth-rate of 22.4 in every 1,000; and 19,777 deaths, representing an annual rate of 15.4 per 1,000. The births were in excess of those for the December quarter of 1880 by 1,108; while the deaths were below those registered in the corresponding quarter of the previous year to the extent of 2,449, and the death-rate 1.3 per 1,000 lower. The death-rate has not been so low during the fourth quarter of the year since 1876. Small-pox caused 35 deaths, against 11 in the preceding quarter, due chiefly to an epidemic of the disease in Belfast, which caused 18 deaths in that place. To measles 108 deaths were due, of which no fewer than 134 occurred in the county and city of Dublin; to scarlatina, 327 deaths; diphtheria, 101; whooping-cough, 184; typhus, 206; enteric fever, 136; and simple fever, 89. Diarrhœa and simple cholera together caused 317 deaths, the smallest number recorded in any of the past eight quarters.

THE QUEEN AT MENTONE.

WE are informed that the health of Her Majesty and of the Royal household is and has been very good since their arrival at Mentone. The Queen has settled down to the routine of a calm retired domestic life, drives and walks daily, and has expressed herself as much pleased with the climate, with her residence, the scenery, and her surroundings. The inhabitants of Mentone and the visitors seem to understand Her Majesty's wishes, and show no obtrusive curiosity. She is allowed to move about all but as one of her own subjects. The weather continues unusually fine; it has ceased to be warm, and is now cool, fresh, and agreeable. So far, the usual equinoctial gales have not made their appearance, the barometer remaining about 29°. Occasional clouds obscure the sky in the morning, under the influence of a south-west wind, but are invariably brushed away by midday by a north-west upper current. Thus outdoor life continues as usual.

THE GOVERNMENT ARRANGEMENTS FOR ANIMAL VACCINATION.

THE Local Government Board have been deliberate in perfecting the arrangements which Mr. Dodson promised the Parlimentary Bills Committee of the British Medical Association (now nearly two years ago) should be made for the supply of animal lymph by the National Vaccine Establishment, in addition to that of long humanisation. But, having finally got their animal vaccine station into working order, they have now taken a step which cuts at the root of the objection of the antivaccinator, that some untoward disease may be implanted in his child's system with the lymph used for vaccinating. People with apprehensions or prejudices such as these may now go to the public vaccinator and have their children vaccinated, at their option, with animal lymph instead of the ordinary human lymph, arrangements having presumably been made for the supply to public vaccinators of such lymph from the Government station. Public notice to this effect has been given by the Registrar-General in a fresh issue of his Notices of Requirement of Vaccination, and it will be interesting to see what use is made of the new facilities offered. In any event, it must be gratifying to the Association that the conclusions and reports laid by Mr. Ernest Hart before our Parliamentary Bills Committee, and the active and powerful parliamentary assistance of Dr. Cameron in inducing the Local Government Board to reconsider its position with regard to the supply of animal lymph by the National Vaccine Establishment, have been successful. The suggested organisation sketched by Mr. Hart in his report to the Conference, to which the Local Government Board deputed a representative, has been in fact fully carried into effect. The annual charge on the State for the new station will, we believe, be as follows: Director, at £400 (Dr. Cory); Assistant to Director, at £150 (Mr. Shirley Murphy); supply of calves, £300; keep of calves and incidental expenses, £250; attendants, £100; or £1,200 in all.

THE PROMOTION OF MEDICINE AND PROTECTION OF SCIENTIFIC RESEARCH.

A REPRESENTATIVE meeting of members of the medical profession and of other gentlemen interested in the advancement of scientific medicine and surgery, was held in the Library of the Royal College of Physicians on Tuesday, March 28th, with the object of founding an association for the advancement of medicine by scientific research. Sir William Jenner, President of the Royal College of Physicians, took the chair. There were present, among others, Sir William Gull, Sir James Paget, the Master of the Rolls, the President of the Royal Society, Sir John Lubbock, M.P,, Sir Trevor Lawrence, M.P., Dr. Farquharson, M.P., Dr. Cameron, M.P., Mr. Nevil Story Maskelyne, M.P., Professor Tyndall, Mr. Warren de la Rue, F.R.S., Dr. J. Watt Reid, Sir Joseph Hooker, Mr. A. T. Balfour, M.P., Mr. Francis Darwin, Sir J. Risdon Bennett, Dr. J. Burdon Sanderson, Dr. Acland, Dr. Edward Sieveking, Mr. Bowman, Mr. Erichsen, Dr. Andrew Clark, Mr. Spencer Wells, Mr. John Marshall, Dr. Hughlings Jackson, Dr. R. Quain, Dr. O. Rees, Dr. Duncan, Dr. George Johnson, Dr. W. B. Carpenter, Mr. C. G. Wheelhouse (Leeds), Dr Orr (Glasgow), Dr. Bristowe, Professor Gamgee (Manchester), Mr. Savory, Dr. Farr, Mr. F. Galton, Professor Salvin, Dr. Cholmeley, Dr. Braxton Hicks, Dr. Paget (Cambridge), Dr. Pitman, Dr. Shepherd, Mr. Ernest Hart, the Rev. Coutts Trotter, Mr. Romanes, Mr. Prescott Hewett, Mr. G. Fleming, Dr. Pye-Smith, Mr. Gerald Yeo.

It was announced that a number of letters had been received from gentlemen, expressing their sympathy with the movement, and their regret at being unable to attend; among these were communications from the Archbishop of York, the Earl of Derby, the Earl of Pembroke, Mr. Goschen, M.P., the Solicitor General, Lord A. Russell, M.P., Sir E. Wilson, Mr. C. Darwin, Sir Thomas Watson, Professor Huxley, the President of the British Medical Association, Professor Humphry (Cambridge), Professor Odling, Professor Gairdner (Glasgow), the Dean of the Faculty of Medicine, Edinburgh, Dr. Fraser, and Mr. Lister, who had taken an active part in the preliminary arrangements.

Sir WILLIAM JENNER said that several meetings of members of the medical profession and others had been held for the purpose of deliberating on the best means of founding, with success, an association for research in medicine, or, in other words, for the advancement of medicine by research; and, after considerable discussion, it was determined not only to call together a meeting of representative men in medicine, surgery, physiology, chemistry, and anatomy, but also to ask gentlemen interested in science generally, or interested in its advancement, to co-operate with them, or at any rate, if not to co-operate, to express their approval of the object the conveners had in view. At the present time, there was no society which guided research. There were a number of medical societies to which those who conducted researches might communicate the results of their investigations, but there were none that guided and aided men in their efforts to attain knowledge by exact research. It was intended that this society should not limit itself to any single object, but that it should be founded, so to say, on a very wide basis indeed. These researches would not be confined to any one branch of medicine, for exact researches would, he hoped, by the aid of this society, be made into therapeutics in reference to the action of such agents as sewer-gas, foul air, and their effect on the human frame in deteriorating health and rendering it susceptible to disease. For proper investigation they would require to know the effect of these various agents on the tissues of the body; and in order to accomplish such investigation, it would require the co-operation of the physiologist, the pathologist, and the chemist. If investigations such as he had referred to were made by the right men in the right spirit, and with a due amount of labour bestowed on their researches, the benefit to humanity from such investigations was incalculable. There was the influence of agents on the production of tubercle in the human subject and the animal subject. Every advance in physiology was an advance, or a first step to an advance, in pathology, for modern pathology was altogether based on modern physiology. If this association were now founded, as he hoped it would be, it would assist the physiologist in his exact researches, and stimulate and aid him in those researches, and one great object of this association would have been promoted. In order to obtain this and other objects of the association, there had been no desire on the part of those who had worked in the formation of that association to evade the law passed a few years since; there was no desire on their part to ask for a repeal of the law, or even for any modification of it. The medical profession was, he believed, a law-abiding profession; they had a greater respect for the law than even the legal profession itself; so, whilst the association would watch most carefully over the working of the law, they would see how far that law allowed them to attain their object, and how far the machinery for putting that law into force hindered more than it should the objects which it was intended to restrain. They would watch with no unnecessary delay the carrying out of the provisions of that law. This was of considerable importance with reference to physiology, and he should like to illustrate what he meant by delay by recalling what happened in connection with a late trial, which had attracted much attention amongst medical men. During the last few weeks, in the course of investigations into that case for legal purposes, it came to be suspected that a vegetable alkaloid had been used for the purpose of destroying the victim, accidentally or otherwise it was not for him to say. The victim died, however, from the action of the alkaloid. Most of them knew, no doubt, that if vegetable alkaloid remained long in contact with decaying animal matter, it underwent decomposition, and was no longer capable of being detected. To determine whether the poison was an alkaloid, it required that it should be in an active state when the experiment was made. Delay would have been fatal in the interests of justice, and there might have been a miscarriage of the law. No one could over-estimate the effect such an event would have had on the public mind, when it was believed there was a poison or a series of poisons which no skill of the chemist or medical research could detect. In order to detect the poison it was necessary, if operations were to be undertaken, that certificates should be obtained, and a long process had to be gone through before the sanction of the law-officers could be obtained. The difficulty was the greater, in consequence of the animals to be employed having to be operated on under the use of anæsthetics. The only way in which it could be done was by puncture of a lancet, but it would be as absurd to chloroform those little animals before puncturing as it would be to chloroform a child before it was vaccinated. The risk of detecting the poison, if any delay arose, was felt so strongly, that one of the gentlemen employed was actually about to proceed to France in order that he might there operate upon lower animals without any risk of infringing the law, and he might so bring an English criminal, if guilty, to justice, and prove that the poison used was as certain of detection as any other known in the medical world. In a case of this sort, the association might very usefully watch over the causes of delay, and show how greatly matters might be facilitated by communicating with the officers of the law. He hoped the association would cause all physiologists to temper zeal by discretion, and he hoped that it would be able to restrain some of the more ardent and younger men in their efforts to prosecute science, with due regard to the susceptibilities of the public, and that it would also endeavour to enlighten the public mind, and so diminish those morbid sensibilities which have been shown towards the experiments in question by acquainting it with the real good which was effected by them. Sir W. Jenner concluded by proposing the following resolution: "That, with the view of bringing the legitimate influence of the medical profession more effectively to bear on the promotion of those exact researches in physiology, pathology, and therapeutics, which are essential to sound progress in the healing art, an association be formed, to be called "The Association for the Advancement of Medicine by Research."

Mr. SPENCER WELLS, in the absence of the President of the College of Surgeons, seconded this resolution, and stated that the formation of this association had the hearty approval of the Council of the College.

Sir GEORGE JESSEL (Master of the Rolls), in supporting the resolution, thought it was most desirable that the public in general should be fully informed of two things of which he was himself convinced. The first was, that the future progress of medicine must rest on science. He had had occasion very often, partly by reason of his official connection with the University of London, and partly by reason of his official position, to consider the position of medicine at the present time; and, although he knew perfectly well that occasionally medicine had made great progress through accidental discoveries which had resulted most beneficially for mankind, yet he was thoroughly convinced that the real progress of the healing art depended upon true scientific investigation. It was not merely scientific investigation itself, but it was also the result of scientific investigation, which trained the mind, which was important. Whether they considered accuracy of observation, or the concentration of thought which scientific study attached and enforced, they must feel that the habits of minds so created, or at all events so cultivated, must be of the greatest possible use in the progress of every art and every science. That being so, he felt satisfied that the establishment of a society like that mentioned by their estimable president, could but be productive of good, and could in no way produce mischief. The second point was, the instruction of the public. Of course, the public at large must neces-

sarily be very ignorant both of the art of healing and of the various sciences which went to make up the accomplished practitioner in that art. They required, first of all, information as to the necessity of the experiments on living animals, which had given rise to so much discussion of late years. They required to be fully informed of the advantages of that method of pursuing scientific investigation, and they required to be told of the advantages which had already been obtained by it. They also required to be told what was the amount of pain inflicted upon the lower animals, and how often it needed to be inflicted, and whether it did or did not harden the heart of the practitioner so to deprive him of that sympathy which, he thought, was one of the most marked characteristics of the medical profession. He could only say, he wished success to the society, and God speed to those who endeavoured to further the great aim of all medical art and science—the alleviation of human suffering.

The resolution was passed unanimously.

Mr. SPOTTISWOODE, President of the Royal Society, moved the next resolution: "That the Association consist of representative members of the medical profession, and of other persons desirous of promoting the above objects." He said that the resolution was one which must recommend itself to all present. The main work of the association, although of very diversified aspect, and of very wide application, was still special in its essential character. It must, in his opinion, be both designed and carried out by persons who understood it. An opinion appeared to prevail in some quarters that any one, however little conversant with the subject of medicine, was competent to define what should, and still more, what should not be done towards its advancement. The promotion of the association concerned the public at large, as well as the medical profession. But between the special experts and the public, there was a class whose admission to their councils he would thoroughly advocate. The aspect of their subjects was so varied; the methods which they employed were so diversified in their nature, and involved principles gathered from so many sciences, that he would advise them to associate with themselves the leading men in biological and, to some extent, in other sciences. On the specific topics of the present movement, he did not, as a non-biologist, propose to offer any remarks; but, representing as he did the Society which was the centre and head of all British science, and whose function was the promotion of all natural knowledge, he had ventured to say they had undertaken to help towards the decision of the great, nay, the all-important, question—whether medicine should wait upon time and circumstance, upon the accidents of life, upon the habits, or even whims of society and fashion; or whether, with earnest thought and firm hand, it should form circumstance to its needs, turn accident to good purpose, and wrest from Nature that which she freely gave to him who asked, but which she resolutely withheld from the listless bystander; whether, in short, medicine should remain and be for ever relegated to the limbo of observation, or whether it should become an experimental science.

Sir JAMES PAGET said it would be difficult to find a resolution which would more completely fulfil the design included in the two previous resolutions which the meeting had adopted, the point being that this association about to be formed would consist of representative members of the medical profession and other persons desirous of promoting that object. He would not read the whole resolution, but it would be seen at once that the council to be formed should consist of the Royal College of Physicians, the Royal College of Surgeons, and many others there named, and it would be seen at once that they were named not personally, but as representatives of the large bodies of the medical profession or of scientific bodies. There was the name of the President and two other officers of the British Medical Association, as representing the largest body of the medical profession which had ever been formed, and the whole of those there named represented bodies of men who desired to favour the promotion of medical science. This was the object desired by them all, and he ventured to say there was not one of them which had not promoted this object within its own particular sphere in which it moved. They could not too much admire the energy of those who, unaided, had pursued researches which had brought so much good to humanity, but still they could not but feel that there were occasions when these persons required some weight of authority should be brought to bear, for the purpose of carrying out the objects of science. Its voice and the weight of its authority should, at all times, be brought to bear on the pursuit of science. The public needed instruction upon a large number of scientific pursuits, and, doubtless, there were many who, notwithstanding whatever knowledge might be imparted to them, would cling to their ignorance, and hold tenaciously to their own self-conceit. The society to be formed would address itself to the really intelligent portion of the public, and enlighten them on the subject of medical science. They could not but look with some amount of alarm at the removal of these societies of medicine from other scientific bodies, and one could not but observe that as year succeeded year each of these associations of science became more and more in danger of becoming detached from the other. It would be well that this association should be able to suggest to them the things which need to be learnt, and, more important still, that they should have the means of gathering from these societies the knowledge which they required to guide them. A society such as the one proposed could represent to the Government facts and opinions held by a large mass of the profession, by a body of men counting not its hundreds, but its thousands and tens of thousands, which could not fail to carry greater weight than could probably be carried by an individual action. It would be a central authority to which any one, when in doubt, could refer. It would offer the practitioner the best advice, and show him whether he should proceed or wait. It must be of immense use to the profession, because it would point out the direction in which knowledge was needed. In whatever aspect he looked at it, he could not but feel that an Association of the kind would be of the greatest possible value to all concerned. He proposed:

"That the Presidents for the time being of the Royal College of Physicians of London, and of the Royal College of Surgeons of England, be the permanent *ex officio* Presidents of the Association; and that each of them be requested to nominate annually twelve persons, of whom six at least must be Fellows of their respective Colleges, to be representative members of the Council of the Association for the year, in addition to the following, who shall be *ex officio* members—viz.: the Presidents for the time being of the Royal Society, of the General Council of Medical Education and Registration, of the Royal Colleges of Physicians and Surgeons in Edinburgh and Dublin, of the Faculty of Physicians and Surgeons in Glasgow, and of the Royal Veterinary College of Surgeons, the Director of the Royal Gardens, Kew, and the Medical Officer of the Local Government Board; the Regius Professor of Medicine and the Linacre Professor of Anatomy and Physiology in the University of Oxford; the Regius Professor of Physic and the Professor of Anatomy and Physiology in the University of Cambridge; the Professor of Institutes of Medicine in the University of Dublin; the Deans of the Medical Faculties of the Universities of Edinburgh, Glasgow, and Aberdeen; the Brown Professor of Pathology in the University of London; the Presidents of the British Medical Association, of the Council, and of the Parliamentary Bills Committee of the British Medical Association, and of the following societies: the Royal Medical and Chirurgical, Pathological, Clinical, Epidemiological, Obstetrical, Medical, Hunterian, Harveian, Zoological Societies, and the Society of Medical Officers of Health. That the Council be authorised to invite the co-operation of additional representative men, within the United Kingdom, as corresponding members of their body. That registered medical men desirous of promoting the above objects shall, with the consent of the Council, be admitted as members of the Association on the nomination of an ordinary or corresponding member of Council. That members of the Council, on their retirement, become ordinary members of the Association. That the President for the time being of the Royal College of Physicians of London, and the President for the time being of the Royal College of Surgeons of England, shall be alternately, for the term of one year, *ex officio*, chairman of the Council, and shall nominate a member of Council as vice-chairman for the year, such nominated vice-chairman to be re-eligible. The ordinary quorum of the Council shall be six. That the Council have the entire control of the business of the Association, and the entire management of any funds contributed for its general objects, or for any special purpose, and shall annually appoint a treasurer and secretary, who shall be re-eligible."

Dr. QUAIN seconded the resolution. As a member of the late commission in the time of the cattle-disease, he was aware that experiments on animals were on several occasions the means of saving the lives of cattle. It had been said, and he believed it to be true, that if it had not been for the steps taken to stamp out the cattle-disease, there would scarcely have been one left in England. These experiments had been the means of saving hundreds and thousands of cattle, and probably a large number of human beings. The importance of isolation could not be denied. It was widely different when animals were pursued by dogs for wagers. That was illegal, but still men did not raise their voices in Parliament against it. When animals were scientifically experimented upon, it was only for the purpose of alleviating the sufferings of human beings, and to protect those who were sacrificing their feelings to duty was one of the objects of the association.

Sir WILLIAM GULL, in supporting the motion, said that he saw men prosecuting their researches in the face of obloquy; but henceforth he trusted the Society would stand between them and the public, and that

the latter would be satisfied that whatever was done was justifiable. When he looked at the bust of Harvey, and thought what that eminent man would have said had he been present, he felt that no one could deny the value of scientific research. The public would be assured by the formation of the Association that the profession meant real business; and that all professions of pretence were to be cut away. They were prepared to show they would put in practice that knowledge which they had gained, and that a solemn obligation rested upon them in that respect. He was glad to find the project was to be supported by the learned bodies throughout the country; that there would be a common feeling of unity and spirit displayed in supporting and guiding the medical profession in its work. It meant truth, and very pure truth, and no pretension whatever. The Association was not formed for protecting medical men in cutting up animals, or for the purposes of vivisection, but for scientific observation, and of showing to the world they had a solemn duty to perform. They were not aggressive against public feeling, only aggressive against ignorance, and were actuated by a great and noble spirit in the pursuit of science.

Mr. WARREN DE LA RUE expressed his entire sympathy with the movement.

Mr. ERNEST HART said that, before the resolution was put, he should like to ask a question. For reasons which, no doubt, were good, the constitution of this Council was very peculiar. It, so far as he knew, had no precedent in the profession, and seemed to exclude a large body of the medical men, many of whom took the deepest possible interest in the subject. He referred to the commencement of the third paragraph, which provided that, in addition to the *ex officio* members, twenty-four persons (members of the Royal College of Physicians and the Royal College of Surgeons) should be annually nominated to be representative members of the Council, and that their nomination should be in the hands of the presidents' two particular colleges. He regarded this clause as directly negativing the "representative" principle, and as particularly invidious, because the preference given was purely metropolitan. He would suggest as an advisable amendment that those words be omitted, and that the Council should have the power of nominating these twenty-four gentlemen, who should be submitted for election to an annual meeting of the members of the association. They would then be what they were called in the resolution —representative members. This was now a misnomer. They were purely nominees.

The CHAIRMAN said some of the most delicate questions which could come before any public body would come before the Council, and it was felt, as he had said, that this Society should be guided by those whose years had tempered their zeal with discretion, and he did not think that an elective council such as Mr. Hart suggested would carry out with discretion such objects as their Society would have in view.

The amendment was not seconded.

Sir RISDON BENNETT moved—"That it shall be the principal duty of the Council to encourage original research, and to further the extension of scientific knowledge in the fields of inquiry specified in Rule 1. That, with this object, the Council shall take note of, and seek to remove, any hindrance which may appear to them to be operating adversely to the progress of medical knowledge. That the working of the Act 39 and 40 Vict., cap. 77, shall engage the watchful attention of the Council, and may rightly become the ground of interposition on their part. That no public action shall be taken unless agreed to at a meeting of the Council, duly convened for that purpose, at which twelve members at the least shall be present, and at which the chairman and three-fourths of those present shall concur. That no annual subscription be required, but that members of the association be invited to give such aid as they may desire to the general purposes of the association, or towards special expenses incurred."

Mr. ERICHSEN seconded and Sir JOHN LUBBOCK supported the resolution, which was adopted amidst cheers.

Professor TYNDALL moved, and Dr. ANDREW CLARK seconded—"That the present rules, defining the objects and constitution of the association, shall not be altered except by the written consent of three-fourths of the entire Council, after consideration at a meeting called for the specified object, on a fortnight's notice and with the further written sanction of the two presidents."

Sir J. HOOKER, director of Kew Gardens, supported it.

A vote of thanks to the chairman was proposed by Dr. ACLAND, and seconded by Dr. W. B. CARPENTER, and carried unanimously.

THE Corporation of Walsall are to have a loan of £50,000 from the Local Government Board, for the purpose of carrying out a system of sewage works. The payments are to extend over thirty years.

COLLECTIVE INVESTIGATION COMMITTEE.

MEMORANDUM ON CHOREA.

By STEPHEN MACKENZIE, M.D.

THE object of this investigation is to gather from a number of different observers their experience as to the conditions that predispose to, or excite chorea. The observers are also asked to note the frequency with which certain phenomena occur, and to mention the common ailments to which sufferers from chorea are especially liable, in order to ascertain its clinical alliances. Though our knowledge of chorea has, in late years, made some advances, it is generally felt that accurate information as to the antecedents and family history of patients suffering from chorea is greatly wanted. Those engaged in family practice have unrivalled opportunities of collecting evidence on these points, which may greatly advance our knowledge of the disease. The family medical attendant will often have known the patient from birth, will be acquainted with the parents, and often with collateral relatives. He will thus be peculiarly favourably placed for observing the constitutional peculiarities of the patient and his inherited tendencies, and for estimating the importance attaching to the circumstances supposed to originate an attack of chorea. The patient remaining under his care subsequent to the illness, the observer will be enabled to note important after-changes.

The questions are arranged in such a way as, first, by means of initials, to identify the patient, to record the sex and age, the social class to which the patient belongs, and place of residence; next, to ascertain individual peculiarities, such as nutrition, vigour, and growth. The previous mental condition, as to excitability, stupidity, quickness, slowness, etc.; in the female, whether menstruation be regular, or whether the patient be pregnant; and the conditions as regards sufficiency of food.

Information is particularly desired as to immediately or remotely antecedent illnesses; and, in order to ascertain their influence, the observer is asked to note their date or duration. As regards rheumatism, which, as most agree, bears some relationship to chorea, the observer is asked to state whether the antecedent rheumatism was well pronounced, with distinct joint-affection; or whether, as often happens in children, only vague pains and sometimes slight feverishness had been present. Attention is directed to scarlet fever and anæmia as predisposing to chorea; and in these connections, as in the preceding, it is important to note most carefully, under the proper head, the known condition of the heart prior to the attack of chorea recorded. Space is left for other diseases to be noted, whether they have or have not a known bearing on the production of chorea. The supposed exciting cause, and the interval between it and the attack, should be noted, in order that its importance may be estimated under this head. Attention is directed to overwork, mental and bodily; shock and fright, or any other cause. This closes one chapter of the inquiry, and brings us to the actual attack.

It should be stated from how many previous attacks of chorea the patient has suffered, in order that, in the analysis proposed to be made of the answers, cases of first attacks may be considered separately from those where several have occurred. It is then asked whether the attack be severe, moderate, or mild. No attempt is made to define these grades ordinary experience will enable any case to be placed in one of the three categories. It is also asked whether the temperature were normal subnormal, or febrile. The date of onset is to be noted, and, at the conclusion, the duration and result of the attack.

Next, we come to the condition of the heart. For convenience, the record of the state of the heart before the attack, *when known*, is placed here. When no previous examination of the heart has ever been made it should be recorded *not known;* when the heart has been examined previous to the attack, it should be recorded "normal", when such is the case; or, when diseased, the observed abnormality, as mitral systolic, aortic systolic, aortic diastolic, etc.; and, when practicable, any displacement of the apex-beat. Thus, to fill in an ideal card, under condition of heart: "*Before attack.*—Mitral systolic, apex-beat to left of nipple, heaving." This would enable anyone to recognise, equally with the observer, that mitral regurgitation, with hypertrophy of the left ventricle, existed previous to the attack of chorea recorded on the card. The observer is next asked to record in the same way the condition of the heart noticed during the attack; and, at the conclusion of the case, whether any peculiarities noticed previously to, or during, the attack persisted or disappeared. Irregularity of the heart, and other alterations, besides murmurs, should be carefully noted.

Information is asked as to the occurrence of rheumatism during or after an attack of chorea, and, when so occurring, as to its severity

as indicated by many or few joints being affected. Space is left for other complications and sequelæ, as paralysis, insanity, etc., being recorded. Attention is directed to the occurrence of "subcutaneous nodules", which are sometimes met with in connection with rheumatism and chorea, and concerning which information is needed. These nodules are usually about the size of a split-pea, though they vary from the size of a pin's head to that of an almond. They are strictly subcutaneous; the skin over them is not reddened; they are painless. The back of the elbow, the malleoli, and the margins of the patella, are the most common situations of such nodules, but they have been met with over the vertebral spines, the spine of the scapula, the extensor tendons of the foot and hand, the scalp, etc.

Observers are asked to note the common ailments to which the patient is liable, in order to ascertain the clinical associations of chorea. It is desired, also, to obtain information as to the occurrence of nervous diseases and rheumatism in members of the patient's family. This can be succinctly given. Thus, under the first head, in an ideal case it might have to be recorded: Father, insane; paternal aunt suffered from chorea in childhood. Under the head of "Family History of Rheumatism": Mother had rheumatic fever; one brother, crippled from rheumatism.

A few notes on "Treatment" are desired, when a simple or consistent plan has been employed. Principles, and not details, of treatment should be noted; as, for instance, "arsenic", or "iron", or "sulphate of zinc", or "expectant"; or, "at first arsenic, later quinine."

Lastly, space is left for "Remarks on any special feature of the case". The nature of eruptions, such as various forms of erythema, etc., when occurring, should be recorded, and any other points of interest. The main object of the inquiry will, however, be served by simply answering the questions. When fatal, the mode of death should be noted, and, when a *post mortem* examination has been made, the appearances observed should be recorded.

It may seem that the questions are both numerous and intricate; but it will, it is hoped, be found that the questions run on in a connected manner, and very many require only a stroke of the pen to constitute an answer. When practicable, a positive and negative answer are printed, and all that is required is to strike out the words which do not correctly describe the condition.

Form of Card about to be issued.

Observer's name.
Address.
Initials of patient. M. or F. Age.
Upper, middle, or lower class.
Place of residence.
Stout, moderate, thin; strong, moderate, weak; dark, fair.
Previous mental condition.
Growth—rapid, moderate, slow.
Menstruation—regular, irregular. Pregnant.
Food—sufficient, insufficient.
Antecedent Illnesses.
Rheumatism. With distinct joint-affection. Date.
With fever. Date.
With vague pains. Date.
Scarlet fever. Date.
Anæmia. Duration.
Other diseases. Date.
Supposed Exciting Cause of Present Attack.
Overwork - mental, bodily.
Shock; Fright.
Other causes.
Interval between exciting cause and attack.
How many previous attacks.
Present attack—severe, moderate, mild.
Date of onset. Duration.
Temperature—normal, subnormal, febrile.
Result.

Condition of Heart.
Before attack.
During attack.
After attack.

Rheumatism.
During attack. Many joints. Few joints.
After attack. Many joints. Few joints.
Subcutaneous nodules—present, absent.
Other Complications.
Sequelæ.
Common ailments to which patient is specially liable.
Family history of nervous diseases.—In what members.
Rheumatism.—In what members.
Remarks on any special feature of case.
Treatment.

N.B.—Information and assistance given to the Committee in this and all other investigations will be duly acknowledged.

THE METEOROLOGICAL SOCIETY.—The usual monthly meeting of this society was held on Wednesday, March 14th, at the Institution of Civil Engineers, 25, Great George Street; Mr. J. R. Laughton, F.R.A.S., president, in the chair. The President gave a historical sketch of the different classes of anemometers. In conclusion, he said that what was wanted was not so much new and improved apparatus for registering or recording; for, though those now in use were not perfect, they were far superior to the anemometers to which they were applied. What they wanted was rather some radical improvement in the instrument itself, or in the theory which translated its action.—In connection with this meeting there was an exhibition of instruments, consisting of anemometers and new meteorological apparatus, etc. The anemometers exhibited were forty-five in number. There were also photographs and drawings of old forms of anemometers, damage caused by whirlwinds, etc.

THE ROYAL UNIVERSITY OF IRELAND AND QUEEN'S UNIVERSITY.

MUCH interest attaches to the questions which have recently sprung up in connection with the establishment of the new Royal University of Ireland. This university is intended, under the provisions of the Acts which created it, to take the place of the Queen's University in Ireland, and the latter institution has now ceased to exist. There are a large number of medical graduates of the Queen's University whose position is affected by this legislation. The 11th section of the University Education (Ireland) Act constitutes the graduates of the Queen's University graduates of the new Royal University. Under these circumstances, there arises a question which must agitate the minds of the graduates who have obtained their degree in the Queen's University. Many of these gentlemen are proud of this distinction, and will hesitate to accept the position offered them. Fortunately for them, there is no clause of the University Act which deprives them of their original degree, nor would it be consistent with precedent that an Act of Parliament should interfere with an established and vested interest. A question more pressing at the moment arises as to the position of the Royal University under the Medical Act of 1858. By clause 4 of that Act, the institutions entitled to send a representative to the Medical Council, including the several corporations and the universities then existing, are enumerated. This list does not, of course, include the name of the Royal University, and, consequently, no representative from that university can appear at the next meeting of the Medical Council. So far, graduates of this university are deprived of representation. But still another question arises with regard to the medical graduates of the New University. Are they, or are they not, entitled to be registered as legally qualified medical practitioners? Under schedule A of the Medical Act, the several corporations and the diplomas they confer are enumerated, and then follows a paragraph, which says the graduates of any university in Great Britain or Ireland shall be entitled to registration. It is, however, a matter for legal interpretation whether this wording entitles to registration only graduates of the universities then existing and enumerated in clause 4 of the Medical Act (1858), or whether it can be interpreted to apply to any and all universities subsequently chartered in the United Kingdom. If the latter interpretation prevail, then the graduates of the new Royal University will be entitled to register, as it is, of course, intended that they should be; and the graduates of the Queen's University, who are already registered as such, may have the option, if they choose, of changing the form of registration. Of this option, however, they will not be very likely to avail themselves, inasmuch as their existing registration is already a legal one, and no privileges or advantages will be gained by changing their existing registration to meet the new legislation. Universities under this *regime* in Ireland appear to be of such a transitory and changeable nature that it may possibly be considered to be a more unique distinction to remain a graduate, and to retain the prestige of the extinct Queen's University, than to assume the title of that which has just been called into existence, and of whose permanency, judging from recent proceedings in Parliament, there is no very complete guarantee.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL:

NOTICE OF MEETING.

A MEETING of the Committee of Council will be held in the Council Room of Exeter Hall on Wednesday, the 12th day of April next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, London, March 15th, 1882.

NOTICE OF QUARTERLY MEETINGS FOR 1882: ELECTION OF MEMBERS.

MEETINGS of the Committee of Council will be held on Wednesday, April 12th, July 12th, and October 18th. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary not later than 21 days before each meeting, viz., March 22nd, June 22nd, September 27th, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

November 4th, 1881. FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH.—The fifth ordinary meeting of the session will be held at the Grand Pump Room Hotel, Bath, on Thursday afternoon, April 13th, at 4.15 P.M.—R. S. FOWLER, E. MARKHAM SKERRITT, M.D., Honorary Secretaries.—Bath, March 1882.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The next meeting will be held at Tredegar towards the end of April. Members desirous of reading papers, etc., are requested to send titles to either of the undersigned within a week, in order that they may be inserted in the circulars convening the meeting.—ALFRED SHEEN, M.D., D. ARTHUR DAVIES, M.B., Honorary Secretaries.—March 14th, 1882.

NORTH OF ENGLAND BRANCH.—The spring meeting of this Branch will be held at Stockton-on-Tees, on Friday, April 28th. Members having papers or records of cases to communicate are requested to give immediate notice to one of the Honorary Secretaries, T. W. BARRON, M.B., Durham, DAVID DRUMMOND, M.D., Newcastle-on-Tyne.—March 28th, 1882.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—A meeting of the above District will be held at the Infirmary, Gravesend, on Wednesday, April 12th, at 3 P.M.; J. C. Armstrong, Esq., in the chair. Papers will be read by Dr. W. M. Ord, on Diagnosis of Thoracic Aneurysm; Dr. William H. Day, Remarks on Chorea and its Treatment; etc. Dinner will take place at the Old Falcon at 5.30 P.M.—A. H. B. HALLOWES, Honorary Secretary, 11, King Street, Maidstone.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: ORDINARY MEETING.

THE sixth ordinary meeting of the session was held at the Medical Institute on March 9th, under the presidency of Mr. T. H. BARTLEET. There were seventy members present, and two visitors.

Instruction at the Borough Asylum.—In reference to a resolution passed by the Branch on December 8th, and forwarded to the Borough Lunatic Asylums Committee, the following reply was received: "That the Committee are prepared to arrange for medical instruction at the Borough Asylums by the Superintendents, in the event of there being any applications for the same sufficient in number to justify such arrangements being made." It was resolved that the letter be received and entered upon the minutes, and that the thanks of the Branch be given to the Borough Asylums Committee for having so courteously acceded to the application contained in the resolution of the Branch.

New Members.—The following members of the Association were elected members of the Branch: Howard Bendall, M.B., J. J. Boyer, M.D., G. H. Hart, L.R.C.P.Ed., W. F. Haslam, F.R.C.S., Sidney W. Haynes, M.B., A. Lawson Heale, M.R.C.S., Professor J. Berry Haycraft.

Nominations were made for officers, Council, and representatives of the Branch in the General Council of the Association for the ensuing year.

Communications.—The following communications were made.

1. Mr. Jordan Lloyd showed a boy upon whom he had operated for complete Cleft Palate after the method of Mr. Francis Mason. The wound was plugged with sponges, one of which came away in ten days, and one in three weeks. The case had done remarkably well, and had healed throughout the entire length of the fissure.

2. Dr. Rickards showed a specimen of Milky Blood taken from a Diabetic patient after death. He stated the tests to which it had been subjected, and his opinion as to the cause of death in relation to acetonæmia and fatty embolism, considering the former view the correct one.

3. Mr. Lawson Tait showed a Tumour composed of Omentum which he had taken from a patient suffering from Acute Peritonitis; he considered its composition inflammatory, but it had been thought to be due to tubercle.

4. Mr. Lawson Tait also showed two specimens of Uterine Appendages from patients operated upon the second time, the first operation failing to give relief or not being complete.

5. Mr. Lawson Tait showed a Cyst which he thought was formed of the lesser cavity of the peritoneum from the body of a lunatic who had acute peritonitis, and in whose abdomen a common sewing-needle was found.

Vivisection and Surgery.—The PRESIDENT congratulated the Society upon the paper read by Mr. Gamgee at the last meeting of the Branch, on the Benefits conferred by Vivisection upon Human Surgery, and considered the profession highly indebted to him for this admirable defence, and for the valuable contribution afforded to the history of the subject.—Dr. SAUNDBY, in opening the adjourned discussion, combated the opinions and facts which had appeared in letters in the daily papers, under the signature of "Biologist".—Mr. JESSE, the Honorary Secretary to the Society for the Abolition of Vivisection, read a reply to Mr. Gamgee's paper.—Professor HAYCRAFT explained the position of physiologists in reference to the question of vivisection, combated the opinions expressed by Mr. Jesse, and quoted from the works of John Hunter to show how he was influenced by experiments upon animals in determining the conclusions at which he arrived.—Mr. FURNEAUX JORDAN referred to the experiments made upon the poison of snake-bites in India, and questioned the propriety of imitating Nature in the direction quoted by Mr. Jesse.—Mr. JORDAN LLOYD mentioned the value of artificial respiration as the outcome of experiments on animals.—Mr. GAMGEE replied on the whole question, and the meeting terminated.

SOUTH-EASTERN BRANCH: EAST AND WEST SURREY DISTRICTS.

A CONJOINT meeting of the East and West Surrey Districts of the South-Eastern Branch was held on Thursday, March 9th, 1882, at the Red Lion Hotel, Dorking; C. W. CHALDECOTT, Esq., in the chair.

Papers.—The following papers, etc., were read:

1. Dr. Hughlings Jackson, F.R.S.: Observations on Migraine.
2. Dr. J. F. Goodhart: Cases of Lunacy from Lead-Poisoning.
3. Mr. H. H. Clutton: Notes of a Case of Removal of Lymphadenomatous Glands from the Neck.
4. Mr. Malcolm Morris: Ringworm.
5. Mr. Thomas Hopcroft: A Case of Complete Inversion of the Uterus after Parturition.
6. Dr. Stowers exhibited some coloured drawings of Rare Skin-Diseases, including Scleroderma, Herpes with extensive ulceration, Syphilis, and an unusual form of Eczema of the Face.

CORRESPONDENCE.

INTRAPROFESSIONAL DUTIES.

SIR,—In response to the courteous request conveyed in your private note, that I would, in the interest of the profession, express my views on the subject which has lately been discussed in the pages of the JOURNAL, viz.: "*The relations of the profession to the families of medical men in practice, as well as to their widows and children*",—I beg to remark that the following revised rule for the guidance of the faculty in the matter in question, and intended for insertion in the next edition of the "*Code of Medical Ethics*", so fully represents my opinion on the debated points, that it may, perhaps, be well to submit it at once to the profession, rather than defer its publication to a future and uncertain date.

I would further observe that the suggested rule has been submitted to, and approved by the several distinguished English, Irish, and Scotch (the late Sir Robert Christison excepted—whose critical acumen has unfortunately been lost to the profession,) revisers of the *Code* herein alluded to, and by other eminent practitioners,—including my revered old "teacher", and "Nestor of the Profession"—the venerable Sir Thomas Watson—whose opinion is thus expressed:—"After fully considering what you have written respecting 'the duties of Practitioners in regard to professional services to each other, to their Families, Widows, and Children'—I am able to express my full and entire accordance with your views";—an accord which I venture to hope will prove as acceptable to the profession at large, as it naturally does individually to yours truly,

THE AUTHOR OF THE CODE.

March 1882.

THE DUTIES OF PRACTITIONERS IN RELATION TO THEIR PROFESSIONAL SERVICES TO EACH OTHER, TO THEIR FAMILIES, WIDOWS, AND CHILDREN.—All legitimate practitioners of medicine, their wives, and children while under the paternal care, are entitled (NOT *as a matter* OF RIGHT, but) *by professional courtesy*, to the reasonable and gratuitous services—*railway and like expenses excepted*—of the faculty resident in their immediate neighbourhood, whose assistance may be desired. In the case, also, of near relatives who are more or less dependent upon a professional brother (other than wealthy), it will likewise be well, at his request, to forego or to modify the usual fee. On the other hand, a son or daughter altogether independent of the father,—or the widow and children of a practitioner left in affluent circumstances,—should be charged as ordinary patients—unless feelings of friendship, or other special reasons, render the attendant practitioner averse to professional remuneration: in such case, the rule need not apply. Moreover, if a wealthy member of the faculty seeks professional advice, and courteously urges the acceptance of a fee, it should not be declined—*for no pecuniary obligation ought to be imposed on the* DEBTOR *which the* DEBTEE *himself would not wish to incur.*

SPECIAL CORRESPONDENCE.

BIRMINGHAM.

[FROM OUR OWN CORRESPONDENT.]

Transfer of Medical Teaching from Queen's College to Mason's College.—Vivisection.—The Ingleby Lectures.—The Medical Institute.—The Queen's Hospital.—The Musical Festival.—Wolverhampton Hospital.

I AM informed that arrangements are now practically completed by which the teaching of physiology, chemistry, and biology, will be transferred from Queen's College to Mason's College. This will effect a great improvement in the means of education at the disposal of our students, as the laboratory accommodation at Queen's College has been very defective. In addition to these courses, it is hoped that many students will avail themselves of the opportunity afforded them of attending Professor J. H. Poynting's admirable course of physics. Great credit is due to those lecturers in Queen's College who have shown such admirable readiness to sacrifice their own pecuniary interests in order to facilitate this change.

The question of vivisection has been brought forward here lately, with reference to rumours of the intention to seek a licence for Mason's College physiological laboratory. One of the chiefs of the antivivisection party is Mr. Lawson Tait. The dispute has passed through the phase of a newspaper controversy, in which the press took the scientific side of the question, and the antivivisection party made little by that move. Mr. Gamgee read his paper on Vivisection in Surgery at the February meeting of the Branch, when he was replied to by Mr. Lawson Tait, and the debate was adjourned to the March meeting. The secretary of the Antivivisection Society attended the adjourned meeting, and in lieu of a speech read from a manuscript excerpts from the evidence of Sir William Fergusson; but the other side of the question was handled very ably by Mr. Furneaux Jordan and Dr. Haycraft. Mr. Gamgee's paper is a valuable contribution to the controversy as it now stands, and has done and will do much good. We are threatened with a renewal of the discussion at the Graduates' Club and the Philosophical Society, at both of which papers on the subject are announced, but I do not doubt that the result will be satisfactory to the cause of scientific progress in both places.

The Ingleby lectures are to be delivered in June next by Dr. R. C. R. Jordan, Senior Physician to the Hospital for Children, but the particular subject has not yet been announced, though in all probability it will be selected from that branch of practice in which his hospital experience has been especially large, and of which he is well known to be so accomplished and successful a student.

The Medical Institute has lately received a handsome donation of £200 from W. Cregoe Colmore, Esq. The annual meeting takes place this month, when it is hoped that the report will show a very decided improvement in all respects upon that of last year.

Since my last letter, the Queen's Hospital has completed the arrangements for its out-patient staff by electing Dr. C. W. Suckling Casualty-Physician to the Hospital. Dr. Suckling is a distinguished student of the Birmingham School, an Honours graduate of the University of London, and has occupied the post of medical tutor at the Queen's College for the past two winters, conducting himself with marked ability, and obtaining in the highest degree the confidence of the students and the professorial staff.

The triennial musical festival for the benefit of the General Hospital takes place this August, and is expected to outshine all that have preceded it for many years in the character of its programme, which includes a new oratorio by Gounod. The income of the General Hospital depends in such an important degree upon the success of the festival, that no pains can be spared to ensure that result; and there seems every probability that the Birmingham Festival of 1882 will be an occasion to be remembered for a long while by all lovers of music. It will take place very near the time of the annual meeting, so that there is a probability that, without much extension of time, it will be possible for members of the Association who are so disposed to return from Worcester by way of Birmingham, and enjoy this rare musical treat.

The governors of the Wolverhampton Hospital have lately rejected by a large majority a proposal to appoint general practitioners as out-patient physicians. It is a curious anomaly that, while so much was said of the ignominy that would result from the employment of general practitioners to see medical out-patients, no one remembered that the surgical staff, like that of most provincial hospitals, is composed exclusively of general practitioners. There seems no propriety in the rule that admits general practitioners to surgical appointments, but excludes them from all share in medical work. It cannot be asserted with truth that there is greater need for specialism of study in one than the other, and there is no ground for maintaining this distinction. At the present time, a very large number of provincial hospitals find a great and increasing difficulty in securing the services of an adequate number of practising physicians to perform the duties of the medical staff—a difficulty which would find a satisfactory solution in the appointment of well qualified general practitioners to these posts.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS, Monday, March 27th.

Cases of Suspected Poisoning.—The Home Secretary was asked whether, in cases of suspected poisoning, when an analysis was directed to be made, he would consider whether it would not be more satisfactory that the suspected person should have an opportunity of being represented at such analysis.—He replied: I am of opinion that it would never do to allow a delicate process of this kind to be conducted by a combination of persons, who may be acting in adverse interests, and thus defeat the object of the experiments, which are necessarily delicate. I quite understand the sentiment, and I do not believe that it operates on a fear that the persons who carry out the experiments should not be appointed by the Crown, so as to be considered parties to the prosecution. Therefore, I propose to ask the presidents of the College of Surgeons and of the College of Physicians yearly to appoint two independent experienced men of science to refer to in cases of this kind for the purposes of performing these experiments. In making this statement, I wish it to be distinctly understood that there is no hesitation whatever as to the entire ability and impartiality of the persons who have hitherto been employed by the Crown.

Notices.—The following notices stand on the books of the House of Commons:—Wednesday, 21st June: Vaccination Acts (Compulsory Clauses Repeal) Bill (second reading).—Wednesday, 28th June: Vivisection Abolition Bill (seeond reading). Mr. Arthur Balfour: On the second reading of the Vivisection Abolition Bill, to move—That while due provision should be made for preventing the infliction of unnecessary pain on animals, it is inexpedient so to limit scientific investigation as to hinder discoveries which must result in a great diminution of human suffering.—Wednesday, 5th July: Contagious Diseases Acts Repeal Bill (second reading). Mr. Warton: On the second reading of the Contagious Diseases Acts Repeal Bill, to move—That it be read a second time upon this day six months.—Notices have also been given by Mr. Thomasson and Mr. Gray: On the second reading of the Infectious Diseases Notification (Ireland) Bill, to move—That it be read a second time upon this day six months.

MILITARY AND NAVAL MEDICAL SERVICES.

SURGEON H. R. O. CROSS has been appointed Surgeon Assistant Instructor to the Depôt Army Hospital Corps, Aldershot, on his return from South Africa.

SURGEON-MAJOR A. F. PRESTON, M.B., A.M.D., has been considered by the Secretary of State for War, to have merited special advancement in consideration of his services during the late Afghan campaign, and has been rewarded by promotion to the next higher rate of pay in his rank, with seniority next to the junior officer on such higher rate of pay. Surgeon-Major Preston was in medical charge of the 66th Regiment at the battle of Maiwand, and was very severely wounded (shot through both loins and left forearm) while attending to a wounded man of his regiment in the front line of fire, and was mentioned in despatches.

THE following appointments were made at the Admiralty on Saturday: Joseph Wood, M.D., staff-surgeon, to the *Encounter;* Samuel C. Browne, surgeon, to the *Impregnable*, additional, for service in the *Nautilus*, brig, during the cruising season; Charles H. Wheeler, surgeon, to the *Impregnable*, additional, for service in the *Pilot*, brig, during the cruising season; Edgar G. Swan, surgeon, to the *Lion*, additional, for service in the *Liberty*, brig, during the cruising season; Arthur W. E. B. Barrett, surgeon, to the *St. Vincent*, additional, for service in the *Martin* during the cruising season; Charles W. Sharples, surgeon, to the *Boscawen*, additional, for service in the *Seaflower* during the cruising season; Robert W. Anderson, surgeon, to the *Ganges*, additional, for service in the *Sealark* during the cruising season.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

THE HEALTH OF BOMBAY.—A standing medical board has been constituted at Bombay to report weekly as to cholera in the city. This step has been taken to procure the removal of the harassing quarantine restrictions now imposed in Egypt on arrivals from Western India.

INFANTILE MORTALITY AT KEIGHLEY.

AN extremely high rate of infantile mortality is reported for the past year in the Keighley Urban District. In his last annual report the Health Officer of the town gives the entire death-rate as 24.0 per 1,000 of the population; the deaths under five years of age representing 43.5 per cent. of the total mortality, and those under one year of age 23.8 per cent. The infantile mortality for the whole of England in 1881 was 135 to every 1,000 births, the lowest rate recorded for some years, whereas in Keighley it increased from 169 per 1,000 births in 1880 to 183 per 1,000 in 1881. Mr. Roberts rightly urges that some great effort should be made to stop the enormous sacrifice of infantile life which, unhappily, he has now to record. In other towns the formation of day nurseries has been suggested, where mothers, who are compelled to work at mills, etc., during the day, can take their children to be nursed, instead of leaving them with elder children and old women, who dose them with slops of every conceivable kind, instead of with wholesome milk. Mr. Roberts recommends the establishment of committees of ladies to visit mothers, and to explain to them the essentials of nursing, as well as the giving of lectures on the subject, and the distribution of plain and simple tracts. Any measures that may help to lessen the sad waste of infant life in our manufacturing districts deserve trial and sympathising help from the well-to-do.

THE SANITARY CONDITION OF ASHTON-UNDER-LYNE.

A SPECIAL meeting of the Ashton-under-Lyne Town Council was recently held, for the purpose of hearing a report from Dr. Ballard, one of the medical inspectors of the Local Government Board, who had been instructed to inquire into the sanitary condition of the borough. Dr. Ballard stated that the inquiry had been made in consequence of the enormously high death-rate recorded by the Registrar-General as occurring in the borough. During the eleven years (1871-1881) the annual rate of mortality was as high as 25.0 per 1,000, and the infantile rate was about 19 deaths per 100 births, while 31 of every 100 children died before they reached five years of age. Dr. Ballard found in one part of the town the blocks of houses very close to one another—so close at the rear and shut in at the sides that there were by the sides of the blocks what might be regarded as wells or deep cuttings, so that whatever air was contained in the centre was stagnant. On examination of the houses he found that the ashpits which were situated in these blocks were loaded up with excrement and ashes; indeed, in most parts of the town he found these conditions prevailing. Dr. Ballard also referred to the sloppy, wet, and dirty condition of the roads, there being nearly everywhere big puddles caused by the irregularities of the pavement. In the outskirts of the town things were really worse, because there were found a number of roads that had not been touched at all. Dr. Ballard described the condition of a cowshed in one part of the district as "one of the most disgusting and abominable things he had seen in the town." In two others, moreover, that he had visited he discovered the absence of any water supply except that obtained from the well, where he was told that worms came up in the pump. He also complained of the absence of sewer ventilation, and of the unsatisfactory condition of some of the brooks which flowed through the town. In some parts they were arched and culverted, but left with a flat bottom, on which there must be deposits and a nuisance, while some of the watercourses, which were used as sewers, were left open, thus causing serious nuisance. After pointing out upon whose shoulders the responsibility of such a deplorable state of things rested, Dr. Ballard summarised the measures which should be at once taken to improve the sanitary condition of the town. He recommended that the by-laws should be remodelled upon those issued by the Local Government Board, and that systematic ventilation of sewers should be at once carried out, while all the populated parts of the borough should be paved and sewered. An infectious hospital, mortuary, and disinfecting chamber should be provided, and care should be taken that the milk-shops' order be properly carried out. He also recommended that the ashpit system should be abolished, and the pail system adopted throughout the town.

PARISH GUILDS OF HEALTH

A PROPOSAL to establish parish guilds of health to prevent fevers and disease in houses, by aiding, supplementing, and preserving, the work done by local surveyors, medical officers of health, and others, was brought before the National Health Society, by Sir Henry Cole, K.C.B., at a recent meeting held at 44, Berners Street (Mr. Ernest Hart in the chair), with the view of obtaining the National Health Society's co-operation in the work.

Sir HENRY COLE explained that it was proposed the guild for health should be voluntary, self-supporting and self managing, and that it should be established in every parish district at least, in connection with a school mission house, or other suitable place. The objects were stated to include the distribution of rules on all subjects connected with house-drainage, water-supply, and general house sanitation, issued by local boards of health and kindred societies; to supply sanitary publications at the cheapest rate; and to issue a cheap periodical on sanitary matters, with the special view of informing householders in this respect; to promote the proper removal of infectious cases from private dwellings; to provide skilled labour for the performance of sanitary work required by the householder; and for the examination of drains, cisterns, pipes, kitchen boilers, etc.; to exhibit and sell specimens of various sanitary apparatus, disinfectants, etc., the proper management of the dust, garbage, and other minor matters connected with house sanitation. The proposed scheme included the appointment of a person, whose work it would be to distribute sanitary information; and the election of officers in each district, with power to appoint contractors to carry out sanitary work, at charges fixed by the committee. A small nominal fee would be paid by each member of the guild, and subscriptions would be invited to promote sanitary arrangements for the poorest class. General Cotton, when lately discussing this subject with him, had made the graphic statement that the action of a dwelling was not automatic. Constant care and attention were necessary to keep in proper working order all various sanitary apparatus for drainage, water and air supply, cleanliness, etc. The householder had to look to the state of the earth, air, fire, and water connected with the house. Unless some means were used to spur on the individual to look to his own interest in his house, the action of Parliament and of municipal authorities would be ineffectual in bringing about the desired results. If attention were not given to the condition of the household boiler for a year or two, the householder must not be surprised if the boiler, acting badly, ultimately burst, as it was an inevitable result. The present system of removing dust and filth from buildings he characterised as barbarous and dangerous to the health of all, but he did not despair of eventually getting parish authorities to adopt a more efficient system, as it would save a great deal of trouble. The same held good of the water-system; if proper attention were not given to see the arrangements for water-supply through the house, and they were not in perfect order, and proper precautions were not taken to secure protection against frost and dirt, the householder must continually experience trouble. In his opinion a station of health was a necessity—a place where all the information relating to the health of the house could be freely obtained. In his own parish of St. Mary Abbots, Kensington, any householder might obtain a written report from the surveyor of the sanitary state of his house, and the necessary requirements in it, by making a payment of five shillings for a house under £100 a year. This provision he believed, did not exist in other parishes. The individual must be made to feel that it was his interest and his duty to keep his house properly in order and himself healthy. There was no one who had wished to look into the parish laws but had found it very difficult to get at them, and when he had done so, found it very difficult to understand them and put them in action; he had been compelled to do the best he could, and to go from one place to the other to seek information and assistance. The pith of this was that the individual must look after himself, if he wished to be as healthy and comfortable as he might be. Sir Henry Cole, thought the collection of the various laws respecting the taking of a house and keeping it in order was a work which might very properly be undertaken by the National Health Society, and he should be delighted to hear that the scheme was one which that society would find it its pleasure and interest to promote.

The CHAIRMAN said it would be quite within the ordinary proceedings of their society to collect and cultivate by-laws and rules in the different London parishes, relating to buildings; to print a statement of the duties of medical officers and inspectors, to the extent to which householders were enabled to have recourse to those officials for keeping their houses in order; and it was quite within their scope to publish any and all information as to drainage, ventilation, water-supply and heating of houses; and to prepare a suitable and popular handbook on the subject, which might be issued at a very cheap rate. But the

hould see clearly what was to be the scope of such a work, as there ere already a number of popular treatises, under separate heads, such s the little publication of Dr. Parkes on "Personal Hygiene"; various uthorities on "Healthy Houses"; a useful little work by Professor de haumont, and another by Dr. Corfield; and a good deal of available terature. But what there was not available was a little book which e had long thought it might be advisable for the Society to publish, a ttle work, which might, perhaps, be called "The Citizen, his Sanitary)uties, Powers, and Relations": what these duties were in respect to ieir houses, their neighbours, and their relations; what it was incum- ent on them according to law, and what steps they could take. But hen they came to Sir H. Cole's proposal to exhibit and sell specimens various sanitary apparatus, etc.; and that they should provide skilled bour for carrying out sanitary work, they came to a different part of ie question and a different principle. This was a commercial proposi- on, which meant the opening of a shop, and a shop of a very extensive ind. One of the suggestions was that people were to know what were ie best things for cleaning their drains, and the best kind of dis- fectants, etc. But to endorse anything of the kind with the guild's ame would be at once to give it an artificial value.—Sir HENRY OLE stated that he had not proposed establishing shops, but rather to duce existing shops to sell and exhibit suitable sanitary apparatus, ich as cleaning-machines for house drains, different washing machines, isinfectants, etc.—Mrs. LAWRENCE suggested the formation of local mmittees in connection with the scheme.—The CHAIRMAN said he as glad to hear that they proposed keeping clear of establishing shops r themselves; and he thought there was nothing in the scheme in hich they could not effectually assist. The work would consist in the tablishing of local committees, of a somewhat similar kind to that hich they had as a sanitary committee, and, as far as possible, give a actical character to the establishment in each parish of a station or om, which might be opened by private enterprise, at which specimens uld be seen.—Sir HENRY COLE said it would be necessary to get at ast three persons in each district to interest themselves in the question. -Rev.—LÖWY suggested the appointment of a special subcommittee consider the proposed scheme, with the view of giving it practical ape.—The CHAIRMAN was of opinion, that a large public meeting ould be more effectual for this purpose.—After further discussion, the llowing resolution was moved by Major-General Cotton, seconded y Mr. Ernest Turner, and passed unanimously:—"That the National ealth Society, having heard the statement of Sir Henry Cole, in res- ct to the proposed parish guilds, approves the objects stated, and ill assist within its sphere in carrying them out."

THE SUBORDINATE MEDICAL SERVICE OF BENGAL.

appears from an official report recently issued that some pro- ess was made in 1880 towards the improvement in the compo- ion of the subordinate medical service of Bengal. At the same ne, the service has been relieved of a considerable number its most useless members. Some have been dismissed for mis- nduct, others have resigned; the most frequent cause being the jection of immoderate demands for leave. It had become a mmon practice with the young assistant-surgeons to apply for ve for long periods shortly after entering the service, the object ing to try their fortunes in private practice, and after failure in is, to serve the Government. The men were not wanted, and leave as granted; but unreasonable extensions were asked, and refusal was llowed by resignation. In no single instance has a subordinate of her class left the service whose removal has been otherwise than a in to it. The unavoidable entries of assistant-surgeons continue to ceed the means of employing them; while from every school in the ovince come applications for admission of its best pupils into the ss of hospital assistants, in number larger than the vacancies, not- thstanding the smallness of the pay which men of this class receive the outset. The organisation of a provincial service of hospital sistants of the several grades, whose career will begin and end in civil ployment, will involve increase of expenditure; and as the service ists chiefly for the dispensaries whose emoluments and opportunities nish the rewards of good work and satisfy the claims of seniority, it reasonable to look at dispensaries for the means of meeting growing arges incurred on their account. The situation is this. Formerly e province was provided with native doctors from those who had en enrolled for the army, but were not wanted for that service. ese were supplemented by a class of men recruited from various rces, and containing many persons without regular training of any d. Examination and promotions were confined to the military ss; and under its rules, grades and grade pay were determined. A n of this class in charge of a dispensary, becoming on promotion en- titled to a higher pay than he received from the dispensary, might be removed to the army, and the civil Government was saved from increased liability by putting a junior in his place. This is now altered. The civil administration must provide for all, senior and junior alike, and must meet claims for increased pay on promotion without any increased field of employment. Thus, a hospital assistant holding a dispensary of the lowest status, receives thirty rupees *per mensem*, whereof fifteen rupees are paid by the Government. The hospital assistant passes by examination into the first class, and becomes entitled to fifty-five rupees *per mensem*. The local committee will not increase his pay if they can avoid it, and the difference would fall on Government, while the dispensary would retain the services of a better man than the rules allow, because there is no other employment for him. Several instances of this kind occurred during the past year, and the following steps have been taken. 1. As opportunities have arisen, promoted men have been transferred to dispensaries to which higher salaries have been attached. Such opportunities are limited, and they will not suffice for all future cases. 2. A dispensary has been compelled to meet the increased charge by dismissing superfluous servants. 3. There are dispensaries now in charge of assistant-surgeons which do not afford adequate work for them. The supporters have been required either to raise funds for the entire payment of the assistant-surgeon if they desire to keep him, or to accept the substitution of a hospital assistant. 4. It has been ruled that whenever a dispensary is required or allowed to pass into the independent class, it be notified to the supporters that in the event of their medical officer obtaining promotion, they must be prepared to meet the additional charge, and must not expect that he will be replaced by a junior man.

PHTHISIS IN THE LUNATIC ASYLUMS OF BENGAL.—In his report on the Bengal Lunatic Asylums for 1880, Dr. Payne submits a very thorough and interesting examination of the statistics of mortality in the different asylums during the year. The death-rate per cent. fell from 14.7 per 1,000 in 1879, to 12.3 in 1880, the average of the ten previous years being 11.5. It seems quite clear that diet has no connection with this mortality. In Dellunda meat rations were introduced, with no effect whatever on sickness. In Patna, where the scale was altered, mortality increased. In Decca, where one-third of the animal food was replaced by vegetables, the mortality decreased. A detailed examination of the deaths under the different heads, leaves no doubt that the mortality was largely affected by the importation of disease from outside. Of six persons who died from ague and its consequences, three were new admissions. From anæmia, anasarca, debility and dropsy, 14 died in 1880, against 16 in 1879. Of the 14, just half were new admissions. Of three persons who died from remittent fever, two were new comers who were admitted into hospital on arrival. There were 23 recorded deaths from phthisis, against 21 in 1879. Dr. Payne observes that as the *post mortem* examinations are more regularly made, the asylum authorities are enabled to determine as phthisis a larger and larger number of cases which, had examination not been held, might have been ascribed to other causes. *Post mortem* examinations are now made in every case in which no objection is raised by the relatives of the deceased lunatic. It is certain that, under this practice, the number of phthisis cases will, as a rule, appear larger in comparison with that reported in former years; while there will probably be a corresponding reduction under the heads of anæmia and debility. On the whole, it seems clear that, while lunatics generally are known to be liable to phthisis, there is no reason to believe that the condition of any of the Bengal asylums contribute specially to the promotion of this disease.

MISTAKES IN DIAGNOSIS.

SIR,—I am directed by the South-Eastern Dispensary Medical Officers' Society, at a meeting held this day, Dr. P. F. Coghlan presiding, to express their strong condemnation of the alleged conduct of Dr. O'Neill of Athy, in publicly reflecting, unnecessarily, on the dispensing medical officers of that union; and the entire concurrence of the members of this Society with the remarks and practical suggestion of Dr. J. L. Walsh of Kilmacthomas on the subject, published in the BRITISH MEDICAL JOURNAL for March 4th.—I am, etc.,

JAMES B. NORRIS CANE, Honorary Secretary.

Leper Hospital, Waterford, March 6th, 1882.

AT the annual meeting of the Brighton and Sussex Natural History Society held last week, Mr. Alfred Haviland read a paper illustrating the Geographical Distribution of Heart-Disease, etc.; and remarked on the importance of knowing the healthiest parts of watering-places—the soil, the altitude, etc. He had prepared a special map, showing not only the geology of Brighton, but also the different aspects and directions of the streets, with "contour lines" showing the different heights above high-water mark, from 15 to 425 feet. This map will probably be published, and will be found very useful.

OBITUARY.

SIR EDWARD BURROWES SINCLAIR, KNT., M.D.,

WE regret to announce the death, on the 24th instant, in the fifty-eighth year of his age, of the King's Professor of Midwifery in the School of Physic of the University of Dublin. For the last four years, his friends had noticed that Sir Edward Sinclair's health was gradually failing. There were lately evident indications of central nervous lesions; and, although his illness assumed alarming features during the last month, the end was rather sudden.

Sir Edward was the eldest son of the late Rev. Richard Hestly Sinclair, vicar of Cashel, County Longford. He was born in 1824, and educated in Trinity College, Dublin, of which university he graduated M.A. in 1859, and M.D. in 1861. In 1847, he became a member of the English College of Surgeons, and entered the Army Medical Department as assistant-surgeon in the "Royal Scots." He remained in the service only three years, and then returned to Dublin to take the appointment of assistant-physician to the Rotunda Lying-in Hospital. From this time, he devoted himself to the subject of obstetrics, and, with his then colleague, Dr. George Johnston, the present President of the King and Queen's College of Physicians, wrote a "Practical Midwifery, comprising an account of 13,748 deliveries which occurred in the Dublin Lying-in Hospital during seven years." He was elected a Fellow of the King and Queen's College of Physicians in 1856, and, having served as Censor and Vice-President of the College, was, in 1867, chosen successor to the late Dr. Fleetwood Churchill as King's Professor of Midwifery. As *ex officio* Midwifery Physician to Sir Patrick Dun's hospital, he established what is now a large maternity department in connection therewith. His military medical experience, short although it was, was sufficient to show a man like Sinclair the grievous want of trained midwives in regiments at home and abroad. In 1869, with the sanction and co-operation of H.R.H. the Field Marshal Commanding-in-Chief, the then Director-General of the Army Medical Department, and the Board of Sir Patrick Dun's Hospital, he established a school, in connection with his maternity, for the education and training of soldiers' wives to serve as midwives in the army. Her Majesty gave her patronage to this school, which has proved a most successful and useful one, over four hundred well-trained midwives and nurse-tenders having been sent to the army from it since its establishment. It was in consequence of his praiseworthy exertions in what was to him the labour of love, that in 1880 Her Majesty personally conferred the honour of knighthood upon Dr. Sinclair—a honour which no obstetrician in Ireland since the celebrated Sir Fielding Ould had received.

The University of Dublin, on the institution of its degree of *Magister in Arte Obstetricâ* in 1877, conferred the degree *honoris causâ* on Dr. Sinclair and the late Dr. McClintock. The following year Dr. Sinclair was elected President of the Obstetrical Society of Dublin, an office which he worthily filled for two years. Sir Edward was also the Secretary of the Vaccine Department of the Local Government Board, and as such had charge of the distribution of vaccine lymph throughout Ireland. Sir Edward Sinclair did not contribute largely to the literature of his branch of the profession, but he was well read in it; and, besides being an excellent and favourable lecturer, was a good scholar. He had—as who had not?—his imperfections of temper; and he was not chary in speaking out his opinions which, although generally well-founded, often left a sting behind. His more intimate friends, however, knew him as a straightforward and true-hearted gentleman, and as an agreeable companion, whose loss they will long regret.

AT the Liverpool Police-court, Ethens de Tomanzie, a coloured man, who described himself as a "Licentiate of Medicine of British India," and John Adams, who produced an American diploma, have been summoned under various informations for breaches of the Births and Deaths Registration Act and the Medical Act. The two defendants, it appeared, were connected with a society called the "Liverpool Artisans' Medical Society," and they had attended a man named Heron, who subsequently died, and to whose wife Tomanzie gave a certificate of death signed "J. Adams, M.D." Adams was called, and stated that he was an American physician, but had never been in America. He passed a "postal examination," and paid £20, which gave him the title of M.D., and he supposed he had a right to use it. Other cases against Tomanzie of a similar character having been gone into, he was committed for trial on the charges as to the certificates, but admitted to bail. On the summonses for illegally using a medical title he was fined £5 and costs. The cases against Adams were adjourned.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, March 23rd, 1882.

Adcock, Harold, Middleton, Northamptonshire.
Flaxman, Americ Edwin, Newcourt Temple.
Nicholson, John Williams, Alston, Cheltenham.
Nutt, William Anthony, Plymouth.
Stratton, John Lionel, Kidderminster.
Wilson, Thomas, Maidstone.

The following gentleman also on the same day passed the Primary Professional Examination.

Corner, Matthew Cursham, London Hospital.

MEDICAL VACANCIES.

The following vacancies are announced :—

BIRMINGHAM GENERAL DISPENSARY—Resident Surgeon. Salary, £15c per annum. Applications by April 12th.

BOYLE UNION—Medical Officer for Gurteen Dispensary District. Salary, £12c per annum, with £10 per annum as Medical Officer of Health, with registration and vaccination fees. Election on the 5th instant.

BRITISH LYING-IN HOSPITAL, Endell Street.—Honorary Physician. Applications by April 1st.

CAMBRIDGE COUNTY LUNATIC ASYLUM.—Assistant Medical Officer Salary, £100 per annum. Applications by the 15th April.

CHELTENHAM BRANCH DISPENSARY—Resident Medical Officer. Salary £180 per annum. Applications by April 17th.

CHILDREN'S HOSPITAL, Birmingham.—Assistant Resident Medical Officer Salary, £40 per annum. Applications by April 13th.

DENHOLME AND DISTRICT—Qualified Practitioner. Applications to G. R Selby, Denholme, Roxburghshire.

GENERAL INFIRMARY, Leeds.—House-Physician. Salary, £100 per annum Applications by April 4th.

GLASGOW OPHTHALMIC INSTITUTION—Ophthalmic Surgeon. Applications by April 8th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Clinical Assistant. Applications by April 1st.

HOSPITAL FOR WOMEN, Soho Square, W.—Pathologist and Registrar Salary, 50 guineas per annum. Applications by April 3rd.

HUDDERSFIELD INFIRMARY.—Second Junior House-Surgeon. Salary, £4 per annum. Applications by April 3rd.

KENT AND CANTERBURY HOSPITAL—House-Surgeon. Salary, £80 pe annum. Applications by April 6th.

LONDON HOSPITAL, Whitechapel, E.—Aural Surgeon. Applications by th 18th April.

NATIONAL DENTAL HOSPITAL, 149, Great Portland Street, W.—House Surgeon. Salary, £50 per annum. Applications by April 26th.

PARISHES OF MID AND SOUTH YELL AND FETLAR AND NORTH YELL—Medical Officer. Salary, £70 per annum. Applications to the Inspector of Poor, Mid Yell, Shetland.

QUEEN'S HOSPITAL, Birmingham.—Resident Surgeon. Salary, £50 per annum Applications by April 10th.

ROYAL FREE HOSPITAL, Grays Inn Road, W.C.—Junior Resident Medical Officer. Applications by the 12th April.

SCARBOROUGH FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Resident Medical Officer. Salary, £200 per annum. Applications by April 15t

SCHOOL OF DENTAL SURGERY—Teacher of Dental Metallurgy. Applications to the Dean of the Medical School, Dover Street, Liverpool, by April 25t

SEAMEN'S HOSPITAL (late Dreadnought), Greenwich, S.E.—Resident House Physician. Salary, £75 per annum. Applications by April 6th.

UNIVERSITY OF GLASGOW.—Examiner in Surgery. Salary, £40 per annum Applications, by 1st April, to Dr. Anderson Kirkwood, 145, West George Street Glasgow.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL Physician. Honorarium of £100 a year. Applications by April 24th.

YORK COUNTY HOSPITAL—Honorary Physician. Applications by the 11 April.

MEDICAL APPOINTMENTS.

AINSLEY, T. G., M.R.C.S., appointed Medical Officer and Public Vaccinator to t West Hartlepool District.

ALLAN, F. J., M.B., appointed Visiting Physician to the Infirmary for Consumption, Margaret Street.

BIRD, J., M.R.C.S., appointed Administrator of Anæsthetics to the Dental Hospital of London, *vice* A. Coleman, L.R.C.P., resigned.

BURGESS, D., M.B., appointed House-Physician to the Royal Hospital for Diseases of the Chest, *vice* J. Harper, M.B.

DICKSON, T. A., L.R.C.S., appointed House-Surgeon to the Paisley Infirmary, *vice* M. S. Anderson, M.B.

JACOB, D., M.D., appointed Medical Officer for Maryborough Dispensary District of the Mountmellick Union.

LANE, J. O., M.B., appointed Assistant House-Surgeon to the General Infirmary Northampton.

MORRIS, J. H., M.R.C.S., appointed District Medical Officer to the Salford Union.

PARKINSON, G. W., L.D.S., appointed Assistant Dental Surgeon to the Dental Hospital of London, *vice* S. J. Hutchinson, L.D.S.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., *which should be forwarded in stamps with the announcements.*

BIRTHS.

BOTHWELL.—March 19th, at the Strand, Topsham, Devonshire, the wife of Dr. G. G. Bothwell, of a daughter.

O'RORKE.—March 24th, at Parkview, Ballinrobe, Co. Mayo, the wife of Charles T. J. O'Rorke, Esq., L.K.Q.C.P., L.R.C.S.I., of a son.

MARRIAGES.

BROWN—CARTER.—On March 29th, at St. Matthew's Church, Chapel Allerton, by the Rev. R. R. Kirby, Vicar, assisted by the Rev. R. K. Snowdon, Vicar of Clifford, Walter Henry Brown, M.R.C.S., of Queen Street Leeds, to Gertrude Elizabeth, youngest daughter of J. B. Carter, M.R.C.S., of Elm House, Chapel Allerton, Leeds.

RING—SINCLAIR.—On March 21st, at St. James's Church, Belfast, by the Rev. John Bristow, M.A., assisted by the Rev. T. B. Brookes, M.A., James Ring, M.D., surgeon, Army Medical Department, to Margaret Fitzgerald, daughter of Deputy Surgeon-General James Sinclair, M.D., Principal Medical Officer, Aldershot Division.

WEBSTER—FAULKNER.—On March 23rd, at the Parish Church, Edgbaston, by the Rev. Henry Hardy, Joseph Henry Webster, M.R.C.S.E., L.R.C.P.E., Wareham, Dorset, son of Joseph Webster, Esq., of Sherwood Rise, Nottingham, to Clara, daughter of Charles Faulkner, Esq., of Edgbaston, Birmingham.

PROPOSED PARK FOR BRIGHTON.—A public meeting, which was largely attended, has been held at the Brighton Town-hall to determine as to the purchase of Preston Park from Mr. Benett Stanford for £50,000, the object being to convert it into a public park. The proceedings were of the most uproarious character, and eventually the matter was adjourned for a fortnight.

AT the meeting of the Committee of the British Medical Benevolent Fund, held on March 28th, there were twenty-three applications for relief. Grants were voted to nineteen of them, amounting in the aggregate to £213. A sewing-machine is also to be purchased by the chairman for one of the applicants, a widow, who earns her livelihood by needlework. Among the cases were a medical man, aged 92, and two widows, aged 79 and 73 respectively, and there were seven other applicants over the age of 60. The total amount distributed in the first quarter of the current year is £690.

A PARIS temperance society, which dates as far back as 1772, we hear, has been holding its one hundred and tenth annual meeting, under the presidency of M. Hippolyte Passy, Deputy for the Seine, supported by M. Lunier, Inspector General of Lunatic Asylums; M. Beaumetez, of the Paris Hospitals, and several other medical men of influence and position. A report was read showing that the society is in a flourishing and satisfactory condition. There are upwards of a thousand members, and the revenue for the past year was about thirteen thousand francs. A prize of two thousand francs for the best essay on the changes undergone by alcohol in the human organism was awarded to M. Schmidt, of Stockholm.

CONVALESCENT HOME AT FOLKESTONE.—A correspondent, writing to a contemporary, states that no fewer than 2,439 patients have been already admitted into this home—a large proportion from thirty-six hospitals, metropolitan and provincial. Patients are received recovering from severe illness (not contagious), or from surgical operations, and who still require most careful nursing with medical treatment. Invalids of either sex, irrespective of religions opinions, and coming from whatever distance, are admitted. So numerous have applications for admission become, that the present accommodation (independently of being extremely inconvenient and far removed from the sea) is quite unequal to the demand made upon its resources. The council of the home has, therefore, decided to erect a suitable building, on a site obtained with the concurrence and by the kind consideration of Lord Radnor. A sum of £7,000 has already been subscribed, but £9,000 more is still required to complete the building. Her Royal Highness the Duchess of Edinburgh has graciously consented to lay the foundation-stone after Easter. Subscriptions can be paid to the Rev. C. J. Parsons, Priory Lees, Folkestone; or to the Folkestone Branch of the National and Provincial Bank.

IRISH GRADUATES' ASSOCIATION.—A correspondent writes:—The annual metropolitan dinner took place at the Holborn Restaurant on St. Patrick's Day. Fifty-four members and guests were present. The President for the year, Dr. J. T. Banks, Physician to the Queen in Ireland, was unavoidably prevented being present. In his absence the chair was taken by Sir W. Mac Cormac, Vice-President. Amongst the invited guests were the Presidents of the Colleges of Physicians and Surgeons, the President of the Metropolitan Branch of the British Medical Association, Mr. Lister, Drs. Sieveking, Blandford, Ord, Fothergill, Baines, Mitchell Bruce, Lauder Brunton, Mrs. Garrett Anderson, Miss Pechey, Mrs. Atkins, Mrs. Claud Marshall, and several other ladies. An American physician was also present—Dr. McCormack, of Kentucky. After an excellent dinner, the usual toasts were proposed. From the chair—"Our Rulers" (the Queen and Royal Family) and "Our Guests;" to the latter Drs. Blandford and Sieveking replied, and Mrs. Garrett Anderson returned thanks for the lady guests. The President-elect, Dr. Waters of Chester, proposed "Our Elders," to which Mr. E. Saunders, Mr. Lister, and Dr. Ord replied. Dr. Foster, of Birmingham, proposed "Our Cousins in America," to which Dr. McCormac made a happy reply. Mr. Lister next proposed "Yourselves," coupled with the health of the Chairman, Sir W. Mac Cormac. This toast was drunk in the usual form with musical honours. In his reply he expressed the great regret the absence of the President, Dr. Banks, caused to all present, especially as the cause was illness in his family. Mr. G. Wallace proposed "The Ladies" in a humorous and happy speech, which provoked an equally happy reply. Dr. Donovan proposed "Our Next meeting," coupled with the health of the Honorary Secretaries, who replied, and stated that, at the usual Council meeting held that day, five new members were elected, and that the annual meeting would be held at Worcester on Wednesday, August 9th, under the Presidency of Dr. E. Waters, of Chester, the President-Elect. A special supply of shamrock had been procured from Ireland, and a spray was presented to each guest and member. The dinner was served in the Duke's Saloon and was in all that could be desired in materials, wines, and service.

SANITARY ASSURANCE FROM AN HOUSEHOLDER'S POINT OF VIEW.—Dr. Robert Farquharson, M.P., presided at a public meeting of the Sanitary Assurance Association, at the rooms of the Association, 5, Argyll Place, on Friday, March 10th, where Mr. H. Rutherfurd, Barrister-at-Law, delivered an address on the above subject. Mr. Rutherfurd's opening remarks were devoted to the consideration of the subject as it would be viewed by the occupant of a dwelling-house anxious to protect himself and his family from baneful diseases, which were too prevalent on account of the unscientific methods employed in providing for drainage and ventilation. Mr. Rutherfurd quotes from Dr. De Chaumont's lecture on the same subject some statistics showing the death-rate from diseases liable to be favoured or propagated by neglected house-sanitation, the total result, based upon the Registrar-General's report showing that about one-third of the annual mortality arose from such disease. Although it might not be possible entirely to prevent the propagation of such complaints by even the most perfect system of house-sanitation, yet there was abundant evidence to prove that in very numerous instances disease might be altogether prevented from originating, and in other cases be modified and mitigated. Mr. Rutherford also pointed out what an enormous pecuniary loss was sustained by the prevalence of these diseases, and forcibly illustrated the very poor economy which influenced a large majority of householders in abstaining from setting their houses in sanitary order; and he earnestly pressed upon his audience and the public at large the desirability of having their houses inspected properly, and reported on by a competent authority such as the Sanitary Assurance Association. The services of the specially qualified officers were to be had through the medium of the Association at fees to the Subscribers in accordance with a graduated scale in which for houses rated at £40, the fee was half a guinea. If in other associations or companies less fees might be charged for large houses, it would be well to inquire whether identical services were rendered, and whether a certificate assuring the sanitary condition of the property was given. Mr. Rutherfurd closed his address with a warm appeal to all to consider the subject closely, and especially those who were large employers of labour. A discussion followed. Dr. Farquharson said that it gave him much pleasure to do what he could to make the work of the Association known. In these days, when it was the fashion to look to Parliament to do everything, it was a good thing to see the people, with the aid of the Sanitary Assurance Association, taking into their own hands the sanitation of their houses, and not waiting for public officials to be appointed for this work. Sir Joseph Fayrer referred to his experience in India, where, simply from improved sanitary conditions, the death-rate in the army had been reduced enormously. The object of the Association was, as far as possible, to do away with the causes that gave rise to disease, and then the effects would cease. As far as science, architecture, and medicine combined would prevent disease, he thought they would certainly tend to do so, and the Association merited well the co-operation both of his own profession and of the architectural profession; in fact, of all science. Dr. Danford Thomas spoke of the necessity which existed for better sanitary regulations, particularly among the poorer districts, where the houses were of a class which would be inspected for subscribers to the Association for the trifling

fee of half a guinea. Mr. Barrington Kennett, Mr. Mead, Mr. Crabbe, and Mr. Matthews having spoken, Mr. Mark H. Judge, the surveyor, gave a practical explanation of the methods adopted by the Association. All reports included a specification of such work as might be necessary to put the house into good sanitary condition. It was not necessary in the first instance to open the ground, or to disturb the house in any way. The report pointed out how far this might be necessary, and consisted, practically, of three heads, viz., sanitary arrangements that were satisfactory, those that were defective, and those that it was necessary to open up for inspection. All inspections were made jointly by the officers of the Association; and the certificates given under the seal of the Association, assuring the sanitary condition of the property, were only given on the joint recommendation of the chief sanitary officer and the surveyor. Mr. Rutherford replied to the discussion, and votes of thanks were passed to him for his address, and to Dr. Farquharson for presiding.

HEALTH OF FOREIGN CITIES.—A table in the Registrar-General's last weekly return supplies the means for deducing the following figures, which may be accepted as trustworthy indications of the recent health and sanitary condition of various foreign and colonial cities. According to the most recently received official weekly returns, the annual death-rate in the three principal Indian cities averaged 34.4 per 1000, and was equal to 27.4 in Calcutta, 32.6 in Bombay, and 45.3 in Madras. Cholera caused 57 deaths in Madras, 21 in Calcutta, and 9 in Bombay, differing but slightly from the numbers in the previous week; 52 deaths resulted from measles in Bombay, and 7 from small-pox in Madras, and fever fatality showed the usual excess in each of these three cities. The death-rate in Alexandria was equal to 30.3, and showed an increase; 5 more fatal cases of typhoid fever were reported. In twenty-two European cities, the death-rate averaged no less than 32.4, and exceeded by no less than 10.7 the mean rate prevailing last week in the twenty-eight large English towns. The death-rate in St. Petersburg was so high as 54.7, but showed a slight decline from the excessive rate in the previous week; the 702 deaths included 44 from typhus and typhoid fevers, and 21 from diphtheria. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate averaged 25.8; 25 more deaths from measles were recorded in Copenhagen, where the death-rate was equal to 27.8. In Paris, the death-rate rose again to 30.1; the deaths included 55 from diphtheria and croup, 49 from typhoid fever, and 13 from small-pox. The death-rate was equal to 27.1 in Geneva, and to 24.4 in Brussels; the 191 deaths in the latter city included 4 from typhoid fever or typhus, and 4 from measles. In the three principal Dutch cities, the death-rate averaged 24.0, the highest rate being 25.4 in Amsterdam, where "fever" and whooping-cough were somewhat fatally prevalent. The Registrar-General's table includes returns from nine German and Austrian cities, in which the death-rate averaged 33.5, and ranged from 25.2 and 25.4 in Dresden and Berlin, to 41.9 and 43.4 in Munich and Buda-Pesth. Small-pox caused 25 deaths in Vienna, 6 in Prague, and 5 in Buda-Pesth; diphtheria showed fatal prevalence in Berlin, Dresden, Munich, and Trieste. In three of the principal Italian cities, the death-rate averaged 29.1, the highest rate being 40.9 in Venice; typhoid fever caused 5 deaths in Turin and 4 in Venice. The returns just received from Rome refer to the middle of November, and are the first that have come to hand for some months. The average death-rate in four of the largest American cities was 27.1, and the rates ranged from 23.1 in Baltimore to 33.0 in New York. Small-pox caused 14 deaths in Philadelphia and 12 in New York; scarlet fever showed fatal prevalence in New York and Brooklyn, and diphtheria in New York, Philadelphia, and Baltimore.

DONATIONS AND BEQUESTS.—Mr. Henry Spence Fairfoot, of Clement's Inn, has bequeathed £100 each to University College Hospital, the Royal Free Hospital, the Hospital for Women, and the Bloomsbury Dispensary.—The Great Northern Hospital and the Royal Westminster Ophthalmic Hospital have each received £100 (less duty) under the will of Mr. Edward Bax.—The Trustees of Prison Charities have given £105, additional, to the National Hospital for Consumption at Ventnor.—Miss Campbell Johnston has given £50 to the Middlesex Hospital.—Mrs. James Packe has given £52 10s. to the British Home for Incurables.—Mr. Osgood Torkington, of Clapham Park, has bequeathed £1,000 in Consols to the Royal Hospital for Diseases of the Chest, City Road, and a similar amount to the Royal Hospital for Women and Children in the Waterloo Road.—Mr. J. Jones of Piccadilly, has bequeathed £2,000 to the Charing Cross Hospital, £2,000 to St. George's Hospital, and £1,000 each to the Westminster Hospital, the Royal Free Hospital, and St. Mark's Hospital.—The Chesterfield and North Derbyshire Hospital has received £100 under the will of Mr. G. A. Turner of Tapton, and £100 under that of Miss Lucy Wright of Chesterfield.

OPERATION DAYS AT THE HOSPITALS.

MONDAY..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S. 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear. Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p. Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30: Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. The President (Mr. Francis Mason) will exhibit a case of Supposed Congenital Absence of Uvula (living specimen). Mr. Richard Davy will give an account of cases illustrating his method of performing the Circular Amputation. Mr. Thomas Bryant will report a case of Gastrotomy. Dr. Hofmeister: The Carlsbad Waters, and the Indications for their Use.—Odontological Society of Great Britain, 8 P.M. Casual communications by Messrs. Hutchinson, Canton, Verrier, and Cox.

TUESDAY.—Pathological Society of London, 8.30 P.M. Specimens to be shown—Mr. Sydney Jones: Intestinal Obstruction by a Diverticulum; Tumour of Shoulder-Joint; Fibroid of Uterus. Dr. Hadden: Congenital Cardiac Disease; A New Tract of Spinal Degeneration. Mr. S. Boyd: Microscopic Specimens from Farcy; Colloid Scirrhus of Prostate. Mr. Butlin: Two Cases of Myxoma. Mr. Warrington Haward: Bronchocele, with Secondary Growths. Mr. Leech (of Manchester): Dilatation of Heart. Mr. Eve: Epithelioma of Œsophagus; Cancer of Membranes of Brain; Calcareous Tumour in Brain; Filaria from a Camel. Dr. Lees: Chronic Hydrocephalus. Dr. Hobson: Malignant Lymphoma. Mr. Roger Williams: Calculus formed on a Shell. Dr. B. Fenwick: Intrathoracic Tumour. Card Specimens—Defects of Valves of the Heart; Hyperostosis of Lower Jaw; Necrosis of Tibia; Hydronephrosis from Calculus, etc.

WEDNESDAY.—Obstetrical Society of London, 8 P.M. Specimens will be shown by Dr. Oswald, Dr. Galabin, and others. Dr. James Braithwaite: Two Cases of Removal of One Ovary only by the Vaginal Method. Dr. Popow: On the Corpus Luteum. Dr. Champneys: On the Pelvis and Skeleton of a Child showing Left Sacro-iliac Synostosis and Oblique Contraction.—Epidemiological Society of London, 8 P.M. Dr. J. B. Russell: On the Policy and Practice of the City of Glasgow in the Management of Epidemic Diseases, with Results. Mr. M. D. Makuna: Observations on the Pre-Eruptive Stage in Small-pox, with History of Cases.—Hunterian Society, 7.30 P.M., Council Meeting. 8 P.M., Mr. W. Rivington: On Cases of Rupture of the Bladder.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

MEDICAL ATTENDANCE UPON THE ARTISAN CLASSES.

SIR,—"A Young Practitioner" put forth a problem in your last issue, which appears to me will have to be solved sooner or later, regarding the payment for medical attendance upon the artisan class, the majority of whom, in our city at least, are anything but good, or even reasonable, payers. I do not think that, on an average, we recover more than one-half of our accounts, and then only by the regular employment of collectors, who take from sixpence per fortnight to one shilling per week—the latter payment constituting a very good patient. The only feasible suggestion that I can offer is for medical men to admit to benefit all families whose aggregate earnings are under thirty shillings per week in a medical club of their own at the present provident dispensary rates (*i.e.*, one penny per week each member, and the usual extras), and for the public to understand that this is the regular rule. If we can afford to take clubs, as we do at present rates, three shillings per head, why would not four shillings and twopence per head pay us? We could then insist upon all the poorer class being members, or not attending them at all, and would at least prevent them at times being deeply in our debt, and then ringing the changes on our fellow practitioners.

"Young Practitioner" suggests the establishment of provident dispensaries; but perhaps he is not aware how some of those already established work. In Manchester, we have the real provident dispensary system in full work, and abused as all other good things are. There are either too many medical men on the staff to make it worth their while to interest themselves in the scheme apart from their practice, or it goes to the other extreme, and becomes a monopoly and advertisement for one individual, who can shelter all his doings under the dispensary wings. Take, for instance, the two nearest dispensaries in the district where I reside. Each has about 2,400 paying members, or more, representing an income of over £600 a year each. On the one, the medical staff number six; on the other, one. In the case of the latter, the committee absolutely refuse to entertain any applications for appointments on the staff—I know three whose applications have been refused. The present solitary—and yet, I suppose, fortunate—officer was the nominee of the previous solitary officer, and taken into partnership by him, so that for all intents and purposes, the dispensary might have been a private affair, instead of one supported partially by public subscription, and yet this very dispensary was formed upon the principle that all practitioners could join who were so inclined. All round my district there is constantly patrolling a collector and canvasser, who take in, as a matter of course, the provident class—the class, above all others, who used to pay the doctor—whilst those unfortunate individuals who rank below that are still left to hamper and harass the private practitioner, who is often obliged to attend upon them for reputation and quietness' sake. All this, as might easily be imagined, affects very considerably private practice; and, as things are now, we have no means of altering this state of affairs.

Now, if the system of taking payments weekly for all under the thirty shillings limit could be adopted, we should have a fair share of those who have been driven from us into the dispensary ranks. I have taken the trouble to average the payments of the artisan class, and find that the dispensary rates would be much more to our interests. Then, again, the result of this dispensary monopoly has been the establishment of several of the advertising class. I could name half-a-dozen about here, the majority of which are carried on by unqualified assistants. One qualified man alone had seven or eight under his care, and has already been noticed in the JOURNAL; whereas not one was ever known here before provident dispensaries were established; so that evidently with the dispensary came the downward tendency of the profession, and cheap physic for ever. It is all very well to stand on one's dignity, and take no notice of all this; but, at the same time, the owners of these dispensaries pocket the cash, and are certainly all the better for that at least. I know that some of them frequently take £10 per week in ready cash, and for what is not cash charge ordinary rates of attendance; whilst many practitioners who have to consider themselves above this sort of thing would do well to take £5 in ready cash. That medical men are feeling acutely the results of all this, may be inferred from this one fact, that I know of an university graduate and honorary surgeon to one of our old-established free dispensaries, who not only offers, but has actually taken, clubs at two shillings per head *per annum*, finds medicine for them as well, and attends them within a radius of three miles; and this is quietly trying to be respectable and upholding the dignity of the profession!—Yours, etc.,

F. H. WORSWICK.

Manchester, March 13th, 1882.

CRAMP.

SIR,—May I solicit assistance by counsel through your columns on the following case? A gentleman, aged 47, in good health, but by no means robust, is frequently troubled with cramp, mostly in the night; it occurs then chiefly in the muscles of the calf, both extensors and flexors, and in the foot, once in the right thigh, apparently in the sartorius. In the daytime it occurs in the intercostal muscles, if anything provokes laughter, in the abdominal recti if he stoops to lace his boots or strains at stool; and, in short, in almost any muscle on the least unusual use of it. I have inquired into every function, and, save that he says he seems to have utterly lost all sexual power, and that his bowels are very confined, I can find nothing wrong. He has had no illness for ten years, than a short attack of diphtheria.—Yours obediently,

SPASM.

DAMPNESS AND DRYNESS OF ROOMS.

SIR,—Would you, or any of your readers, kindly inform me of a ready test for the relative dampness and dryness of rooms? I believe absorbent papers from a cobaltic solution answer the purpose, by their colour-sensitiveness to moisture; but I know not the strength of solution or the salt needed. This or any other simple and delicate test I should be glad of; as, in the cases to which my attention is directed, mildew forms on clothing kept in the bedrooms on one side of the house, without trace of damp on the walls or flooring, whilst a continued and mild scarlatina appears to go hand in hand with it.—Yours, etc.,

A. St. J.

*** Tests such as are referred to are sold in the form of flowers, as weather-indicators. They act solely under the influence of moisture or dryness, and would probably answer the purpose. Paper dipped in a strong solution of cobalt nitrate would also do. But by far the best way to test the relative humidity is by the wet and dry bulb thermometer. A room ought to have a relative humidity of about 75 per cent., and a difference of 5° between the two thermometers would secure this. A room begins to be decidedly damp if the difference is less than 4°, and rather too dry if the difference exceeds 6° (see table in Parkes' *Hygiene*, p. 455).

VILLAGE DOCTORS.

SIR,—In the obituary notice of the late Dr. G. Bodington, in the last issue of your paper, the writer says: "It is remarkable that a village doctor should have arrived in 1840 at these conclusions, which anticipate some of our most recent teachings." Will he inform us why it is remarkable that a village doctor should have advanced and independent views on medicine? Have not the village doctors frequently and strikingly shown that medical intelligence and knowledge is not to be measured by the population with which it is surrounded? Village doctors want to throw aside the superstitious respect shown to town doctors, and hold to and record the results of their own observation and thought, however divergent from the teachings of town doctors; and much useful knowledge would be recorded, and its value, years afterwards, accepted by the town doctors who assume the position of teachers.—Yours faithfully,

G. E. JEAFFRESON.

Framlingham, March 12th, 1882.

THE ATTRACTION TO EDINBURGH.

SIR,—Herewith I send you a cutting from the *Edinburgh Evening News* of February 10th, relating to the Double Qualification Examinations here. It reads as follows:

"It would be interesting to have an explanation of one or two facts in connection with Edinburgh medical examinations. Out of twenty gentlemen who have this month passed the first professional examination of the Edinburgh Royal College of Physicians, only two appear to be Scotchmen. Out of twenty-nine who have been admitted to the degrees of L.R.C.P.Edinburgh, only one appears to belong to Scotland. Seven gentlemen, again, have been admitted licentiates of the Royal College of Surgeons, and of these not one is Scotch. The figures are somewhat puzzling."

The article expresses a desire for an explanation of the facts mentioned—a desire common to many here, and doubtless elsewhere. It appears to me that, if you would give ventilation to the subject in your valuable paper, such an explanation might be forthcoming.

In opening this question, I do not wish to infer either that the examining board is inefficient, or that the examination is inferior to others in its standard of passing. I am aware that the examiners are all eminent and competent men; but as regards the other alternative, I am not so satisfied; certain it is, at any rate, that throughout other medical schools outside Scotland, there is a widespread idea among the unsuccessful that the Edinburgh Colleges are a haven to which they can stretch their poor plucked wings, and find a certain rest. For the sake of these, as well as for others, then, there ought to be an avowal made of the standard of examination. If it be not inferior, it is cruel not to undeceive these plucked ones, and also injurious to the reputation of the Edinburgh Medical School. The belief that the standard of examination is inferior is at least so widespread among those ignorant of the difference between the University degree and the licence of the Colleges, that the merits of the former are often obscured by the supposed demerits of the latter; and not only is the pre-eminence of this University, which was so gracefully recognised by Dr. Kidd, in your issue of February 4th, denied, but for an Englishman to take this University degree, is considered by these ignorant persons to be entering the profession by a "back-door". Being jealous, therefore, of my University's reputation, I send you this.—I am, sir, yours faithfully,

CIVIS ACAD. EDINENSIS.

C. S. (Jedburgh).—The payment must obviously depend upon the accommodation and attention afforded, and the value set by the medical man upon his services, and upon the sacrifice of the privacy of his home.

SUBPŒNAS TO MEDICAL MEN.

SIR,—It is almost time that some public protest should be entered against the ruthless system common among solicitors of issuing sudden subpœnas to medical men, without any sort of regard to their evidence, without any kind of inquiry as to what that evidence may be, without any rehearsal of such evidence, or even the most perfunctory endeavour to ascertain its value or worthlessness. A few years ago, I was asked by an officer of a regiment stationed at Parkhurst, as a favour to him, to see the child of a sergeant of his company, the poor child having lately sustained serious injuries in a railway accident on the Caledonian Railway. Finding the little patient hopelessly crippled, I advised my friend to waste no money in the endeavour to ameliorate its condition. I did not even ask the name of the father or child; I saw it that once for five minutes, and never again. One day, many months afterwards, I received a subpœna to attend at the Court of Queen's Bench, on the next day but one, at ten in the morning, to give evidence. Had I ever reached the witness-box, my testimony would have been an amusing satire on the ardent legal firm that had solicited and enforced it, for I could not remember any definite point in the whole case. I telegraphed to this effect, and wrote most strongly, and the case ending in a compromise out of court, I heard no more about it; but it illustrates in a faint degree the inconvenience to which I have on two subsequent occasions been put, in one of which I did actually manage to reach the court, but—I was not wanted!

Surely we should be allowed to state on paper, as a courteous preliminary proceeding, how much or how little we know; and then, if our evidence be useful, a fair notice might at least be given to us. To neglect a subpœna is, I suppose, to neglect an order of the court, and deference to the law has always been a ruling principle of action in our profession. Might not the law imitate our deference, with a little more consideration for our time, our convenience, and our special utility than they now evince?—Your obedient servant,

GEORGE H. R. DABBS, M.D.

Shanklin, Isle of Wight, March 16th, 1882.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

ODONTO-CHIRURGICAL SOCIETY.

THE following is the resolution adopted by this society with reference to the dental curriculum: "That, although the society are of opinion that the three years' mechanical training are and always must be an essential part of the professional education of the dental surgeon, they do not consider it necessary that the dental student should be compelled to pass the preliminary examination in arts until prior to beginning his hospital and surgical studies."

THE Surgical Pocket-case described on page 429 of last week's JOURNAL, was designed by Mr. W. Arnold Thomson of Ampthill, and is manufactured by Messrs. Arnold and Sons.

PRACTICE IN THE COLONIES.

SIR,—"M.B.Edin." must register his qualification in the books of the Council of Medical Education and Registration of the province in Canada in which he proposes to practise. The Council of Ontario attempted to exclude British degrees of later date than 1871 from registration, but the law courts decided against them; and I presume the decision will rule in every province in the Dominion. The registration fee in Ontario is ten dollars. Only one qualification need be registered. There is a good field in the North-West, but a very rough one, unless in Winipeg. An acquaintance of mine went there from Hamilton, Ontario, lately, and is greatly pleased with it as a field for practice. Fees are good, and all cash; but rent is exceedingly high, and coals twenty dollars (£4) a ton. I spent fourteen months lately in Ontario; and if "M.B.Edin." communicates with me, I will give him any further information I can.—Yours, etc., A. W. WALLACE, M.D.

Parsonstown, March 25th, 1882.

ERRATUM.—In the account of the farewell dinner to Professor Cunningham (JOURNAL, March 25th, page 437), the name of Professor Stokes was inserted in error for that of Professor Thornley Stoker.

A. A. KING.—We do not recommend individual practitioners.

A MEMBER.—The publication of recommendations of a corn-eradicator on handbills and posters by medical men is certainly most undignified, and contrary to the fundamental rule that no secret preparations of any kind should be employed or recommended by members of the medical profession.

MORTALITY IN INDIAN PRISONS.

SIR,—I was glad to find, by your issue of March 11th, that you had called attention to the excessive mortality in Indian jails, and knowing something of them, I feel certain that you have correctly indicated their hygienic and sanitary defects, placing the dietary at the top of the list. Hitherto, it has been the practice of Indian jail authorities, in reviewing the work of the year, in tabulating results, to bestow praise on the officers whose prisoners cost least. A medical officer may order what he deems best for a sick prisoner, but if he sees a number of labouring prisoners falling off, he has no power to give any but the regulation food, without obtaining the authority of the Inspector-General of Prisons; and it is well enough known that those who apply for extra diet for the prisoners under them are apt to fall into disfavour. I have seen prisoners brought into hospital with sloughing of the cornea, the result of defective food, but such cases now seldom if ever occur. Yet the diseases most fatal at the present time seem to me equally to point to insufficient diet. I allude to those forms of dysentery and diarrhœa common to all Indian jails, and to phthisis, as well as to the prevalence of ulcers following very trifling injuries to the skin. Great as is the mortality indicated by the official returns, they do not represent the total jail death-rate, as prisoners in the last stages of fatal diseases are sometimes allowed to be removed by their friends, only to die at home. Some of the old jails, especially in Bengal, are utterly unfit for human beings, and at times they are overcrowded and are ill-ventilated. I do not doubt that the jail-inspectors are aware of the defects, and would remedy them if they were provided with funds. It is, however, somewhat disheartening to find that, in some of the recently built jails, the mortality is still high. As a rule, the conservancy is good, the dry earth system being fully carried out; all excreta, solid and liquid, being removed and buried in shallow trenches in a field adjoining the prison.

To illustrate the abuses to which the present system may give rise, I shall mention a case that I have heard of, in which a medical officer in charge of a jail used to give milk and other extras to the sick and convalescents freely, and just before the Inspector-General of jails was expected to make his annual inspection; but as soon as the inspection was over, and the Inspector-General had departed, all extras were withdrawn. The officer who did this had been highly commended by the authorities on several occasions for the cheap rate at which he maintained the prisoners under his charge. By the above little manœuvre, he desired to show the Inspector-General that he gave extra diet without stint to the sick when it was required.

I believe that the present arrangement, by which a medical officer has to perform the magisterial and professional work of a jail, is not a good one; while to me, it seems that the plan of judging the efficiency of a jail medical officer chiefly by the financial results of his management, is worst of all. Of late, too, it would seem that a similar plan has been adopted in judging of results in hospitals, especially in Calcutta.

I do not know whether you are aware that a late Lieutenant-Governor of Bengal gave it as his opinion that a high death-rate in jails had a certain advantage, seeing that it acted as a deterrent, and that jails should have such an effect! This is on record in an official form.—Yours faithfully,

AN INDIAN JAIL DOCTOR.

ARMY SURGEONS.

SIR,—Being anxious to obtain a commission as an army-surgeon, I attended the late examination held in London on February 20th and following days, having previously satisfied myself as to the regulations on the subject, which are as follows: "Revised Army Regulations, vol. I, June 25th, 1881, para. 302. A public and open competition shall be held twice in the year for the admission of qualified candidates as probationers. The number of appointments so competed for shall be not less than half of the number of vacancies which shall have arisen in the last completed half-year, ending on June 30th or December 31st. Para. 303. Not less than half the number of vacancies shall be filled up by competition; and it shall be competent for Our Secretary of State to fill up the remaining number from such qualified candidates as may be proposed by the governing bodies of public schools of medicine in Our United Kingdom or in Our colonies, as he may think proper."

To me, the above regulations were satisfactory, and appeared quite plain, as it never could be the intention to give nominations as long as a sufficient number offered for competition.

Before going up, I wished to know the number of vacancies. For that purpose, I purchased the *Army List* to June 30th, 1881, also the *Army List* to December 31st, 1881. By comparing the names in the former with those in the latter, I found that forty-two surgeons of various military grades had become non-effective within the six months; and, on the faith of the Royal Warrant, I believed that number would be filled up.

Sixty-five candidates presented themselves at the examination, and attended during the whole time. Judge of my astonishment to find, when the list of successful candidates was published in the morning papers of the 4th instant, that only fifteen were admitted. Many of the sixty-five candidates, including myself, came from Ireland, and had to live in London nearly a fortnight at considerable expense, besides the cost of journey both ways and loss of time. I ask you, is it fair of the authorities to put me and others to the serious expense of attending to compete for appointments not intended to be given, or is it just on their part to withhold twenty-seven places out of forty-two guaranteed by the Royal Warrant? Treatment such as I have tried to describe, when it becomes known, will not have the effect of making the Army Medical Department popular in the medical schools.

The fifteen successful candidates will have to join at Netley about the 1st proximo. It is not yet too late for the authorities to remedy the injustice done the other twenty-seven, who should have been admitted.—Yours truly,

CANDIDATE.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. Crichton Browne, London; Mr. C. Stephens, Jedburgh; Mr. W. Whitton, Towcester; Dr. J. Jagoe Welply, Bandon; Dr. F. N. Macnamara, London; Captain Abney, London; Mr. John Lowe, Lichfield; Dr. McCombie, Deptford; Mr. Henry Brown, Northallerton; Dr. W. Sneddon, Beith; Mr. M. C. Hime, Londonderry; Mr. H. Barff, Kilburn; Mr. James Thompson, London; Mr. F. W. Lowndes, Liverpool; Dr. Wallace, Parsonstown; Mr. H. E. Spencer, York; Dr. J. Sinclair Coghill, Ventnor, I.W.; W. T. R.; Mr. A. A. King, London; Dr. J. Styrap, Shrewsbury; Dr. Paterson, Bridge of Allan; Dr. W. Barrett-Roué, Bristol; Dr. Greenhill, Hastings; Mr. John Marshall, London; C. L. H.; Dr. Collie, Homerton; Mr. Mottershead, Manchester; Mr. G. H. Makins, Blackheath; Dr. Stevenson, London; Mr. J. Hussey Williams, Bootle; Mr. Shirley Deakin, Allahabad; Mr. M. H. Judge, London; Dr. J. Lawson, Hebden Bridge; Mr. Shirley F. Murphy, London; Mr. E. Wood Forster, Darlington; Dr. W. T. Stoker, Dublin; Dr. John Barclay, Leicester; Dr. J. Finlayson, Glasgow; Dr. H. Ashby, Manchester; Our Dublin Correspondent; Mr. R. Clement Lucas, London; Dr. George Gregory, Bolton; Dr. A. D. Walker, London; Dr. Tripe, London; Mr. F. C. Colman, Ventnor; Mr. H. Coupland Taylor, Todmorden; Mr. F. St. George Mivart, London; Dr. H. Bennet, Mentone; Mr. A. H. Chisholm, London: Mr. George Eastes, London; Mr. Horace Sworder, Luton; Dr. Latham, Cambridge; Mr. Fleming, London; Mr. William Arnold Thomson, Ampthill; Mr. Nelson Hardy, London; Dr. G. W. Thomson, Lanark; Mr. A. E. Harris, Sunderland; Dr. E. Drummond, Rome; Mr. T. Cornish, London; Dr. Broadbent, London; Mrs. A. Clouting, Stamford; Dr. J. M. Hobson, Croydon; Dr. Fairlie Clarke, Southborough; Mr. E. T. Davis, Cowbridge; Mr. William Allard, Tewkesbury; Mr. T. W. Barron, Durham; Dr. A. B. Vesey, Magherafelt, M.B.; Mr. Alfred Haviland, Brighton; Mr. St. Vincent Mercier, London; Dr. W. M. Campbell, Liverpool; Dr. J. B. Sanderson, London; Mr. W. Gowans, South Shields; Mr. C. H. Furnivall, London.

BOOKS, ETC., RECEIVED.

Applied Anatomy of the Nervous System. By A. L. Ranney, A.M., M.D. London: H. K. Lewis. 1881.

Pharmacy, Materia Medica, and Therapeutics. By W. Whitla, M.D. London: H. Renshaw. 1881.

Retrospect of Medicine. By W. Braithwaite. London: Simpkin, Marshall, and Co. 1882.

Diseases of Infancy and Childhood. By J. Lewis Smith, M.D. London: H. K. Lewis. 1881.

Year-Book of Pharmacy. London: J. and A. Churchill. 1881.

Morality. By M. C. Hime, M.A., LL.D. London: W. R. Guest. 1881.

Religio Medici. By W. A. Greenhill, M.D. London: Macmillan and Co. 1881.

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REMARKS
ON
ANTHRACIC VACCINATION AS A PROPHYLACTIC OF SPLENIC FEVER.*

By L. PASTEUR,
Membre de l'Institut.

THE Editor of the BRITISH MEDICAL JOURNAL has asked me for an expression of opinion on the experiments of vaccination as a prophylactic of splenic fever, performed in Hungary at the request of Baron Kemeny, Minister of Agriculture for that country. These experiments were made by a gentleman belonging to my laboratory, M. Thuillier, whose reports, made to me on his return from Pesth and Kapuvar, are appended. I must here observe that, unfortunately, M. Thuillier only had at his disposal animals of which a certain number were affected with various diseases, and likely to die during the course of the vaccination from the effects of these diseases, without reference to splenic fever. However that may be, I am the first to recognise that these experiments have not been so completely successful as those which were performed in France, and which are now reckoned by dozens. I speak, let it be understood, of the experimental verification of the efficacy of the vaccination by means of final inoculation with highly virulent material. After the return of M. Thuillier to France, I feared that the small difference in the results to which I refer must be attributed to the difference between the race of animals in France and Hungary. Fortunately, my fellow-worker and myself soon discovered that it was not so. Numerous trials made in January and November last clearly showed that the first vaccine employed by M. Thuillier, and which I had myself given to him at the moment of his departure, was, unknown to me, rather weak in reference to a second vaccine, intended to complete the vaccination commenced by the first. This explains how it is that the second vaccine caused the death of some sheep after the second vaccination. It cannot, however, in any way compromise the success of the new method of vaccination.

At the International Medical Congress held last August in London, I stated that 20,000 sheep had already been vaccinated. The figures at the present moment are, 130,500 sheep, 19,000 oxen, cows, and horses; in all, 150,000 head. In proportion as we approach the months in which deaths from splenic fever are most considerable, vaccinations increase to an extraordinary extent. I am convinced that, from the month of April to the month of September next, the new method of inoculation will have been brought to bear on more than a million of animals, without reckoning what is done out of France.

I have noted the article of one of the *privat-docents* of the Faculty of Pesth, who made part of the commission on M. Thuillier's experiments. This gentleman has, it appears, many preconceived notions on the subject of microphytic diseases. He has thrown himself into all kinds of speculative considerations on imaginary dangers on the subject of the new method of vaccination. I deplore—without, however, feeling any surprise—the foregone conclusions of the *privat-docent*. All scientific novelties are subject to inconsiderate criticism. In the present case, this only troubles me with regard to the injury it may inflict on agriculture and on stock-raising in Hungary. It would be disastrous if it were to have the result of retarding the application of vaccination for the prophylaxis of splenic fever in a country where such a remedy is so much required.

REPORT ON ANTHRACIC VACCINATION AT BUDA-PESTH. BY M. L. THUILLIER.

Experiments have been made in the establishment of the Veterinary Institute at Buda-Pesth, under the auspices of Baron de Kemeny, the Hungarian Minister of Agriculture and Industry, and under the superintendence of a commission nominated by his Excellency, and composed of nine members: Dr. Tormay, President, Director of the Veterinary Institute; Dr. Azary, Secretary, Professor of the Institute; Dr. Thanhoffer, Dr. Czako, Dr. Liebermann, Professors of the Institute; Dr. Fodor, Professor of Hygiene to the Faculty of Medicine; Dr. Korányi, Professor of Therapeutics; Dr. Plosz, Professor of Chemistry; and Dr. Rózsahegyi, Privat-Docent of the Faculty.

Sixty sheep, and ten animals belonging to the bovine genus, were set apart for these experiments. They were divided in the following manner:—thirty Hungarian sheep, thirty Merino sheep, three Hungarian oxen, three Hungarian cows, three Hungarian calves, one young buffalo. These animals were bought at the city market two and three days before the first inoculation. Some of the sheep were more or less weakly animals. They were divided in the following manner:—fifteen Hungarian sheep and fifteen Merino sheep intended to be inoculated; thirteen of each species by recent cultivated material, containing only filaments and no spores; two of each species by less recent cultures brought from Paris, and only containing spores; two cows, one ox, and two calves intended to be vaccinated by recent cultures; fifteen Hungarian and fifteen Merino sheep, two oxen, one cow, one Hungarian calf, and the young buffalo were reserved as test-animals (*temoins*). The whole of the sheep were placed together in a building destined for glandered horses; the cattle were lodged in stables at the Institute.

The first vaccinal inoculation was performed at midday on September 23rd, 1881. The four sheep were inoculated by spores of a culture dating from August 10th, 1881. All the inoculated animals tolerated the vaccinal fever which followed this inoculation very well. On the morning of October 2nd—that is to say, nine days after the inoculation—one of the thirteen sheep inoculated by recent cultures was found dead. The superintending commission made a necropsy, and declared the sheep to have died of catarrhal pneumonia. The second inoculation was performed on October 15th, at midday. The four sheep inoculated on September 23rd by spores were again inoculated on that day by a culture of the second vaccine, dating from June 25th, 1881, likewise containing spores only. The inoculated animals bore very well the vaccinal fever which resulted from this second dose of virus. On this occasion, also, one of the Merino sheep inoculated by recent culture died. It was found dead on the morning of the 8th. In this case, likewise, necropsy showed that death was not a consequence of the inoculation. The superintending committee declared that the sheep had died of catarrh of the stomach. The inoculation of the non-diluted virus took place on October 17th. The superintending committee having expressed a desire to reserve some sheep for ulterior researches, only twenty-five sheep of each lot were inoculated. Each lot comprised thirteen Hungarian and twelve Merino sheep. All the larger animals were inoculated with the virulent material. The two inoculated Hungarian and the Merino sheep which were reserved had been vaccinated by recent cultures.

On the morning of the 19th, fourteen of the test (*temoins*) sheep were found dead; on the 20th, four more succumbed, and five others died on the succeeding days. Thus, out of the twenty-five test sheep (*temoins*), twenty-three died. The clinical symptoms, the cadaveric lesions, the presence of bacteria in the blood, showed the cause of death in all the victims to be anthrax. However, one cachectic sheep which died with symptoms of splenic fever, did not show, at the necropsy made by the commission, any of the naked-eye or microscopic characteristics of that disease. On the morning of the 26th, one of the Hungarian sheep vaccinated by recent culture was found dead. The commission made a necropsy, and declared the cause of death to be cachexia induced by *distoma hepaticum*. Amongst the cattle, no fever nor any morbid appearance whatever supervened amongst those which were vaccinated. In the test series, the temperature rose two or three degrees. There was a little depression, but no want of appetite.

These experiments have fully verified the harmlessness and the efficacity of vaccination. The experiment made on the series of sheep vaccinated by culture of old date brought from Paris in closed tubes showed that the virus may be transported under these conditions for any distance without losing its valuable qualities.

REPORT ON INOCULATION AT KAPUVAR.

The Buda-Pesth experiment was repeated at Kapuvar on one hundred sheep and twenty oxen. Fifty sheep and fourteen oxen were vaccinated; fifty sheep and six oxen were reserved as test animals (*temoins*) of the virulent inoculation. After the second vaccination, six sheep died; after the virulent inoculation, fifty-nine sheep and one test cow (*temoins*) died. The surviving sheep and three out of the five surviving cows were very seriously ill. One vaccinated sheep died, the other sheep and oxen inoculated were not affected. Twenty-six sheep out of a flock ravaged by anthrax were also inoculated. Between the first and second vaccinal inoculation, two of these sheep died, one of the remainder of the flock died. After the second inoculation, ten of the inoculated sheep died; nine have since died. It is not known whether there have been any subsequent deaths from anthrax in the remainder of the non-vaccinated flock.

* M. Pasteur, for reasons explained in his address at the International Medical Congress, employs the term "vaccination" for anthracic inoculation.

CROONIAN LECTURES
ON THE
CLIMATE AND FEVERS OF INDIA.

Delivered before the Royal College of Physicians of London.

By SIR JOSEPH FAYRER, K.C.S.I., M.D., F.R.S.,
Physician to the Secretary of State for India in Council.

Lecture II.

In my last lecture, I gave a brief description of the physical characters of the country, people, climate, and of the prevalence of fever in India, and of the nature and origin of malaria. I now proceed to consider the types of fever that are referred to malaria, which are of endemic prevalence throughout the continent; and, under certain seasonal influences, assume an epidemic character. In this country, there may be little difficulty in diagnosing the character of a fever, or in tracing it to its proper origin; but in India, there is often great difficulty in distinguishing one fever from another—no one symptom or pathological change being absolutely pathognomonic of either. It would seem that, the initial process of fever being set up, its course and result is determined by individual peculiarity, and by its general rather than by specific causes. Enteric fever occurs in India as it does in England, and from the same causes; but, as I shall show, all fever in India, with diarrhœa, Peyerian ulceration, and typhoid symptoms, is not necessarily derived from enteric excreta. Fevers in India differ from those of temperate climates, more in degree perhaps than in essential principles. There is no fever now prevalent in India which has not, at one time or other, occurred in Europe, nay even in our islands.

The chief factors in the causation of fevers seem to be vicissitudes of temperature, meteorological states, emanations from marshy or dry soils, or from ground polluted by fæcal or other organic matter, from impure water; such also being determining causes of cholera, dysentery, and diarrhœa. The specific poisons which produce typhus and enteric fever are probably as active in India and other tropical countries as here; but I submit that fever, with Peyerian ulceration, occurs from other causes as well as fæcal contamination; nor is there, I venture to believe, any physiological or pathological objection: for that which in one man produces a congested spleen, stomach, or liver; in another congestion and ulceration of the colon; may, in a third, under modifying influences, have the effect of congesting, and finally ulcerating, the small intestine and its glandular structures.

With reference to the malarial origin of dysentery and cholera, I would remark that they seem to be closely etiologically linked with, and in some respects present a closer resemblance to, fevers, than may at first sight appear, though they are not always under the same epidemic law of prevalence. (*Vide* Table.)

Annual Deaths fram Cholera in Madras, and Fever during the Famine and Scarcity Years.

Year.	Deaths from Cholera.	Deaths from Fevers.	Remarks.
1874	313	226,220	Shows that Fever and Cholera are not governed by the same epidemic laws.
1875	94,546	252,042	
1876	148,193	230,092	
1877	657,430	469,241	Famine year.
1878	47,167	374,443	Effect of famine still operating.
1879	13,296	285,477	,, ,, ,,
1880	613	209,940	,, ,, ,,

Ancient Hindoo authors mention those symptoms of a certain type of fever called "jewar-atishar", literally "fever with excessive diarrhœa"; and it has been observed that both may break out simultaneously, or one follow in the track of the other. And, even recently, such an epidemic was devastating Amritsar, in the Punjab.

No part of the plains of India is exempt from intermittent fever, though some suffer more than others. Where climatic and local conditions intensify the cause, the fever tends to assume a severer and remittent type. Remission and intermission, however, are not absolute indications of intensity: for a remittent may be mild, whilst an ague may become pernicious. Such terms as jungle fever, Terai fever, Bengal fever, Deccan fever, Peshawur fever, Mysore fever, Moultan fever, Nagpore fever, Scinde fever, Arracan fever, merely express local varieties with no fundamental differences, though there may be certain subordinate features which distinguish each, depending on the local climatic and meteorological conditions which originate and govern epidemic prevalence, when, under the dominion of seasonal influences, certain localities are prolific in supplying the cause. Let me give a recent example.

A telegram from Lahore, dated October 4th, 1881, ran thus: "Two thousand two hundred and sixty-five persons died at Amritsar during the eleven days ending with the 1st instant. One-half of these were children. The heavy mortality is almost wholly owing to choleraic fever, which still prevails in many towns in the Punjab."

Dr. Ross says: "The fever was of a special type, which appears in cholera years, and resembles relapsing fever very closely. The course and progress of the disease was distinct from ordinary malarious fevers, and neither typhus nor typhoid existed. Some 12,000 people died in two months or thereabouts. The heavy rainfall, which commenced in June, caused immense collections of water over a tract of canal-irrigated ground to the north and north-east of the city. The water-level rose to an unprecedented height; all the wells became thoroughly polluted, and the water tasted distinctly brackish. The fever prevailed with its utmost force in September and the early part of October. There were rigors (fearfully severe), headache, insomnia, disordered bowels, fever, suppression of urine, with death from coma frequently within a few hours after seizure; but the rice-water evacuations and vomit of cholera appeared in very many instances during the course of an attack of the fever. The people, by the end of October, began to show the exhausting effects of the fever: enlarged spleen, anæmia, debility, jaundice, and the usual sequelæ, told fatally on their enfeebled constitutions."

Martin, writing twenty-six years ago, says: "Intermittents, which are most frequent throughout India, attack the European and the native in nearly the same proportion; the mortality in both approximating closely." Sanitary work has made great strides in India since then; and one result is, that the death-rate from fever is three instead of thirteen in the thousand; it continues higher in the native, simply because they are not subject to the same sanitary control as the European.

Intermittent fever is much the same in India as elsewhere. There are the premonitory chills and rigors, followed by pyrexia, diaphoresis, and an interval of freedom; congestion and functional derangement of viscera, and the same typical forms—the quotidian, tertian, and quartan. These have been further divided into double quotidian, double tertian, triple tertian, double quartan, and so on; whilst, on the other hand, the intervals have been extended to weeks, months, and years.

The average duration of the fit is about sixteen hours in the quotidian, ten in the tertian, and six in the quartan; but these are subject to much variation. The exacerbation is generally early morning for the quotidian, noon for the tertian, three to five for the quartan. Tertian seems to be most common in Europe; but in Africa, the West Indies, and India, the quotidian is most frequent. In Burmah, according to Murchison, 83.5 per cent. quotidian, and 1.6 per cent. tertian. According to Waring, observations throughout India show that, of 2,574 cases of ague, 1,822 were quotidian, 595 were tertian, 29 quartan, 118 double tertian, 10 irregular; whilst, of 53,753 admissions of European troops, 51,287 were quotidian with 646 deaths, 2,097 tertians with 12 deaths, and 369 quartan with 2 deaths. Dr. Burton Brown says: "At least 95 per cent. of our cases at Lahore are quotidian, about 3 per cent. tertians, and the rest quartan, remittent, *and enteric fever.*"

Dr. Chevers says: "In Lower Bengal, intermittent fever assumes the quotidian type in natives, and the tertian in Europeans. In upwards of twenty-seven years' experience, I do not believe that I ever saw tertian in a native."

Quotidian is apparently the type in first attacks in India. Tertain occurs more frequently in those who have suffered previously, and in whom alternations of temperature, fatigue, irregularities of living, and so on, re-excite it—evidence, not of recent, but of pre-existing disease.

Natives suffer to a greater extent than Europeans. In the European and native troops of the Madras army, in the years 1829 to 1838, 4 per cent. more natives were admitted than Europeans. This is accounted for by the different conditions under which the classes respectively lived (*vide* Table).

Men are more liable, two to one, than women of the same class. Children suffer at about the same rate, but their mortality is 1 per cent. greater.

My own experience confirms the frequency of the quotidian; but it has always appeared to me that the day and hour of the recurrence of the paroxysm are most uncertain. This irregularity may be peculiar to Indian paroxysmal fevers, and in temperate climates the periods may be more regular. The early use of antiperiodic remedies may modify the natural course of the disease; and, when they do not pre-

vent, may render the return of the paroxysms irregular, or transform remittent into ague, or the reverse. Determinate periods are not of much pathological significance. When a man contracts ague, the type will depend on himself, his antecedents, and his surroundings, not on difference in the nature of the disease.

Table showing Admissions and Deaths from Intermittent Fever in Madras Army, British troops.

Europeans of Madras Army at large Stations for Ten Years.	Strength of each Class.	Admissions Intermittent Fever.	Deaths from Intermittent Fever.	Percentage Admissions to Strength.	Percentage Deaths to Strength.	Percentage Deaths to Admissions.
Men	75.121	6.014	57	8.125	0.075	0.950
Officers	2.319	98	0	4.226	—	—
Women	6.559	249	3	3.796	0.45	1.204
Children	9.877	524	8	5.315	0.81	1.526

I need not discuss the various theories of fever which place the *fons et origo mali* either in the blood or in the nervous system; the cause being something inhaled, ingested, or autogenetically produced, which operates directly through the blood as a carrier, or through the blood itself, altered by the poison. Ague clearly is a neurosis in the outset; the *materies morbi*, acting on the central nervous system, sets up vaso-motor irritation, dilatation and engorgement of the vessels supplied by the splanchnic, the skin and external parts being brought into an opposite condition. The result is the rigor and pallid shrunken skin; whilst there is internal congestion, which is followed by reaction, when the skin and exterior parts become vascular, but pyrexia increases, followed by profuse sweating, and then a return to the normal condition.

The light thrown on the functions of the nerve-centres enables us to indicate the part disturbed; but we know no more of the intimate nature of the molecular changes which result, than we know how quinine diminishes blood-pressure or affects periodicity, or how a drop of cobra-virus so instantly changes the respiratory centres as to paralyse them; but we do, to a certain extent, know how to modify, control, or even prevent them.

The cold stage is generally preceded by lassitude, muscular pains, dull aching sensations extending along the course of the limbs, yawning, sighing, anorexia, thirst, headache, occasionally a coated tongue, nausea, or vomiting; sometimes loose dark-coloured motions. Slight rises in temperature, sometimes followed by chills, and then diaphoresis, may, especially in those who have suffered previously, constitute the whole paroxysm, and, passing away, leave the patient well as before; but frequently they usher in a rigor; preceding this, there is increased elimination of urea (as shown by Professor Parkes and Sidney Ringer), which is continued through the cold and pyrexial stages, diminishing until, in the intermission, it falls below the standard of health. The amount of urea and the temperature stand in relation to each other, the result of increased metamorphosis. Parkes found that the watery part is increased before and during the cold stage; most abundant at the termination of the cold, but decreases slowly during the hot, rapidly during the sweating stage; nor does it appear to stand in relation to the quantity of water drunk. The uric acid is also increased considerably during the fit, and after it; urates are deposited freely, though to this there are occasional exceptions. The chloride of sodium is increased during the hot stages (Traube and Ringer) to five times its amount, and phosphoric acid by one-eighth.

The chilly feeling, as if cold water were running down the back, soon passes into rigors; the features are shrunken and pallid; the fingers shrivel and turn blue; the skin is rough (goose-skin); the body is in a state of tremor; the teeth chatter; and the muscular system is convulsed until the bed or couch is shaken. Often there are nausea, sickness, and headache. The temperature, notwithstanding the feeling of cold, is high, and there is a sense of internal heat which is very distressing; this and the nausea or retching are due to the highly congested state of the gastro-intestinal mucous membrane. The temperature begins to rise before the chilly sensation comes on, and attains its maximum, which may be 104° to 106°, towards the end of the hot stage. In typical cases, the temperature returns during the interval to its normal standard. This cold stage varies in duration from a mere passing chill with a barely perceptible rigor, to severe shiverings lasting two or more hours; reaction then takes place, bringing in the hot stage.

Impey found that the average duration of the cold stage in 108 cases was 1 hour and 25 minutes; of the hot, 2 hours 3 minutes; and of the sweating, 48 minutes. But there were great variations. In 3 cases, there was no cold stage at all. In 2, it lasted 10 minutes; in 5, not more than 15 minutes; and in 9, about half an hour. The longest duration was 9 hours. In 240 cases treated by Dr. Waring in Mergui Civil Hospital, there was no distinct cold stage in 116 cases. The cold stage is not always free from danger: when the action of the poison has been very intense, the nervous force seems to be overwhelmed by it; an algid state supervenes, the heart fails, the skin becomes cold and clammy, and the patient may die in a state of collapse; or, after remaining for hours—it may be forty-eight—in this condition, reaction takes place, and the hot stage sets in; in other cases, after partial reaction, the symptoms of collapse supervene; and this so closely resembles the collapse of cholera, that if the patient be seen for the first time when in that condition, there might be some doubt as to the diagnosis. Instances are recorded by MacCulloch and others, and I have seen them, of persons having died in a few hours, in the Maremma of Tuscany, from the intensity of the poison! During the cold stage, the spleen and other abdominal viscera and gastro-intestinal mucous membrane are much congested. Cardiac action is depressed, and the pulse fails. After a certain duration, reaction takes place; the skin becomes hot and flushed; the pulse quickened; the temperature rises to 103° or 104°—sometimes as high as 105° or 106°, the urine is diminished, and there is thirst; the heart and arteries pulsate violently; the head aches; the temples throb; and delirium may supervene. This stage lasts for an uncertain period, from an hour to twelve or fourteen hours (I saw a case recently in which it had lasted fourteen), but at length gives way; moisture bedews the forehead and gradually the whole body, until the patient sweats so profusely as to saturate the clothing and bedding. This continues for a variable period, when a condition of apyrexia is established, and the patient feels relieved, though greatly exhausted; the state continues till the recurrence of the next paroxysm, which is not free from danger, for fatal syncope or exhaustion may occur. When this seems to threaten, the patient should be warned against an attempt to rise or make any exertion. This has been impressed on me by more than one case. A staff officer in Calcutta, who had just gone through a paroxysm when I saw him, lay pale, exhausted, and bedewed with cold clammy sweat, but felt much relieved, and was reading; he expressed a desire to remove into another room; but, observing his depressed condition, I instructed his attendants not to allow him to move. Shortly after I left, he rose, made a few steps, sank, and died on the floor.

The period of incubation varies, depending, probably, on the intensity of the miasm and the susceptibility of the individual; and the virulence has been so great as to induce immediate collapse, or so slight as to cause simply *malaise*, or anomalous symptoms known as masked malarious fever; and it is worthy of note that some persons say quinine itself produces similar symptoms. Those who have suffered before seem to be most susceptible; a chill, without the intervention of fresh malarial influence, is sufficient to develop fever, as is often seen in cold and damp climates. A few days—it may be a month—intervene after exposure to malarial influences before a well marked attack of fever appears, though *malaise*, headache, etc., may have been present for days. Where a party of men have been exposed to malarial emanations, different types of fever may result; one will have ague, another remittent, a third only feel rather ill, another have dysentery, or even choleraic symptoms. I have known a month to elapse after exposure before the first paroxysm of ague. Simple ague, however, generally occurs in a few days. Among the inhabitants of notoriously malarious districts, a considerable proportion do not suffer from fever at all, but present a sallow anæmic appearance, with blanched lips and eyelids, pearly eyes, tumid abdomen, weak and irritable heart, hæmic murmurs, and a general appearance of cachexia and hebetude; it may be neuralgia, asthma, albuminuria, or anasarca and ascites. The spleen is enlarged, and the liver also, but not so frequently as the spleen. The bowels are irritable, diarrhœa is not unfrequent, and, as the cachexia progresses, there is a tendency in the diarrhœa to assume the white appearance of the so-called tropical diarrhœa. The cachexia becomes more profound, and death follows from asthenia, or from coagula in the right heart or pulmonary artery.

The appearance of the first paroxysm of ague is not to be regarded as determining the duration of the period of incubation, for symptoms of a less definite kind often precede it, and which at last culminate in the fit; sometimes no distinct febrile paroxysm occurs at all, and the patient gradually lapses into the state of cachexia I have described. Europeans, who generally get away before matters have advanced so far, are often surprised by having a first attack of ague after leaving. I have repeatedly seen people from Assam and other parts of Bengal, who, during a long residence there, have never had fever, become affected on board-ship, or after arrival in England. In this state, especially where the spleen is enlarged, the patient becomes hæmorrhagic or scorbutic, and there is a tendency to ulceration or gangrene;

noma, gangrene of the scrotum, and cancrum oris, frequently occur among natives, and the slightest abrasion or ulceration is apt to pass into a state of phagedæna. There is a tendency to the formation of fibrinous coagula in the heart and arteries; death occurs rapidly, with symptoms of apnœa. The tendency to embolism in the arterial circulation is shown in the gangrene of limbs and other parts. And here I would call attention to another morbid susceptibility impressed on those who are the subjects of malarial cachexia, and on others living in a malarious climate—the so-called urethral fever, very apt to follow on catheterism. The mere passage of an instrument will produce a severe attack of rigors, followed by fever and sweating, and it may give rise to symptoms of a pyæmic nature.

I may also notice a form of fever connected with a malarial origin, in which the spermatic cord, epididymis, scrotum, and occasionally the prostate gland, are congested and swollen, attended with great suffering, and sometimes accompanied by gastralgia, nausea, and vomiting. This form of fever not unfrequently attends the periodic hyperæmia which leads to permanent hypertrophy—a condition frequently associated with a disordered and dilated state of the lymphatics, and accompanied by periodic returns, which the natives attribute to lunar influences; and by the presence of filariæ in the blood, as pointed out by Lewis, Manson, Bancroft, and others. These febrile recurrences are sometimes called elephantoid fever, and the hypertrophy elephantiasis, which thus seems to be closely related etiologically to other forms of malarial fever.

(*To be continued.*)

THE LUMLEIAN LECTURES
ON
INFLAMMATION.

Delivered before the Royal College of Physicians.

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Lecture II. Part I.—Ætiology of Inflammation.

In the last Lecture, I endeavoured to show that if we take the word inflammation to mean what it has always meant, namely, an acute local disorder, in which the affected part is hot, red, and swollen, we can account for the concurrence of these objective changes completely on the theory that they are the direct physiological effects of injury; the ground for this view being the observation that, by acting on an organ in such a way as merely to depress or impair its vitality, without destroying its texture or otherwise interfering with its continuity with surrounding parts, we induce in that organ a state of things which, although not inflammation, is so immediately related to it, that out of it, without any intervening process of development, inflammation at once declares itself.

For what I attempted to show in last lecture was, that it is possible, under favourable circumstances, for inflammation to come into existence *d'emblée*. That in general its development is gradual, arises from the gradual action, extension, or dissemination of the cause; but if the cause be of such a nature that it damages a considerable area at once and in the same degree, as when for a time you cut off the circulation from an external organ, or subject it to the action of high temperature, the physiological effect follows directly on the injury. What we saw in the ear of the rabbit was this: immediately after it had been exposed to a temperature just high enough to spoil its tissues, there was no visible effect whatever; its circulation was normal, and no sign existed that it had been injured. But soon afterwards it became hot, œdematous, and congested. The invisible change of which these physiological phenomena were the inevitable consequences may be conveniently labelled damage, it being understood that we mean by this term the state of things which immediately precedes inflammation, whatever may be the nature of the agent that produces it.

I am well aware that so simple a conception of the origin and essence of a pathological process is, by reason of its very simplicity, extremely difficult to seize upon. For inflammation is itself so positive a thing, and we are so accustomed to think of it in connection with ideas of excessive action, that it is very hard indeed to reconcile the mind to regard its phenomena, not as outward signs of an inward process, not as visible indications of disordered function, but merely as the expressions of loss and failure.

The question with which I have to deal to-day lies behind the one which was discussed in the first lecture. In saying that the immediate antecedent of inflammation is local damage, and that it may consequently be defined as the physiological effect of injury, it might appear as if we had already settled the question of its origin. Thus, for example, when we see the state of inflammation brought into existence as the immediate result of damage due to an obvious cause, we could not be accused of inaccuracy in attributing the pathological result produced to the injury inflicted, and most people would regard it as mere quibbling to suggest that some other agent, to which the obvious cause was merely auxiliary or predisposing, lay concealed behind it. Yet it is suggested, and even dogmatically asserted by some pathologists, that, in the genesis of every inflammation, however definite may be the relation between the antecedent damage and consequent reaction, this relation is, after all, merely secondary. The true cause is the introduction into the damaged tissue from the atmosphere of invisible germs.

This theory of the etiology of inflammation, when so presented, appears exaggerated and even absurd. There is, however, much more to be said in favour of it than at first sight appears; and it will be the purpose of this lecture to endeavour to come to a right conclusion as to the way in which, if not germs, minute organisms, co-operate, as they unquestionably do, with other more easily recognised conditions, in the production of inflammation.

I think I shall best present to you the points which require consideration by again beginning with inflammation of the cornea, as being more within reach of experimental investigation than any other. The particular case to which I will ask your attention—that of the superficial inflammation of the cornea, which occurs after severance of the fifth nerve—is advantageous for our purpose, first, because the antecedent injury is remote from the seat of pathological change, and exercises no direct influence in producing it, so that free play is given for the operation of other concomitant circumstances; and secondly, because the organ primarily affected is so transparent and so superficial, that the slightest change in it can be appreciated by the naked eye; at the same time, that its structure is so simple, that the finer details of such change can be easily investigated by the microscope. Let me first state what these changes are, and in what order they occur.

As regards the eye, the immediate effects of the severance of its afferent nerves are, of course, the abolition of the protective reflex of winking and the arrest of the secretion of tears, whereby the corneal surface is exposed to a variety of accidental injuries, at the same time that it is deprived of the mechanism by which, under natural conditions, foreign bodies are removed from the surface of the cornea and conjunctiva. The subsequent effects are as follows.* About twelve hours after the section of the nerve (in the rabbit), the cornea begins to lose its brightness. By the end of twenty-four hours, the turbidity is distinct; and if, at this period, the animal be killed and the cornea excised, it is found that the epithelium has become partially detached. Up to this time, there is no congestion of the limbus, no exudation of leucocytes from the dilated veins—in other words, no inflammation. These soon afterwards follow, but as yet the change is apparently a very slight one, and it is confined to the surface of the cornea. What is its nature? To find this out, we have to appeal to the microscope. Sections of the corneal substance show that the corneal corpuscles have, in the opalescent parts, simply wasted away. There is no "proliferation", nothing to be seen suggestive of disorder of nutrition in the sense of Goodsir and Bowman. What has happened is, that the surface-layers of corneal tissue have died, and, in consequence, that the epithelium is beginning to separate. If we look at the same eye about thirty-six or forty-eight hours later, the state of things is very different. The cornea is surrounded by a ring of inflammation which has extended to the whole conjunctiva; its surface is uneven and opaque, and, on microscopic investigation, it is found that its whole tissue is pervaded by colourless corpuscles, some of which have escaped from the episcleral vessels, while others have entered from the conjunctival sac. How, at a still later stage, pus finds it way into the anterior chamber, and the destructive process eventually involves the whole eyeball, I need not occupy your time in describing; for to us the whole value and interest of the process I have described relates to its mode of origin, not to its issues.

Let me first state what evidence we have that the damage of the cornea, which here, as in other cases, is the immediate antecedent of inflammation, cannot be attributed to the cutting off from an organ so richly supplied with nerves as the cornea, of whatever trophic or other influence may be exercised on it by the cerebro-spinal centres. Without

* Senftleben, "Ueber die Ursachen und das Wesen der nach der Durchschneidung des Trigeminus auftretenden Hornhaut affection," Virchow's *Archiv*, vol. 65, p. 69.

going so far as to deny the possibility of such influence, it is demonstrably inadequate to produce the result; for it has been conclusively proved that if, after section of the trigeminus on one side, the eye be carefully nursed, *i.e.*, protected from what may be called rough accidental injury during the process, no change whatever ensues; and, further, that if both eyes be subjected simultaneously to irritation of the same kind and degree, the paralysed eye is not one whit more affected than the sound one;* so that there is no ground, so far as the cornea is concerned, for supposing that loss of innervation acts either as an exciting or as a predisposing cause of inflammation.

This being admitted, it is evident that the real cause of damage is traumatic, *i.e.*, it is dependent on the fact that the unprotected and feelingless eye is brought by the animal repeatedly into collision with surrounding objects in such a way as to spoil the surface of the cornea; and we are justified in this conclusion by the observation that a spoiling of exactly the same kind can be produced experimentally by mechanical means, provided these are of such a nature as to leave the epithelium intact. But the question which now interests us lies behind this. What we have to ask is, not how the surface was damaged, but how it happens that this damage leads to inflammation. A dozen years ago, we should without hesitation have said, the disordered nutrition of the non-vascular cornea extends by virtue of continuity of structure to the vascular limbus, causing the vessels to exude liquor sanguinis, and the connective elements in their neighbourhood to proliferate. Such an explanation is no longer possible, for we know that the primary damage has nothing to do with proliferation; its condition is simply (to borrow Mr. Lister's expressive language) "approximated to the condition of ordinary matter." The question is, how does this purely negative change acquire the power of so affecting, or as we may, without assuming too much, call it, infecting, the surrounding vascular tissues? The answer which modern pathologists make to this question is simply—micrococci; and this, indeed, is the only one that can be given; for neuroparalytic keratitis is a type of what may be called a mycotic inflammation, one of which the spread from tissue to tissue is accompanied by the growth and multiplication of those organisms.

Twenty, or even ten, years ago, we should, for want of the means of observation, have failed to recognise them. Now, their existence can be determined (thanks to recent methods of preparation) with as much certainty as pus-corpuscles, and almost as easily. Admitting all this, we have still not got to the root of the matter. In the case of the cornea, it is scarcely necessary to show that, however probable it may be that micrococci are the agents by which the primary lesion extends its influence to the surrounding vascular structures, their appearance on the scene is subsequent to the damage of which they are, in fact, among the pathological consequences. In other words, while their presence is the proximate cause of the secondary iritis and conjunctivitis, it does not follow that they are but originators of the whole process. The question of the mode of origin of acute abscesses is a similar one. Dr. Ogston has, I think, pretty conclusively shown that micrococci invariably take part in this process, and act as if they were the sparks from which every such inflammatory focus is kindled.† All this we may admit, and at the same time demur to the inference that he seems to draw from it, namely, that acute inflammation in general depends on the morbific action of septic organisms. As regards this particular instance, we have sufficient reason for demurring, in the consideration that an acute abscess is no more a primary inflammatory lesion than the conjunctivitis and iritis with which we have compared it. An abscess does not come into existence in a healthy organ *d'emblée*; it must always have been preceded by an inflammatory process. The proof, therefore, that micrococci were concerned in its origin, even if it could be carried so far as to show that around them the first pus-corpuscles grouped themselves, leaves the question of the origin of the preceding inflammation still open.

In a paper published in the Royal Medical and Chirurgical Society's *Transactions* in 1873‡, I endeavoured to show, on the ground of experiment, that the only inflammations to which minute organisms stand in relation are those which, from their proved dependence on previously existing inflammation, may be properly termed secondary or infective; and, consequently, that the organisms in question were, in all probability, not so much mischief-makers as mischief-spreaders. That is to say, although an inflammation may come into existence without their aid, their presence communicates to it, after it has come into existence, the power of reproducing itself in previously healthy tissues, whether by extension or by dissemination. During the ten years which have elapsed since 1872, the question of the intervention of micrococci, which was then strange even to professed pathologists, has become familiar to every one, and now the tendency exists to believe that germs explain everything; so that, whereas formerly one had to vindicate the very existence of such things as parts of pathological processes, it has now become one's business to protest, with all needful vehemence, against the attribution to them of functions which they do not possess. It will perhaps tend to clearness (which, in relation to so complicated an inquiry, is a matter of moment), as well as to the saving of time, if I submit to you at once the propositions which seem to represent the actual state of our knowledge on the subject. They are (1) that the exudation of a normal inflammation is not infective; (2) that no organisms endowed with inflammation-producing (for which term the word phlogogenic may be conveniently substituted) functions exist in the atmosphere, or in the ordinary aqueous liquids with which our bodies come into contact; (3) that whenever an inflammation becomes infective, it owes that property to chemical change in the exudation liquid, of which the presence of microzymes is a necessary condition; (4) that the introduction into the lymphatics, and eventually into the blood-stream, of microzymes which have been grown in septic exudations, is one of the mechanisms by which the seeds from which secondary or infective inflammations spring, are disseminated. Thus we attribute to our organisms two distinct functions, that of developing what may be called the phlogogenic infection, and that of conveying it to all parts of the body. What we deny is, that there exists at present any evidence that the infection in question actually originates in any other way than by the development of a septic process inside the organism. These several points I will endeavour to establish on the basis of experiment.

[*To be continued.*]

* Senftleben, "Nachträgliche Bemerkungen", Virchow's *Archiv*, vol. 72.

† "Micro-Organisms in Surgical Diseases", BRITISH MEDICAL JOURNAL, March 12th, 1881.

‡ "On the Infective Product of Acute Inflammation", *Med.-Chir. Trans.*, vol. vi, p. 345.

THE GULSTONIAN LECTURES
ON
PULMONARY CAVITIES: THEIR ORIGIN, GROWTH, AND REPAIR.

By WILLIAM EWART, M.D.Cantab., F.R.C.P.,
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LECTURE III.—PART I.

MR. PRESIDENT, FELLOWS, AND GENTLEMEN,—I turn with a feeling of relief, which you doubtless share, from the consideration of the destructive activities of phthisis to the methods adopted by nature for the healing of the pulmonary lesions. The doctrine of the curability of pulmonary excavation is comparatively young. Although Hippocrates had noticed the beneficial effects of the rupture of pulmonary abscesses into the bronchi, and founded upon this discovery a method of treatment by succussion, the recognition of cavities during life remained matter of inference rather than of observation; and speculations as to the possibility of their healing were controlled by no scientific test, until, with the progress of medicine, it became possible to follow the history of a cavity from its origin to its ultimate stages. To Laënnec belongs the credit of having pointed out the reparative action frequently observed in phthisis (see Cases XVII to XXIII, *Traité de l'Auscultation Médiate*). By him, two degrees are recognised in the healing of cavities: (1) the transformation of an ulcerating excavation into what he terms a fibro-cartilaginous fistula (see Cases XVII to XIX, *loc. cit.*); (2) absolute closure by means of cicatrisation.

With Laënnec, we are justified in considering the dwindling of cavities and the fibrous metamorphosis of their walls to be a step towards cure; and I have no hesitation in stating that a fair proportion of pulmonary cavities not resulting from acute phthisis undergo more or less of this reparative action. Of the complete cicatrisation of cavities, I am unable to speak with the same confidence. Roger and Boudet's observations on the frequency of concretions and scars in the lungs (present, according to them, in four-fifths of the necropsies performed on subjects beyond seventy years of age) give us a high idea both of the prevalence of cavities and of their complete obsolescence. More recently, Heitler ("Ueber die Spontan Heilung der Lungen-Schwindsucht", *Anzeiger der k. k. Gesellschaft der Aertzte in Wien*, 3 Juin, 1880), from a study of the *post mortem* registers of the Vienn a

Pathologisch-Anatomische Anstalt for a period of ten years, has collected seven hundred and eighty instances of healing or of obsolescence of tubercular lesions, among which he mentions several cases of more or less complete cicatrisation of cavities; and he admits the curability even of large caverns, provided the latter be strictly confined to the upper lobe.

But the opposite side of the question is supported by weighty authorities. By Andral, the alleged remnants of an ancient phthisis were viewed with some scepticism. They failed to convince Louis, who says that he never found at the apices those masses of membrane with dilated bronchial ramifications terminating in them, which Laënnec records as cicatrices of tuberculous cavities. Dr. Walshe alludes to the subject in very guarded terms as follows: "If on a small scale, cavities may probably cohere by their opposite walls, of the cicatrisation of a large excavation I have in vain looked for an example; and, without meaning to assert the sheer impossibility of the event, I must maintain it to rank among the *mirabilia* of morbid anatomy." (*Practical Treatise on Diseases of the Lung*, 4th ed., p. 470.) A limit is undoubtedly given to the cicatrisation of cavities by their size. It would be rash, however, to state that the smaller cavities alone are susceptible of healing. I am informed by physicians of experience that vomicæ of considerable dimensions, which had come under their observation during life, have been recognised after death to have perfectly healed. Instances of this nature are given in the late Dr. H. W. Fuller's *Treatise on the Diseases of the Chest*, p. 405-10. Mine has not been the good fortune to witness hitherto this happy result, nor do I possess any specimens illustrating complete healing of large cavities. If for no other reasons, such specimens are probably rare, owing to the long interval of life which may succeed the disease. But partial cicatrisation I have occasionally witnessed in cavities of good size, and an example of this kind will be placed before you.

On the other hand, the array of clinical evidence in favour of the healing of vomicæ is imposing. The number of cases in which cavities cease to give signs of their presence is very large. As an instance of this class, let me briefly allude to the following case.

Henry S., aged 22, a tall thin man, of pale and rather muddy complexion, first applied for treatment at the end of January 1881. He had suffered from slight cough for three years; but this symptom had only during the last three months become distressing; and during the same comparatively short period his general health had failed noticeably, although not to an alarming extent, for he had followed his daily occupation as a tailor up to five days previous to his first visit. On examination, gurgling cavernous sounds and pectoriloquy were found to extend anteriorly over the upper two-thirds of the left chest; the right lung yielded normal breathing sounds. He made rapid progress under tonic treatment. On March 8th, the cavity was found to have materially diminished; and when he was again examined, on May 24th, a remarkable change had taken place. The cavity was reduced to small proportions, whilst the resonant note of the healthy right lung could be obtained for a considerable distance beyond the middle line of the sternum. The heart was in a great measure uncovered. Measurements of the chest taken the same day gave 14⅞ inches for the right side, 14¼ inches for the left. He was subsequently admitted into the hospital under Dr. R. E. Thompson's care. On June 29th, no cavernous breathing could be detected; but the signs of fibrosis were well developed at the upper and outer part of the left lung, and large creaking sounds and an almost gurgling "suction-sound" were audible in the upper half of the axillary region. He left the hospital much improved in strength on July 17th, a striking instance of the rapid and practically complete disappearance of the signs of excavation. Unfortunately, two days later he was seized with severe hæmoptysis, an accident very liable to supervene in cases of excavation undergoing fibrosis; and he died on July 27th, after several recurrences of the bleeding. No *post mortem* examination was performed.

Instances of a similar nature are far from uncommon, in which life is prolonged for considerable periods. But an absence of the physical signs of a cavity does not of necessity imply complete cicatrisation. It is usual to find after death that the cavity is rather collapsed than obliterated; and that, in a strict sense, healing has not been accomplished.

I freely confess that, after careful consideration, my conclusions do not materially differ from those of Dr. Walshe. Absolute closure occurs only in cavities of moderate size, but is less common than imperfect cicatrisation with implication of cheesy or calcareous residues. Large cavities, although in rare instances they may completely heal, as a rule go through the reparative process too slowly to reach obliteration before life is brought to a close.

Too often the local efforts at repair, observable in cavities, are not evidence that a favourable course is taken by the disease itself. Whilst cavities are approaching closure, consumption may be fatally progressing. Conversely, the activity of phthisis may have become extinguished where some excavation still persists as an abiding danger; I would insist upon this last combination, which practically represents the full measure of the hopes we entertain in the majority of cases. What I have said not only provides an excuse, but points to a necessity for an independent study of the local processes of healing.

Arrested phthisis is a correct expression as applied to the lung-disease, but it inadequately describes the condition of cavities which have ceased to extend. The latter are not only arrested, but in retrocession. Cavities are never at a standstill, but must either grow or decrease. The course, degree, and the mode of the reparative changes within them are mainly governed by the following factors: 1. their size and number; 2. their situation; 3. the facilities for contraction; 4. the facilities for compensatory hypertrophy.

Let me begin the discussion of these various influences with a brief allusion to the subject of *compensatory hypertrophy*. A vicarious development of the spongy tissue is not only seen in cases of recovery, but among the fatal cases in all those where the disease runs a chronic course. Upon cavities the beneficial influence of this compensation is twofold: it not only acts indirectly by improving the general condition of the system, but it will be shown by its gentle and sustained pressure mechanically to assist the contraction of cavities. A question spontaneously arises as to the nature of this hypertrophy. According to Dr. Douglas Powell, the practical results will decide in each case whether the hypertrophy is of a true or of a false kind. In true hypertrophy, recovery may be practically complete, the breathing is easy, the chest of fair size, the fitness for exertion good. Conditions are different in the other instance: the chest may be large, but the patient is constantly breathless on the least exertion; the lung is in the condition so well described by you, Mr. President, as "hypertrophous emphysema", in which the bulk of the organ is not a measure of its power.

I am not convinced that we have to deal in either of these cases with a genuine hypertrophy, in the sense of new formation of parenchyma. The bronchial tree, with its appended air-sacs, must be considered as originally perfect and not admitting of reconstruction; and we are assured by Dr. Waters that air-cells are incapable of being regenerated. I believe that the differences between so-called true and false hypertrophy are susceptible of a simple explanation by the more or less of development of the vascular system of the alveolus. As long as the alveolus is submitted to a tension, for which neither its walls nor its capillaries are fitted, impaired respiratory function and impairment of circulation must follow. But supposing the energy of growth be sufficiently great to accommodate the air-cells to new conditions, the alveolus may be enlarged, and yet not suffer from over-stretching. This view equally explains the recovery of younger subjects, even after extensive loss of breathing-surface; and the opposite result observed in the aged, where the formative powers are too feeble to adapt the dilated air-cells to their increasing duties.

Thanks to this secondary expansion, the damaged organ, even after extreme excavation, may reconquer almost the whole of the thoracic space allotted to it; but, in the majority of cases, the work of compensation devolves upon the healthy lung. Of this unilateral hypertrophy, the specimen which I have placed on the table is a striking illustration. When opened after death, the chest in this case presented for inspection anteriorly as far as the left axillary border nothing beyond right lung and heart, the left lung being entirely hidden from view. Had the comparatively healthy right lung been tied down by adhesions, such a remarkable degree of vicarious development would have been obviously impossible. We are reminded by the specimen, not only of the value of compensatory hypertrophy, but also of the importance which attaches to the presence or absence of pleural adhesions.

From practical surgery we learn that the healing of large tracts of tissue is only possible at the cost of considerable *contraction*. In the skin this is well exemplified after destructive diseases or lesions, and a similar contraction is the means of recovery in visceral affections (*e.g.*, syphilis, infarcts, scrofula, etc.). Thus, it may be stated generally that the facilities for healing are commensurate with the opportunities afforded for this essential preliminary. As applied to pulmonary excavations, the term "contraction" is clearly a figurative expression. Strictly speaking, cavities cannot originate, but only suffer, contraction. They are entirely dependent for any alteration in their shape upon external agencies, and, above all, upon the condition of the tissue by which they are surrounded. The boundary zone may be in one of five conditions:—(1) in recent consolidation; (2) in chronic pneumonia with fibroid tendency; (3) in simple fibrosis, due to collapse of lung,

tissue; (4) in simple fibrosis connected with thickening of the pleura; (5) in a normal spongy state.

The first or pneumonic condition is absolutely unfitted for contraction. The acutely pneumonic lung is too much stiffened by inflammatory deposits, or sodden from œdema, to be the subject of any noticeable shrinking. But if chronic, and sufficiently moderate, the pneumonic action in phthisis is usually combined, as I have elsewhere insisted, with more or less of fibrosis, which may ultimately arrest all further progress of the disease, whilst it lays slowly the foundation for further contraction.

The fibrous ring, to which the contraction of cavities is mainly referable, is not necessarily an inflammatory product. It often becomes developed, as it were, passively, from a layer of areolar tissue which has become compressed or collapsed. A zone of unexpanded lung-tissue is habitually observed at the periphery of pneumonic excavations, being the outcome partly of the pneumonia and partly of the softening. All pneumonia implies relative fulness of the inflamed air-cells, and imperfect expansion of the neighbouring alveoli. In fibrinous pneumonia, this fulness is rendered manifest by the rib-marks at the surface of the lung. Whilst admitting, with Dr. Douglas Powell, that this indentation is in a great measure due to the collapsed state of the thoracic wall, and to the fixation of the ribs in a position of expiration, it appears to me undeniable that the lung-tissue is, relatively to this expiratory condition, expanded. Similarly, in catarrhal pneumonia, the relative distension of the affected districts is evidenced by the sharp outline and often slightly tumefied surface of the deposits, by the side of which the surrounding tissue is imperfectly expanded. The zone of lung-substance thus compressed generally survives, whilst the pneumonic consolidation softens into a cavity; and it supplies the basis of the fibrous wall of the cavity.

But the process of excavation itself is the chief cause of the alveolar collapse to which I have alluded. Softening invariably leads to an interruption of the supply of air over a corresponding region, whether from ulceration of the bronchioles, from their inflammatory occlusion, or from tubercular deposit within them.

The zone of pulmonary collapse constitutes an important factor in the subsequent contraction, owing to the elastic elements which its tissue abundantly contains; but, sooner or later, fibrosis is set up within it, and a fibrous contraction is substituted for the elastic forces natural to the pulmonary structures.

The formation of fibrous tissue around cavities is greatly assisted, whenever the cavity is superficial, by the existence of pleural adhesions. The supply of fibrous tissue from this source is not subject to any limitation; indeed, exuberance of fibrous growth may in its turn become a danger, inasmuch as it opposes the constriction of cavities under expiratory efforts, and the voiding of their contents by the agency of cough. The best results due to the contractility of fibroid tissue are seen in the thin walls of cavities situated at a distance from the pleura, in the midst of healthy lung-tissue. Here the contraction of the fibrous element receives material assistance from the pressure of the adjoining spongy substance, provided the cavity-membrane, although free from rigidity, be sufficiently strong to resist expansion under the weight of the atmosphere. These conditions are often combined in the cavities, which result from the sudden discharge of the products of softening into the bronchus. Relieved from internal pressure, the elastic and fibrous constituents of the investing layer spontaneously contract.

The influence which atmospheric pressure may exert in aiding or in opposing this contraction deserves to be briefly discussed. If an ordinary cavity, which I will suppose to possess a patent bronchus, could be imagined to be connected on all sides with the parietes of the thorax by means of some unyielding substance, lateral traction would be exerted around it equal to the inspiratory expansion of the chest. Let the connection be established by means of spongy tissue, by nature remarkably yielding, then not only will the outward traction mentioned above be removed from the cavity, but some degree of pressure will be exerted upon its outer wall by the expanding alveoli. These views are illustrated in the accompanying diagram: W. represents the atmospheric pressure acting upon the inner surface of the cavity, where it is supported by a resistance R. equal to it. Similarly, the weight of the atmosphere acts upon the inner surface of the alveoli where it is opposed by a smaller force E. R., which represents the elastic resistance of the spongy tissue. It appears from these considerations, that any inherent tendency (C.) to contract present in the fibrous wall would be assisted during inspiration by the quantity (W – E. R.). I am aware that the compressing force which I have described is very fractional, and that its importance must be measured by its continuous action. The bronchial orifice which I have supposed to be patent is, however, very frequently occupied with secretion more readily allowing the egress than the entrance of air. In such a case, the deep inspiration which precedes muscular strain or the effort of coughing is directly utilised against the outer surface of the cavity.

We shall see elsewhere that the atmospheric pressure may be transmitted to cavities by the thoracic walls, but its influence is nowhere more striking than when, gaining access to the pleural cavity, it acts directly upon the external surface of the lung. The collapse of tissue and of cavities induced by internal perforation of the lung, is so striking as to have suggested to some the employment in excavating disease of artificial pneumo-thorax as a possible means of treatment; but of this aspect of the question it is not my province to speak.

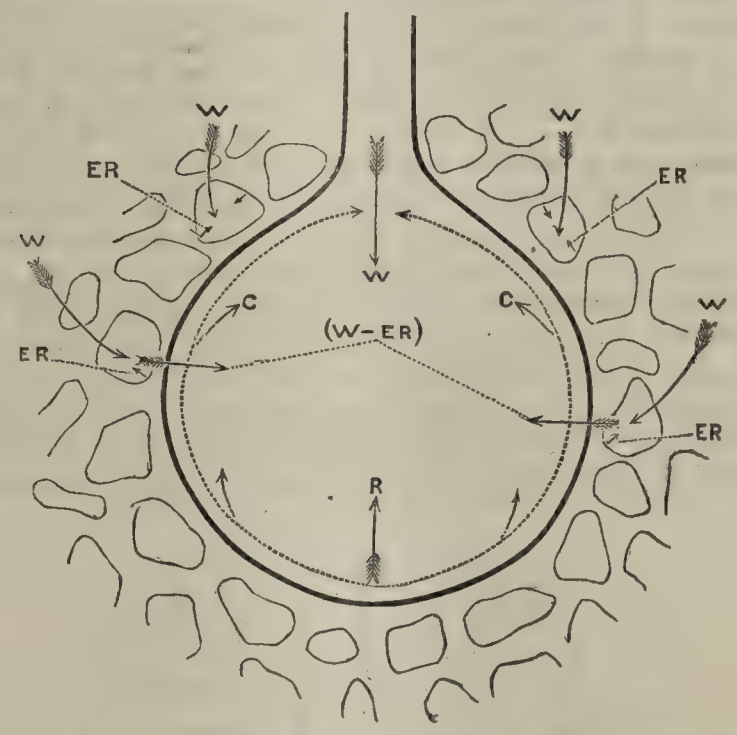


Fig. 5.—Forces favouring and opposing Contraction of Cavities (Alveoli should have been depicted in a state of distension). W. Atmospheric Pressure. R. Resistance (equal to W.) offered by Cavity Wall. E.R. Elastic Resistance not equal to W.) offered by Alveolar Wall. W—E.R. Balance of Pressure acting from without upon Cavity Wall. C. Spontaneous Contractility of Fibrous Tissue of Cavity Wall.

The influence of the compensatory dilatation of the neighbouring tissue, added to the natural contractility of the cavity-wall, may suffice to induce gradual collapse of the smaller cavities, leading to those solid scars, rather larger than a hemp-seed, which occasionally are found at the centre of the lung abruptly terminating an air-tube of good size. The relations of the common cavity situated near the surface are not so favourable to contraction. The pleural adhesions, which are seldom absent, restrict vicarious expansion around it; whilst encroachment from the opposite lung rarely exercises any lateral pressure upon the cavity. Contraction in these cases is rendered possible by two circumstances, which are usually associated: 1. falling-in of the thoracic parietes; 2. shrinking of lung within the thorax.

The alteration induced in the outline of the thorax may be general or local. From a consideration of the architecture of the chest, and of the interdependence of its component parts, it is, at first sight, easier to conceive a general than a local collapse of its walls.

Uniform flattening of one side of the thorax may occur, and is sometimes clearly traceable to excavation. But the local depression limited to the seat of excavation is undoubtedly a more common change. The mechanism of its production is somewhat complicate. If we bear in mind the remarkable power of recoil exhibited by any part of the thorax after the application of temporary pressure, it is evident that the permanent falling-in, to which I have alluded, must have been of very gradual origin. The first impression is made prior to the establishment of excavation. Ribs overlying the inflamed districts become dissociated from the concerted movements of the intercostal muscles by a species of local paralysis, and ultimately they remain motionless. Dr. Ransome, from careful examinations by means of his stethometer (an instrument which deserves to be better known and more extensively used), has proved that the minimum of respiratory excursion is afforded by those parts of the chest which conceal active pulmonary mischief. At this time, the other ribs are actively at work, and become more and more independent of the paralysed ribs, whilst the costo-sternal joint of the latter, having acquired considerable looseness, permits the sternum to follow without hindrance the movements of the healthy

ribs. The preliminary steps which I have described having paved the way for local retrocession, the thorax becomes gradually depressed with the progress of excavation. Exceptions to this rule are sometimes seen in which no marked depression is occasioned even by large cavities. In rare cases, as in the specimen which I place before you, the whole upper lobe may be completely excavated, and so adherent to the chest-wall, that for a long period the chest may present no striking collapse. In this special case, the lower part of the lung was completely adherent and hyperdistended, and the absence of fibrosis argued a more moderate degree of pleural irritation than usually accompanies excavation so superficial and so extensive.

Collapse of the thorax has its final limits in the perfect approximation of the ribs. When contact has occurred between the latter, any further retraction of cavities must entirely depend upon the fibrous shrinking of the lung itself. In fibroid phthisis, this shrinking attains a remarkable degree. At the base, owing to the yielding nature of the diaphragm, a retraction of the lung and a contraction of the cavities are specially favoured; and the most usual result of the contraction of large cavities in this situation is a shortening of the thoracic space, in consequence of which the position of the liver, the stomach, the spleen, and other viscera may suffer appreciable alterations.

Neither the shrinking to which I have alluded, nor the secondary hypertrophy, can occur without some disturbance of the normal relations between the visceral and the parietal surfaces of the pleura; and, conversely, rigid pleural adhesions are detrimental, not only as opposing contraction of the cavities, but as preventing the free expansion of the healthy tissue, and its gradual insinuation between the pleura and the wall of the cavity. In the diagrams and specimens before you, the extent to which the spongy tissue may expand is strikingly shown by the

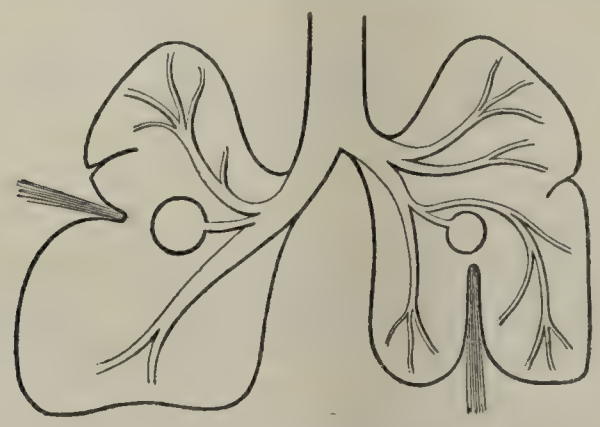


Fig. 6.—Band-like Adhesions of Pleura, strictly limited to Surface corresponding to Excavation.

length of the band connecting the retracting cavity with the pleura. In these cases, adhesion was strictly limited to the point at which the cavity originally approached the surface. Extensive adhesions around this point would have rendered such a result impossible. It follows that the existence of adhesion over the healthy parts of the lung forms a most important element in our diagnosis. Especially important is the question as to adhesions of the inferior surface. I need not insist upon the value of an unfettered respiratory mobility of the diaphragm. Adhesions cannot fail more or less to lessen the latter; but the anatomical alterations which they introduce into the lung are not less important. It will presently be shown that adhesions to the diaphragm invariably restrict the area of the base, and consequently curtail the breathing surface of the lung.

In compensation for these great disadvantages, the only benefit accruing from pleural adhesions in respect of the contraction of cavities is the growth of fibrous tissue, to which I have incidentally referred. The remarkable thickness sometimes acquired by the pleural membrane, by filling up superfluous space, enables the lung to shrink to a smaller size; or it may ultimately exert a directly constricting pressure. My own views as to the mode of origin of this thickening do not materially differ from those expressed by Dr. Douglas Powell, in his work on *Consumption* (pages 17-19). Pleural adhesions having formed, the respiratory movements of the chest and the shrinking of the excavated lung lead to a stretching of the young fibrous tissue: hence the transverse striation plainly seen after death in the adhesions.

In harmony with this explanation, those parts are usually the seat of the greatest pleural thickening, where falling-in of the chest meets with the greatest difficulty. In the ordinary apex-excavations, the thickest pad of fibrous tissue occurs in the axillary region, coinciding with the greatest convexity of the ribs. Fibrous tissue is not the only substance employed by nature as a stop-gap. Very frequently fat is produced, in appreciable quantities, in the retro-pleural tissue. This I have often observed over the site of contracting cavities. (See Fig. 7.) The favourite situation is the internal surface of the ribs, as originally pointed out to me by Dr. R. E. Thompson. A contracted lung, removed from the chest in connection with the adherent pleura, usually presents deep parallel grooves, which alternate with prominent ridges,

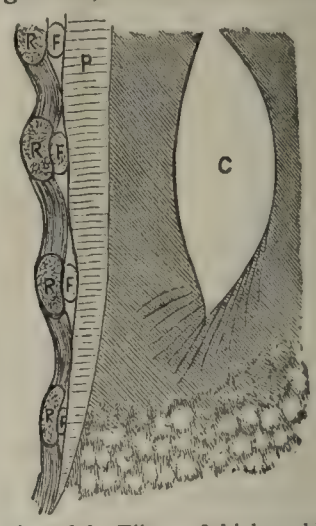


Fig. 7.—Transverse direction of the Fibres of thickened Pleura covering contracting Cavity. Deposition of Fat between the Ribs and the Pleura. C. Contracting Cavity. P. Thickened and adherent Pleura. F. Deposits of Fat beneath Ribs (R.).

suggesting an analogy with the costal indentations of a pneumonic lung, but in reality presenting the exact counterpart of this condition. In pneumonia, the groove corresponds to the bed of a rib; in the contracted lung, the position of the rib is marked in relief, and that of the intercostal space by a depression. The retraction of the fibrosed lung readily draws inwards the soft parts; but a similar in-bending of the rib is clearly impossible: in this situation the visceral layer of the pleura retreats from the periosteum, and the interval between pleura and bone is filled by fat.

[*To be continued.*]

REMARKS ON BALD TINEA TONSURANS AND VEGETABLE PARASITES.

By ROBERT LIVEING, M.D., F.R.C.P.,
Physician to the Department for Skin-Diseases at the Middlesex Hospital.

On several occasions, I have called attention to the occurrence of smooth bald patches in tinea tonsurans, exactly resembling alopecia areata. I have also mentioned the fact that when, in these cases, one patch becomes quite bald, the others quickly follow suit. A remarkable example of this has lately come under my observation. Two brothers have been under my care for some time past with ordinary well marked tinea tonsurans, with abundance of the trichophyton. Their parents objected to vigorous treatment, and therefore mild remedies only have been used, which have not at any time produced the slightest soreness. The elder boy had six or seven separate spots of tinea tonsurans, and, during the last fortnight, every one of these spots, great and small, has become perfectly bald, smooth, and shining, with a well defined margin of healthy hair. What I wish especially to call attention to is, (1) the suddenness of the change, (2) that the bald spots are strictly confined to patches previously affected with tinea tonsurans, not a trace of baldness existing on any other part of the head. In this instance, there is not a stump nor a hair to be found, though, when I previously saw him, the patches were thickly covered with stumps and hairs. In other cases of this kind that I have met with, it has been generally possible to find one or two stumps left either on or at the margin of the patch, by the microscopic examination of which the nature of the case could be determined. When the baldness is as perfect as it is in this instance, we may probably regard it as a spontaneous cure. In the younger boy, the tinea tonsurans has run an ordinary course. It is somewhat difficult to say whether we should regard a case of this kind as one of true alopecia areata following on tinea tonsurans, or as a peculiar and exceptional feature in tinea tonsurans itself. Nor do I think the question of much importance, provided that we remember that infection is not always removed; or, in other words, that the denudation is not in every case so complete as to remove all the stumps affected with the *Trichophyton tonsurans*. A want of knowledge of this fact has, in past times, led to two mistakes: the one, that alopecia areata is a *parasitic* disease; and the other, that it is *occasionally contagious*.

It has been pointed out by several observers that, in almost all chronic scaly affections of the skin, one can, by a diligent examination of the scales under the microscope, find the spores of a vegetable parasite commonly called *Torula vulgaris*. I can quite confirm this fact from my own observations. I would remark, however, that those who are not aware of it are sometimes misled into the belief that they have discovered a parasitic disease, when, in truth, they have only found *Torula vulgaris*, which is quite harmless, and which is a consequence rather than a cause of the disease. An example of this lately came under my observation in the case of a lady about thirty years of age, who had suffered nearly all her life from a well known chronic folliculitis of the eyebrows and scalp depending on constitutional causes; the skin was scaly, and the hairs fell out before they had arrived at maturity. She was told by two medical men abroad, who had examined the scales and hair under the microscope, that the cause of the disease was a vegetable parasite; the result of the treatment was, however, not satisfactory. When she subsequently came under my notice, it was not very difficult to find here and there *Torula vulgaris* in the scales attached to the hairs, but the hairs themselves were quite free; the mistake was thus easily explained. I have met with several other examples of similar mistakes.

With regard to an affection of the skin which I have described as a form of circinate lichen, and which has been supposed by some observers to be pityriasis versicolor, and of course of parasitic origin, I would remark that a very careful series of observations, extending over several years, quite satisfied me that the two diseases are quite distinct. I am quite prepared to admit that, when pityriasis versicolor becomes a little inflamed, as it sometimes does in those who happen to have a tendency to eczema, it bears a close superficial resemblance in appearance to this variety of lichen circinatus; but the microscopical characters of the two are always quite distinct. As to the name circinate lichen, I lay no stress on it whatever; I adopted it to avoid the introduction of a new name; the disease has, however, since been described under a new name.

I hold that it is now quite out of our power to alter to any considerable extent our nomenclature of skin-diseases, however much we may object to some of the terms in use. Many objectionable synonyms will gradually drop out of use; and this is nearly all the improvement we can expect. The most vigorous efforts have been made to get rid of the name typhoid fever; but the word is still as much used as ever. The story of the emperor who failed in an attempt to change a quantity in a Latin word should not be forgotten by the inventors of new names for old diseases.

SEWER-GAS AND PUERPERAL SEPTICÆMIA.

By JOHN C. FERRIER, M.D.Lond.

In the number of the BRITISH MEDICAL JOURNAL for March 10th, Dr. Playfair refers, in his "Note on the Sanitary Condition of Bagshot Park," to the causation of puerperal septicæmia by sewer-gas. The following cases seem interesting, as showing this connection.

CASE I.—Mrs. S., a multipara, was confined on the morning of February 2nd, 1881. Labour was normal; the child was at full time, and living. A few hours later, I found her feverish, but the temperature was not noted. The next day, she had headache and slight abdominal pains; temperature 102.2° Fahr. She continued ill for more than five weeks (until March 10th), with symptoms of blood-poisoning. The temperature was sometimes very high—over 105° on one occasion. After the illness had lasted a few days, she had pleurisy on the left side; and, towards the end of the attack, abscesses formed in the axilla, groin, labia, and gluteal region. There was no sore-throat and no pelvic inflammation. The lochia were not at any time very offensive. There were only slight rigors, and milk was secreted for some days. She recovered. Two or three weeks before her confinement, the water-pipes being frozen, the trap of the water-closet became blocked; and Mrs. S., while directing the removal of the obstruction, got a strong whiff of sewer-gas, and exclaimed at the time that she was afraid it would give her diphtheria. She was not seen medically before her confinement; but her husband said she had been feverish and ill for a week before it took place, and that she "felt so hot in bed that he was obliged to move away from her." There was no history of exposure to any other poison than sewer-gas. In the same house, two years before, several of her children had diphtheria from defective drains; but these were put to rights, and there was no further trouble until the water-supply was cut off by the frost.

CASE II.—Mrs. H., a multipara, was confined prematurely, at seven months, on July 22nd, 1881. The child lived one day, and died cyanosed. She was ill for several days before confinement, with pyrexia and abdominal pains. There was no local trouble to account for it. The day before confinement her temperature was 103°. Afterwards, she was better and less feverish for a day or two; but the temperature was never normal. She soon became much worse, and had severe rigors nearly every day; one wrist-joint became red and swollen, also the first metatarso-phalangeal joint of one foot. There was no throat-trouble; the lochia were not offensive. Milk was secreted for some time, and required belladonna to stop it. She died on August 25th, one month and six days after confinement. There were not any cases of infectious disease in the house, nor could any fault be found with the sanitary arrangements. But, a short time before her illness, Mrs. H. had noticed a strong smell from a sewer, while she was out walking.

In both cases, the illness commenced before confinement; local mischief only showed itself after the pyrexia had gone on for some days; and there was nothing in the history, symptoms, or progress of either case to lead me to suspect that any other poison than sewer-gas had been at work.

THE THERAPEUTICAL ACTION OF ACONITE.

By EDWARD J. TILT, M.D.

ACONITINE has attracted so much attention of late, that I will mention how large a dose of tincture of aconite *(B.P.)* was given by me in a very severe case of cerebral neuralgia, to a highly nervous lady, at the change of life. One or two attacks occurred about every week; and the attacks of pain were so severe that she was obliged to stop in bed, and in a dark room, for two or three days—the pain being sometimes accompanied by vomiting, oftener by salivation. There was but little dark-coloured urine passed at the beginning of the attack, and it ended by an abundant flow of limpid urine. The liability to these attacks has now lasted twelve years, and they still occur. What was suggested by Dr. Handfield Jones, Dr. Russell Reynolds, and Dr. Ogle had not the slightest effect on the attacks. The application of six leeches to the temples shortened them; going out of town kept them in abeyance, once for six weeks; and the only medicine that did the same was aconite. The patient took the tincture of aconite, in an aromatic infusion, for sixteen weeks, beginning with five drops, and gradually increasing the dose till she took twenty-five drops, three times a day. That dose caused so great a sense of fulness in the throat, and of tingling and numbness of the tongue, that I lowered it to twenty drops, three times a day, which caused only slight physiological effects. The remedy kept off the attacks for two, three, and once for four weeks; but it did not in the least diminish the intensity of the attacks. I therefore thought a sixteen weeks' trial of a dangerous medicine sufficient, and gave up its use.

As I am not aware that tincture of aconite has ever been given in such large doses, I will add that the prescription was made up at a respectable druggist's in Kensington, and that I am quite sure my patient took the doses I have mentioned. Whether my patient's idiosyncrasy made her able to bear large doses of aconite, or whether there was something wrong in the tincture, I cannot say; but I should follow the same course in a similar case. Dr. Greenhalgh told me he once nearly lost a patient, to whom he had ordered an enema containing nine drops of tincture of aconite.

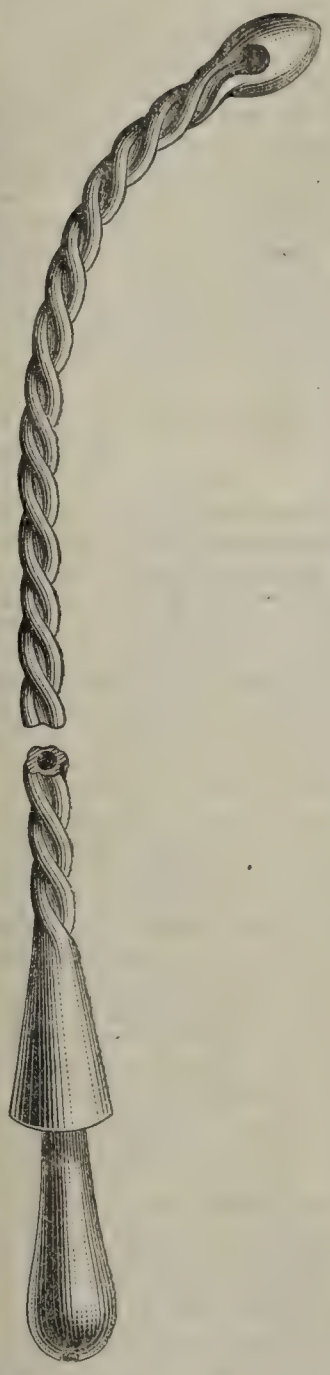
NEW METHOD OF URETHRAL IRRIGATION.

By WALTER WHITEHEAD, F.R.C.S.E., F.R.S.ED.,
Surgeon to the Manchester Royal Infirmary.

IRRIGATION, judiciously employed in suitable cases and at a proper stage of the complaint, is unquestionably a valuable adjunct to the treatment of gonorrhœa. In the first place, the prolonged stream of water effectually removes the inflammatory products of the disease, which obstinately and intimately adhere to the surface of the urethra, and protect the mucous membrane from the immediate influence of the remedies we endeavour to bring into action, either through the urine medicated by the administration of balsamic drugs, or by the more direct influence of antiblennorrhagic injections. The tenacity with which the secretions adhere has, no doubt, much to do with the difficulties encountered in the treatment of gonorrhœa. It must be remembered that the urethra in health is an elastic tube tolerant of reasonable dilatation; but when invaded by inflammatory changes, it is converted into a comparatively unyielding tube, intolerant of any force having a tendency to expand its calibre; consequently, irrigation, to be safe and successful, must be conducted on a principle consistent with the laws of hydrostatic pressure; and as we propose to use irrigation in a disease which involves conditions opposed to distension, it is required that the mode of

irrigation, whllst insuring a continuous and copious stream of fluid, should be free from any undue tendency to stretch the walls of the urethra.

These conditions I have obtained by the following apparatus and mode of procedure.



I have had catheters made, some in vulcanite and others in soft India-rubber, by Messrs. J. and W. Wood, of King Street, Manchester, with a deep spiral groove from tip to stem on their outer aspect. The catheter ends, as represented in the accompanying engraving, in a hollow bulb perforated with two large apertures directed backwards. The other extremity of the catheter is adapted for the ready attachment of India-rubber tubing. The groove in the catheter is made with a depth double the capacity of the central tube, so that the facilities for the return of injected fluids are greater than the requirements; and, in consequence, there is no excessive pressure on the urethra, the outflow being more than ample for the inlet of the irrigating fluid.

In using the irrigator, it is passed to different lengths of the urethra, after the manner of an ordinary catheter, according to the nature of the case, the aim being to get well behind the furthest limits of the diseased surface. The distance can be roughly estimated by the clinical features of the case, and by testing how far back the discharge can be pressed out of the urethra.

When introduced, a length of India-rubber tubing is attached to the irrigator; and the other end of the tube, passed through a leaden weight, is placed in a vessel containing the fluid to be used, and elevated above the body of the patient. The tube being made to act as a syphon, the strength of the stream can be regulated by the height of the vessel, and by this means a simple and complete control can be exercised over the force brought to bear upon the surface of the urethra and the feelings of the patient. The bulbous extremity of the catheter practically restricts the action of the fluid to the urethra in front, and prevents any of the injection from passing backwards into the bladder. The direction of the stream is also influenced by being diverted forwards within the hollow bulb. The irrigation of the urethra being regarded merely as a measure preliminary to treatment, it remains, after the mucous membrane has been thoroughly cleansed, to apply one or other of the various topical solutions we are in the habit of using; and this can be easily accomplished by connecting a syringe to the irrigator after the rubber tubing has been removed.

ON TAPPING THE BLADDER FROM THE PERINÆUM THROUGH THE HYPERTROPHIED PROSTATE.

By REGINALD HARRISON, F.R.C.S.,
Surgeon to the Liverpool Royal Infirmary.

In the JOURNAL of December 24th, 1881, I reported a case where I had performed puncture of the bladder for retention of urine from the perinæum through an enlarged prostate. I am now enabled to complete the history of that case.

After the bladder was tapped, for about six weeks my patient passed urine through the prostatic cannula. His health rapidly improved, and he was able to go about as if nothing ailed him. Then it was noticed by us that urine in gradually increasing quantities began to flow through the natural passage, so much so as to lead me to infer that, for some reason or other, the prostate was ceasing to obstruct micturition.

On January 28th, I removed the prostatic cannula; the puncture healed in the course of a few days, and with this the bladder gradually proceeded to recover its natural function and power. It must be remembered that, for over two months, I had resolved the patient's act of micturition into the simple mechanism of turning a tap. During the daytime, he now holds his urine for two or three hours, and at night he gets up twice, and sometimes thrice, to micturate. It may be said that all functional symptoms of enlarged prostate have ceased to exist.

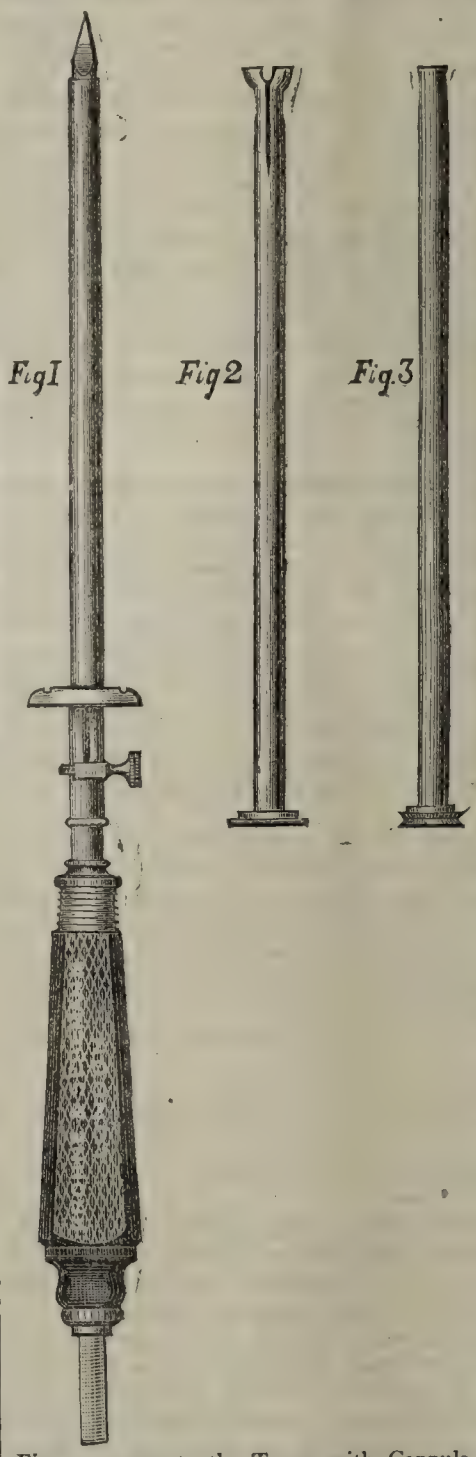


Fig. 1 represents the Trocar with Cannula complete. A piece of India-rubber tubing is to be attached below the collar of the cannula on withdrawal of the trocar, to convey the urine into a receptacle.—Fig 2. Silver cannula, which is introduced in tube of Fig. 1 to form a probe end, and for retaining it.—Fig 3. A plain silver tube with which to clear tube (Fig. 2), in case of it being blocked-up.

On the day of his admission into the infirmary, when the puncture was performed, rectal examination, made both by my house-surgeon, Mr. Laimbeer, and by myself, left no doubt that the prostate was greatly enlarged. Upon this point, there could be no other conclusion. Now we find that the enlargement has almost disappeared; in fact the finger, by the rectum, discovers but little that may be regarded as abnormal—a strong contrast to what previously existed. Here, then, we have a case where a surgical proceeding on an enlarged prostate was followed by its rapid atrophy, a result which, so far as I know, has not been noted before. It may be urged that rectal examination affords evidence that only one side of the enlarged gland has thus become reduced; it must, however, be remembered that a return of the power and function of micturition warrant a conclusion that a corresponding change has taken place in the vesical aspect of the gland.

Though I am only at present able to narrate one case, it will be taken for what it is worth, and as capable of being imitated.

I desire to record it as bearing upon the radical treatment of an affection for which little has hitherto been done.

Appended is a short description, with an illustration, of the instruments I have devised for this operation, which have been made for me by Messrs. Krohne and Sesemann.

The trocar is hollow, and urine escapes through it as soon as it enters the bladder. The shield on the tube (Fig. 1) is movable, and can be fixed at any desired position to suit the varying thickness of prostate and tissues. The instrument is adapted for other purposes than that referred to in this communication.

POISONING BY PHOSPHORUS BY THE RECTUM.—Landerer relates in the *Archiv der Pharmacie* for the present year a case in which a woman, in order to come into the possession of a large inheritance, poisoned a boy, aged 15, by introducing the ends of phosphorus matches into his rectum. The boy died the same night, with very severe pain and inflammation of the rectum. The murderess committed suicide soon after her apprehension.

ON THE TREATMENT OF ECZEMA BY BANTINGISM.

By BALMANNO SQUIRE,
Senior Surgeon to the British Hospital for Diseases of the Skin.

It is familiar to every practitioner that eczema is specially common amongst infants, and particularly amongst lymphatic infants, that is to say, fat and pasty-looking infants. I do not refer only to those instances in which the very fatness of the infant is the mechanical cause of the complaint; that is to say, where "a fold" of skin in the fat infant becomes raw and discharging (intertrigo); but I refer to the well known fact that infants of this constitution are more liable than others to eczema (of the scalp and other parts), not coming under the head of "intertrigo," and that their eczema is more profuse in its discharge, whether that discharge be serous or purulent, than it is in other infants; it is also more obstinate.

I recently recorded in the JOURNAL some experiments I had made with iodoform as an application in such cases, and which succeeded very well as a means of reducing the ezema of such infants from the discharging to the dry condition pretty rapidly. As to that, I was supported by other writers.

But from some observations I have recently made, I have reason to think that Bantingism as applied to such infants is as rapid in its effects, and if sustained, is of more permanent efficacy. Some years ago the late Mr. Banting was under my care for eczema, and I had an opportunity of conversing with him pretty frequently on the system of which he was the apostle. It is through this accident that the idea suggested itself to me.

I have used the word infant for the sake of convenience, but I refer rather to very young children. To Bantingise a suckling infant is, of course, not very practicable, but a child of two or three years old can be dieted very readily. It does not appear necessary to the end in view that the diet should be restricted in quantity as well as in quality, which of course was essential under the *regimé* laid down by Mr. Banting, or rather by the late Mr. Harvey (the aurist) for him. It is simply necessary to limit the fat-producing elements of food for the amelioration of eczema in lymphatic young children. At least so I have found. By this means their excessive obesity becomes diminished and their eczema very remarkably improved within ten days of commencing the regimen, and that without any injury whatever to their general health, so far as I can judge.

In place of pure milk, they should take milk diluted with an equal or even a double quantity of water. In place of bread and butter they should take dry toast or dry biscuits; and with these particular articles of food they may be supplied indefinitely. All the fat is to be carefully cut away from such meat as they may partake of, and they should not be allowed pork, veal, or lamb. They may have poultry or game, or fish, except the oily kind of fishes, such as herrings, salmon, eels, etc.; and the fish they partake of should be broiled (not fried). They may eat boiled vegetable tops, but not vegetable roots, such as potato, parsnip, beet-root, turnip or carrot. Beef-tea (the melted fat being carefully skimmed off) is permissible in any quantity, and so also toast and water. Cooked fruit (not sweetened) may also be allowed.

But the principles of the Banting treatment are universally known. It only remains for me to say that cod-liver oil (the favourite remedy, *par excellence*, for the condition of which I am speaking) is quite incompatible with the treatment I am advocating. Of course, the health of the child should be watched; and it should be weighed at the commencement of its dieting, and afterwards from week to week.

INJURY PECULIAR TO CHILDREN, PROBABLY DISLOCATION OF EITHER END OF RADIUS.

By WILLIAM SNEDDON, M.D., Beith.

A SHORT article, entitled "Dislocations of the Elbow-joint in Children," by Mr. S. H. Lindeman, which appeared in THE BRITISH MEDICAL JOURNAL, March 18th, interested me, because it is the only notice I have observed of this injury, except the one referred to in Mr. C. Heath's *Minor Surgery*, and is one which has attracted my attention, as I have notes of several cases. From what little has been written on the subject, there is great diversity of opinion as to the seat of the injury and its nature. The injury is described by Heath as being rare, but I have seen ten cases in as many years, and Mr. Lindeman says he saw ten in a year; the injury would either appear to be so trivial as to be beneath the notice of publication, or else we must be acute observers (perhaps too acute), to which qualification personally I do not lay any claim. So far as my observation has gone, it is generally confined to children who are delicate and atonic, and who are not more than six years old.

A typical case is this. A child is brought who is suffering pain in the arm, with inability to lift the fore-arm, or to catch anything offered to it, with the arm not quite semi-flexed, and the fore-arm fully pronated as a rule. The injury, in seven of the cases, was situated at the elbow, though in three it seemed to be at the wrist. There is seldom any deformity to be seen or felt; but, when the fore-arm is supinated and then flexed, a slight *click* is usually heard or felt, and the pain vanishes in a minute. If one now offer a coin to the child, it will lift its arm and catch hold of it at once. Sometimes this manipulation is not sufficient, for, besides supinating the fore-arm, the hand must be flexed on the arm. The injury is very apt to recur, and may not do so at the same seat, for I had one case in which the injury seemed to be situated at the wrist twice and once at the elbow. Another case had it thrice at the elbow; once when the child was on a visit. The surgeon who examined it could detect nothing, but after making his examination it was better. This I believe to be one reason of its so-called rarity; for, on making the customary examination for some probable dislocation, it is rectified, and it is quite a possible thing that some cases rectify themselves, for the displacement is so slight.

Mr. McNab, of Epping, who was the first to write about it in this country, thinks it is the lower end of the radius which is dislocated from the ulna. M. Goyrand says it is a displacement of the interarticular cartilage of the wrist, at the end of the ulna. Other French surgeons, also Dr. Hodges of Boston, and Mr. S. H. Lindeman, think that it is the head of the radius which is displaced at the elbow. Mr. C. Heath thinks it occurs sometimes at the wrist, and other times near the elbow, and this is my opinion. I am not prepared to say what the exact nature of the injury is; but, in those cases at the elbow, it seems to be a slight displacement of the head of the radius forwards and probably outwards. In one case at the wrist the injury was not remedied, though I supinated the arm and flexed the wrist, till I moulded the parts, as it were, surrounding the wrist-joint. This, I thought, might be a case of displacement of the ulnar interarticular cartilage, but I am more inclined to think that the injury at the wrist is due to displacement of the lower end of the radius.

The majority of the cases which I have seen were caused by some one catching hold of the hand of the child, who was then dragged towards them. In a few cases, where I could get more reliable information, a nurse-girl stood behind the child, who was sitting, caught it by the hand, which caused it to rotate, as it were, on its elbow-joint, with its arm fully pronated, and raised it at the same time from the floor.

CLINICAL MEMORANDA.

PREGNANCY COMPLICATED BY ACUTE RHEUMATISM: PREMATURE DELIVERY AND DEATH.

S. A. P., aged 31, was seven and a half months advanced in her fifth pregnancy. She had rheumatic fever in her childhood, and again eight years ago. The heart was said to have been then affected, but of this no trace was left. The recent illness began on the morning of March 6th. When she was first seen that day, both wrists and the finger-joints of the right hand were affected. Temperature 103.8. There were no cardiac symptoms. She was treated with salicylate of soda. On March 7th, the pain was relieved; but there was great dyspnœa. A loud systolic apex murmur was heard. Temperature 103.2°. On March 8th, in the morning, there was no pain; the dyspnœa was relieved. Temperature was normal. She complained of vague pains in the abdomen. In the evening, the patient was delivered, by a single pain, of a dead child. When she was seen, within half an hour after delivery, the temperature was 100°; pulse 120; respirations 56. A mucous rattling was heard in the throat, and moist sounds over the larger air-tubes. The placenta came away easily and without hæmorrhage. Stimulants and expectorants were administered. On March 9th, in the morning, she was comfortable; the breathing was easy, and the temperature normal. In the evening the temperature was 99.80. Pain had returned in the right wrist and ankle. On March 10th, in the morning, the temperature was 104.5; the pain was no better. The dyspnœa had returned, and there was much bronchitis. She gradually sank, and died soon after midnight. The chief points of interest about this case are: the extreme rarity of acute rheumatism as a complication of pregnancy; and the fact that delivery did not take place when the pyrexia was at its height, but after the temperature had been lowered, and when the patient was feeling comparatively well.

ALFRED HARVEY, M.B., Lozells, Birmingham.

SURGICAL MEMORANDA.

ON FRACTURED PATELLA.

THE opinion held, and ably expressed by Mr. Jonathan Hutchinson, that the extent of separation of the fragments of a broken patella depends upon the distension of the knee-joint from effusion within, finds support in a case which is now under my care. Five weeks ago an elderly man was admitted into hospital, having fractured his right patella. Notwithstanding the constant application of cold, by a Lister's metal temperature regulator (a most invaluable apparatus), and every possible arrangement of pillows, strapping, etc., well contrived and carried out by the house-surgeon, at the end of a fortnight the joint remained much distended, and the fragments were at least two inches apart. With aseptic precautions, I opened the joint, and there immediately gushed out two handfuls of blood-clot and fluid. The joint being thus cleared, there was no difficulty in bringing the pieces of bone together, and wiring them with stout soft silver wire; proper drainage was provided, and the limb dressed according to the directions given by Professor Lister in such cases. Not a single bad symptom has followed the operation; on the contrary, the pain from the former distension was removed immediately on emptying the joint; the wound is quite healed, except at the spot where the ends of the wire protrude; merely a slight groove marks the line of fracture; the man is up and able to move about the ward, a stiff silicate of potass splint supporting the limb.

WILLIAM BROWN HOLDERNESS, Surgeon,
Royal Infirmary, Windsor.

TOXICOLOGICAL MEMORANDA.

POISONING BY MUSSELS.

ON the 19th March, I was called to P. S., whom I found insensible, with laboured and deep breathing, a cold and damp skin; the heart's action was barely perceptible. Such were the alarming features of this case, that I immediately summoned a professional friend to join me, whose opinion as to the fatal result was quite in unison with my own. By the steady and persistent use of external warmth and internal stimulants, such as brandy and ammonia, our patient, in three or four hours, began to show symptoms of vascular revival, which resulted in returning consciousness and ultimate survival. Yet, singular to state, these fearful symptoms were followed by complete aphonia—not an articulate word could be uttered. This state lasted for a full day and night, notwithstanding severe counterirritation of the external throat, coupled with repeated doses of castor-oil internally. The following day he spat up a large semi-gelatinous substance, which, when opened out, presented the appearance of a cast of the posterior fauces, such as might be expected after taking a strong mineral acid. He declares solemnly (and he is a very worthy man) that he never took anything but a small nip of whiskey, except *the mussels*. I shall be glad to have the opinion and experience of my professional brethren on this singular case. I may say there was no urticaria, nor swelling of the face or body, but there was itching of the skin.

CHAS. ANDERTON, Leigh, Manchester.

POISONING BY NITRATE OF POTASH.

Mr. WOLSTENHOLME'S case of poisoning reminds me of a remarkable recovery of a man who took two ounces of the nitrate of potash. During the month of April 1836, Thomas Wilson, aged 56, a robust farm-labourer, took by mistake two ounces of nitrate of potash, instead of two ounces of sulphate of magnesia, which was his usual dose of Epsom salts. Shortly afterwards, he was seized with griping pains in the stomach and bowels, copious perspiration, vomiting, and diarrhœa. The pain in the body was excruciating, accompanied by great prostration. The vomit was mixed with blood, and of a dark colour. Blood also passed in large quantities with the urine and fæces. He drank freely of warm tea and milk. He called to see me thirty-six hours after taking the saltpetre, at which time he felt tolerably well, although he then complained of soreness over his stomach and bowels, and felt feeble. In a few days he completely recovered, and felt no further ill effects from the large dose he had taken. It is remarkable that he recovered without any medical treatment.

ANTONIO CROSS, M.D., F.R.C.S.Eng.

PRESTON MEDICO-ETHICAL SOCIETY.—The following officers have been elected for the year 1882. *President:* Dr. Gilbertson. *Vice-President:* Dr. Hodgson. *Treasurer:* Dr. Moore. *Committee of Management:* Dr. J. Arminson, Dr. Lightbourne, Mr. H. Walmesly, Dr. Rigby, Dr. Byrne, and Dr. Smith. *Secretaries*: Dr. Garner and Mr. John Holden.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

FRIDAY, MARCH 24TH, 1882.

J. LISTER, D.C.L., F.R.C.S., F.R.S., President, in the Chair.

(*Concluded from page 463.*)

Nephrectomy for Scrofulous Kidney.—Dr. GOODHART and Mr. GOLDING-BIRD read joint notes of this case, which was that of a young man who had suffered from symptoms of renal affection for fifteen months prior to his first coming under observation. His emaciated state and general cachectic condition, combined with the pyuria and right lumbar pain from which he suffered, pointed at once to a scrofulous pyelitis on the right side. All the other viscera were healthy. Combined abdominal and lumbar palpation, on the right side, proved the presence of an elastic tumour at the site of the kidney that was tender, and was found, on watching, to vary in size inversely as the bulk of the pus passed in the urine. After due consideration, it was agreed upon by the authors that active steps should be taken to afford relief: these reasons being founded upon the almost universal tendency of these cases rapidly to end fatally; the proved inefficiency of medicines to arrest the progress of the disease; the fact that the disease was at first at least local; and that it was only later on that other organs became infected and diseased. It was further agreed that, in the patient's present condition, anything palliative, even in the way of tapping the swelling, would be but loss of time, and making demands on his strength to no purpose. Nephrectomy was therefore decided upon and performed; the whole of the kidney was removed, after tapping it, through the wound, in order first to diminish its bulk. It weighed ten ounces, and was a characteristic specimen of scrofulous kidney. Soon after the operation, extreme collapse supervened, from which the patient never rallied. At the inspection, the right urinary organs and the bladder were the only parts diseased; the latter, however, not irrecoverably so. While the gravity of the operation alone might account for the death, yet it was noticed that the pulse did not fail during the operation, neither on the necessary manipulation of the suprarenal bodies, nor at ligature of the pedicle. The collapse supervened at once on returning the patient to bed; and the possibility of the carbolic acid of the spray being absorbed by so large a raw surface, and in such close proximity to the large lymphatic sac (or peritoneal cavity), was suggested in explanation of the fatal ending to the case.—Mr. CLEMENT LUCAS considered that the operation, at which he was present, had been most carefully performed, and he thought the incision was the best for the case. He alluded to a case in which he had opened the kidney six years before the performance of nephrectomy, and there had been a discharge from the loin for all those years. He thought the ureter should be first tied, and cut through, and then the vessels could be the more easily ligatured. There had been a subcutaneous injection of morphia after the operation, which he thought might possibly have added to the patient's collapse. After operations for hernia, where morphia had been injected, he had seen two cases of collapse and death; so that he never now gave a morphia suppository after such operations until the patient had quite recovered from the chloroform. In his case of successful nephrectomy, the man was now well, and his wife had borne a child since the operation. Pus had continued to be passed in the urine for months after the operation, and had then gradually disappeared.—Mr. GODLEE said the pleura went down to, and even below, the last rib; so that he considered the removal of a part of that bone a very serious operation. He presumed the tuberculous mass in the prostate might have been previously felt. It seemed to him that the operation was defective, inasmuch as it contemplated the removal of only a portion of a wide-spread tuberculous disease.—Mr. MORRANT BAKER said that in a case of the kind under his care he had at first opened down to the kidney only, hoping the organ would dwindle; but it did not diminish after several weeks' waiting, and the subsequent operation was only rendered the more difficult, as the tissues around the kidney had meanwhile become much matted together. The first operation seemed, in fact, to have been useless. He had since seen the child, as she was ill. She was feverish, and had afterwards died; but the wound in the loin had quite healed some months before. The urine passed a few days before death had not been distinguishable from healthy urine. Perhaps, if she had had two kidneys, to remove effectually the products of the feverish attack, she might have also recovered from the illness which proved fatal. He desired to ask the President his opinion as to whether the exposure of such a large surface for nearly two hours to the carbolic spray added to the danger of a fatal collapse.—Mr. T. SMITH said he had never seen a case in

which, if one kidney were tuberculously diseased, the other kidney and other parts of the urinary tract were free from disease. At any rate, after nephrectomy for tuberculous kidney, a portion of ureter similarly diseased would be left.—Mr. KNOWSLEY THORNTON had had a tolerably large experience in operations on the kidney; he had performed lumbar nephrotomy three times, and abdominal nephrectomy three times, and all the patients had recovered. He was thus in a position to speak from experience as to each method, and he had no hesitation in giving the preference to the abdominal section, by incision outside the rectus abdominis, instead of in the median line. This was advocated by Langenbeck, of Berlin, at the Congress, and Mr. Thornton had found it most satisfactory. There was even less hæmorrhage from the parietes than in the median incision; there was little or no exposure of the general peritoneal cavity, the renal vessels could be reached and ligatured before the kidney was enucleated, and much hæmorrhage thus saved; and there was much less hæmorrhage in enucleating through the outer layer of the meso-colon, than through the inner layer, where most of the vessels lay. He had twice operated by this incision during the last few weeks, and both patients had recovered with but little fever; indeed, convalescence was almost as rapid as after an ordinary ovariotomy. He had brought out the end of the ureter in each case, and fixed it in the wound; and this he regarded as important in avoiding sepsis. He had in one of the cases previously performed lumbar nephrotomy, hoping to cure by free drainage, but the only result was to increase the difficulty of the after nephrectomy, as in Mr. Morrant Baker's case; and he could not at all agree with Dr. Goodhart as to the advisability of making nephrotomy an introduction to nephrectomy. He had, however, found it possible to destroy the existing sepsis by the free use of tincture of iodine. In his last case the kidney weighed four pounds seven ounces, and contained twenty pints of pus, and it would have been quite impossible to perform the operation through the loin. From a careful consideration of the published cases, and from his own experience, he would strongly advocate Langenbeck's incision *in all cases*, and he believed that, with experience and care, the operation, though performed through two layers of peritoneum, might be made practically an extraperitoneal procedure, the peritoneum being closed immediately the opening for enucleation had been obtained. In reply to Mr. Morrant Baker, he might mention that he had had several cases of abdominal operative surgery, under the carbolic spray, lasting two, or nearly three hours, and that he considered the chance of danger from the spray was very little indeed.—Dr. BARLOW said that, in a case, operated on by Mr. Couper, the patient, a girl, was in good health several months after the operation. In her case the pyelitis, as in many other instances known to him, had been located in one kidney only.—Mr. BARKER said that, as to the removal of the last rib, in one case where the end of the rib was resected, the patient became cyanosed, with all the symptoms of a collapsed lung, and had died. In another case, operated upon by himself, he had unintentionally removed the end of the last rib in cutting down upon the kidney; no ill result had followed.—Mr. REEVES said that, although he had never had occasion to do nephrectomy, he had cut down on the kidney for exploratory purposes, and had seen nephrotomy and excision of the organ in three or four instances. The incision adopted was the usual oblique one as for lumbar colotomy, but nearer the rib. If more room were needed, this incision might be increased, or one at an angle to it added. He thought that intraperiosteal excision of a portion of the last rib was justifiable in cases where the organ could not be extracted without it, but he quoted a case in which a large kidney was removed by pulling up the last rib, and thus getting an inch to an inch and a half more room. This mobility of the last rib should be utilised as much as possible before proceeding to the somewhat severe measure of excising a part of it. There were some cases of cystic kidney, which could not be removed by the lumbar or extraperitoneal method; and he had recently assisted at such a case, which, before and during operation, had closely simulated an ovarian tumour, so as to deceive experienced ovariotomists. Had it been attempted to remove this through the loin, the operation would either have failed, or only been concluded with serious and unsurgical damage to the peritoneum. He, therefore, thought that large cystic kidneys should be removed by the intraperitoneal method, although two layers of peritoneum were incised, as now-a-days there was little risk in properly selected abdominal operations. — The PRESIDENT said he was pleased to hear that the means adopted by Mr. Thornton to render the wounds aseptic by the free use of tincture of iodine were efficacious. He had recently seen a lady, aged 24, sinking, with pus in the urine, in whom it was doubtful as to whether there were calculous or scrofulous kidney. Under chloroform, the kidney was felt to be large. Upon puncture of the organ, pus escaped; no calculi were discovered. The wound in the kidney-substance was enlarged, and cavities were detected, from which four or five ounces of pus escaped. Two large drainage tubes were introduced; the wound was sewed up, and covered with eucalyptus gauze. It might be asked why was this done? Because, in some such cases, after the letting out of such offensive pus, the next day only a serous oozing would occur, although bacteria might have been present when the pus was first discharged. Antiseptic treatment answered its purpose completely in such cases. That patient was now recovering; the discharge was lessening, and the wound was healed. Even if the kidney had proved to be tuberculous, and had had eventually to be removed, his patient could not at that time have survived the major operation of nephrectomy. He had never known the carbolic spray injure the patient, although used during a long abdominal operation.—Dr. GOODHART said that, as to the question of the removal of a part only of the disease, he believed the disease commenced in one kidney, then went to the bladder, and up the other ureter to the other kidney, which, after a year or two, became diseased. He did not think it was an argument against the operation that the suppuration in the urine lasted afterwards, for it very soon diminished, and then ceased entirely.—Mr. GOLDING-BIRD said the patient was collapsed before he was put to bed, and did not die from the morphia, as he had quite roused. Neither did he think the pleura could have been hurt in any way. He thought each case must be decided on its own merits, so far as the question of nephrotomy or nephrectomy was concerned.

CAMBRIDGE MEDICAL SOCIETY.

FRIDAY, MARCH 3RD, 1882.

G. M. HUMPHRY, M.D., F.R.S., President, in the Chair.

PROFESSOR HUMPHRY, on taking the chair, made some complimentary allusions to the late President and Mr. J. CARTER moved, and Mr. E. CARVER seconded, a vote of thanks to Dr. Paget for his services in the chair during the last two years.

Sarcomatous Tumour of the Humerus Involving the Parts about the Shoulder-joint.—PROFESSOR HUMPHRY brought forward a case of malignant tumour of the right humerus, in which he had amputated at the shoulder-joint, removing also the forepart of the scapula and clavicle. The patient was of cachectic look, and the axillary glands were much enlarged. The arrest of hæmorrhage from the artery was greatly facilitated by the use of an apparatus devised by Mr. Wherry, for compressing the subclavian, by means of which the vessel was controlled without trouble for about thirty minutes. Dr. Humphry observed that the disease in this case was mostly outside the periosteum, and had insinuated itself between and invaded the muscular fibres, whereas it is usually seated beneath the periosteum, the fibres connecting the periosteum with the bone being frequently stretched, hypertrophied, and ossified, these ossified fibres radiating from the bone into the substance of the tumour. Usually also the disease invaded the interior of the bone; and when attended in that situation, as well as on the exterior, with bony transformation, it constituted the osteoid tumour of some pathologists.

New Artery-Compressor.—Mr. WHERRY exhibited an instrument, devised by himself, more especially useful for compression of the subclavian artery. It was T-shaped, the vertical limb was padded, and from each extremity of the cross-piece an elastic band extended in front and behind the chest to be fastened round a cushion in the opposite axilla. If the right subclavian had to be commanded, a cushion was placed in the left axilla, and the apparatus so applied that one elastic band passing in front of the chest and another behind, pulled upon the bridge across the right clavicle and pressed the vertical limb towards the vessel with a force, the resultant of the two forces produced by the tension of the elastic bands. The surgeon should stand behind the patient, should feel the vessels pulsating with his left forefinger and direct the instrument with the other hand on to the passive forefinger. This apparatus was of especial value when the artery required control during a long operation as in Professor Humphry's case, where the artery was completely commanded for half an hour by the watch. Mr. Weiss had made the instrument from Mr. Wherry's model. The apparatus acted as surely as digital compression, without the risk of fatigue of the fingers which was likely to lead to loss of blood at the critical period of an operation.

Perforation of Popliteal Artery after Excision of Knee-joint.—The patient was a girl aged 17, under the care of Mr. CARVER. She suffered from chronic synovitis of the left knee, with a history of phthisis, old corneitis and diseased left elbow. A month after excision of the knee-joint sudden hæmorrhage occurred four times in two days. Amputation was deemed necessary, and after this it was found that the popliteal artery was ulcerated through by contact with a rough point of bone in a carious state. The patient made a good recovery in a month.

Cylindrical Epithelioma of the Stomach.—Mr. SHANN showed the stomach of a patient, aged 33, who had been under the care of Dr. Paget, in Addenbrooke's Hospital. For five years he had been subject to dyspeptic symptoms, with periodical attacks of vomiting, and gradual loss of colour. During the twelve months preceding his admission the vomiting had been more frequent, the anæmia had become rapidly more pronounced, and on two occasions there had been hæmatemesis, but no melæna had been observed. When admitted into the hospital he was in a state of great prostration, and highly anæmic. There was inability to retain food in the stomach, and the exhaustion increased, death occurring a few days after he came under observation. On the posterior wall of the stomach, close to the middle of the greater curvature, was found an area, about two inches square, covered with soft, fungating, extremely vascular, pedunculated masses. On the anterior wall, a little below its centre, was a single pedunculated growth of like nature, the size of a filbert. The mucous membrane elsewhere was perfectly healthy, even close to the margin of the disease, and there was no affection of the liver, or of the glands in the neighbourhood. On microscopic examination the new growth was seen to consist of a nucleated alveolar stroma, the alveoli being large and lined with a single layer of columnar epithelium, and their cavities filled with polygonal nucleated cells, which in the more central parts were undergoing degenerative changes.—Dr. HUMPHRY observed that this disease, in its general characters, resembled very closely villous disease of the bladder. He thought that, if the diagnosis were more certain, it would be feasible to open the stomach and remove the growth, as had been done in the case of the villous growth of the bladder by himself and some other surgeons.

Contracted Toe.—This specimen, exhibited by Dr. ANNINGSON, had been removed by Mr. G. Wallis. The pathological explanation of the case was the contraction of the tissues intervening between the long flexor tendon and the joint.—Dr. HUMPHRY had dissected other examples of the same deformity, and had found, as in this case, that the deeper tissues were the seat of the contraction. In the contraction of the fingers, which usually attacks first the ring-finger, the change was probably of gouty or rheumatic nature and seated in the palmar fascia, or in the tissue lying between the palmar fascia and the skin.—After some remarks by Mr. WHERRY, Dr. ANNINGSON showed a specimen of destruction of biceps tendon from rheumatic disease of shoulder joint.

MIDLAND MEDICAL SOCIETY.

WEDNESDAY, FEBRUARY 15TH.

J. BASSETT, M.D., in the Chair.

Fracture of Base of Skull.—Mr. J. F. WEST showed a specimen of fracture of the base of the skull, caused by a violent blow on the nose, taken from a healthy man aged 48. The patient, while shaping a pair of bellows at a circular saw, was struck violently in the face by the flying upwards of the wood. There were no cerebral symptoms until shortly before death, forty-eight hours after the accident. At the *post mortem* examination, a fracture of the orbital plate of the frontal bone was found on the right side, close to the crista galli. The ethmoid bone was completely smashed, as were the septum nasi and turbinated bones. Effusion into the ventricles and at the base of the brain also existed.

Foreign Body in Eye.—Dr. WOOD WHITE exhibited a patient who had been completely blind with the right eye for over eleven years—a piece of iron, two-eighths of an inch long, having lodged in the capsule of the lens. The foreign body was removed by Dr. White, at the Birmingham Eye Hospital; and a few weeks afterwards, with a three and a half inch lens, vision was normal.

Extroversion of Bladder.—Mr. T. F. CHAVASSE exhibited a man, aged 34, with extroversion of the bladder, upon whom it was proposed to perform a plastic operation to cover in the organ.

Laceration of the Cervix Uteri.—Dr. MALINS read a paper on laceration of the cervix uteri. After enumerating the causes and symptoms of this condition, the author stated that he was able, from his own experience, to verify the statement of American gynæcologists, that the lesion was not uncommon, if carefully looked for; and that the statistics formulated of its frequency were probably a little under than over the mark. Dr. Malins described the operative measures necessary to remedy the malady, and cited several instances under his own care which had benefited by practising the same.

Aix-les-Bains and the Sulphur-Springs of Savoy.—Mr. WEST read a paper on Aix-les-Bains and the sulphur-springs of Savoy, in which he gave an account of the chemical constitution and therapeutic virtues of the various mineral springs with which that country abounds. Mr. West also gave a description of the mode in which the thermal treatment is carried out at Aix; and spoke highly of its value in cases of rheumatic arthritis, gout, and in the various forms of constitutional syphilis. He also strongly advocated the springs of Ervan in lithiasis, and those of St. Gervais in eczema and other inflammatory diseases of the cutaneous system, and gave a brief description of both of those picturesque health-resorts.

WEDNESDAY, MARCH IST.

J. MANLEY, Esq., President, in the Chair.

Calculi removed from Perinæum.—Mr. T. F. CHAVASSE showed five calculi extracted from an opening in the perinæum of a young man upon whom lithotomy had been performed eight years before. A few weeks previously, while he was riding in a bicycle contest, the perinæum was bruised, and an abscess formed in the site of the old wound. The fistula not closing, Lister's ear-probe was introduced, and the calculi extracted simply from the sinus; the opening shortly healed.

Disease of Hip-Joint.—Mr. CHAVASSE exhibited a specimen taken from a man, aged 32, suffering from hip-joint disease. The head of the fermur was removed, together with a large portion of the floor of the acetabulum. Under Listerism the case progressed satisfactorily.

Keloid.—Mr. SPOFFORTH (Kidderminster) introduced a man, aged 37, who had several large patches of true keloid developed on the chest. These commenced to form about ten years ago; the pain experienced was of a screwing nature; the general health remained unaffected.

Laceration of the Bladder.—Mr. WALFORD (Dudley) exhibited the bladder of a man, aged 41, in which there was a rent of the size of a shilling on the outside of the vesicula seminalis. The patient had sustained a fall, and when admitted into the Guest Hospital, Dudley, was suffering from extreme collapse, the other symptoms being ill-defined. A large catheter introduced into the bladder drew off a little urine and some clotted blood; with a little manipulation the point of the instrument could be passed through the rent in the viscus. Death took place fifty-eight hours after the accident. At the *post mortem* examination there was no general peritonitis, but about a quart of urine and blood clot were removed from the right side of the pelvic cavity. Mr. Walford remarked that, in the present instance, it would have been useless to fasten a catheter in the bladder, and the condition of the patient was a bar to laparatomy or perineal section being performed.

Myxomatous Polypus of Bladder.—Mr. LAWSON TAIT showed a myxomatous polypus that he had removed from the bladder of a woman.

Ulcerative Endocarditis.—Dr. CARTER read a paper based upon the following case of so-called ulcerative endocarditis. A lad, aged 16, was admitted into the Queen's Hospital, Birmingham, on January 30th, suffering from acute rheumatism. There were no complications, cardiac, or otherwise. On the third day after admission, pleurisy supervened on the right side, and two days later on the left also. The patient gradually lapsed into a typhoid state. On February 15th, for the first time, a soft systolic murmur was heard on the præcordia, which could not be precisely localised. Five days later he became comatosed and died. On *post mortem* examination the following lesions were found—double pleurisy, small metastatic abscess (embolic) in both lungs, several infarcts in both kidneys, an enlarged softened spleen and perforative ulceration of the tricuspid valve. The other orifices and valves were healthy.

Injury of Kidney.—Mr. BENNETT MAY read a paper on a case of injury to the kidney with hæmaturia and supposed obstruction to the ureter by blood-clot. The symptoms indicating the latter were the sudden disappearance of blood from the urine, and the simultaneous occurrence of very severe pain in the loin. Mr. May, believing that urine was accumulating either in the pelvis of the kidney and ureter, or in the perinephritic tissue, introduced a fine aspirating needle on the outer side of the erectorspinæ close under the last rib, aiming for the pelvis of the kidney. After passing in some distance, fluid was tapped, and seven ounces of bloody urine withdrawn. Within a few hours blood reappeared in the urine, and the patient, a young man, rapidly recovered. Mr. May discussed the question of the probable locality of the fluid drawn off, concluding with the deduction that it was encapsuled in the tissues outside the kidney into which it had escaped through a small rent in the pelvis.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

FRIDAY, FEBRUARY 17TH, 1882.

J. W. TRIPE, M.D., President, in the Chair.

The Infectivity of Scarlatina.—Dr. ALFRED CARPENTER read a paper on some of the causes which increased or modified the infectivity of scarlatina. He considered that a long period of quarantine—such as

eight or ten weeks, and sometimes four months—was to be deprecated in the case of children recovering from scarlatina; he himself, for many years, had isolated cases for a fortnight, and in some instances for a week only, after the departure of the fever, and he had never heard of any evil result accruing from such a course. He next mentioned various cases in large schools, which served to explain his views as to the causes of scarlatina. The first outbreak of which Dr. Carpenter made mention was, in his opinion, entirely caused by a cesspool situated in the school yard, which was the recipient of washings from a slaughter-house; and, once a week at least, the aërial contents of this cesspool were displaced into the closets of the boys, situated in close proximity to it. As soon as this cesspool was emptied, and the drains properly directed into the sewer, scarlatina ceased to appear in the school. Want of proper ventilation in the soil-pipe and drains belonging to the building, caused an outbreak of scarlatina in another school—the drains being in direct communication with the main sewer of the district, and scarlatina being also at that time very prevalent in the neighbourhood. Dr. Carpenter believed that the nature of the blood, into which the poison was received, aided more materially in increasing the mortality from scarlatina than the character of the poison itself; and, in support of this theory, he instanced two outbreaks of this disease, in one of which the mortality had been excessive, fourteen persons having died out of seventy-five who were attacked; and, in the other outbreak, only three deaths occurred, though the total number of cases was one hundred and eight. Dr. Carpenter attributed this difference in the mortality to the surroundings of the children; in the one instance, the conditions were on the whole healthy; while, in the other, the children were exposed for a much longer period to an impure atmosphere, and were badly cared for at home. The cause of the two outbreaks was similar in character: the excreta of the first case of scarlatina, in each school, passed down unventilated drains, which communicated directly either with class-rooms inhabited by the children, or with closets used by them. In conclusion, Dr. Carpenter said that he believed scarlatina more often arose from sewage-emanations, or from sewage contaminated with scarlatina-germs, than from personal contact. He considered that, in many cases where the cause of the disease had not been discovered, it might have been found, on careful investigation, to proceed from some accidental inhalation of sewer-air; and that persons who were constantly exposed to such an atmosphere were liable to more severe attacks of scarlatina and diphtheria than those who inhaled the poison for a short period only. Dr. Carpenter also suggested that the discharge of hot water and waste from steam-engines into the sewers, was a source of danger in producing scarlatina and diphtheria.—In the discussion which followed, the President, Dr. Churchill, Dr. Child, Mr. Jacob, Dr. Kelly, and Mr. Shirley Murphy took part.

MANCHESTER MEDICAL SOCIETY: MICROSCOPICAL SECTION.

J. DRESCHFELD, M.D., PRESIDENT, in the Chair.

Lupus.—The PRESIDENT exhibited numerous sections of lupus from the upper lip, and demonstrated the development of giant-cells from the epithelium of the sweat-glands. Sections taken from a part where the disease was only just commencing, showed the process to consist of an infiltration of the sweat glands and the surrounding tissue, with embryonic ceils; there was also marked proliferation of glandular epithelum. Sections from other parts showed enlargement of the lumen of the sweat-glands, and their distension with small cells, or, in some instances, with a more homogeneous material, showing numerous well-stained elongated nuclei; further, the gradual changes of these altered sweat-ducts, resulting in the formation of giant-cells, were observed in different parts of the section. In parts representing older growth, the giant-cells were found to show a hyaline central portion—a peripheric zone, with rod-shaped nuclei—and processes which passed into the surrounding embryonic cell-masses. The oldest giant-cells were atrophied, horny, and showed no nuclei. The changes seen resembled very much those described by Arnold (Virchow's *Archiv*, 1880), in the formation of giant-cells from biliary ducts in tubercle of the liver.

Epithelioma of Lung, with Secondary Growths in the Kidneys and Bones.—Dr. DRESCHFELD showed the organs and sections from a case of pavement-cell epithelioma. The most careful examination during life, and after death, did not reveal the presence of any growth, either affecting the skin or the mucous membranes. The tumour in the lung was about the size of a walnut, and was whitish in colour, and of soft consistency. It surrounded a large bronchus, and led to the rupture of a large artery into this; the resulting hæmorrhage being the immediate cause of death. Secondary tumour masses, showing central softening, were found in the kidneys, in the bodies of some of the vertebræ, and in one rib. All the tumours presented characteristic histological appearances, showing large epithelial cells with numerous cell-nests.

Sarcoma of the Eyeball.—Dr. A. H. GRIFFITH exhibited sections of an eye, which showed a new growth, apparently connected with the sclerotic coat, and pushing forward the greater part of the choroid, the tumour intervening between these tunics. The growth, which was rounded, and of a whitish colour, extended from the fundus almost as far forward as the lens. It was almost entirely composed of long spindle cells, which at one part showed slight pigmentation.

Rodent Ulcer.—Dr. GRIFFITH also showed sections of a rodent ulcer which had been excised from the lower eyelid of a man aged 50. In this case, the gap left by the removal of the ulcer had been filled up (by Dr. Mules) with a piece of skin transplanted from the arm. The patient was brought before the members of the section. There was hardly any deformity, and no ectropion.

Perichondroma, Enchondroma, etc.—Mr. A. H. YOUNG showed sections of a large perichondroma of the femur—others of an enchondroma of one of the phalanges of a finger—and also sections from a case of myeloid sarcoma of the femur.

MANCHESTER MEDICAL SOCIETY.

WEDNESDAY, MARCH 1ST, 1882.

EDWARD LUND, F.R.C.S., President, in the Chair.

Tubercular Ulceration of Intestine simulating Typhoid Fever.—Dr. SIMPSON showed the lungs and a portion of the intestine from a case of tuberculosis. The interest lay chiefly in the close resemblance to enteric or typhoid fever. Mary P., aged 21, domestic servant, was admitted to the Manchester Infirmary November 17th, 1881. The health had been good up to six months before. Since then, she had felt increasing weakness, but became much worse three or four weeks before admission, with cough and expectoration. On admission, the evening temperature was 104°; pulse 128. There were morning remissions. Slight flattening, with diminution of resonance and some moist *râles*, existed at the left apex. Sonorous and cooing rhonchi and moist *râles* were heard, indeed, over the greater part of the chest, but the latter were constant at the left apex. The abdomen was natural, not tumid. There was no pain nor gurgling on pressure in the iliac fossa; but a few rose spots, exactly like those of typhoid, were scattered over the surface. The tongue was a little furred, but moist. The bowels were slightly confined. The spots appeared and disappeared in successive crops through the whole course of the case. There was high temperature in the evenings, with morning remissions. On November 27th, diarrhœa set in, and the motions speedily assumed the "pea-soup" character. The expression, the mental hebetude, the character of the delirium, all closely resembled what is seen in typhoid. She died on December 18th. Both lungs were congested at the bases. A small cavity of the size of a walnut was found at the left apex; while numerous miliary nodules were scattered through the surrounding lung-tissue. In the middle lobe of the right lung was a caseous mass of the size of a filbert, with some scattered miliary tubercles. The peritoneum was normal, and also the mucous membrane of the ileum till near the lower end, where numerous small rounded and oval ulcers were found. Their margins were thickened; the floor was formed by the muscular, and in some cases the serous coat, but there was no perforation. The ulcers extended transversely round the intestine, contrasting markedly with those found in typhoid. They extended through the whole length of the large intestine. The other organs were healthy.

Dementia resulting from Hereditary Syphilis.—Dr. BURY remarked on the very scanty allusions to the possibility of such a connection by either writers on insanity or on syphilitic nervous diseases. He mentioned three cases. One was shown at the meeting; a girl, aged 14. She "snuffled when a baby, and was covered with brown spots". There was a distinct family history of syphilis; none of insanity or fits. There were now scars at the angles of the mouth, a shallow notch in the edge of each upper incisor, also advanced disseminated choroiditis. Her memory had been failing for three years, and there were other signs of progressive dementia of mild type. There was slight tremor of tongue, and the cheek-muscles; and partial loss of control over micturition. Dr. Bury gave *post mortem* evidence of importance of syphilitic arteritis as a factor in these cases, starving, and so causing gradual atrophy of the brain.

Progressive Facial Hemiatrophy.—Dr. DRESCHFELD showed a girl, aged 9½, affected with this very rare form of disease. The atrophy affected the left side of the face. It came on without any particular cause four years ago, and seemed to be gradually progressing. The parts affected were the skin, the subcutaneous tissue, and the lower

and upper jaw on the left side; all the muscles except the left half of the tongue, which was atrophied, were healthy. The disease was not accompanied with any pain, and the sensibility of the affected half of the face was normal to touch, pain, and temperature. The blood-vessels were not affected, and the small vessels showed their natural tone; the temperature of the two sides was equal. The sebaceous secretion was diminished on the left side; the secretion of sweat and of saliva were not altered. Taste was not affected, nor were the other special sense-organs in any way altered. The teeth and hair were likewise unaffected. The diseased process had as yet not reached the bones of the orbit or skull to any appreciable extent, nor were the cartilages of the nose or ear implicated in the process. The pupils were equal, and reacted well to light. The electric reaction of the muscles to the faradic and galvanic current was rather increased on the left side, owing, no doubt, to the thinness of the skin on that side. The general health and growth of the patient was in no way interfered with by the atrophy. As regards the pathogenesis of this rare and peculiar disease, this case again showed that the atrophy was not due to an affection of either the facial, the sympathetic, or the motor or sensory portion of the fifth nerve, but that it was a "tropho-neurosis" following the course of the fifth nerve, in the sense in which Romberg first enunciated it. From the atrophy of the left half of the tongue, it would seem that the disease was rather central than peripheric, implicating, besides the supposed trophic centre of the fifth, also in part the nucleus of a neighbouring nerve.

The Theory of Gout: its Chemical and Electrical Relations considered.—Dr. MARCH read a paper on this subject. It contained an analysis of the chemical relations of urate of soda, both within the body and without; and more especially showed how this salt was affected by mediate applications of the constant current. By means of some new experiments, the writer showed, first, that electrolysis and chemical substitutions occurred in the midspace between the electrodes, and were in some respects more active there than at the electrodes themselves; and, secondly, that the Franklinic current of an ordinary frictional machine could, with the utmost ease, be made to produce prompt and copious electrolysis.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: PATHOLOGICAL AND CLINICAL SECTION.

FEBRUARY 24TH, 1882.

J. F. WEST, Esq., in the Chair.

Lympho-sarcoma removed by Abdominal Section.—Mr. WALFORD (Dudley) showed a lympho-sarcoma, which had been removed by abdominal section by Dr. Underhill. The growth was attached by a short thick pedicle to the uterus. It was ligatured, and then removed by means of the actual cautery. The patient recovered, and left the hospital forty-two days after the operation. Subsequently, however, the growth recurred, and death took place fourteen months after the operation. Microscopical specimens of the original growth were exhibited.

Unreduced Dislocation of Shoulder.—Dr. BARLING showed a specimen, which he had found *post mortem*, of an unreduced dislocation of the shoulder. The interesting point was the very slight change which had taken place in the condition of the parts, notwithstanding that many years had elapsed since the date of the injury by which the dislocation had probably been caused. There appeared to be no obstacle to easy reduction.

Pyloric Obstruction.—Dr. BARLING showed a specimen of a pyloric tumour, causing well-marked stricture of that orifice. During life, there had been persistent vomiting. Coffee-ground matter was present in the vomit on two occasions only. A tumour could be felt on palpation. The tumour *(post mortem)* showed no signs of ulceration on its inner aspect, nor adhesions on its outer aspect; nor were there any secondary deposits in other organs. The question arose as to its real nature. Dr. Barling thought that there was no evidence of malignancy.

Pseudo-Hypertrophic Paralysis.—Dr. SIMON introduced a lad, aged 12, with well-developed pseudo-hypertrophic paralysis.—Dr. MILNER MOORE (Coventry) related the cases of three boys in one family afflicted with this disorder, of whom one had lately died.

Changes in the Sympathetic System in Bright's Disease.—Dr. SAUNDBY read a paper on this subject, which was illustrated by drawings from microscopical preparations. His inquiry was suggested by the investigations of Da Costa and Longstreth. It was based upon an examination of seven cases. His results went to show that the relationship between the renal lesion, and the changes observed in the ganglia and surrounding connective tissue, must be regarded as secondary rather than primary. Further confirmation of the results obtained by the American authors referred to was, therefore, needed before they could be accepted.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

WEDNESDAY, FEBRUARY 15TH, 1882.

ANGUS FRASER, M.D., President-Elect, in the Chair.

Lithotrity.—Dr. ALEXANDER OGSTON exhibited lithotrity instruments of a new description, and showed specimens of two descriptions of calculi now cured by lithotrity, but formerly condemned to lithotomy; the one (oxalic acid) on account of its hardness, and the other (uric acid) from its size, weighing as it did 700 grains.

Pregnancy Complicated with Albuminuria.—Dr. MACGREGOR reported this case, in which, besides other complications, there were a systolic *bruit* very strong at the base of the heart, and albuminous retinitis, causing blindness. Premature labour was induced, and the child delivered by version. A few hours after delivery, hemiplegia came on, accompanied with fever, and the urine was at first retained, requiring the catheter, and was then passed in bed unconsciously. Seven days after the first coming on of the paralysis the thermometer stood at 99·5°; pulse, 125; the paralysis began to disappear, and she could again see well. On the tenth day she had a rigor, with sharp pain in the region of the kidney, and the urine was ammoniacal, with pus in it. On ophthalmoscopic examination, the disc was found choked. Six weeks afterwarns she began to move her legs, and two months afterwards the arm began to improve, and the disc to become clear. Three months after delivery, the *bruit* heard over the base of the heart was distinct, and there was swimming in the head. She could read ordinary small newspaper type. Four months after delivery she could lift her hand to her mouth, and at five months the *bruit* had ceased, and she was able to rise from the bed without assistance. Ten months after delivery, however, the *bruit* returned, and had persisted to the present time; a month after it was again discovered. The treatment had consisted of purging, digitalis, steel, and iodide of potassium. There were several questions in connection with the case. 1. Was it better to produce premature labour than to treat the albuminuria, and allow the pregnancy to go on naturally? 2. Why had there been no fits in this case? Was it because the albuminuria had not come on rapidly enough? 3. What was the cause of the paralysis? Was it from embolism or vegetation? He thought it might be from vegetation, seeing there was a *bruit*. 4. Why had the *bruit* disappeared and again returned? 5. What caused the affection of the kidney?—Dr. ANGUS FRASER remarked that a *bruit* heard on the left side at the base was usually hæmic, and not organic. If organic, such could usually be traced along the course of the aorta. It was not uncommon for albumen to be present for a long time, and yet no convulsions to occur. If the patient were robust, he thought in such a case purgation should be tried, and especially if there were pain over the stomach.—Dr. STEPHENSON said the connection between albuminuria and eclampsia existed usually where the nephritis was more recent. Long standing nephritis did not always produce convulsions. The eclampsia seemed to depend on some vascular change in the brain, for there was sometimes no albumen till after convulsions had set in. He had seen cases where there was intense vertex headache (relieved by chloral and bromide of potassium, which produced diuresis), followed by albuminuria, rendering premature delivery necessary, and this without any convulsions being the result. He had seen it stated in an American authority that in albuminuria, where the secretion or urine was active, convulsions would be prevented, but that if sudden suppression came on, convulsions were likely to occur.—Dr. OGILVIE WILL thought there was, perhaps, a liability to forget, as the late Dr. Begbie had remarked, that there were two kidneys, and that one of them might be able to do the work usually done by both. He had seen Dr. Macgregor's case at an early stage, and had then thought the heart affection certainly organic, but of this he was now doubtful. The case was to him very interesting, as he had watched the recovery of speech very closely, and the process seemed exactly like the first efforts of a child in speaking.—Dr. FRANK OGSTON mentioned two cases in which he had seen albuminuria without convulsions.—Dr. WIGHT said he had seen convulsions arise from exposure to cold.—Dr. MICKIE mentioned a case which had recently occurred to him of acute nephritis with albuminuria without retinitis, in which he gave digitalis, iron, and purgatives, and in which labour occurred at full time without convulsions.—Dr. MACGREGOR replied. He said he thought the kidney disease was produced by pregnancy. He considered the *bruit* was endocarditic. The sudden hemiplegia contraindicated, in his opinion, the idea of thrombus.

Case of Aneurysm.—Dr. MCKENZIE BOOTH exhibited a man, about 45, who had enjoyed good health up to two years ago, when he had a severe attack of lumbago. He then began to suffer from distressing cough and dyspnœa on exertion, with sense of suffocation when lying on his left side or back; being comfortable only when on his right side or when in a sitting posture. He first noticed the cough about

October 1880. About Christmas of the same year he was suddenly seized with very severe dyspnœa. In March 1881, he went into the Royal Infirmary for his cough, and remained there six weeks. In November he felt a "downy fluttering" in his larynx, chiefly on the left side, which had persisted since that time. When seen for the first time he looked as if he had been a strong man who had fallen off in flesh lately. He had an anxious expression. There was a loud stridor in breathing, now and then broken by cough, and great dyspnœa on exertion. On laryngoscopic examination, the left vocal cord was seen fixed, while the right moved freely during phonation and breathing. Laryngeal whistling sound was heard over the tracheal and laryngeal regions The apex-beat of the heart was seen in the sixth interspace in the mammary line. The cardiac area was enlarged outwards, and to the right of the sternum at the level of the fourth cartilage. There was a low systolic murmur over the site of the apex beat. The aortic second sound was very loudly accentuated. No well-marked area of dulness in the aortic region. In the track of the right carotid were two well-marked pulsating tumours, each about the size of a walnut, one just above the clavicle, the other below the angle of the jaw. Radial pulse, normal and equal in both wrists. He stated that his family had all been long-lived and strong, and that he had lost three stones in weight. Iodide of potassium in twenty-grain doses was ordered to be taken three times a day, with cod-liver oil. He improved under this treatment, sleeping and eating better, and having more strength; and in a month he could lie on his back easily, and also on his left side, though not quite so well. There was no gain in weight, but cardiac impulse was stronger, and the pulsation in the carotid tumours was much less. The case was brought before the society, not so much for the interest attached to the aneurysm, as on account of the somewhat unusual presence of paralysis of a vocal cord.

SURGICAL SOCIETY OF IRELAND.

FRIDAY, FEBRUARY 10TH, 1882.

B. W. RICHARDSON, F.R.C.S.I., in the Chair.

Resection of the Knee-joint.—Mr. WHEELER showed the patella and portions of the tibia and femur, which he had removed ten days previously in resecting the knee-joint. C. K., a delicate boy, was admitted into the City of Dublin Hospital on December 15th, 1881, stating that three years before he had received a hurt on the knee, which caused severe pain in the joint a fortnight afterwards, and that the pain always returned in frosty weather. Before operation, the circumference of the sound limb below the patella was nine inches and a half; that of the diseased limb was ten inches and a half. Above the patella, the sound knee measured ten inches and three-quarters, and the diseased one eleven inches and a quarter. There was little pain, but the knee was habitually semiflexed. The specimens showed the presence of "pulpy disease" of the knee-joint. The patella was free from caries, but the surrounding structures were thickened. The femur was only slightly carious, but the tibia was considerably diseased; whilst the internal semilunar cartilage was nearly destroyed. The case was doing well since the operation.

Cancer of the Œsophagus.—Mr. CROLY showed the stomach and œsophagus of a man aged 60, who was admitted into the City of Dublin Hospital on December 27th, 1881, suffering from intense dysphagia. Whenever he attempted to swallow, after a few spasmodic efforts, the food was forcibly ejected. There was no history of syphilis, nor was there evidence of disease in the stomach. The diagnosis of epitheliomatous growth of the œsophagus was made; and an operation became imperative. Gastrostomy was performed, and a tube inserted; but the man only survived for twenty-four hours. The specimens showed extensive but sharply defined cancerous disease of the œsophagus just below the crossing point of the left bronchus. There was no disease in the lungs, liver, heart, or other viscera. The adhesion between the mucous membrane of the stomach and the external skin, to which it had been stitched in the operation, was remarkably complete, considering how short a time (twenty-four hours) he had survived. He (Mr. Croly) believed that, once the diagnosis was arrived at, and the necessity of operation recognised, the sooner it was performed the better, for delay only served to allow emaciation, which took place with startling rapidity in such cases, to reduce the chances of success to a minimum.

Compound Dislocation of the Ankle.—Mr. THORNLEY STOKER showed the foot and adjoining parts, which he had amputated in consequence of a compound dislocation received by a sailor whose ankle was entangled in a chain on the quays. It was an instance of the least usual form of dislocation of the ankle—viz., the foot inwards, and the bones of the leg outwards. The malleolar process of the fibula was fractured transversely, and remained attached to the foot. The malleolar process of the tibia was fractured obliquely, and also remained *in situ*.

Mammary Cancer.—Mr. ORMSBY showed two specimens of scirrhous disease of the female breast.

Lithotomy in a Boy.—Mr. CORLEY described a case of vesical calculus in a boy aged 8, on whom he had performed lateral lithotomy about three weeks previously, and in which he experienced unusual difficulty. The operation took about a quarter of an hour to perform, the delay being caused by the difficulty in entering the bladder with the blunt-pointed knife in the groove of the staff. Such difficulties were often experienced if the assistant who held the staff allowed his hand to fall on to the abdomen of the patient, for then the tip of the staff was thrown forwards into the membranous portion of the urethra, and protruded into the space between the bladder and rectum; and it was into that space that he at first feared he had opened; but, on again using the sharp-pointed knife, he divided the opposing structures, and, entering the bladder, removed the calculus.—Mr. STOKER said that the difficulties attending the operation of lateral lithotomy in the adult and the child were so totally different, that the two operations could hardly be placed in the same category.—Mr. O'GRADY thought that the surgeon often got blame where the assistant really deserved it, for allowing the staff to get out of its proper place; otherwise, he did not see how the bladder could be missed if the groove in the staff was followed.—Mr. ORMSBY thought the bladder was often best reached by following the concavity of the staff rather than the grooved convexity.—Mr. RICHARDSON thought a very important point was to use as large a staff as the urethra would admit.—Mr. WHEELER was in the habit of using the same knife, the sharp-pointed one, throughout the whole operation, and he had never experienced the difficulty felt by Mr. Corley; he believed the cause of his trouble was the yielding structures of the child's urethra being pushed in front of the blunt-pointed knife.—Mr. BENNETT agreed with Mr. Ormsby that the concavity of the staff was often the best guide to the bladder.—Mr. CORLEY, in reply, said he would hesitate to follow the concavity of the staff, as, the structures being soft, could be very easily pushed before the knife.

Division of the Neck of the Femur in Cases of Ankylosis.—Mr. STOKES read the notes of a case of complete angular ankylosis of the hip-joint occurring in a boy, Nicholas B., aged 14, who was admitted into the Richmond Hospital on March 1st, 1881. The right thigh and leg were atrophied, not only as regards the soft structures, but also as regards the bones of the limb; arrest of development in the tibia on the affected side, as well as in the femur, being well marked. The thigh was strongly flexed and rigid, rendering the limb perfectly useless to the patient, necessitating the use of crutches. The affected limb was three inches and an eighth shorter than the sound one, and the region of the hip-joint was surrounded by numerous cicatrices left after the closure of sinuses, other sinuses being still open. The disease was the result of injury received nine years previously. Forcible extension of the limb had previously been tried in another hospital, but without satisfactory result. Division of the neck of the femur was therefore performed. A straight incision behind the great trochanter, three inches and a half long, was made, commencing three-quarters of an inch above it, from the upper portion of which a further incision was carried in a curved direction upwards, backwards, and slightly downwards. The soft parts having been dissected through, the head of the bone was found rigidly fixed to the acetabulum, the neck being shortened and atrophic; there was no evidence of any part of the bone being softened. A medium-sized osteotome was then used to divide the neck of the bone, which was easily effected, and the limb straightened. Carbolic acid solution, 1 in 40, was used to wash out the wound, and a drainage-tube inserted, and Lister's dressings applied. During the convalescence of the patient, a moderate extension of the limb was kept up. After six weeks, the patient could get about the ward by the aid of a stick, without crutches; soon after, the stick was discarded, and the boy went home. Three months after this, Mr. Stokes saw the boy, and believed that a false joint had formed; the boy could walk without a stick. Mr. Stokes then gave a historical *résumé* of the various modes of performing osteotomy for angular ankylosis of the hip, from the writings of Rhea Barton to those of Adams, who devised a saw for the purpose of dividing the bone subcutaneously; the advantages of which, however great before the introduction of antiseptics, were now more than counterbalanced by the desirability of the surgeon seeing what he was doing; and the presence of bone-detritus in the wound, acting as centres of ossification, was probably the cause of movable joints not being obtained by Adams's method.—Mr. BENNETT said an important point was the *modus operandi*, whether by subcutaneous section, as recommended by Mr. Adams, or by free incision, as in Mr. Stokes's case. Unquestionably, when Adams pro-

posed his operation, it was the only justifiable way; but now, with the increased security offered by the use of antiseptics, it was open to question whether it was not preferable to open up the wound and see what you were doing. Also, as regards the means used to divide the bone, he thought that the osteotome was preferable to the saw; the latter instrument, of course, being alone possible to use in the incision recommended by Adams. The detritus resulting from the use of the saw, in such cases, must of necessity be injurious; and therefore, where the bone was soft, as in children, the osteotome was to be preferred; and even in adults, though attended with more difficulties, its use was probably to be preferred.—Mr. WHEELER thought the objection to the saw only held good where Adams's incision was made; but where a free opening was made, so that the detritus could be removed, the saw was, in his opinion, better than the osteotome.—Mr. STOKES replied, and exhibited the boy on whom he had operated.

REVIEWS AND NOTICES.

MATERIA MEDICA AND THERAPEUTICS: INORGANIC SUBSTANCES. By CHARLES D. F. PHILLIPS, M.D., etc., late Lecturer on Materia Medica and Therapeutics, Westminster Hospital Medical School. Pp. 820. London: J. and A. Churchill. 1882.

SOME years ago, we spoke well of the plan of Dr. PHILLIPS's volume on the vegetable kingdom, although it was open to criticism on the score of repetition, want of references, etc. The present volume—long delayed by the author's unfortunate railway accident—is cast in a similar, but much improved, mould; and will be found to be an excellent practical treatise, less encyclopædic than the works of Husemann and Nothnagel, but much better digested, and more readable. With less of original thought than the treatises of Gubler or Rabuteau, and based as it is to some extent on the former, it covers a wider practical area, is less special and peculiar in its judgments, more interesting and complete in its references. Bartholow's book, if somewhat similar in plan to the one before us, is on a much smaller scale.

In the physiological sections, though fairly complete, Dr. Phillips's book is not so full as that of Dr. H. C. Wood, but the pharmaceutical chemistry and the therapeutical sections are much more developed. It compares favourably with Stillé or Pereira, and judiciously gives less space to the older historical facts about drugs and their action on plants and the lower animals, as well as to minutiæ of chemistry. It is essentially modern; and while it does not ignore pharmacy, it does not reproduce textually the Pharmacopœia, but gives just a sufficient description and testing of every remedy mentioned, and of its mode of preparation, with the chemical formulæ and any necessary explanation. A large space is devoted to physiological action, external and internal, classified according to systems—Nervous, Digestive, Circulatory, etc. Many interesting facts find a place under the headings of "Absorption", "Elimination", as regards, *e.g.*, sulphur, mercury, and iron. Theory of action, tolerance, idiosyncrasy, are discussed under prussic acid, phosphorus, antimony, arsenic, etc. Bromism, cuprismus, argyria, plumbism, etc., are described, so that comparison is easy. Under every drug, synergists and antagonists are mentioned. Modern remedies, oxygen, compressed air, iodoform, sulphurous acid; modern methods of using old remedies, *e.g.*, arsenic, phosphorus, sulphides, iron, water; less known remedies, *e.g.*, gold, barium, manganese, all these are treated in an interesting and readable manner.

The therapeutical action, also divided (except in the case of iron) into external and internal, is discussed in paragraphs headed with the name of the disease in leaded type; and if this method shows sometimes the bareness of our knowledge, it has the great merit of clearness and conciseness. Each chapter concludes with "Preparations and Dose", and "Adulterations", under which we find information as to many non-officinal preparations, as well as to "milk of sulphur", tellurium in bismuth, etc.

The classification of Dr. Garrod, mainly alphabetical, is followed. After oxygen, nitrogen, and hydrogen, come carbon, sulphur, phosphorus, and the halogens: then more than a hundred pages are devoted to the action and uses of water in the various forms of bath, etc., including a sufficiently full account of the principal spas and mineral waters: afterwards follow the acids, ammonia, alum, antimony, and other metalloids and metals down to zinc.

The double index is copious and complete.

Among many interesting points which we notice, and to a few of which we may direct special attention, are such as the use of oxygen in phthisis and emphysema, of calcium sulphide in suppuration, the non-effect of phosphorus as a sexual stimulant (p. 49), and its value in pneumonia, in fatty degeneration; its doubtful value in leucocythæmia; the antidotal power of turpentine (p. 58); the injection of iodine into cysts, etc., sixteen ounces in one case (p. 99); the physiological action of bromides, of hydrocyanic acid (p. 264); the therapeutics of sulphurous acid (p. 314); of silver, and of arsenic; the action of lime in nutrition (p. 512); of iron in hæmorrhage and in diphtheria (p. 593); of mercury on the liver (p. 638), and in inflammation (p. 657).

A word may be said in praise of the mechanical execution. The type and printing are exceptionally good; notes and small print are agreeably conspicuous by their rarity; the press correction has been evidently careful; even foreign names appear to be remarkably correct, at the cost, no doubt, of much trouble. If the work has been hindered, it has not been hurried; and we believe that it will add largely and deservedly to its author's reputation, both at home and abroad.

NOTES ON BOOKS.

THE publications of the General Medical Council for 1882 continue to appear with most praiseworthy promptitude and regularity. We have now before us the *Medical Students' Register* for the present year, containing a list of medical students registered during the year 1881. This is supplemented by a list of the seventy-five examining bodies in the United Kingdom and abroad whose examinations fulfil the conditions of the Medical Council as regards preliminary education, showing that there were 2,073 students registered in the United Kingdom in 1881, and 93 registered in Indian, colonial, and foreign universities and colleges, making a total of 2,171. It further contains a list of places whereat students were registered as having commenced medical study in 1881, and the number of students registered at each place of study. From this we gather that the largest number of medical students registered in 1881 were supplied by the Universities of Edinburgh and Glasgow; the former adding 265, and the latter 137 to the list. St. Bartholomew's furnishes 107, and the University of Cambridge and Owens College each 76. From a summary given of the number of medical students registered during each year from 1865 to the end of 1881, it is interesting to note that in England (if we except the years 1874 and 1875) there has been a steady annual increase in numbers from 313 in 1865 to 11,354 in 1881. In Scotland, the small number of 61 in 1865 is increased to 567 in 1881; and Ireland, with 208 in 1865, appears with 540 in 1881; giving the total number of medical students registered in the United Kingdom in the seventeen years from 1865 to 1881 as 23,353.

Tables for Measuring the Degree of Colour-Perception. By BRUNO KOLBE, of St. Petersburg (Oscar Kranz, St. Petersburg, 1881.)—These tables constitute a valuable means of measuring the colour-sense quantitatively, Each colour is mixed in the chromo-lithographic plate in gradually increasing proportion with neutral grey, and the person is tested as to his power of distinguishing them. If he fails to name a half-saturated colour he is ranked as "colour-blind." Degrees of imperfection short of this are indicated as "feebleness of colour-sense." Unfortunately the execution of the plate is and always will be a difficulty. The various colours are stippled in upon a grey ground, and the degree of perfection of the whole depends upon the minuteness and accuracy with which this is done. Though at present something is left to be desired in this respect, we think that the tables will be found the most useful of the various quantitative tests at present before us. The directions for use are given in German, French, and Russian.

The first number of the *Revue Générale d'Ophthalmologie*, a new journal devoted exclusively to the interests of ophthalmology, has just made its appearance. It is edited by Professor Dor, of Lyons, and Dr. Edward Meyer, of Paris, whose names alone will be a guarantee of the thoroughly scientific character of the new publication. The main feature of the review will be an exhaustive catalogue *raisonné* of all the ophthalmological literature which has appeared in France and other countries during the previous month. The first number consists of eighty pages, printed in good type on excellent paper. Should succeeding numbers be equal to this first specimen, the new publication can scarcely fail before long to enjoy a large circulation. It may be obtained of G. Masson, Boulevard St. Germain, Paris.

POISONING BY BICHROMATE OF POTASH.—A woman was charged at Birmingham, on March 28th, with administering poison to her two children, and attempting to commit suicide on March 20th. Whilst suffering from depression she took two children with her into a garret, and administered to them and to herself some bichromate of potash, a salt commonly used in her trade, that of a furniture polisher. The poison produced great pain and vomiting, but no death ensued. Poisoning by bichromate is not known.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1882.

SUBSCRIPTIONS to the Association for 1882 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, APRIL 8TH, 1882.

DEATH FROM LEAD-POISONING.

PUBLIC and medical attention can hardly fail to be given to the facts of an inquest held by Mr. George Collier at Hoxton on Saturday, April 1st, respecting the death of Hannah M'Carthy. Mary Eason, nurse at the Shoreditch Infirmary, and Dr. Donald Forbes, the resident medical officer, testified that, through the deadly trade the young woman had been engaged in, she bore the appearance of being between forty and fifty years of age, whereas she was only twenty-seven. She was a single woman, living with her friends, and some few days since was brought to the infirmary suffering from lead-poisoning, and was so ill as to be at once admitted to the infirmary, where she died on Thursday. The *post mortem* examination made by Dr. Forbes showed symptoms of lead-poisoning. The gums, where they joined the teeth, were blue all along, and the cause of death was effusion into the ventricles of the brain consequent on this poisoning. Dr. Forbes stated that he had had at least sixteen cases under his treatment during the past twelve months from the different factories in the neighbourhood; and the nature of the occupation was so deadly that, in one case, a young woman who had been in the lead works only two weeks was so poisoned, that it took five months' stay in the infirmary to cure her. The coroner stated that these cases were, unfortunately, not uncommon, the powdered lead obtaining access to the lungs, and so poisoning the body; and in the case where the material used was wet, it became absorbed into the system through the skin. He thought that men were in some measure protected by their whiskers and moustaches from taking in the powder into their lungs; but, in the case of women, the manager of these works ought to be compelled by law to provide them with respirators. Several of the jury, who delivered a verdict of death from lead-poisoning, stated their opinion that the masters ought to be compelled to look after their workpeople, and see that they were better protected against the evils of such a trade. The coroner said he could only take that as their opinion, for the managers were not compelled by law to take any steps, nor need women work in these places unless they liked. Dr. Forbes remarked that, from his experience, the workers at these noxious trades ought to be better protected by law.

The following directions and regulations relating to factories, workshops, and timber-yards, where the manufacture or manipulation of lead and its compounds is carried on, are prescribed by law in France, They have recently been forwarded to us by M. Gautier, and this is an appropriate moment at which to call attention to them.

Workshops where white lead, yellow lead, and red lead are manufactured, should be easily ventilated, swept, and thoroughly scrubbed throughout. The operations of clipping, cleansing, and rolling white lead and yellow lead should be performed under water, or on materials just taken dripping out of the water. The rubbing down and sifting of white, yellow, and red lead should be done in closed apparatus with sides of rivetted iron plates. The scraping, crushing, grinding, and brushing of these substances should, as far as possible, be effected by mechanical means. Direct manipulation with the shovel, and transport in open carts and wheelbarrows, are prohibited in the case of dry materials. Roasting furnaces may be constructed in workshops, on the condition that all necessary means for carrying the lead dust and fumes into the outer air shall be adopted. Every week, the woodwork, walls, and floors of the workshops should be thoroughly scrubbed, so as to carefully remove all noxious particles. A water-pipe, with tap for the use of at least three men, should be placed at the entrance of the workshops, so that the workmen can attend to personal cleanliness at least twice a day. The foremen of works should see that the working coats and other working garments of the workmen should be left at the factory whilst the operatives go out to get their meals. These garments should be brushed and beaten several times a week out of work-hours, and at a distance from the workshops. The use of oil in the manufacture of white lead diminishes in a very efficacious manner the objections noted in the manufacture of dry or moist white lead. A special register, inspected daily by a medical man, should show whence the workman comes, his pathological precedents, his previous occupations in the factory, the nature of his present employment, and his state of health at the time of the daily visit. The workshops and yards of house-painters, colour-grinders, polishers, etc., should be well ventilated and very open to the air wherever dust is produced by the grinding, pumicing, and burning of lead paints and colours. These openings should be left wide open, whenever white-lead paintings are hung on the walls and furniture, until they are quite dry. The siftings, changes from vessel to vessel, and mixtures of colours, should not be made in the localities where the workmen usually live. All parts of the factory should be thoroughly scrubbed whenever noxious dust is produced and deposited on the walls, woodwork, furniture, etc. The master, or, in his absence, the foreman, is responsible for strictly superintending the carrying out of these precautions, and of assuring himself that his workmen, before going to take their meals, should remove their working coats and use the necessary precautions of cleanliness. The grinding by hand of white lead is utterly condemned, as well as its mixture with oil by means of the grindstone. This practice is the cause of a large number of accidents. It is preferable by far, in order to grind the white lead with the different colours, to take that which has previously been mixed with oil in factories. Wherever lead, its alloys, and other preparations, are handled, the foremen of workshops should avoid everything which must uselessly bring the workman into contact with crude lead and its compounds. They should watch over the minute cleanliness of the workshops, and, by repeated cleansings, exclude from them all lead-dust. They should, as far as possible, avoid all beating, shovelling, and shaking about in close rooms where the men work; these operations produce and diffuse dangerous lead-dust. In any case, the workman will not be obliged to grind or sift lead-preparations such as enamel-powder, flint-glass, tin-putty, paint-lead-ashes, white lead-colours in powder, in any other way than in closed vessels. The workmen should not be allowed to remain, or still less to take their meals, in situations where dust containing lead is known to become disengaged. Workmen who handle any form of lead whatsoever, metal, alloys, soluble or insoluble preparations, should consider it as a certain fact that the absorption of the poison may be effected by simple contact with the skin, and that it especially takes place by the mouth, the nostrils, and the mechanism of respiration. They are, consequently, under an obligation for the common weal to prevent any disengagement of lead compounds in the condition of dust, and to avoid all useless direct contact with lead and its preparations. The cleanliness of their persons, clothing, tools, and especially of their hands, face, and more particularly their mouth, at meal-times, is an indispensable condition as regards their health. These precautions, joined to nourishing diet, especially if all excess be avoided, and notably in the abuse of alcoholic drinks, would suffice to render their occupation very nearly harmless. Every workman leaving a white lead factory, lead-works, house-painting works, glass-works, enamel-works, should, therefore, wash the hands, face, nostrils, and rinse out the mouth with the greatest care. For this purpose, after having sharply rubbed the hands, arms, and nails with sand or rottenstone provided by the master, he will sluice himself with running water. He will then go on to wash his nostrils, mouth, and face, brush his out-of-door garments, sponge his foot

gear, etc. Every workman, leaving a workshop or factory, retaining on his hands, arms, or clothing, lead dust or spots, is liable to absorb the poison, either by the lungs or the mouth, when he takes his meals. No food whatsoever should be kept or eaten in the factory or workshop. Workers in white lead, painters, and enamellers, should, above all other artificers, avoid all debilitating agents, the most dangerous of which is the misuse of alcoholic drinks. It is earnestly pressed on the medical attendant of the factory to place on the sick list all workmen who show the smallest blue line on the gums, fetid acidity of the breath, sleeplessness, dry colic, lead paralysis, or analgesia, and only to allow them to go to work again when all these symptoms have perfectly disappeared. If a fresh attack of lead-poisoning should appear, the medical attendant should definitively send away the sufferer as unfit to undertake this dangerous kind of occupation. Workmen who handle lead and its compounds, should have recourse to a generous and substantial diet; use a great deal of slightly sweetened milk, eat salted provisions, and avoid acid food. Sulphur or soap baths, taken every week, are very useful. So soon as untoward symptoms show themselves, the workman should go to the doctor, who will form his opinion of the necessary precautions to be taken, and of the right time for the internal administration of iodide of potassium, which, carefully prescribed, produces the best results. This drug, which is used as a prophylactic in many of the north of France and Belgian factories, should only be taken by the prescription of, and under the superintendence of, a medical man. The use of sulphuric lemonades and drinks cannot be recommended. We heartily commend this code of regulations to the consideration of the Local Government Board.

PHYSIOLOGICAL TESTS IN CRIMINAL CASES.

In a recent article we dealt with physiological tests, tracing their operation in certain historical criminal cases up to a recent date. We now propose to consider the present aspect of the question, and the application of such tests in the recent *cause célèbre* of Lamson.

In the analysis of the viscera, urine, and vomit of Percy John, the scientific experts, Drs. Stevenson and Dupré, having discovered the presence of aconitine in certain quinine powders and pills, which might possibly have been connected with the death of the unfortunate youth, had this task before them—to discover whether any active vegetable substance, notably an alkaloid, and above all aconitine, was present in the viscera, etc., of the deceased; and whether that active substance, if present, was mixed with quinine or other medicament. They did obtain an alkaloid—or, at all events, a substance reacting as an alkaloid—from all the articles clearly connected with the body of the boy; but the quantities of the substance thus extracted appear to have been exceedingly small; so minute, indeed, that a further chemical analysis was perhaps barely possible. The presence of quinine and certain other substances having been negatived, the experts were perhaps hardly justified in wasting much material in applying chemical tests for aconitine, seeing that the chemical tests for that alkaloid are by no means definite and certain, and that chemists of repute are not agreed as to their value. They therefore relied upon the physiological tests—the test of taste as applied to themselves and others, and the test of lethal effects produced upon small animals, viz., mice. The taste—under which term is included the whole effects resulting from the application to the tongue—of aconitine is so marked and special, that some persons are inclined to rely upon this test alone as conclusive as to the presence of the alkaloid, and to regard the further test of application to animals so as to result in their death as superfluous. We believe, however, that the experts were right. In our opinion, the lives and sufferings of a few mice were not for one moment to be weighed against the issue at stake: the life of a fellow-creature; not to speak of other issues. Further, it is known to those having special knowledge of aconitine that the commercial article, even that sold as pure English aconitine, made by Morson and other makers of reputation, is not a pure article in the sense that it contains one active substance only. It is, doubtless, a mixture of alkaloids, representing in the aggregate all the potent active substance of monkshood. Of this we have assured ourselves by actual experiment. It is a fact well known to pharmaceutists that the crystallised specimens of the alkaloid, when tested in the ordinary manner by making them into ointment, and applying this to the skin, do not, as a rule, produce so much local tingling as amorphous specimens; and hence an amorphous alkaloid is most in demand in this country for therapeutical purposes. The crystallised specimens of aconitine are, nevertheless, most deadly in their effects upon animals; and hence lethal effect and benumbing effect do not always go hand in hand. Had, then, the experts in the Lamson case rested satisfied with testing the effects of the alkaloid which they obtained upon themselves, and not experimented upon animals also, their conclusions would have been less convincing than they actually were.

The scientific evidence in the Lamson case exhibited a decided advance on that offered in previous criminal cases where physiological tests were employed. In neither the Palmer case, nor in the case of Pritchard's mother-in-law, was the vegetable alkaloid which caused death detected in the deceased person; whereas, in the Lamson case, aconitine was detected in the viscera, in the vomit, and in the urine. Its detection in this last fluid was all important; and Dr. Stevenson, in giving his evidence, rightly laid stress upon its presence there, as proving not only that aconitine had been administered, but that it had been absorbed; and, further, that a portion of it had been again excreted. In future cases, we may expect the analysis of the urine to form an important factor. Its examination after death in cases of suspected poisoning has hitherto been too often neglected. We understand that both Dr. Stevenson and Dr. Dupré have, in their hospital lectures on toxicology, been accustomed to lay stress upon urinary analyses.

We apprehend that, in the future, physiological experiments upon animals will play an important part in toxicological examinations for the detection of poisons. Where such substances as digitalis and aconitine are to be sought for—bodies possessing no clearly defined and unmistakable reactions, and the reactions of which are destitute of the extreme delicacy which characterises the colour test for strychnine, are to be looked for—physiological experiments are indispensable; and were the profession to be deprived, by the efforts of antivivisectors, of this method of investigation, the public safety would undoubtedly be put in jeopardy, and the detection of some of the most subtle and potent poisons would be rendered impossible. This is a danger which ought to be kept clearly in view in any changes which may be made in the law relating to vivisection.

ROY ON THE PHYSIOLOGY AND PATHOLOGY OF THE SPLEEN.

Dr. Roy's observations on the spleen afford a distinct advance in our knowledge of the physiology of that mysterious organ, and the term "discovery" may very properly be used in connection with these researches, which teach us a novel and hitherto unsuspected function fulfilled by the spleen. It appears that normally (in cats and dogs, at least) the spleen alternately contracts and expands with great regularity, presenting systolic and diastolic phases about once a minute; and that it thus carries on its own circulation, independently of the general blood-pressure. With regard to the features of this action, we gather from Dr. Roy's paper (*Journal of Physiology*, vol. iii, No. 3) that this subsidiary circulation is comparatively sluggish, the ingress to the organ being very narrow, as is shown by the absence of pulse-waves from the volume-tracing, and by the slowness with which the volume diminishes when blood-pressure is brought down by compression of the aorta. In extent, the splenic contractions are subject to variations, not only according as the contractions are those of a more or less bulky organ, but also of the actual force of contraction; there does not, however, appear to be any constant relation between bulk and extent of contraction. The organ is also subject to slow spontaneous changes of volume, and similar changes can be excited by slightly altering the chemical constitution of the

blood. That the rhythmic contractions are really due to the splenic muscular fibre, and are not merely of arterial mechanism, is shown by the analysis of curves in which the "Traube-Hering" rhythm has happened to supervene; the regularly irregular trace which appears under these circumstances, evidently results from the interference of two series of waves at different rhythms; the one series (that of the specific splenic contractions) having a slower rhythm than that of the other series (that of the arterial contractions), which gives rise to the Traube-Hering waves in the spleen, as in other parts and organs. The reaction of the splenic muscle to vaso-motor excitation, direct or indirect, is similar to that of arterial muscle. Excitation of the vaso-motor centre by dyspnœa, or by faradisation, causes strong splenic contraction simultaneous with the increased blood-pressure due to arterial constriction; excitation of the central end of the divided vagus or of the sciatic nerve causes contraction; or, if the organ happen to be in a contracted state, increase in the extent of the natural waves; and it is noteworthy that such centripetal excitation will cause splenic contraction after section of both splanchnics and vagi, thus indicating that there is some further efferent channel to the spleen. Peripheral excitation of the splanchnics or vagi, right or left, cause strong contraction; simple section of the splanchnics or vagi is not followed by expansion, nor is the rhythm altered, facts which go to prove that the splenic muscle is not maintained in tonic contraction, and that its rhythm, unlike the Traube-Hering rhythm, is not of central, but of local administration. With regard to the vagus, there appears to be some peculiar influence upon the heart's action proceeding along this channel from the spleen to the medulla, as shown by characteristic "vagus-heart" pulsations during the splenic systole—by section of the vagi, the character of the former is abolished, the latter remain unaltered. For details of the method, we refer our readers to Dr. Roy's paper; it will suffice to state here that the volume of the organ was measured and recorded from the displacement of fluid contained, with the organ, in a rigid case.

This important accession to our physiological notions of the spleen will doubtless be extended, in Dr. Roy's promised communication of the effect on the splenic circulation of the injection of various chemical substances into the blood. The observations throw light into an obscure corner of physiology; and, while deprecating the building of flimsy pathology upon limited foundations, we may reasonably expect that these and further observations should help us to realise pathological aberration and therapeutic rectification of splenic function. But to judge of the influence on the economy of the physical function of the spleen, its blood-forming function, also, must be more precisely known than it is at present. We know, for instance, that we can, in man, modify, by electrical means, the bulk and muscular action of the spleen, but we are yet comparatively ignorant of alteration in the blood which we thereby increase or diminish. But whatever our wants may be in respect to information and speculations upon the relation of the spleen to the blood-corpuscles, the knowledge of its autonomous circulation is an important addition.

THE library of the Royal Medical and Chirurgical Society is closed from Friday, April 7th, to Monday, April 10th, inclusive.

THE death of a boy fourteen years of age happened recently, at the Birkdale Farm School Reformatory, from tobacco-poisoning.

ACCORDING to a telegram from Berne, the United States Government has given in its adhesion to the Geneva Red Cross Convention.

THE number of small-pox patients in the Metropolitan Asylum Hospitals, which has steadily declined in the ten preceding weeks from 504 to 350, was 367 on Saturday last.

IT has been stated pretty freely in the public press that at Guy's Hospital one hundred beds are closed for want of funds to keep them open; and that Westminster Hospital has been compelled to sell £4,000 of its stock to meet current expenses.

AT the meeting of the Pathological Society of London, held on Tuesday last, the President announced that Professor Donders, of Utrecht, Professor Panum, of Copenhagen, and Professor Pasteur, of Paris, were unanimously elected honorary members of the society. The announcement was received with applause by a crowded meeting.

INTELLIGENCE reaches us that Dr. E. A. Adams, one of the most popular physicians at the Michigan Insane Asylum, at Kalamazoo, Michigan, was last month stabbed with a pocket knife, in the abdomen, by one of the inmates, from the effect of which injury he shortly afterwards died.

A SOCIETY has been formed in Austria, called the Society of the White Cross, to aid in the labours of the Red Cross Society by providing and superintending convalescent homes in healthy places for invalided and wounded soldiers.

THE President of the Metropolitan Counties Branch, Mr. E. Saunders, has issued cards for a *conversazione* at the South Kensington Museum, on Wednesday evening, May 10th, at 9 o'clock.

WE are requested to state that Mr. Barraud's picture of the International Medical Congress, to which we referred last week, is published by Messrs. Baillière, Tindall, and Cox, of King William Street, Strand. The picture is open to the inspection of all members of the profession, without reference to their becoming subscribers.

IN London last week, 2,647 births and 1,655 deaths were registered. Allowing for increase of population, the births exceeded by 8, whereas the deaths were 228 below the average numbers in the corresponding week of the last ten years. The annual death-rate from all causes, which had been equal to 22.7 and 24.5 per 1,000 in the two preceding weeks, declined to 22.2.

THE Bath Rural Sanitary Authority have made an arrangement with the board of guardians to appoint a joint committee to consider what steps should be taken towards providing hospital accommodation for persons suffering from infectious diseases. This step has apparently been taken in consequence of the arrangement with the Bath Urban Sanitary Authority for the joint use of the Claverton-Down Hospital having been terminated.

AT the recent meeting of the Surgical Aid Society, the Lord Mayor, in the course of his address, said ten per cent. of the population of the United Kingdom were in need of some kind of instrument such as the society provided. There were thirty-six million inhabitants in the United Kingdom, of whom 3,600,000, or about the population of the metropolis, were in some way crippled, and required aid such as that supplied by the society. There were a hundred thousand persons in London who required either false arms, eyes, legs, or something else of the same kind. The society, like all the hospitals in the metropolis and the country, is suffering from depression.

THE QUEEN'S RESIDENCE AT MENTONE.

THE health of Her Majesty, and of the Royal household, has continued to be most satisfactory during the last week. Her Majesty takes daily walks and drives, and seems much to enjoy the scenery. The weather has been perfect from the 26th March to the 3rd April, with scarcely any variation. The maximum temperature has been 60° to 61°; the minimum about 46°. The wind has been north-east; the sky clear, blue; the sea calm, with a slight swell. The fine clear weather on the Genoese Riviera is almost invariably with north-east or north-west winds, which blow over the mountains into the sea, miles from land, leaving the sheltered coast-line steeped in sunshine. When the wind is in the south, if slight, the sky becomes more or less covered with fleecy clouds; if it be strong, the clouds darken, collect on the mountains, and rain falls. South winds, coming from the sea, are necesarily moisture-laden, which explains this fact.

THE LAMSON CASE.

In Lamson's case, Dr. Vonklein of Hamilton, Ohio, and Dr. Casey of Auburn, New York, have made affidavits about his reckless use of aconitine in Bucharest Hospital during the Turco-Russian war. Representations have also been made as to the hereditary frequency of insanity, in the form of dementia, in his family. These have been urged on the attention of the Home Secretary by the American Minister, in obedience to instructions from the United States Government. Sir William Harcourt has ordered a respite, pending the consideration of the papers which will be presented. Humanity and the courtesy of nations demand such a course.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

At the ordinary meeting of Fellows on Monday last, a communication from the Home Office was read, relative to the sale of poisons. The question was referred to a committee, consisting of Drs. Southey, Moxon, Stevenson, Brunton, and Poore. The new by-laws and regulations were finally approved. Drs. Wilks and Bristowe were appointed examiners for the Murchison Scholarship; Sir Risdon Bennett referee. The ballot was then taken for the election of President for the ensuing year; Sir William Jenner was declared duly elected.

THE ANTIVIVISECTION DISCUSSION.

Mr. Lawson Tait writes to us: "The statement made by your Birmingham correspondent, that I am one of the chiefs of the antivivisection party, is not correct. So far, I have declined to belong to any party on the question. There has been a discussion here on the subject, which will shortly be renewed. The case in favour of vivisection has been put by Dr. Saundby, Dr. Carter, Dr. Haycraft, Mr. Sawyer, and others; and it has consisted of a series of statements, not one of which stands the test of critical investigation. When a good case is made out, I shall be quite ready to support vivisection as a method of research; but here, at least, those who have argued for it have proved its greatest enemies." This is a letter to which it is hardly needful to reply. If Mr. Lawson Tait occupies the nearly unique position in the medical profession of not considering that a good case has been made out for experiments on animals after reading what Virchow, Simon, Fraser, Paget, Lauder Brunton, have so recently had to say on the subject, his Birmingham colleagues could hardly expect him to find their arguments convincing; and, in the eminent position which he occupies, he is, perhaps, too modest in disdaining, under such very special circumstances, the description of being one of the leaders of the opposition to such experiment. So far as we know, indeed, of the scientific position of any living medical man in this country who shares the opinion which Mr. Tait avows, he might be considered as *the* leader.

MORTUARY SCANDALS IN THE METROPOLIS.

Some shocking disclosures were made at an inquest recently held at a tavern in the Strand, on a man, a resident of Bethnal Green, who had died from injuries received by a quantity of earth falling upon him. Previously to the jury viewing the body, the coroner informed them that, through some crotchet or other, the dead-house at the rear of the church of St. Clement Danes, in which parish the death occurred, was closed, and the body had to be removed to St. Mary's Church. The jury then proceeded along the Strand, and, when opposite King's College, were invited to view the body, which lay in a coffin supported on tressels, from a small door which opened and exposed the corpse to the gaze of all passers-by. Great astonishment was expressed that the district had no suitable receptacle for the dead; and, on the return of the jury, Dr. Withers took the opportunity of calling attention to what he termed the "hole" in which he had to make the *post mortem* examination. It was small, badly lighted, and there were none of the appliances which it was necessary to have in a mortuary. Whilst making the examination, a group of children came and peered through the grating at the bottom part of the door, in order to witness what was going on. Dr. Withers added that such a condition of things ought to be speedily altered, and the jury appended to their verdict a recommendation "that, for the sake of public health and decency, a suitable mortuary should be erected in the neighbourhood." Several similarly distressing instances are reported by Mr. Liddle in a recent report on the sanitary condition of Whitechapel. In one case, two dead bodies were found in two different rooms which were occupied by families: one was that of a young woman, which, at the time of the visit, had been kept uncoffined for four days in the room where the father and two young children lived and slept. The other case was that of a man who had died suddenly. An inquest had to be held; but it was some time before the wife and relatives allowed the body to be removed for the purpose of holding the inquest. After this had taken place, the body was brought back to the same room in which the man died, and was kept there for seven days. In this room, three persons lived and slept. The health-officer properly adds that it is full time a proper mortuary was built for the use of the district, in which a dead body might be kept under the control of the officials until the day of the funeral. The present condition of London as regards mortuary accommodation is, indeed, as we have before pointed out, disgraceful in the extreme; and it seems desirable that the duty for their provision should be placed in the hands of some central body, such as the Board of Works, or the Asylums Board.

M. PAUL BERT.

The *Times* correspondent telegraphs from Paris that M. Paul Bert was on Monday elected a member of the Academy of Sciences in the place of the late M. Bouillaud. The medical section, on whom the recommendation devolved, had presented as in the order of fitness—(1) M. Davaine; (2) M. Charcot; (3) MM. Paul Bert and Brown-Séquard *ex æquo;* (4) M. Sappey. But the contest lay between M. Davaine, the precursor of Pasteur, whose treatises have repeatedly been "crowned" by the Academy, and M. Bert, Claude Bernard's most brilliant pupil. M. Bert was elected by thirty votes to twenty-six. Curiously enough, the Extremists on both sides represent his success as a political one. The *République Française* declares that he is avenged on his assailants; while the *Univers* describes his election as a scandal, and speaks of "the vivisector, Paul Bert", as "owing his notoriety solely to his contemptible political *rôle*". Both injudicious friends and relentless foes are certainly mistaken. M. Bert has simply obtained the due recognition of his scientific merits; and, even had he this time been defeated, it would merely have shown that the Academy thought his competitor's age entitled him to priority.

WHAT IS ACONITINE?

Mr. F. Springmuhl has endeavoured to show, in letters to the *Times* and *Standard* newspapers, that the term aconitine is properly applicable to the German, or comparatively inert, rather than to the English, or more lethal, preparation, sold under the name of aconitia or aconitine. He complains that no mention was made by the experts who gave evidence at the late trial of Lamson, of the differences in the properties of English and German aconitine; and that it was never suggested by the defence that the aconitine might have been administered on the basis of one of the numerous continental prescriptions, or on the basis of former experiments made by the condemned criminal with continental—that is, with comparatively inert—aconitine. We must repeat what has been before said, that the term aconitine, always applied to an alkaloid extracted from *Aconitum Napellus*, should be preserved for the active lethal principle of monkshood rather than applied to a substance of lesser potency. Moreover, the term aconitia is consecrated by the usage of the *British Pharmacopœia* to the active alkaloid of *A. Napellus*, which produces prolonged tingling and numbness; and this can hardly be said to be a property of the commercial German aconitine. We presume that, had Lamson been in the habit of prescribing German or any other form of the alkaloid, the fact would have been laid before the court which tried him. Moreover, his letter stating that he had given nothing to Percy John, and that, if anything had caused his death, it must have been in Mr. Bedbrook's sugar, was fatal to the

theory that aconitine might have been administered medicinally by Lamson. Any persons who were present in court when the experts gave their evidence, and when Mr. Montague Williams made his speech for the defence, can speak positively to the fact that Dr. Stevenson did lay stress upon the difference between German and English aconitine. He said that German aconitine was a quite different thing from English aconitine; and that certain doses of aconitine laid down as proper by Flückiger, applied to the German and not to the English aconitine. He spoke also of a case in which death resulted from the internal use of a dose of one-sixteenth of a grain of nitrate of aconitine. This is one of the celebrated Tresling cases, where Petit's French preparation was dispensed instead of German aconitine. This is, we believe, the only fatal case of aconitine poisoning recorded before the death of Percy John. Mr. Springmuhl speaks of a fatal suicidal case of poisoning by German aconitine, which came under his own notice. He would confer a boon upon the profession by placing on record the details of this perhaps unique case.

ABDOMINAL SURGERY.

THE last meeting of the Clinical Society was characterised by an interesting discussion on two of the procedures which the enterprising abdominal surgery of the present day comprises within its ordinary *rôle*. The questions discussed were those of splenectomy and of nephrectomy: the former introduced by the Surgical Secretary to the Society, Mr. Warrington Haward; the latter jointly by Dr. Goodhart and Mr. Golding-Bird—both discussions being reported at length in the BRITISH MEDICAL JOURNAL of last week and to-day. The patient who had the enlarged spleen was a woman aged 49, who sought surgical aid for an abdominal tumour. She did not look anæmic, and had no sign of leucocythæmia, except that the microscope revealed an increase in the number of the white corpuscles of the blood. Mr. Haward removed the enlarged spleen through an incision in the median line of the abdomen, ligaturing the enlarged vessels near the hilus in several separate portions, with carbolised silk. The patient became collapsed at the end of the operation, but revived; sickness, however, supervened about five hours subsequently, which produced rapid exhaustion, ending in death the same evening. The fatal result was not caused by hæmorrhage, but seemed to be due to disturbance of the great sympathetic plexuses, and the consequent shock and vomiting. In the discussion which followed, Dr. S. Mackenzie raised the question whether removal of the spleen in leucocythæmia was justifiable, quoting Mr. Collier's tables, which show that though the spleen has been excised successfully in several cases, in no case has the operation succeeded when performed for leucocythæmia. Dr. Mackenzie thought possibly the operation was justifiable when the blood-disease was not too advanced and the subject was a young one, as there were grounds for believing the spleen was primarily at fault. Mr. Lucas thought a less serious operation, such as ligature of the splenic artery, might be adopted. Mr. Lister considered this a dangerous proceeding, and would like first to know its effect when tried upon the lower animals. Can the spleen survive the ligature of its main vessel? And are animals, who appear to be equally with man affected with leucocythæmia, cured by removal of the spleen? Perhaps these necessary experiments can be tried in a country more fortunately circumstanced for physiological inquiries than is the United Kingdom. Mr. Reeves also advocated experimental researches upon the lower animals, on several grounds; and thought that only early favourable cases should be selected for surgical treatment. Dr. Goodhart, in reply to the question whether a mere excess of colourless corpuscles in the blood was of itself sufficient so to interfere with the coagulability of the blood as to condemn an operation, said that in the *post mortem* room he had always found the coagula in the heart and great vessels in these cases of leucocythæmia peculiarly flimsy. He also thought it a question as to whether an operation, with its resulting pyrexia, was advisable, seeing that these cases bore fever badly. Thus it would seem that, for the present, surgical interference in leucocythæmia is narrowed down to splenectomy in selected early cases in young subjects, or to the substitution of some less formidable operation, such as, possibly, ligature of the splenic artery. The case of nephrectomy for scrofulous kidney, related by Dr. Goodhart and Mr. Golding-Bird, was a favourable one for operation, inasmuch as the patient suffered from scrofulous pyelitis of the right side only, and the other viscera were healthy. The disease, although at first local, spreads later on to other organs. Nephrectomy at the right loin was, therefore, performed; but this patient also died in collapse, shortly after the operation, which had been difficult, and for its completion had necessitated the removal of part of the twelfth rib subperiosteally. Mr. Clement Lucas had performed a preliminary nephrotomy in a case six years before he had removed the kidney in the same patient. That patient was now living and well. He disliked the administration of morphia after operations, never employing it, even after herniotomy, except after the patient's recovery from the chloroform, thinking it added to the risk of collapse. Mr. Godlee thought nephrectomy for scrofulous kidney must be generally a defective operation, as it contemplated the removal of only a part of a widespread tuberculous disease. Mr. Morrant Baker thought a preliminary nephrotomy simply increased the difficulty of the major operation, as the tissues around the kidney meanwhile became much matted together. Mr. T. Smith thought it rare to find strumous pyelitis limited to one kidney. Mr. Knowsley Thornton strongly advocated the abdominal section, as practised by Langenbeck, as easier of performance; he had recently done the operation twice, and both patients had recovered. He brought out the end of the ureter, and fixed it in the abdominal wound. He was also opposed to the performance of a preliminary nephrotomy. Mr. Lucas and Dr. Barlow said that in their cases the passage of pus, after the operation, had lasted for months, and then ceased, showing that the serious trouble had been limited to the excised kidney. Mr. Reeves thought more room might be obtained at the lumbar incision by pulling up the last rib; whilst excision of part of that bone should only be resorted to in extreme cases. He also advocated the intraperitoneal method for the removal of large cystic kidneys. Mr. Lister had punctured the kidney, and, treating the wound antiseptically, had found the pus, as in the cases of other fœtid abdominal abscesses, shortly become converted into an oozing of simple serum. He, therefore, advocated, in advanced cases where the patient was too weak for nephrectomy, the less serious procedure of opening the kidney through the loin. Dr. Goodhart, in reply, thought the disease began at one kidney, whence it spread to the other urinary organs. The consideration of this subject is to be resumed at the meeting of the Society on Friday next, when, probably, other interesting points connected with the surgical treatment of renal diseases will receive ample attention.

SCENE AT AN INQUEST.

OCCASION for public disagreement between doctors should certainly be avoided rather than courted. At a recent inquest at Stockton, on a case of manslaughter, the senior surgeon, Dr. Farquharson, is reported to have cast a somewhat uninvited imputation on the method of treatment adopted by a Mr. Bott, who is a registered practitioner, but not on the hospital staff. The deceased was stabbed in the abdomen, the bowel protruding, and being wounded. The wound was dressed in a private surgery, a wire suture being used; and the patient was subsequently taken to the infirmary, where he had the advantage of the attention of the house-surgeon, Mr. Hull, and Dr. Foss. He died on the fifth day, of peritonitis, as confirmed by *post mortem* examination. Dr. Farquharson, according to the newspaper report before us, frequently interrupted the proceedings by "mutterings" and queries, which he stated were in the interests of the hospital, "as", says he, "we on the hospital get the credit of these deaths". The senior surgeon is entitled to entertain, and at a proper time and place to explain, his objection to the use of a wire suture under such circumstances; but this was neither the time, place, nor audience. The introduction of a wire suture was known at the time of admission, and

there was time for the experienced members of the staff to rectify it, if they thought well. But, whether Dr. Farquharson were right or wrong in this view, we cannot consider that there is sufficient ground for publicly imputing the cause of death to the suture used, and so involving a brother practitioner in censure, for acting upon a surgical emergency according to his views of practice.

THE SAFEGUARDING OF OUR MILK-SUPPLIES.

THE Chadderton Local Board has the merit of being the first sanitary authority of a district other than a borough to take measures for itself in the safeguarding of its milk-supplies from contamination. Under the Contagious Diseases (Animals) Act of 1878, town councils happen to be also the authorities for the regulation and registration of dairy-farms, which in places outside municipal limits is the duty of the county magistrates. The Chadderton Local Board, not content with this latter supervision (which, there is reason to believe, is, in the great majority of cases, of the most shadowy and delusive kind), seek for authority, in the Bill that they have now before Parliament, to undertake themselves, for their own district, the duties imposed upon the county by the Act of 1878; and, if it shall appear to them, on the report of the medical officer of health or two medical practitioners, that the supply of water to any farm or premises, whether within or without the district, from which milk, butter, or other dairy-produce is sold for use in the district, is inadequate, or impure, or liable to be contaminated, to issue an order prohibiting the sale of such milk, etc., within their district until the water-supply of the farm is improved to their satisfaction. The Bill also contains provision that, if the existence of infectious disease at any farm or other dairy premises within or without the district make it desirable to prohibit the sale within the district of milk, etc., from such place, the board may by order prohibit its sale; and that any person who purveys milk in the district, whether living in it or not, is, on becoming aware of the existence at his house of any infectious disease, forthwith to report the existence of such disease to the medical officer of health. Wilful offence against any of these requirements is to be punishable by a fine of five pounds for each offence. These regulations, if properly carried out, would undoubtedly do much to prevent the spread of epidemics caused by infected milk in the particular district that is sensible enough to make them. But the safeguarding of our milk-supplies is not a matter in which one authority only is concerned; and it is obvious that what is necessary at Chadderton is equally necessary for every other place in the kingdom, and should be dealt with by an enactment that shall have general, and not only local application.

ATTEMPTED ASSASSINATION OF DR. JOHN P. GRAY OF UTICA.

THE numerous friends in this country of Dr. John P. Gray, the distinguished head of the State Asylum of New York at Utica, and the editor of the *American Journal of Insanity*, will be grieved to hear that he has been shot at and injured by an intending assassin. Dr. Gray was reading in his study in the evening of the 16th ult., when a man appeared outside the window and shot at him with a navy revolver, the bullet entering at the external angle of the right eye, and escaping through the middle of the left cheek. No bad symptoms had arisen, according to the last accounts, and the doctor was doing well. The intending assassin was one Henry Renshaw, an old soldier. He is not known as a lunatic, and certainly has not been a patient in the Utica Asylum. When apprehended, he was found to be provided with quite an armoury of revolvers and derringers, with their ammunition. He has claimed money from Dr. Gray, on the ground that he had caught lumbago while attending or shampooing Dr. Gray in the Turkish baths in the town; but at present it would seem uncertain whether he is not what the Americans call a dangerous crank, or a blackmailer. In all probability, however, he is an unrecognised but real lunatic. We heartily trust that Dr. Gray's life will be spared to his family and to the public, to whom he has been for a long series of years a most valuable servant.

CHOLERA.

IT is announced from Constantinople, under date April 4th, that the International Sanitary Board have sent one of their number to Varna to inquire into the circumstances which induced the local authorities to establish an irregular quarantine there, and also to investigate the report that a number of Mussulman pilgrims, returning from Mecca to Varna, wholly free from any symptoms of cholera, had, in consequence of the quarantine regulations, been exposed to cold and hunger, and had died from their effects. The Board have ascertained that there are no cases of cholera at Varna.

SMALL-POX IN HAYTI.

SMALL-POX (we learn through a Reuter's telegram) is raging at Hayti, and over 4,400 deaths are reported to have occurred in Port-au-Prince and in the environs from the epidemic. The following extract from a published letter written by Mr. Henry Byron, late British Vice-Consul at Port-au-Prince, and dated Hayti, March 8th, gives a vivid picture of the condition of the place.

For the last few months we have been living in a very anxious state in Hayti, for the country has been the scene of a very alarming prevalence of small-pox of a most virulent type. It first broke out at Cape Haytien, the most northern town of the Republic, where, and in the neighbouring places and mountains, it carried off at least 5 000 of the population within about three months. In that part of the country it was mainly among the lower classes that its ravages were made, as no doubt they neglected to attend to the advice given to them to get vaccinated or, rather, revaccinated, when the disease first appeared and before it became epidemic. This "plague"—for such it has been and still is in several parts of the country—at last reached the capital and vicinity, where its ravages have, indeed, been fearful. For several weeks the death average was 40 per day; and though many thousands of the people, both in town and country, were daily vaccinated by the medical men of Port-au-Prince, thousands of others neglected, or were unable to avail themselves of the only possible means of escape, the consequences being most disastrous. I took care to have myself and all my household revaccinated before the disease reached my neighbourhood, and to this and to God's mercy must attribute our entire freedom from attack. Very many persons, however, among my neighbours—small cultivators or working people—have died; and though the average of deaths in this part of the country has considerably diminished within the last few days, the disease is still prevalent, even in my immediate neighbourhood, and occasional deaths occur. In other parts of the Republic it is creating the same alarm, and causing similar ravages to those experienced in the north and here. It is calculated that not less than 20,000 persons will ultimately have been found to have perished in Hayti from this frightful epidemic. P.S.—A young advocate at the Bar here, a nephew of my wife, has, we have just heard, fallen a victim to this disease. I add this on the 10th, and am glad to say that the epidemic is dying out in this neighbourhood now; but it is spreading rapidly in other parts of the country.

THE NOTIFICATION OF INFECTIOUS DISEASES IN WISCONSIN.

A BILL has been introduced into the Wisconsin Legislature to make compulsory the giving of notice to the authorities of each case of infectious disease as it occurs. The Bill provides that every householder or head of a family in which a case of small-pox, diphtheria, scarlet fever, or any other contagious disease occurs shall immediately give notice thereof to the health-officer, or some member of the board of health, under a penalty of fifty dollars for each day of refusal or neglect after the expiration of forty-eight hours. Any physician visiting such a case is also to give notice to the health-officer or the board of health, under a penalty of not less than twenty-five dollars and not more than one hundred dollars for each day of refusal or neglect. Every householder, head of a family, or physician, who wilfully conceals the existence of any case of small-pox, or other contagious or pestilential disease, or who wilfully assists or connives at such concealment, is liable to a penalty of not less than fifty dollars nor more than two hundred dollars per day, or to imprisonment for not less than one month, nor longer than six months. It is also proposed that the school board of any district, or the board of education of any city, or the governing body of any college, university, normal school, academy, or other in-

stitution of learning, shall have power to exclude from the institution under their charge, and that it shall be their duty to exclude therefrom, whenever advised to do so by the board of health, any child or student who, by reason of being affected by any contagious disease, or of living in any dwelling where any such disease exists, may be a source of danger to the health of others. Such exclusion is to continue until the health-officer or some reputable physician shall in writing certify that, to the best of his belief, such child or student may be readmitted to school without danger of communicating disease to others.

TRICHINOSIS IN FRANCE.

IN the Chamber of Deputies, this week, the subject of the importation of American pork was discussed, the Chamber voting urgency for the Ministerial Bill, which revokes the decree prohibiting the importation of the article. M. Gaudin condemned the conclusions of the reporter of the committee, which prescribed no precautions whatever for the protection of the public health, and he proceeded to speak at length on the danger of trichinosis. M. Tirard, Minister of Commerce, replied, however, that the Government found themselves obliged to rescind the prohibition, on account of the difficulty of selecting any of the complicated measures of inspection. They had, moreover, to consider the interests of the consumer. The present Bill simplified the inspection of the meat, and the American salters would take greater precautions when they knew that their goods would be more minutely examined. So ends an episode more creditable to Chauvinism than to science.

SCOTLAND.

ABERDEEN UNIVERSITY.

THE medical classes were closed on Friday last, when the prizes and medals were awarded to the successful students. On Monday, the examinations for degrees commenced. The Queen has been pleased to approve of the appointment of Dr. D. J. Hamilton to the Sir Erasmus Wilson Chair of Pathological Anatomy. This appointment has, we believe, given great satisfaction in Aberdeen and elsewhere, as Dr. Hamilton is not only an able investigator, but he is also a brilliant and successful teacher; so that he will form a most important and valuable addition to the already strong teaching staff of this University. We understand that Dr. Hamilton will not begin his lectures or teaching in Aberdeen until next winter session. He will teach his class of practical pathology in Edinburgh in summer as usual, and continue to hold his post of pathologist to the Edinburgh Infirmary throughout the ensuing summer session; and we believe that all the necessary arrangements have been made by the University authorities for the accommodation of the new professor. We regret to learn that Dr. Pirrie has been seriously indisposed for several days; but we trust that one who has done so much for the University may long be spared to continue his lectures and to promote the interests of Aberdeen University.

ROYAL INFIRMARY SCHOOL OF MEDICINE, GLASGOW.

AT the meeting held at the close of the winter session in the Glasgow Royal Infirmary School of Medicine, after the distribution of the prizes, it was announced by Mr. McEwan, that a fund, amounting to between £6,000 and £7,000, had been obtained for the erection and maintenance of the new medical school.

MEDICAL MISSION AT SMYRNA.

THE Medical Missionary Society of Edinburgh (or, perhaps, rather of Scotland), recently sent out one of its medical missionaries, Mr. L. Prinski Scott, M.B., to Smyrna. On Thursday and Friday last week, a bazaar was held in Edinburgh to raise funds to enable the society to equip a hospital for Mr. Scott at Smyrna. Professor Douglas Maclagan opened the bazaar, and in his remarks spoke highly of Mr. Scott, and of the good such a medical mission could do, especially when there was a hospital attached to it. The amount realised at the bazaar amounted to about £500.

APPROPRIATE METHODS OF BENEVOLENCE.

THERE are various ways in which wealthy and benevolent people can aid the profession in helping the sick poor. Since the new Royal Infirmary, Edinburgh, required furnishing, it has been furnished, in wards, by private individuals, by corporations, and by combinations of certain classes of people. The most recent example of this was by a lady residing in Edinburgh, who, through Dr. Affleck, sent to the manager a cheque for £315, to be used in furnishing the wards of the Fever House in the old Royal Infirmary. The endowment of a bed, or beds, in the wards, or even of a ward itself, would aid the managers greatly in the difficulties they have to face owing to the increased expenditure in the new house.

CEMETERY MISMANAGEMENT IN EDINBURGH.

RECENTLY the attention of the Sanitary Authorities in Edinburgh has been directed to various irregularities in connection with the interment of the dead in one or two of the Edinburgh Cemeteries. Last week the Medical Officer of Health made an investigation into the matter, the results of which have not yet been made public officially, but sufficient has leaked out to show that in many instances coffins and bodies were too near the surface of the ground, a probe reaching the coffin lid at a distance of from eight inches in one case to two feet in another. As those cemeteries are rapidly becoming intramural by the extension of the suburbs, there can be no doubt this matter will be thoroughly attended to, so that any risk to the health of the inhabitants, or outrage in the decency of interments may be avoided.

GLASGOW DISTRICT BOARD OF LUNACY.

AT the meeting of this Board held on March 28th, it was decided, after considerable discussion, to adopt the suggestion made by the General Board of Lunacy in reference to a settlement of the differences at present existing with the Govan Parochial Board. The suggestion was, that the District Board should enter on an interim arrangement, and rent from the Govan Board the asylum buildings for five years, taking them under their complete control, by appointing their own officers to conduct the management and administration. It remains to be seen whether the Govan Board will accept this solution of the present differences.

THE HEALTH OF GLASGOW.

THE report of the medical officer of health for the fortnight ending March 18th shows that there were 499 deaths registered, representing a death-rate of 25 per 1,000 living. In the corresponding fortnight of last year, the mean temperature was 5.7° Fahr. lower, and the death-rate was 4 per 1,000 higher, which is fully accounted for by the excess of fatal pulmonary diseases, which caused a death-rate of 13 per 1,000. In the present fortnight, the deaths from pulmonary complaints numbered 190, which gives a death-rate of 9½ per 1,000, and constitutes 38 per cent. of the total deaths. The number of deaths from fever was 5, viz.: 2 from typhus and 3 from enteric fever; while there were 45 deaths from infectious diseases of children, viz.: 30 from whooping-cough, 9 from scarlet fever, and 6 from measles. There were 44 cases of fever registered, of which 22 were enteric, 16 typhus, and 6 undefined. There were also 125 cases of measles, 53 of whooping-cough, 40 of scarlet fever, and 21 of diphtheria registered; of which 32 were removed to hospital, and the remainder kept under supervision at home. On the whole, there may be said to be less fever in the city now than there was a month ago, there being a considerable diminution in the number of scarlet fever cases.

REGISTRAR-GENERAL'S RETURNS.

THE return of the Registrar-General for the week ending March 25th show that the death-rate in the eight principal towns during the week was 22.5 per 1,000 of estimated population. This rate is 1.0 below that for the corresponding week of last year, but 0.8 above that for the previous week of the present year. The lowest mortality was recorded in Leith, viz., 15.6 per 1,000; and the highest in Aber-

deen, viz., 26.1 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 3.8 per 1,000, or 0.1 below the rate for last week. Whooping-cough was the most fatal epidemic, and the mortality from it was most marked in Edinburgh and Glasgow. Acute diseases of the chest caused 116 deaths, or 2 more than the number registered last week. The mean temperature was 42.7, being 4.9 below that of the week immediately preceding, but 7.7 above that of the corresponding week of last year.

IRELAND.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

At a meeting of the Council held on Monday last, Mr. Henry R. Swanzy, Professor of Ophthalmic and Aural Surgery in the College, was elected an Examiner in Ophthalmic Surgery to examine candidates for the letters testimonial and fellowship of the College. This examinership has been instituted—the Home Secretary having signified his necessary approval—with the view of endeavouring to obtain a fuller and more practical knowledge of ophthalmology in candidates for the licence of the College than has hitherto been required. Former efforts in this direction have, as announced from time to time in this JOURNAL, always failed. It is to be hoped the step now taken will secure competent instruction in an important branch of medical education, and will be supported alike by clinical teachers and by the examiners in other subjects. The seat on the Council of the College, which Mr. Swanzy resigned in order to become a candidate for the examinership, has been filled by the unanimous election of Mr. Wharton of the Meath Hospital.

BELFAST OPHTHALMIC HOSPITAL.

The thirty-sixth annual report shows that, during the past year, 1,015 cases of eye-disease and 322 cases of ear-disease were treated at the extern department; 90 patients were admitted to the wards; making a total of 51,382 cases since the foundation of the charity in 1844. The hospital has been attended by a larger number of students than usual, about thirty-three gentlemen having availed themselves of the opportunities afforded of gaining a practical knowledge of the important branches of their profession taught in the institution. The sanitary condition of the hospital is reported as excellent, the ventilation perfect; and all arrangements tending to promote the comfort and convalescence of the patients receive constant attention.

SANITARY CONDITION OF OMAGH PRISON.

The report of Dr. Cruise on the sanitary condition of this prison shows that arrangements were in a bad state lately, but only for a time, and chiefly from repairs in connection with the drainage arising from opening sewers. The escape of foul air from these appears to have been the main cause of the fever attack from which the late governor died, and steps were speedily taken to have the defects remedied.

DEATH OF DR. WILLIAM H. HOLMES OF CORK.

We regret to announce the death of this gentlemen, one of the dispensary medical officers, who succumbed on last Sunday week at his residence, South Hall, from a severe attack of typhus fever contracted in the discharge of his professional duties. Taken away at an early age, Dr. Holmes's untimely death will be regretted by a large circle of friends and acquaintances. At a meeting of the Cork Dispensary Committee held last week, the following resolution was adopted: "That we, the members of the Cork Dispensary Committee, have learned with the deepest regret of the lamented death of Dr. W. H. Holmes, who has been so long and honourably connected with the dispensary as one of its physicians; that, out of respect for his memory, the business of the committee be adjourned; and that the expression of our sympathy and condolence with his bereaved widow and family be recorded on our minutes and forwarded to Mrs. Holmes."

THE LATE PROFESSOR SIR EDWARD SINCLAIR, M.D.

At the last meeting of the King and Queen's College of Physicians, the following resolution was unanimously passed: "That the President and Fellows of the King and Queen's College of Physicians in Ireland desire to place on record their sense of the great loss which the College and the medical profession have sustained by the death of Sir Edward Burrowes Sinclair, King's Professor of Midwifery in the School of Physic; and hereby offer to Lady Sinclair and the other members of the late Professor's family their respectful and heartfelt sympathy in the irreparable loss they have sustained by his premature death, at a time when he seemed likely to add largely to the great benefits he had already conferred upon the medical profession and charitable institutions of Dublin connected with the branch of medicine which he had made his special study." The governors of Sir Patrick Dun's Hospital have also passed a similar resolution.

SELECT COMMITTEE ON THE CONTAGIOUS DISEASES ACTS.

At the meetings of the Committee on the 21st and 24th March, Mr F. Wheeler, of Chatham, a retired grocer, and a member of the Society of Friends, was called in and examined by Mr. Stansfeld. His cross-examination was conducted by Dr. Farquharson, Mr. Osborne Morgan, and Mr. Cavendish Bentinck. Mr. Wheeler, who is a very strong opponent of the Acts, first began to pay attention to their working in 1870; since then he has continued to watch their operation, recording from time to time any facts that came before him. Much of his evidence was directly at variance with that given last Session by Mr. Stigant, chairman of the Chatham Local Board.

Mr. Wheeler confirmed this gentleman's statements as to the improved appearance and more decent behaviour in public of the prostitutes in Chatham, but decidedly attributed such improvement to the action taken by the local police, and to the numerous moral and religious agencies at work, and not to the working of the Contagious Diseases Acts.

On the other hand, with regard to the conduct of the women on inspection days, when going to and returning from the examination-room, his evidence was in direct contradiction to that given by Mr. Stigant. Mr. Wheeler stated that the obscene language heard and the disorderly scenes witnessed were a scandal to the town. He had seen men and boys in numbers loitering about the road leading to the examination-room. They exchanged recognitions with and made filthy observations on the women as they passed. The better dressed women were fairly quiet in demeanour, but the shabby ones laughed and screamed and made signs to those standing about. One morning he saw a woman, on the way to the examination-room with two others, accost a waggoner walking with his waggon and horses, and their subsequent behaviour in the open street was most grossly indecent. It is somewhat strange that the witness took no steps to procure the punishment of the parties concerned in this affair, nor even reported the matter to the police. He was not able to offer any adequate explanation of the apparent supineness of the police in not suppressing such scandals if they were as notorious as he alleged, but he subsequently admitted that there was now a very great improvement. He did not accept the suggestion that possibly his own presence on the occasion mentioned had aggravated the women, and caused them to be more noisy from mere bravado. He owned, however, that they had abused him, and pointed him out as "the old —— who wanted to shut up the hospital."

He did not agree that there was any decrease in the number of prostitutes; on the contrary, they were more numerous, especially the clandestine prostitutes, while he said that the number and youth of the pregnant women who applied for admission to the Union was a matter of common observation. But it would appear that these young girls had hardly entered on what may be called a course of prostitution. Probably many of them had only just fallen, and were seeking a place of refuge with a view to reformation. Again, if the number of clandestine prostitutes has so much increased as to have attracted the attention of Mr. Wheeler and others, surely they must have come under the notice of the special police, and would very soon have found themselves registered.

Mr. Wheeler admits a considerable decrease in the number of registered common prostitutes, but thinks the condition of the remainder must be more prosperous on account of the great demand for them as being guaranteed free from disease. But surely, if there were really such a demand for registered women, as being "safe," their numbers

would not fall off, nor would there be an increase in the number of clandestine prostitutes, whose bodily condition must, of course, be unknown.

The witness strongly insisted on the degradation inflicted on the women by the periodical examination, and quoted a letter received from an ex-nurse at a lock hospital, to the effect that the women were thereby deprived of all sense of shame, "and gave up all thoughts of good that were instilled in the innocent days of childhood." He could not, however, deny that women would be naturally anxious to lay the responsibility for their degradation upon anyone or anything rather than upon themselves, or that the profession of prostitution was more "hardening" in its tendency than the periodical examination. Moreover, it should be noted that "the innocent days of childhood" have had no practical existence for many of the poor women with whom the Contagious Diseases Act deals, and many a wretched outcast has owed to her stay in the lock hospital the very first ideas of a better life that have entered her corrupted mind. The witness thought that the nurse, whose letter he quoted, would be a competent judge of the moral effects of the examination, but said that he was not aware that she had been dismissed from her situation at the Aldershot Lock Hospital for improper conduct.

Great stress was laid by Mr. Wheeler on the bad impression caused by the visits of the Contagious Diseases Act police to the brothels of the district. From these visits it appeared to him that the police, instead of reproving, rather co-operated with the brothel-keepers, and by their frequent presence enabled them to carry on their business in an orderly manner. He did not believe that these visitations were made with the object of finding out women who were not on the register, and to warn young females just entering on a career of vice.

One of the main features of Mr. Wheeler's evidence was his statement of the case of Caroline Wybrow, which occurred in 1875. But as the documentary evidence bearing on this case is still incomplete, and the witness will be further examined on it at another meeting of the Committee, it will be well to reserve the details until both sides have been heard.

VOLUNTARY POWER OF DISLOCATION.

THE American acrobat Warren, whose exhibition of his remarkable power of voluntarily producing dislocation of several joints excited recently much attention in Glasgow, is now in London, and on Monday last was introduced to the Medical Society of London by the President, Mr. Francis Mason. He has also appeared at several of the London hospitals.

The following account of his exhibition in Glasgow was recently furnished to us by our correspondent in that city.

In a recent number of the JOURNAL was a short note of the fact, that there had been recently, in the operating theatre of the Western Infirmary, an exhibition of some voluntary dislocations and other acrobatic performances, which were of an unusual and interesting kind. The performer, an American named Warren, aged 34, was, up to a short time ago, a professional acrobat, being attached to one of the numerous circus companies of the United States. He is somewhat above the average height; and, when standing at rest, he could not be said to lay claim to any remarkable muscular development, though he is evidently in very good condition. His performance was divided into two parts. In the first, he illustrated the remarkable power he possesses over his muscular system, especially in regard to individual groups of muscles, whereby he is enabled to accomplish voluntary dislocation of several joints, and some other interesting feats. In the upper extremity he showed a special power of elevation of the scapulæ, with marked projection of their angles, as if they had been freed from the retaining influence of the latissimi dorsi muscles. Whether this was the case or not is doubtful; for when he stood naturally, there was no projection of these bones. It is more probable that the great projection was due to mere laxness of the latissimi dorsi muscles. In the case of the shoulder, there was no doubt as to a dislocation having taken place downwards, the ordinary symptoms of that accident being present, and there being a distinct depression under the acromion. With the elbow, Warren attempted nothing; but, with great facility, by mere flexure of the hands, both wrists were dislocated backwards. So also with the thumb; its proximal phalanx was readily dislocated backwards on to the metacarpal bone. In the lower extremity, there was the power of dislocating the head of the femur backwards, and it was interesting to observe that this could be done either with the foot free or with it fixed on the ground; in this latter case, of course, the dislocation was performed with more difficulty. As to the position of the head of the bone, when dislocated, there was some difference of opinion; but the general feeling was that it was not on the dorsum ilii, but in the ischiatic notch. Besides the hip, the knee could be dislocated inwards; but, in the case of the ankle, the movement accomplished consisted more in throwing the astragalus forward in a very peculiar manner, and could scarcely be regarded as a complete dislocation. And here it may be mentioned, that any noise heard in these different movements (and especially was this observed with the hip) accompanied the dislocation, and not its reduction—the bone returning in each case to its normal position without any sound. Lastly, there was the power of dislocating the lower jaw, either bilaterally or unilaterally. In addition to these feats of surgical interest, Warren exhibited others which illustrated well his power over individual groups of muscles. It cost him no effort to make tense the muscles of the forearm, while those of the upper arm remained flaccid and uncontracted; and, with equal facility, he kept his ribs fixed during respiration, giving an excellent illustration of diaphragmatic breathing. The difference in the girth of his chest when it was at rest, and when in full inspiration, amounted to several inches. In addition to the ability to move his ears (which, however, he could not accomplish without putting in action his occipito-frontalis muscle), Warren showed great control over his abdominal muscles, causing them to recede in such a way as to elevate the abdominal organs into the region of the chest, and leaving such a depression or sulcus that the pulsations of the abdominal aorta were made apparent to the eye. The second part of the performance was taken up with acrobatic feats, which, of course, have not the same professional interest as those just described. With apparent ease, Warren passed his body through a steel ring of about fourteen inches diameter, and assumed attitudes that made one think he was devoid of any osseous skeleton, and was merely a mass of gutta-percha tissue. The present case is one where we have the maximum of muscular development, with the minimum of ligamentous resistance. This state of matters may have been, to a a certain extent, congenital inheritance; but it has no doubt been further largely developed by the line of life followed since early childhood.

We shall publish next week, with illustrations, a full account of this remarkable case.

COLLECTIVE INVESTIGATION COMMITTEE.

ON THE COLLECTIVE INVESTIGATION COMMITTEE'S "MEMORANDUM ON CHOREA".

SIR,—The great potential value, from a clinical point of view, of the work of the Collective Investigation Committee, calls for the utmost care and judgment in the laying down of its lines. The main difficulties to contend with seem to be, first, that of obtaining an adequate quantity of facts; and secondly, that of insuring their unequivocal quality. To obtain any considerable number of answers, the question must be duly limited, and put with studied clearness; for those who can afford the most valuable information have the least time at their disposal. But, to meet the second and greater difficulty, an indispensable requisition is to be made at the hands of the framers of the questions. The object of the committee's work (viz., the acquisition of new truth by the collection of facts, and facts only to be dealt with in due time) must be rigidly kept in view; and the form of the question should be such as never to suggest any prejudgment of the point at issue, or to encourage the slightest blinking or magnifying or colouring of facts. There must be a jealous exclusion of the promptings of theoretical bias.

In the form of card about to be issued with regard to chorea (described in the JOURNAL of April 1st, p. 478, with a memorandum by Dr. Stephen Mackenzie), there occur questions which, in their form, are open to the charge of undue suggestion. The extent and the nature of the relationship of rheumatism to chorea are points of importance, well known to be under discussion; and, therefore, in such an inquiry as this, call for the careful consideration or facts to settle them. But in the "Memorandum" these words are found: "As regards rheumatism, which, as most agree, bears some relationship to chorea, the observer is asked to state whether the antecedent rheumatism was well pronounced in the distinct joint-affection, or whether, *as often happens in children*, only vague pains and sometimes slight feverishness had been present" (the italics are my own). The obviousness of the question-begging in this sentence is only equalled by its (of course, only apparent) ingeniousness as a leading question. The very fact of inquiry into the occurrence of vague pains, with or without slight feverishness, is in itself almost tantamount to assuming the point at issue; and the parenthetical attempt to justify this question by the words "as often happens in children", completes the fallacy; for the description of "vague pains, with *sometimes* slight feverishness," as rheumatism, is but the outcome of very debatable opinion, after all; and is, moreover, frequently prompted by the very desire to neatly

round off the theory of the causal connection between rheumatism and chorea.

This theory rested partly at first on cases of unmistakable rheumatism occurring antecedently to the choreic movements. The causal connection, and indeed the extent of any connection between the two affections, being points at issue, it is clearly unscientific to class as "rheumatic", cases of so-called latent rheumatism, or vague pains, which may probably have their rheumatic origin suggested only by their coexistence with choreic phenomena. By means of such a "vicious circle" as this, we shall get no good results. It must be remembered that many doubt the causal nature of the connection between rheumatism, as such, and chorea; and assert that the existence of any connection at all between them is far rarer than is generally taught. One of the latest writers on this subject, Dr. Sturges, notices that, in this country, "we no longer seek to verify this connection, but are rather occupied in constructing some plausible explanation of it. Meanwhile, the two most prominent and unquestionable facts in regard to the causation of chorea pass unregarded: the fact that alarm or mental disquiet is its commonest cause, and the fact that female children are in overwhelming proportion its favourite subjects."

It is to be hoped that the committee will avoid any risk of appearing to prejudge the subject for inquiry; and that, in this case, the term "rheumatism" should not be so indefinitely increased in its extent, that its contents become "vague" enough to serve any or no purpose. It would seem a fair and unprejudiced way of putting the question as to antecedent rheumatism, were the observer asked to state simply whether the rheumatism was well pronounced, or whether it was equivocal. If inquiry into the occurrence of vague pains be instituted, the question should stand by itself.

All must, of course, desire that the very important work of the Collective Investigation Committee should start as well as possible. In the hope, therefore, that some alteration of the form of the question alluded to may be approved by the committee, I venture to trouble you with this letter.—Your obedient servant, H. DONKIN.

London, April 3rd, 1882.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL:

NOTICE OF MEETING.

A MEETING of the Committee of Council will be held in the Council Room of Exeter Hall on Wednesday, the 12th day of April next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, London, March 15th, 1882.

NOTICE OF QUARTERLY MEETINGS FOR 1882: ELECTION OF MEMBERS.

MEETINGS of the Committee of Council will be held on Wednesday, April 12th, July 12th, and October 18th. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary not later than 21 days before each meeting, viz., March 22nd, June 22nd, September 27th, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

November 4th, 1881. FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The next meeting will be held at Tredegar towards the end of April. Members desirous of reading papers, etc., are requested to send titles to either of the undersigned within a week, in order that they may be inserted in the circulars convening the meeting.—ALFRED SHEEN, M.D., D. ARTHUR DAVIES, M.B., Honorary Secretaries.—March 14th, 1882.

NORTH OF ENGLAND BRANCH.—The spring meeting of this Branch will be held at Stockton-on-Tees, on Friday, April 28th. Members having papers or records of cases to communicate are requested to give immediate notice to one of the Honorary Secretaries, T. W. BARRON, M.B., Durham, DAVID DRUMMOND, M.D., Newcastle-on-Tyne.—March 28th, 1882.

BATH AND BRISTOL BRANCH.—The fifth ordinary meeting of the session will be held at the Grand Pump Room Hotel, Bath, on Thursday afternoon, April 13th, at 4.15 P.M.—R. S. FOWLER, E. MARKHAM SKERRITT, M.D., Honorary Secretaries.—Bath, March 1882.

SOUTH-WESTERN BRANCH.—The next quarterly meeting will be held at the house of Mr. C. B. Rendle, Liskeard, on Monday, April 17th, at 2 P.M.; Dr. Hudson, of Redruth, President, in the chair. Members intending to read papers, or make communications, are requested to give notice. Mr. Rendle will be pleased to receive any members at lunch at 1 P.M.—S. REES-PHILIPPS, M.D., Honorary Secretary, Wonford House, Exeter.—March 29th, 1882.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—A meeting of the above District will be held at the Infirmary, Gravesend, on Wednesday, April 12th, at 3 P.M.; J. C. Armstrong, Esq., in the chair. Papers will be read by Dr. W. M. Ord, on Diagnosis of Thoracic Aneurysm; Dr. William H. Day, Remarks on Chorea and its Treatment; etc. Dinner will take place at the Old Falcon at 5.30 P.M.—A. H. B. HALLOWES, Honorary Secretary, 11, King Street, Maidstone.

CORRESPONDENCE.

THE CONSTITUTION OF THE ASSOCIATION FOR THE ADVANCEMENT OF MEDICINE BY RESEARCH.

SIR,—The announcement that an Association has been started for the Advancement of Medicine by Research will be cordially welcomed by the great mass of the medical profession. Every true disciple of medicine will be anxious to strengthen the effort to recover that freedom of research which has created modern medicine, and in which the hope of future progress must be sought. The motive of this movement stirs us all; and all will feel that they have a right to share in the work. Nor is it too much to say that the strength of the movement will be commensurate with the number of those who are permitted to take part in it. The central executive power will prevail over public opinion in proportion to its representative value. Unless this representation be large, liberal, and real, our opponents will not fail to urge that the mass of the profession do not care to identify themselves with the movement; it will be said that the executive body have no constituents; that they dare not trust those whom they profess to represent.

It must, therefore, be a source of pain to many to see, instead of a liberal organisation resting upon the whole body of the profession, and drawing strength from it, a narrow self-chosen oligarchy, arrogating to itself all power, and leaving to those in whose name it professes to speak and act the sole privilege of subscribing to the funds. What is the constitution proposed to the profession for acceptance without discussion?

1. The Presidents for the time being of the Colleges of Physicians and Surgeons, each of whom shall nominate twelve persons. Is this representation? Whom does it represent? One cannot for a moment doubt that the Presidents will nominate good men. But, after all, a nominee represents those who nominate him. And those who in this case nominate are already represented in their own persons. To vest in them authority to multiply themselves by nomination will be to impose upon them an invidious task, to create a body lacking all representative virtue; and to weaken what individual authority the nominees might justly claim.

2. The next provision is that the Presidents for the time being of the societies and certain professors in the universities shall be members. Certainly it is desirable to bind together all the universities and societies in one scientific force; and *primâ facie*, it may appear that the most natural way of accomplishing this object is to take the persons who, for the moment, occupy prominent positions in those bodies. But ever so little inquiry will show the fallacy that vitiates this method of selection. Most of the professors, presidents, and others have been appointed to the offices they hold for distinct duties for stated periods, some by the accidents of age, rotation, or special qualification; not one because fitted to represent his university or society in this particular movement.

If the universities and societies were specially called upon to send men to represent them upon the executive of this projected Association, it may safely be assumed that they would not always chose the man whom, for the time, it might be convenient to elect as Professor or President.

Then, again, where is the representation of the great body of the profession? It will not be disputed that there are amongst them many zealous and successful workers, animated by the purest scientific spirit. It cannot be denied that freedom of research is a matter that deeply interests us all. The mass of the profession is not represented in the colleges, and only imperfectly in the societies. They are left out in the cold altogether, distrusted, not even consulted by this self-constituted Association.

Is this a wise or a generous policy? Why should a movement like this, which is designed to influence public opinion, not be based upon the true representative principle? Why should not some such scheme as the following be adopted?

1. Let the fellows and members of the two colleges send special representatives.

2. Let the medical faculties of the universities send special representatives.

3. Let the medical societies send special representatives.

This scheme, it will doubtless be objected, is impracticable. It is

only impracticable because the will is wanting, and because it is so much more convenient to avoid appeal to the profession.

The objection, plainly stated by the president of the meeting held at the College of Physicians, as reported, was, that "some of the most delicate questions which could come before any public body would come before the council, and it was felt that this society should be guided by those whose years had tempered their zeal with discretion; and he did not think that an elective council would carry out with discretion such objects as their society would have in view." One is tempted to ask what special security we have that the council as self-constituted will duly temper zeal with discretion. Some of its members would hardly be chosen for their zeal in the cause; others are not conspicuous for discretion. Upon the whole, perhaps, in a movement of this kind, of the two qualities zeal is more necessary than discretion. Discretion is apt to paralyse zeal altogether. Whilst no great cause has ever been won by discretion alone, zeal, even largely leavened by what limp, timid people would call indiscretion, has often triumphed. And what is to be said of the "discretion" of the antivivisection propagandists? They owe their temporary success to zeal alone. Discretion, they know, is not a motive power. Now, although no one interested in the new Association will trust to zeal without discretion, it may be safely assumed that, truly representative councillors acting under a sense of responsibility to their constituents, to their own characters, and to the council of which they would form part, would bring more zeal and not less discretion to the work than would a self-elected Council. And how will the Council guard against irregular action, guided by more or less zeal and discretion, outside their own body? Most assuredly, amongst the mass of the profession there will be a desire to act in this matter. If not represented, they will act independently; perhaps not with that wisdom which a well-considered organisation inspires. They cannot be expected to stand by and leave all action to an irresponsible body which distrusts them. They owe no allegiance to that body. Where there is no legitimate authority there is no loyalty. Unfortunately all these reflections come rather late. No open or general meeting has been summoned to aid in the formation of the society. The scheme has been concocted in close conclave, so great has been the terror of zeal.

So great has been their terror, and so far-seeing their discretion, that the council have debarred even themselves from the power of revising their own scheme. The last resolution, most extraordinary of all, declares "That the present rules, defining the objects and constitution of the Association, shall not be altered except by the written consent of three-fourths of the entire council, after consideration at a meeting called for the specified object, on a fortnight's notice, and with the further written sanction of the two Presidents." Thus one President has it in his power, in the improbable event of the written consent of three-fourths of the Council being obtained in writing, to bar all revision of this precious scheme!

Who is the Vulcan—what hammer did he use—and who is the Jupiter who brought forth this Minerva? Or is this absolutely wise and perfect and unimpeachable constitution the offspring of zeal and discretion?

But this last resolution betrays a lack of confidence on the part of its framers. They evidently tremble lest the sacrilegious hand of the reformer should touch it. By an ingenious anticipation of the clôture, they bar the probability of discussing their work with a view to amendment. All that is left for us to do is to shut our eyes and open our purses.

In sober seriousness, is the scheme thus concocted and thus carried, one that is worthy to be placed before a just and intelligent profession? Is it the one best calculated to achieve the great object professsed of advancing Medicine by Research for the benefit of humanity?—I am, etc.,

ROBERT BARNES.

15, Harley Street, 3rd April, 1882.

SIR,—It is clear that the influence of the Association for the Advancement of Medicine by Research on the progress of medical knowledge must, to some extent, depend on the width of the basis on which the Association is founded, and that its strength must largely depend on the active support of the entire medical profession in the United Kingdom. As the successful formation of such an Association would have been impossible if the task had not been taken in hand and carried through by the eminent men under whose auspices it has appeared, I conceive that there can be no better way of showing our gratitude to them than by discussing any suggestions that deserve to be entertained, if we are still further to consider how the usefulness of the Association may be extended.

When I first heard that there was to be a meeting connected with the proposed Association, I expressed privately to one of its active promoters my conviction that its power for good would be greatly increased if arrangements could be made to associate the whole profession of these countries, as directly as it is possible to do it, with the furtherance of the objects of the movement. Medical men in towns, as well as in remote country districts, who have neither time nor opportunity for engaging in research, would yet esteem it a privilege to assist such an Association, and their co-operation will be all the more active if we make them, at least to some extent, responsible for its management.

I happened to be travelling in Scotland at the time when the Bill relating to the practice of vivisection was before Parliament, the subject being at the time freely discussed in the newspapers and in the medical journals, and I was struck by the interest taken in it by medical friends whom I met in country districts. One gentleman, I remember, who had no personal interest in the matter, had simply, from a sense of duty, taken pains to submit to the country members his views regarding the proposed legislation.

The direct representation, in due proportion, of such men on the Council of the Association, would not, I am confident, in any important way, modify its composition, or render more difficult the execution of the most delicate of its duties. The men whose nomination they would feel honoured in ratifying would of necessity be those whose wide-spread reputation was the result of age and experience, as well as of genius and talent, and I am sure that the overwhelming majority of the profession in this country would be loyal to leaders like those who are now promoting the Association.

I believe these distinguished men may feel satisfied, that if some means were devised by which the great body of the medical profession should feel themselves to some extent responsible, through their representatives, for the furtherance of the objects of the Association, not only would its management remain practically in the hands of those to whom we are all grateful for having given up so much of their time to organising the movement, but the executive would have a constituency as trusting as it would be numerous and powerful.—I am, sir, your obedient servant,

G. THIN, M.D.

April 3rd, 1881.

SIR,—The formation of a society to resist the opponents of scientific research will be most welcome to the members of the British Medical Association. Sir James Paget well said, at the meeting on Tuesday last week, that "the public needed instruction on a large number of scientific subjects." The public very often applies for that instruction to its family doctor, and many of us are called on, in the course of our daily practice, to defend the workers in medical science against the attacks of ignorant, but persistent, opponents. We have willingly done our best in defence of scientific research. We shall, in future, do so more effectually, with the help of a society so powerfully organised. The Presidents of the Society are to have the power of nominating twelve "representative" members. I trust it will not be asking too much, to express a hope that they will appoint some leading general practitioner to represent a body, who will be numerous and willing workers.—Very faithfully yours,

FRED. B. HALLOWES, President S. E. Branch,
British Medical Association.

SUPERINTENDENTS OF IMBECILE ASYLUMS.

SIR,—It is only to-day that my attention has been directed to some strictures in your issue of 25th March on remarks made by me at the annual meeting of the Larbert Asylum for Idiots, some weeks ago.

In expressing approval of the general principle of having a doctor to do doctor's work, and a schoolmaster to do schoolmaster's work, I did not necessarily express an approval of a doctor living far from his patients, which seems the gravamen of the charge against the directors of the Larbert Institution for the change they have made. It is quite true that imbeciles are often of feeble health, but I fail to see that this necessitates the actual residence of a doctor among them. It is also quite true, as Mr. Bruce points out, that many of their diseases are best treated by attention to diet, medicine, and regimen, but I have yet to learn that this cannot be done, as in private practice, by a doctor giving the orders, without standing or sitting by to see them carried out. There seems to be a little soreness in some of the letters about the termination of Dr. Ireland's connection with the asylum. With that I have nothing to do; it was effected before I even heard of it. The contrast I attempted to draw was between an asylum for the insane, the nature of the diseases of the inmates of which requires a doctor to be always at hand, and an asylum for idiots, in which I thought, and still maintain, no such necessity exists.

Dr. Fletcher Beach seems to think the case of epileptics forms an exception. He can only refer to the management during convulsions,

which can be quite well trusted to trained attendants. The curative treatment can be just as well managed by a doctor not actually under the same roof as his patients. Is it the custom in asylums to summon a doctor whenever an epileptic is seized with a fit?—I am, &c.,

ALEX. WOOD.

Edinburgh, 30th March, 1882.

SPECIAL CORRESPONDENCE.

LIVERPOOL.

[FROM OUR OWN CORRESPONDENT.]

Bequests to Medical Charities.—Liverpool Gymnasium.—Health Committee.—Elections of Physicians and Surgeons to Local Hospitals.—The Liverpool Lock Hospital.

THE annual meetings of the medical and other charities in this city are held during the months of January and February. The financial position of each is thus known early in the year; and it is to be regretted that, as regards the medical charities, their financial position is very unsatisfactory. Several are much hampered with balances on the wrong side; while, with few exceptions, the income does not in the case of those free from debt keep pace with the expenditure. It is, therefore, gratifying to report the advent of legacies to all the medical charities from two sources: firstly, from what is known as the Hamilton Donation, by which the hospitals and dispensaries will receive sums varying from £2,880 for the Royal Infirmary, to £100 for the Dental Hospital; secondly, from an anonymous donor, who distributes, through the Central Relief and Charity Organisation Society, the sums varying from £200 for the Royal Infirmary, to £25 for the Ladies' Charity and Lying-in Hospital.

Among other public buildings, this city possesses one of the finest, if not the finest, gymnasium in the kingdom, which has recently passed through a very serious crisis. It was not only not a success financially, but it did not even pay expenses, although its members very recently numbered upwards of six hundred. Its managers, therefore, decided first upon its closure, and then upon its sale. Fortunately for the credit of our city and the *physique* of the rising generation, this admirable institution will not be lost. It has been taken by the managers of the Young Men's Christian Association, the members of which are to be admitted at a reduced fee; but it will be open to the public generally at such moderate terms as should ensure its success. Its present director is Mr. A. Alexander, champion gold medallist; and it is greatly to be hoped that the large number of young men whose occupations involve stooping over desks, excessive sedentary habits, and other unwholesome requirements, may avail themselves of the valuable counteracting influences the gymnasium affords.

At the meeting of the Health Committee, on the 9th of March, the medical officer of health reported a mortality of 29.4 per 1000. Zymotic diseases occasioned 57 deaths, of which 14 were due to scarlatina. Of the total deaths, 118 were children below five years of age, and of these 55 were infants below one year.

At the last meeting of the Medical Institution, the mode of electing the honorary physicians and surgeons to local hospitals was discussed. At present the election rests with the trustees of each hospital, each having its own peculiar traditions, while a certain similarity of proceeding governs all. A local peculiarity is that the same individuals are trustees to all the hospitals, and are thus called upon to act at every vacancy which may occur in each. Hence a canvass for a hospital election is a pretty frequent occurrence, there being four general hospitals: the Royal Infirmary, the Northern, the Royal Southern, and the Stanley Hospitals; besides the Eye and Ear Infirmary, the Ladies' Charity and Lying-in Hospitals, the Lock Hospital, the Hospital for Cancer and Skin Diseases, and other special hospitals. There has been of late years a growing desire, both on the part of the different trustees, the medical officers, and the candidates, that a different mode of election should be established, and the mode which obtains most favour is that of an elective committee. But here agreement ceases, and there is the greatest diversity of opinion as to the number and component parts of the proposed elective committee. The discussion, which was brought forward by Dr. Macfie Campbell, surgeon to the Northern Hospital, was adjourned. It is greatly to be hoped that some improved practical scheme, capable of being adopted at each hospital, may be agreed upon; otherwise a mode of election, much less agreeable to the profession, may be eventually determined upon by the trustees and the hospital managers.

The Lock Hospital here contains fifty beds, twenty-five for each sex. The male wards are always filled with severe cases of venereal disease, mostly syphilitic, and students have the opportunity of seeing this disease in all its various forms. In the female wards, unfortunately, the surgeons have the same difficulties to contend with as those in other voluntary lock hospitals. On the 11th inst., eleven out of the twenty-five beds were empty. It is seldom that they are filled, and, when they are, it is only for a very few days. The patients, who are, with very few exceptions, prostitutes, will not come in unless unable any longer to pursue their calling. The number of prostitutes in this city may be approximately guessed by the fact, that the number arrested for being disorderly in the streets was last year 1,852—this being the actual number of *persons*, the arrests being 4,586. Of these, 1,562 *persons* were convicted, the convictions being 3,538. These are about the usual yearly average, the numbers fluctuating. The number of females admitted last year into the Lock Hospital was 280, and into the lock wards of the Liverpool Parish Infirmary 322. The rules of the Lock Hospital exclude pregnant women, any suffering from scabies, or unprovided with the necessary clothing. But, within half a mile, are whole streets composed entirely of brothels, in which many most suitable candidates for each empty bed might be found. These figures furnish a melancholy additional instance of the failure of any voluntary system for the reduction of venereal, and especially of syphilitic, diseases.

GLASGOW.

[FROM OUR OWN CORRESPONDENT.]

Broomhill and Dunoon Homes' Bazaar.—Sanitary Protection Association.—Close of the Winter Session.

THE great bazaar, got up by Miss Clugston, on behalf of the Western Infirmary, came off in the course of last month, and proved a very decided success. The proceeds reached the large sum of £15,600. From this, of course, fall to be deducted the expenses connected with the undertaking; but no doubt a sufficiency will be left to enable Miss Clugston to carry out the two objects she has in view—namely: the extension of the Home for Incurables at Broomhill, and the liquidation of the debt on the Convalescent Homes at Dunoon, this latter amounting to £4,000. The extension at the Broomhill Home, which is now contemplated, is to admit of the admission of special cases, such as epileptics, those suffering from consumption, cancer, and other incurable maladies. No doubt, the work will now be rapidly proceeded with; and, should some additional funds be wanting to carry on the new building to completion, no doubt they will be forthcoming.

Glasgow is following the example set some years ago by Edinburgh, and steps are being taken to establish here a Sanitary Protection Association. Its leading objects are to provide its members with such supervision as shall ensure the proper sanitary condition of their own dwellings, and also to advise them as to the best means of remedying defects in houses of the poorer classes in which they are interested. Already promises of support from several influential persons have been obtained; and there is no doubt that our medical officer of health (Dr. Russell) will lend it his hearty support. The experience of the association in Edinburgh has been very satisfactory, and it has gained there very extensive support.

The present week sees the close of the winter session in our different medical schools, and the short period of respite from work which Easter brings will be equally acceptable to professors as well as to students. At the University, the professional examinations commence on the 7th instant; while the entries for them are fair in number, they fall somewhat behind those of other years. There was a large gathering of students at the Western Infirmary on the 3rd instant, when the presentation of medals and certificates, given by the managers for competition among the hospital students, took place. In clinical medicine, two medals were awarded—Mr. Robert Beith and Mr. William Patullo being adjudged equal; while, in clinical surgery, Mr. Benjamin Blaine carried off the medal. Short but interesting speeches were given on the occasion by Professors Gairdner, Macleod, and Buchanan. The first two spoke on the difficulties connected with carrying out competitive clinical examinations, where the number of entries were large, but thought that the method followed in the present session had considerably simplified the matter. They both, too, bore testimony to the very excellent appearance made by the students at the examinations, and the very thorough knowledge displayed. Professor George Buchanan agreed with his colleagues on these points, and he also pointed out the very important assistance derived from the students in carrying on the medical and surgical work of such a large hospital as the Western Infirmary now is. The whole proceedings were marked by an enthusiasm and good feeling between the students and their teachers which was

very gratifying to see, and was in marked contrast to the behaviour of those attending the Royal Infirmary, where the students allowed themselves to forget the respect due to themselves and to the profession of which they hope some day to be members.

ROME.

[FROM A SPECIAL CORRESPONDENT.]

COMMENDATORE Corrado Tommasi-Crudeli, Professor of Pathological Anatomy and Director of the Pathological Institute, has been appointed Professor of Experimental Hygiene and Director of the Corresponding Department in the University of Rome. Dr. Marchiafava has been appointed to the chair of Pathological Anatomy, thus vacated. Professor Marchiafava has hitherto held the office of Professor Extraordinary in the Institute of Pathological Anatomy.

The weather is fine, and the hotels are full of visitors, although a very large number of those who have spent the winter in Rome have gone on to Naples and to Sicily.

General Garibaldi, who has derived much benefit from his sojourn at Posilippo, has proceeded to Reggio and Messina, in order to be present at Palermo as honorary president. As the veteran's health is very critical, this step is not considered a wise one; but he has determined at all hazards to be present. The winter has been very dry, and colder than usual; so that there has been a considerable amount of the ordinary slighter winter ailments, but very little continued fever. Measles have been somewhat prevalent; but, as is usually the case with eruptive fevers in Rome, the type has been mild, and rarely complicated.

HOSPITAL AND DISPENSARY MANAGEMENT.

SOUTH CHARITABLE INFIRMARY AND COUNTY HOSPITAL, CORK.

THE numher of intern patients during the year was 1,039, being 36 in excess of the previous year, and 10,370 in the extern department, or an increase of 2,248. During the year 31 deaths took place. The trustees, in their report, direct the attention of subscribers recommending patients to the use for which the institution was founded—a curable not an incurable hospital—and trust that incurable chronic cases will not be sent to them for admission. They are bound, they say, in the interests of the ratepayers, as well as the subscribers, to restrict the hospital to its legitimate use—relieving and restoring the many—not using the beds for lingering chronic cases, many of them incurable when seeking admission. Such cases are invariably the most expensive to a hospital, while medical skill can benefit them but slightly.

BALLINASLOE DISTRICT LUNATIC ASYLUM.

DR. NUGENT, inspector of lunatic asylums in Ireland, in his report for 1881, states that the asylum is not only very much overcrowded, but the regular accommodation, particularly at the female side, is restricted materially, in consequence of some rooms being rendered useless by passages being formed through them to the new building now in course of construction. The drainage also is not quite satisfactory, and he considers that there are about twenty patients whose cases could be properly dealt with in the workhouse.

THE KILLARNEY DISTRICT ASYLUM.

IN reporting on the management of the Killarney District Asylum during 1881, Dr. Oscar Wood mentions that among the patients admitted were two members of the constabulary who had had their heads injured in riots. One made a good recovery, and was discharged after a few months' residence, but the other is not a promising case, and will probably have to remain under treatment for a considerable time. His maintenance in the asylum is paid entirely out of his pension, so that his broken head has involved no burden on the district. An hereditary taint is assigned as a predisposing cause in a large number of the cases admitted, more especially in those coming from the western division of the county, where intermarriages is very common. It is noticed that lunatics from the western division of the county are always less amenable to treatment than those from its northern division. Of the deaths occurring in the asylum last year, ten were due to phthisis, and eight to bronchitis and pneumonia, so that more than one half of the whole mortality, which amounted to thirty-five, was due to pectoral affections, a state of matters of which some explanation should be attempted. It is possible that the difficulty experienced in heating the asylum, alluded to by Dr. Woods, and the nuisance of smoking chimneys, which seems to have prevailed to an intolerable extent, may have had something to do with it. No death was due to general paralysis, and only one to epilepsy.

THE GENERAL HOSPITAL, WOLVERHAMPTON.

THE annual report, just issued, shows that the number of patients treated during the last three years had been as follows:—In patients: 1879, 1,359; 1880, 1,372; 1881, 1,389. Out-patients: 1879, 11,647; 1880, 11,604; 1881, 12,332. The cost per head had been in 1879, £49 7s. 3d.; in 1880, £52 5s. 9d.; in 1881, £50 1s. 1d. The average stay of each patient during the three years had been 29½ days, 33 days, and 33¾ days, respectively. The cost per out-patient had been 2s. 2d. in 1879; 3s. 3d. in 1880; and 1s. 10d. in 1881. Last year's receipts were lower than those of the previous year by £174. The total receipts for 1881 had been £6,873 10s. 4d; and the expenditure, £6,705 15s. 8d., leaving a balance in hand of £167 14s. 8d.

THE LEEDS HOSPITAL FOR WOMEN AND CHILDREN.

THE 29th annual report shows that this institution is in a flourishing state and doing a large amount of useful work. During the year 1881, 393 in-patients and 1,197 out-patients were under treatment. The receipts were less by £300 than they were in the previous year; but, on the other hand, the expenditure was somewhat reduced without detracting from the comforts or advantages of the patients; so that the adverse balance was only £79. Speaking of the large number of out-patients who crowd the waiting-rooms of our free hospitals and dispensaries, the report says "the public ought to bear in mind what a serious tax this is on the time of the honorary medical officers, and greater care ought to be taken by subscribers before giving recommendations. A recent report from the Manchester Medical Ethical Association, on the working of provident dispensaries in that town, shows how great and general is the abuse of medical charitable funds. No honorary medical officers ever refuse to treat really indigent and proper cases, but they should not be expected to do so for patients able to pay for private medical advice." Nor, we may add, for patients who could well afford to enrol themselves in a provident dispensary.

LIVERPOOL LADIES' CHARITY AND LYING-IN HOSPITAL.

THE Ladies' Charity was, we believe, founded in 1796, for the relief of poor married women in childbed, the charity undertaking to supply a skilled midwife in ordinary cases, and a surgeon in serious cases, together with such medical comforts as the circumstances of the patient might require. The Lying-in Hospital was founded in 1841, for the treatment of difficult cases of labour. In 1855 a ward was added for the special diseases of women; and in 1862 a new hospital was erected, containing 37 beds. These two charities were amalgamated in 1869.

The annual meeting of the charity was recently held, and unusual interest was given to the proceedings in consequence of a proposal to confine the in-door department entirely to the special diseases of women, and to make the necessary alterations in the rules. The report of the committee was chiefly occupied with this subject. It stated that the past year had been one of great difficulty, on account of an outbreak of puerperal fever, which had obliged the committee to close the doors. Nor was this the first outbreak of the kind. These frequent attacks of fever, and their consequences, had led the committee to reconsider the whole scope of the charity, and to propose—(1) That arrangements should be made for receiving difficult maternity cases at the houses of the district midwives, instead of in the hospital; and (2) that the wards in Myrtle Street should be devoted entirely to the treatment of the diseases peculiar to women. There can be no doubt that, from a medical point of view, the committee have acted wisely in maturing these proposals; nevertheless, they gave rise to an animated discussion, in which some legal and technical difficulties were raised, and ultimately that portion of the report which related to this subject was referred back for further consideration. We cannot doubt that the friends of the charity will confer a great benefit on the poor women whom they desire to help by adopting both the proposals of the committee. If they could form a school of midwifery in connection with the charity, and train suitable women as midwives, they would confer a great boon upon the rich as well as upon the poor.

Dr. HADDEN, Demonstrator of Morbid Anatomy at St. Thomas's Hospital, has recently been made a corresponding member of the *Société Anatomique de Paris*, at the nomination of Professor Charcot, the President.

MILITARY AND NAVAL MEDICAL SERVICES.

SURGEON-GENERAL CRAWFORD has been appointed Director-General of the Army Medical Department, the appointment to date from the 7th of May. The new Director-General, whose anticipated selection for appointment was made known previously, is an officer greatly esteemed and very popular in the department. In our own Association, also, Surgeon-General Crawford is well known, and is among its warm friends. We heartily congratulate the department and its new head on an appointment which we regard as well earned and of happy augury.

EASTER MONDAY VOLUNTEER ARRANGEMENTS.

THE volunteer bearer-column is to be under the command of Surgeon-Major W. Johnstone, and will be provided with stretchers and other requisites. On Easter Monday morning, it will rendezvous at Fort Purbrook, which is about two miles from the Havant railway station. Field hospitals are to be established at Forts Nelson and Purbrook respectively, and will be placed under the medical charge of Surgeon-Major R. Cross, 13th Middlesex (Queen's Westminster) Rifles; Surgeon W. Shepherd, 1st Middlesex (Victoria) Rifles; and Surgeon T. H. Hill, 18th Middlesex Volunteer Rifle Regiment. An ambulance-waggon will be attached to each division of the force for the conveyance of any person who may require to be taken to one of the field hospitals during the review.

ARMY MEDICAL SCHOOL.

THE summer session of the Army Medical School, at Netley, was opened on Monday, the 3rd instant, by an introductory address from Professor Maclean, C.B. The lecturer described, in a very forcible manner (illustrating his remarks by many apt examples), the remarkable changes that had taken place in the organisation and position of the medical departments in the British and Indian armies during the last twenty-five years; and demonstrated to the new comers the greatly superior circumstances under which they commence their military career, compared with those which existed when their predecessors of a few years back entered the public service. The number of probationers who have joined at Netley at the present time is considerably smaller than it has been on similar occasions for several years past, owing to circumstances which have been already commented upon in the JOURNAL. Only fifteen surgeons on probation have joined for the Army Medical Service, and eight for the Indian Medical Service.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

AT a meeting of the Council of the Poor-law Medical Officers' Association held at their rooms, 3, Bolt Court, Fleet Street, on April 4th, the circular letter of the Local Government Board dated March 17th, 1882, headed "Casual Paupers suffering from Small-pox", was taken into consideration, when it was resolved that it appears to this Council that the order in question is one calculated to give much trouble to the medical officer, seeing that, under its provision, not only the master of the workhouse, but the superintendent of the casual ward (nearly always comparatively an illiterate person), are entrusted with the power of summoning the medical officer, either from their own observation or on representation of such casual pauper. The Council also further considered that in rural districts, where the medical officers may live at a distance, such a power may subject him to considerable expense and inconvenience. The Council also desired to express their sense of the injustice implied in throwing additional obligations on the workhouse medical officer without any provision having been made by the central authority for any additional remuneration. The Council trusted that some effort would be made to put a question to Mr. Dodson, the President of the Local Government Board, on this subject.

At the same meeting, the action of Dr. Danford Thomas, Coroner for Central Middlesex, refusing to give the fee accorded under the provisions of the Coroner's Witness Act of the 6th and 7th William IV, cap. 89, was taken into consideration. It was unanimously resolved that the Council viewed with much regret that the coroner should have put such a wrongful interpretation of Section 5 as to induce him to refuse the fees in question.

At the same meeting, the important question of the publication of reports from, and charges made against, medical officers at meetings of boards of guardians, was taken into consideration, when the opinion was expressed that the operation of the present system was calculated to do considerable injury to the character and professional prospects of such officers, seeing that statements of a most injurious and calumnious character were frequently made, and no opportunity was afforded to such medical officers of meeting such charge at once. The Council also feel that the publicity in the local press of communications addressed to the board of guardians, which are in their nature privileged, is calculated to deter such officers from communicating to their respective boards information that might be valuable in the public interests, but which might entail upon the officer present obloquy and subsequent loss.

THE HONITON GUARDIANS AND THEIR DISTRICT MEDICAL OFFICERS.

IN the JOURNAL of March 4th, page 328, we gave some details of the case of Dr. Pullin. The board had, by a bare majority, requested that gentleman to resign; but at a subsequent meeting, on March 25th, the clerk read a letter from the Local Government Board, informing the Honiton Board that the higher authority was "in receipt of the communication respecting the proceedings of Dr. Pullin, in the case of a poor woman named Harriet Welsman, and that such was receiving the attention of the Board." Thus the case of Dr. Pullin is still *sub judice*, but during the interim the jury have supplemented their official verdict by presenting that gentleman with a testimonial record of their unanimous opinion that no blame could be attributed to him, the family being responsible for their neglect of the deceased. A testimonial of confidence, endorsing the opinion expressed by one of the principal *ex officio* guardians at the inquiry, that "the Board would lose a most valuable medical officer," has been presented to Dr. Pullin by about a dozen or more past and present *ex officio* and elected guardians of the immediate district. Expressions of sympathy with Dr. Pullin, and of dissatisfaction with the course pursued by a section of the guardians at the inquiry (eleven only, out of thirty-six, voting against him) have been decided and general both from the profession and public. The poor of the neighbourhood, through one of their district visitors, have expressed their appreciation of Dr. Pullin's long services and kindness in the most gratifying terms. Dr. Pullin held for ten years the adjoining district (Budleigh Salterton), to which his son, Mr. F. B. Pullin, was last week appointed; and on his resignation, about twenty years since, was presented with a pleasing testimonial from the poor and residents in the neighbourhood. Dr. Pullin has also been for a quarter of a century the Admiralty Surgeon and Military Medical referee of the district, and for years has been the Medical Officer of Health, and as Public Vaccinator has regularly been awarded the Government grant, and is as much respected for his integrity as he is valued for his ability.

ENTERIC FEVER AND EARTH-CLOSETS.

IN consequence of a somewhat serious prevalence of enteric fever at the Ashford District Schools, Dr. Corfield has made a report on the subject, in which he attributes the outbreak, to a great extent, to the unsatisfactory manner in which the dry-earth system for the treatment of excreta is carried out. He considers that, in the present instance, this system has proved a failure; but inasmuch as it appears, from the discussion that followed the reading of the report, that, although there were nearly eight hundred children at the schools, they had only ten earth-closets, it is manifest that the system has hardly had a fair trial at Ashford.

PAYMENT OF MEDICAL WITNESSES IN CORONERS' COURTS.

SIR,—In reply to your correspondent "H. S.", permit me at the outset to say that I think his communication exhibits a want of that courteous consideration which is due to every public officer, and has at the same time a personal reference, which the facts in connection with the matter in dispute do not warrant or extenuate. His interpretation of my conduct to which he has thought fit to give expression in your columns is neither generous nor just, whilst the unseemly and uncalled for elements which he has imported into the discussion of the question will, I venture to hope, find very little countenance from the profession at large.

The payment of fees to the medical officers of union or workhouse infirmaries for attending inquests or making *post mortem* examinations, is wholly regulated by law; and, being very properly not left to the discretion of the coroner, is altogether outside the domain of personal feeling and private opinion.

I have carefully considered Section 5, 6th and 7th William IV, c. 89, and have acted on the opinion that hospitals and infirmaries supported by public rates are "public medical institutions"; and that, therefore, the medical officers of such institutions are by the Act precluded from receiving any fees or remuneration.

A county lunatic asylum was, I apprehend, at the time of passing of the Act of William IV, a rate-supported institution. The clause quoted by your correspondent expressly declares that a medical officer of a county or other lunatic asylum is not entitled to the fee or remuneration provided by the Act. The hospitals of the Metropolitan Asylums Board, and the hospitals or other establishments for the reception of the sick under the Public Health Act, 1875, and also union and workhouse infirmaries, are rate-supported institutions; and the medical officers connected with them are, therefore, subject to the same conditions in the matter of remuneration as is the medical officer of a county lunatic asylum.

As to what occurred before the Committee of the House of Commons relative to the clause in question, I have heard an altogether different explanation from that given by your correspondent; but, accepting his account as correct, might not the fear entertained by the members of the House of that day "that the physicians and surgeons of our voluntary hospitals would be multiplying *post mortem* examinations and coroners' inquisitions for the sake of fees," extend in our day to the medical officers of workhouse infirmaries, asylums, etc., and be equally unjustifiable? As to the non-existence of workhouse infirmaries at the time of the passing of the Act, need I say that many general and special hospitals have since been established, as well as workhouse infirmaries, all coming within the operation of the clause in question.

I am inclined to doubt the correctness of the statement that, "in fixing the stipends of those ill remunerated officials (Poor-law medical officers), boards of guardians invariably take into consideration the possible incidence of fees, whether derived from coroners or otherwise." But, if it be so, I am of opinion that, in the interest of those officers themselves, the sooner such fees cease to be paid the better, believing that they are entitled to and would prefer a certain salary commensurate with their labours and deserts, to a smaller one supplemented by occasional fees.

Personally, I am of opinion that everyone called upon to give evidence for State purposes should be paid, particularly medical men, whether attached to hospitals or not, as there is no class of the community which more promptly recognises public claims, or more loyally and cheerfully renders public services without expectation of fee or reward.

The informant of "H. S." has evidently misapprehended what I said to him concerning the Middlesex magistrates; and I hope that your correspondent, in making his special inquiries, will not raise questions the discussion of which by the magistrates will not advance his own views, and may damage his professional brethren. As to the hardship experienced by the medical witness in having to go two miles to attend the inquest, I am afraid that it is one which medical and other witnesses must occasionally endure, as it is impossible to have a coroner's court in every street.

In support of decency and morality, I aided my predecessor, Dr. Hardwicke, in his endeavour to provide public mortuaries and coroners' courts; at which places, wherever they exist, all inquests are now held, and not as formerly at public houses or in private rooms. The results of those endeavours have, I believe, given general satisfaction.

I may add that the subject of this letter has been referred to the Home Secretary, and is at present *sub judice*. The concluding advice offered by your correspondent to the younger members of the profession, I regret to say, lacks the wisdom of age, and betokens the decay of good manners.—Faithfully yours,

GEORGE DANFORD THOMAS, Coroner for Central Middlesex.

Coroner's Office, Paddington, W., March 29th, 1882.

SIR,—As is no doubt more or less generally known by this time, Dr. Danford Thomas, Coroner for Central Middlesex, has refused fees to the workhouse infirmary medical officers, under the Act 6 and 7 William IV, c. 89, s. 5. Dr. Danford Thomas, from his actions, evidently considers that workhouses do not come under the Act, he having given fees, to my knowledge, to two medical officers who gave evidence recently at inquests, upon the bodies of paupers dying in the workhouse, but refused a fee to one of these medical officers who gave evidence at an inquest, upon the body of a pauper, who had died in that portion of the workhouse set apart for the reception of the sick, otherwise called the workhouse infirmary. A workhouse infirmary, firstly, is not a "public hospital or infirmary" under the Act, because the public are not indiscriminately received as patients, but only those with certificates proving that they are paupers belonging to the parish to which the workhouse infirmary belongs; secondly, because it is neither supported by "endowments or voluntary subscriptions".

To show you the manner in which the coroner exerts his power, I will quote the following case. I was summoned to give evidence at the coroner's court, two miles distant from here, upon the body of a pauper who had suddenly died in the infirmary; my senior had also received an order to make a *post mortem* examination. The inquest was held on March 21st; the coroner, after receiving my evidence, called my senior to give his opinion upon the *post mortem* examination. He (my senior) stated that he had not made a *post mortem* examination, it being no part of his duty, as he was not paid for it. The coroner replied that he laid himself open to be committed for contempt of court, and ordered that we should both immediately make a *post mortem* examination. My senior here told the coroner that our workhouse infirmary, with seven hundred and fifty patients, was left without a medical officer, contrary to the orders of the Local Government Board; that there were many serious cases in the infirmary; that one of us should return to the infirmary; and that the other would make the *post mortem* examination. The coroner replied that he "would not have his authority questioned"; that we should *both* immediately repair to the mortuary and make a *post mortem* examination. I need scarcely add that we received no fees.

Will all Poor-law medical officers willing to test this matter communicate with me, when, after having received counsel's opinion, we could, if favourable, take measures for the authoritative settlement of the question in dispute?—I am, sir, yours faithfully,

STEPHEN H. MOORE,

Late Member of the Election Committee of Dr. Danford Thomas.

Holborn New Infirmary, Archway Road, Upper Holloway, N.

Copy of Letter received from the Home Secretary.

A. 14574. Whitehall, March 30th, 1882.

SIR,—With reference to your letter of the 13th instant, concerning the refusal of the coroner to pay your fees for attendance at an inquest at his court in Islington, I am directed to acquaint you that the Secretary of State has made inquiry into the matter, and is informed by the coroner that, as the Holborn Union Infirmary, to which you belong, is used only for the reception of sick persons, he considers it to be one of the institutions to which the provisions of the Act 6 and 7 William IV, c. 89, s. 5, apply; and that he was not empowered, therefore, to pay you a fee for attendance. Sir William Harcourt is unable to interfere in the matter.—I am, sir, your obedient servant, A. J. P. LIDDELL.—The Medical Officer, Holborn Union Infirmary, Archway Road, Highgate.—389.

THE SWAFFHAM BOARD OF GUARDIANS AND POOR-LAW MEDICAL RELIEF.

SIR,—My attention has been called to a paragraph in the *Norwich Argus* of the 18th instant, in which the BRITISH MEDICAL JOURNAL is quoted as stating: "About five years since, Dr. T. K. Milne of Shipdham bought the practice there. It carried with it the appointment to one of the districts of the Swaffham Union, to which he succeeded on the same terms as his predecessor, which was *stated to him at the time of purchase*, to be after the rate of seven shillings and sixpence per case, and the ordinary mode of attendance. There was only a verbal agreement. On receipt of his first quarter's salary, he found he had been *misinformed* as to the *remuneration*," etc. As the administratrix of my late husband, allow me to say that Dr. Milne carried on the practice from April 11th, 1877, to August 2nd. During that time, nothing was concealed from him, and he had every opportunity of knowing the exact sum received in each case. When the practice was purchased, all the books were left in the house for Dr. Milne's use. Surely, he might have found out the sum due to him ere five years had passed. My husband practised thirty-eight years in Shipdham, and I believe never had a complaint made against him. I may say, *en passant*, Dr. Milne gave £960 for a good house, garden, and three acres and a half of meadow land, practice included; so he need not complain.—I am, sir, yours faithfully, ANNIE CLOUTING.

Ufford Hall, Stanford, March 27th, 1882.

*** The information on which our annotation was based came to us from sources which we held to be absolutely reliable, and therefore we felt no hesitation in writing our observations thereon. Although we regret that our correspondent should have been pained thereby, we held and do hold that no reflection was conveyed or intended against those from whom Dr. Milne purchased the practice, but against the Swaffham Board of Guardians, who, it would appear, have been wholly indifferent as to fairness of action in their treatment of their medical officer, in sending an undue number of cases for treatment, and out of all proportion to the remuneration afforded.

ALLEGED APPOINTMENT OF AN UNQUALIFIED MEDICAL OFFICER.

SIR,—The guardians of X. union proceeded, at a recent meeting, to the election of a medical officer to a district of that union, which they had duly advertised. There were two candidates, A. and B., for the appointment. A. is fully qualified and registered, whilst B. is not. Nevertheless, the guardians conferred the appointment upon the unqualified B., subject to the sanction of the Local Government Board. Does not the appointment belong to A., being the only qualified applicant? Or are there any steps which A. could take so as to prove his rights? The guardians had no reason to reject A., save the one that they had promised their votes to the unqualified B.

If guardians made it the rule to follow the example of those belonging to the X. union, it would be but small encouragement to gentlemen to get fully qualified at all, seeing that parochial appointments are conferred upon unqualified persons in preference to fully qualified ones.—Yours, etc., M.B.M.A.

*** The nature and qualifications of every officer appointed must be reported to one or the other of the three authorities for England, Ireland, and Scotland, as the case may be. These authorities would be bound to annul any appointment, unless the gentleman selected possessed a medical, as well as a surgical, qualification.

UNIVERSITY INTELLIGENCE.

CAMBRIDGE.

IT has been urgently represented to the Council of the Senate that the welfare of biological studies at Cambridge demands that Mr. Balfour's department should be placed on a recognised footing. In this view the Council concur, and they accordingly recommend that there shall be established in the University a Professorship of Animal Morphology, at a stipend of £300 a year, to terminate with the tenure of office of the first Professor elected, unless the University decide that the Professorship shall be continued. It is to be the principal duty of the Professor to teach and illustrate the principles of the structure and development of animals, to apply himself to the advancement of the knowledge of these subjects, and to promote their study in the University. A Grace authorising the establishment of the Professorship will be offered to the Senate at a Congregation on Thursday, the 11th of May.

QUARANTINE IN THE SUEZ CANAL.—At a meeting of the French Academy of Science, M. de Lesseps, who has just returned from Egypt, denounced the quarantine system in the Suez Canal as seriously detrimental to commerce. These regulations, which cooped up thousands of pilgrims returning from Mecca in spots which speedily became fever beds, and which detained so-called suspected vessels without preventing people from landing or embarking, served no useful purpose, nor was there any object in introducing into the East a system disused at home and worthy only of the middle ages. Commerce was obstructed without the public health being secured, for fever beds were thus created, and such arbitrary and clumsy measures would never protect Europe from cholera. He himself was now supposed to be undergoing quarantine in Egypt. He invited the Academy to examine the question and report to the Government. A discussion followed. It was agreed that the matter should be inquired into.

LUNACY AND LUNATIC ASYLUMS.

BARNWOOD HOUSE HOSPITAL FOR THE INSANE.

Barnwood House Hospital for the Insane, at Gloucester, continues to afford instructive evidence of the profits which may be realised in establishments for the insane, compatibly with liberal and enlightened management. Nothing is spared in this institution that can contribute to the wellbeing and happiness of its inmates, and yet the balance in its favour on last year's transactions was £4,685. The committee of the hospital are entitled to congratulate themselves and their energetic medical superintendent on this result, which is all the more striking when it is borne in mind that forty-two, out of one hundred and and thirteen, patients in the hospital last year were maintained at a reduced charge, and three altogether gratuitously. The weekly cost of each patient in 1881 was £1 13s. 4d.; and for this modest sum they appear to have been admirably housed and fed, and provided with amusement. The Commissioners in Lunacy say, at their visit in March last: "On each recurring visit, we find improvements completed or in progress, and an evident desire, on the part of the committee, as well as the superintendent, to render the hospital as perfect an institution for the treatment and care of the insane as it is possible to arrive at." The improvements to which the Commissioners refer are carried out by means of the profits derived from the working of the establishment. Last year, these improvements included a large and handsome day-room with adjacent conservatory, and a new entertainment-hall with corridors and billiard-rooms attached. A future application of profits of a laudable description is shadowed forth by the committee in their report. As the establishment increases in importance, the numbers of its officials must also increase; and the committee consider that the time has come when it would be expedient to make some provision towards a retiring pension for old and faithful servants. They are not yet prepared with a complete scheme; but, considering the arduous and frequently repulsive duties which are discharged by attendants and nurses on the insane, and the qualities of kindness, firmness, and forbearance which must be continually practised, it may be asserted that good attendants and nurses are rather exceptional persons; and that, after long and faithful service, they deserve special recognition in the shape of retiring allowances.

INMATES OF IRISH ASYLUMS.

Dr. Ringrose Atkins, in his report on the Waterford District Asylum for last year, says that as many of the patients as could be induced to employ themselves have been industrially employed in the various manual avocations usually followed by the class from which the asylum population is drawn. Very few tradesmen or mechanics are admitted into the asylum, and this fact Dr. Atkins accepts as a gratifying evidence of the comparative unfrequency of mental diseases amongst artisans and shopkeepers. A large number of the patients received are, at their best, idlers, or, when opportunity affords, disinclined to do any work; and it is sometimes very difficult indeed to make anything of such individuals, whose chief mental characteristic seems to be a special proneness to or delight in quarrelling with those around them, and interfering in the general well-being of their neighbours. A very considerable proportion of the lunatics admitted into Irish asylums belong, Dr. Atkins thinks, to this class, being persons who have lost a due appreciation of what their conduct towards their families, friends, and neighbours should be, and who act so strangely, and often with such unnatural violence towards each other, that no doubt can be entertained about their insanity, while, at the same time, they are shrewd, and by no means obtuse in securing their own interests and creature comforts. Dr. Atkins says that further experience more and more convinces him that, in the great majority of cases of insanity, the mental breakdown cannot be assigned to any one distinct or separate cause, but must be attributed to several factors.

THE HEREFORD COUNTY ASYLUM.

Dr. Chapman, the Medical Superintendent of the Hereford County Lunatic Asylum, reports that the population of the asylum increased during last year by 19. It contained, on the 31st of December, 324 patients, 100 having been admitted during 1881, 71 having been discharged, and 28 having died. Referring to the admissions, Dr. Chapman points out that they include an unusual proportion of readmissions. It may be asked, he says, how far this is related to the large proportion of patients discharged unrecovered. On looking over these cases, he finds that no fewer than thirteen are cases of a more or less recurrent type, in which recovery can never be expected to be permanent; and yet such cases do really, for the time, recover, and cannot, therefore, be permanently retained in the asylum. In not one of the readmissions can he say that there was anything to regret in their having been previously discharged. It is now the rule, in the Hereford Asylum, for every patient (weather permitting) to walk round the asylum grounds, the only exceptions being those whose employment involves abundant exercise, or whose health is such as to forbid it. This seems a judicious rule, worthy of imitation in some asylums in which extended and sufficient out-door exercise is not insisted on. To the observance of this rule may perhaps be, in some measure, ascribed the gratifying fact that, at the beginning of the present year, there was not a single instance of phthisis amongst the large body of lunatics then under Dr. Chapman's care.

OBITUARY.

WILLIAM EELES TAYLOR, M.D., Pulborough.

On Sunday, the 19th of March, at Pulborough, Sussex, died William Eeles Taylor, M.D., aged 67.

In these few words has been lately announced the termination of an honourable and useful career, and they will have been read with sorrowing heart by many grateful friends.

Dr. Taylor was one of those very numerous able general practitioners who, although they may be but little known beyond their immediate neighbourhood, yet exercise an influence, and work an amount of good, within and around their sphere, which is well-nigh incalculable.

Struggling with difficulties not of his own making, and saddled with obligations incurred for one he loved, and discharging them all honourably so soon as he was able, Dr. Taylor came first to Pulborough five-and-forty years ago, as an assistant to Mr. Martin, of that place, after having distinguished himself at King's College, where he gained the Leathes (Divinity) and other prizes. After some years spent in this way, he returned to London to complete his qualifications, leaving behind him the most favourable impression of his ability and of his professional and general "manysidedness,"—the "mark," in fact, of an unusually strong man. In the year 1842, he was invited by Mr. Martin to return to Pulborough, and to join him in a partnership, which subsisted, with much mutual satisfaction, until that gentleman's death in 1860.

Generally well educated (but making no pretence to the highest academic culture), he was moreover, an excellent botanist, a great reader in his earlier years, and a really powerful and fluent writer. In later years his practice, which, without being very large or very lucrative, was very widelying, absorbed his whole available time; and for the last ten years, during which he was becoming the prey of insidious and painful disease, it was carried on with such discomfort and difficulty as only a strong sense of duty, fortified by the greatest courage and determination, could overcome.

Many years before his death, Dr. Taylor determined to leave his property for the building and endowing of a cottage hospital. With this end in view, he bought a piece of land, together with the old Glebe Schoolhouse, from the Ecclesiastical Commissioners; but, meeting with some unexpected difficulties, he altered his determination, and ultimately left directions for the building of a hospital to be occupied by "ten aged and infirm poor of the district in which I have so long laboured," for each of whom he has also provided a comfortable pecuniary allowance.

An honest gem, in a somewhat rough setting, Dr. Taylor accomplished more hard and useful and delicate work than most men; and whilst he might have taken for his motto that short summary of practical piety, "laborare est orare," his many friends might well write over him now, for epitaph,

> "He prayeth best who loveth best
> All things both great and small;
> For the dear God who loveth us,
> He made and loveth all."

His case was remarkable for furnishing an example—which, if not unique, is at least among the rarest—of a healed fistulous communication between a portion of the sigmoid flexure of the colon (somewhat high up) and the fundus of the bladder; a fistulous communication which remained open for three years (as evidenced by the occasional passing of air by the urethra, between February 1877 and some date, at present not known to the writer, in 1880), and was found perfectly healed on the 20th March, 1882.

CHRISTOPHER ROYSTON, M.R.C.S.Eng., L.S.A.Lond.

We have, this week, to record the death of Mr. Christopher Royston, of Newbury, Berks. He was born at Codnor Park, Derbyshire, on April 10th, 1801, and was educated at Mr. Goodacre's Grammar School at Nottingham. He was afterwards apprenticed to the late Mr. Haden, of Derby (a relation of Mr. Seymour Haden), who was then enjoying a leading practice in that town. He subsequently studied at St. Bartholomew's Hospital, London, taking the qualifications of L.S.A. in 1823, and M.R.C.S. in 1824. He shortly afterwards commenced practice at Redditch, in Worcestershire, where he remained nearly twenty-five years. He then removed to Newbury, Berks, where he practised for twelve years, and then resigned the active duties of his profession. Subsequently, living at Bath, and at Stamford Hill, near London, he again returned to Newbury, where he died, after an illness of nearly three months, early on the morning of March 17th, having nearly completed his eighty-first year. Mr. Royston was a skilful accoucheur; and, after having given up the practice of his profession, always spoke, with much pleasure, of never having lost a patient of his own during her confinement.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in Anatomy and Physiology, at a meeting of the Board of Examiners, on the 3rd instant, and when eligible will be admitted to the pass examination.

Messrs. Leopold Larmuth, Thomas Calrow, Joseph E. Parker, and William O. Shaw, students of the Manchester School; George H. Weston, Edward W. Reid, and Hector W. G. Mackenzie, of the Cambridge School; William H. Wigham and Mark J. Wakefield, of the Newcastle School; Gregory Jordan and Narendra Prasanna Sinha, of the Bengal School; Siva Prasad Roy, of the Calcutta School; Arthur Morley, of the Leeds School; Hunter J. Barron, of the Edinburgh and St. Thomas's Hospital; Arthur W. Collins, of the Liverpool School; J. Harrison Scott, of the Dublin School; and Robert C. Priestley, of King's College.

Seven candidates were rejected.

The following gentlemen passed on the 4th instant.

Messrs. Frank Thorpe, John W. Talent, Richard T. Williamson, and Robert Blackwell, of the Manchester School; Henry S. Cook, Charles E. Purslow, and Arthur F. Messiter, of the Birmingham School; Harold C. Ling and Thomas B. Macfarlane, of the Glasgow School; Joseph S. Rively and James H. Crouch, of the Newcastle School; William Greenwood and Edward G. Morris, of the Leeds School; Procter S. Hutchinson and John Thomas, of the London Hospital; Herbert H. Lankester, of St. Thomas's Hospital; Charles J. Heath, of St. Bartholomew's Hospital; Charles B. Cooper, of the Liverpool School; William G. Thorold, of the Bristol School; Thornton F. W. Harragin, of the Charing Cross Hospital; James H. E. Brock, of University College; and Henry W. B. Bencraft, of St. George's Hospital.

Two candidates were rejected.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, March 30th, 1882.

Clay, Augustus Frederic, Steelhouse Lane, Birmingham.
Daunt, Elliot, Little Stanhope Street, Mayfair.
Forrest, James Rocheid, Munster Terrace, Fulham.
Lota, Antoine Louis, Couloy (Var), France.
Norsy, William Augustus, Wokingham, Berks.

The following gentleman also on the same day passed the Primary Professional Examination.

Harris, Howard, Charing Cross Hospital.
Perry, Allan, London Hospital.
Whicher, James, Charing Cross Hospital.

MEDICAL VACANCIES.

The following vacancies are announced :—

BIRMINGHAM BOROUGH ASYLUM, Winsongreen.—Clinical Assistant. Applications to E. B. Whitcombe, Medical Superintendent.

BIRMINGHAM GENERAL DISPENSARY—Resident Surgeon. Salary, £150 per annum. Applications by April 12th.

BRISTOL GENERAL HOSPITAL—Assistant House-Surgeon. Salary, £50 per annum. Applications by May 4th.

BRITISH HOSPITAL, Buenos Ayres, South America.—Resident Medical Officer. Salary, £200 per annum. Applications by May 1st.

BURNTWOOD COUNTY LUNATIC ASYLUM, near Lichfield.—Assistant Medical Officer. Salary, £120 per annum. Applications by 13th April.

CAMBRIDGE COUNTY LUNATIC ASYLUM.—Assistant Medical Officer. Salary, £100 per annum. Applications by the 15th April.

CHELTENHAM BRANCH DISPENSARY—Resident Medical Officer. Salary, £180 per annum. Applications by April 17th.

CHILDREN'S HOSPITAL, Birmingham.—Assistant Resident Medical Officer. Salary, £40 per annum. Applications by April 13th.

ENNIS UNION.—Medical Officer for Crusheen Dispensary District. Salary, £110 per annum, £15 yearly as Medical Officer of Health, registration, and vaccination fees. Election on the 12th instant.

ENNIS UNION.—Medical Officers for Nos. 1 and 2 Districts. Salary, £110 per annum for each district, with £15 per annum as Medical Officer of Health, registration, and vaccination fees. Election on the 12th instant.

GLASGOW OPHTHALMIC INSTITUTION—Ophthalmic Surgeon. Applications by April 8th.

INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—Senior House-Surgeon. Salary, £70 per annum. Applications to J. Kirkley, 41, King Street, South Shields.

INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—Junior House-Surgeon. Salary, £50 per annum. Applications to J. Kirkley, 41, King Street, South Shields.

LONDON HOSPITAL, Whitechapel, E.—Aural Surgeon. Applications by the 18th April.

MIDDLESEX COUNTY LUNATIC ASYLUM—Assistant Medical Officer. Salary, £120 per annum. Applications by the 13th April.

NATIONAL DENTAL HOSPITAL, 149, Great Portland Street, W.—House-Surgeon. Salary, £50 per annum. Applications by April 26th.

QUEEN'S HOSPITAL, Birmingham.—Resident Surgeon. Salary, £50 per annum. Applications by April 10th.

RATHDOWN UNION.—Medical Officer for Newcastle Dispensary District, at a salary of £120 per annum, exclusive of sanitary registration and vaccination fees. Election on the 11th instant.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Junior Resident Medical Officer. Applications by the 12th April.

SCARBOROUGH FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Resident Medical Officer. Salary, £200 per annum. Applications by April 15th.

SCHOOL OF DENTAL SURGERY—Teacher of Dental Metallurgy. Applications to the Dean of the Medical School, Dover Street, Liverpool, by April 25th.

TOWNSHIP OF MANCHESTER.—Resident Assistant Medical Officer. Salary, £140 per annum. Applications, endorsed "Medical Appointment", by the 15th April.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL Physician. Honorarium of £100 a year. Applications by April 24th.

YORK COUNTY HOSPITAL—Honorary Physician. Applications by the 11th April.

MEDICAL MAGISTRATE.—Dr. Bateman, of Norwich, and of Burlingham Lodge, Alburgh, has been appointed a magistrate for the county of Norfolk.

Dr. M. ZAMPAJO, Professor at Rio Janeiro, who was sent to Europe for the purpose of studying the organisation of children's hospitals, is reported to have committed suicide at Trieste by shooting himself through the head with a revolver.

HOMATROPINE AS A MYDRIATIC.—Dr. F. C. Hotz, in the *Transactions of the Illinois State Medical Society*, 1881, thus sums up the evidence as to the value of homatropine as a mydriatic. It enlarges the pupil and paralyses the ciliary muscles as quickly and thoroughly as an equally strong solution of sulphate of atropia; but the effects of the homatropine upon the eye disappears entirely in twelve to twenty-four hours, while the effects of the atropine continues for many days, and while it lasts disables the patient for reading and writing. For this reason homatropine is preferable when temporary dilatation of the pupil is desired.

AMENDMENT OF THE LUNACY LAWS.—A meeting, convened by the Lunacy Law Amendment Society for the purpose of furthering their views, took place this week at the Holborn Town Hall, Mr. Torrens occupying the chair.—Mr. Commissioner Miller moved the first resolution :—"That the lunacy laws are highly unsatisfactory, and urgently need reform." He said that the present system of incarcerating a man as a lunatic, upon the certificate of two medical men, required altering. He contended that the soundness of the medical opinions should be tested by public examination, as no man's opinion was worth having unless it would stand the test of skilful cross-examination.—Mr. Moseley, in seconding the motion, denied that it would be casting a stigma upon a person should he be publicly examined for the purpose of ascertaining whether he is a lunatic or not. Was it fair to the public that a family, in which there was hereditary insanity, should not be known to have that taint? Ought persons to be allowed to contract marriages with them? For his own part, he considered secrecy as contrary to the public welfare; while, again, proprietors of public asylums had a direct pecuniary interest in still keeping patients after recovery. After some further discussion, the resolution was passed, as were all others calling for an inquiry into the lunacy laws, and adopting a petition to the Houses of Parliament.

PARALYSIS FROM PRESSURE.—At a recent meeting of the Academy of Medicine, M. Vulpian described an interesting case of paralysis resulting from pressure. A young woman, suffering from arthritis of the knee-joint, was ultimately obliged to walk with the help of crutches. Their leather covering gave way, and the wood beneath consequently rubbed the armpit and the brachial nerves of that region. Tota paralysis of the left arm and almost total of the right arm ensued The right arm preserved its sensibility intact, and the vaso-motor

phenomena, and those of secretion were normal, but voluntary motor power was annihilated. When the condition of the patient was slightly improved, faradisation provoked muscular movement, but the patient was still unable to execute voluntary movements. M. Vulpian concludes that there are cases of paralysis resulting from pressure on the nerve which do not present what may be termed the stereotyped alterations characteristic of paralysis. M. Panas some years ago attempted to prove that radial paralysis, termed *a frigore*, is always due to a lesion provoked by pressure. M. Vulpian now admits that the case he describes, where pressure produces a condition hitherto attributed solely to the influence of cold, renders of little value the arguments he opposed to M. Panas' theory.

CYST OF THE PANCREAS.—Dr. Nathan Bozeman presented, at a meeting of the New York Pathological Society, a cyst of the pancreas, which had been mistaken before removal for ovarian cyst. The patient was the wife of a physician of Texas, forty-one years old, robust, and weighed two hundred pounds. She had been perfectly healthy up to seven years ago, when she began to suffer from pain in the right inguinal region, hip, and thigh, and her abdomen began to enlarge. This gradually progressed up to six or seven months ago, when she was examined by an eminent physician of New Orleans, who diagnosed ovarian cyst. She was subsequently sent to Dr. Bozeman, who also thought the tumour ovarian, and decided on operation. This was done December 2nd. Instead of ovarian cyst, he found the tumour attached to the pancreas at the junction of the outer one-third and inner two-thirds. The patient had been prepared for the operation by administration of fifteen grains of salicin thrice daily, and was thoroughly cinchonised the day of the operation. The patient, after operation, progressed as satisfactorily as any case of ovariotomy. There had been no symptom of interference with the function of the pancreas before operation.

M. REGNARD has made a communication to the Paris Biological Society, describing a new temperature regulator he has invented. M. Regnard proposed, by his temperature regulator, to remove the defect of the regulation apparatuses of M. M. Friedel, Schlœsing, and d'Arsonsal, all of which, though admirable, require a long time to be regulated. In M. Regnard's apparatus, the thermometer regulates the temperature; for this purpose it is left open, and inside the tube is a very fine platinum wire. The mercury of the thermometer is in contact with one of Leclanché's elements, by means of a platinum wire thread soldered on to the bulb. If the free platinum wire is in contact with the other pole of the pile, as soon as it is reached by the mercury the current is interrupted. If the end of the wire thread in the tube of the thermometer be stationary at 40°, the current is interrupted when the heat of the water bath is 40°. If the thread be stationary at 50°, the current is interrupted when the heat of the water bath reaches 50°. The one important fact to bear in mind is, that when the current is interrupted, the fire is extinguished. Why this is so is easily explained. The gas is obliged to pass through a small bell glass, in order to reach the burner; the bell glass is placed on a glass vessel about the size of a thimble, which is full of mercury, and fastened to the lever of an electro-magnet. When the current passes, the electro-magnet plunges the glass into the mercury, the gas goes out, with the exception of a reserve jet, the moment current ceases, the glass is upraised, and the gas burns again. M. Regnard has used his apparatus during the last five years, and it is in perfect order. He considers its great recommendation is the quickness with which it can be regulated, a few minutes being sufficient; also its capability of passing suddenly from one degree of temperature to another.

PREVENTION OF LACERATION OF THE PERINÆUM. — At the meeting of the St. Louis Medical Society, May 7th, 1881, the proceedings of which appeared in the *St. Louis Medical and Surgical Journal* for August, Dr. G. Hurt read a paper on Position in Relation to Injuries of the Perinæum during Labour, in which he gives the history of several cases tending to prove that a sharply flexed and abducted position of the thighs, though convenient and necessary in some cases, is not conducive to the greatest degree of security to the maternal soft parts at the moment of the passage of the child's head through the vulva, nor to the speedy and safe delivery of the child. In the autumn of 1877, he attended a case in which the second stage of labour was somewhat tedious; and, just as the head began to distend the perinæum, the patient, as a matter of choice, took the left side position, with her thighs and knees sharply flexed. The fœtal head, which was unusually large, soon became impacted in the soft parts, uterine contraction became stronger and refused to intermit, the perinæum appeared to have reached the point of its utmost distension short of laceration, being pushed down so that the fœtal occiput rose from under the pubes, and yet the head was so completely enveloped by the expanded perinæum, that a rupture of the latter seemed inevitable. At this moment, however, the patient perhaps involuntarily, extended her limb to a line nearly parallel with that of her body, and coincidently with this movement the fœtal head passed through the vulva without any perceptible injury to the parts. The next case was that of a primipara, in which the fœtal head became so tightly impacted at the vulva as to cause considerable delay, though the uterus was contracting with great force, and laceration seemed inevitable. The patient was on her back, with her knees sharply flexed and abducted. She was requested to straighten her left leg, and as she did so, the vertex became more prominent, and the forehead slid over the perinæum without causing even so much as an abrasion at the fourchette. In other similar cases, extending the thigh, when the passage of the child was impeded by a too rigid perinæum, was followed by the same happy result. The perinæum is not only relaxed by the extension of the limbs, but the degree of its inclination is increased so as to impose less resistance to the passage of the fœtal head, and *vice versâ*; in the ratio that the limbs are flexed and abducted, the perinæum and contagious parts are put upon the stretch, and consequently its resistance and liability to rupture proportionately increased.

HEALTH OF FOREIGN CITIES.—Trustworthy indications of the recent health and sanitary condition of various foreign and colonial cities are afforded by the following figures, deduced from a table in the Registrar-General's last weekly return. According to the most recently received official weekly returns, the annual death-rate in the three principal Indian cities averaged 35.1 per 1000, and was equal to 27.1 in Calcutta, 32.8 in Bombay, and 47.7 in Madras. Cholera caused 40 deaths in Calcutta and 59 in Madras, while 68 fatal cases of measles were recorded in Bombay, and fever fatality showed the usual excess in each of the three cities. The death-rate in Alexandria further declined to 26.1, although 6 of the 106 deaths resulted from typhoid fever. In twenty-two European cities, the death-rate averaged no less than 32.4, and exceeded by 9.2 the average rate prevailing last week in the twenty-eight large English towns. The death-rate in St. Petersburg, although showing a decline, was equal to 50.9; the 653 deaths included 41 from "fever", 21 from diphtheria, and 19 from scarlet fever. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate averaged 24.9; measles caused 25 more deaths in Copenhagen, where the death-rate was equal to 31.7. In Paris, the death-rate further rose to 30.7; and the deaths included 68 from diphtheria and croup, 36 from typhoid fever, and 15 from small-pox. The rate in Brussels did not exceed 23.5, whereas it was equal to 29.3 in Geneva. In the three principal Dutch cities, the death-rate averaged 25.9; in Amsterdam the rate was 26.6, and 3 fatal cases of "fever" were recorded. The Registrar-General's table includes returns from nine German and Austrian cities, in which the death-rate averaged 33.5, and ranged from 25.4 and 25.9 in Berlin and Dresden, to 41.1 and 44.4 in Buda-Pesth and Vienna. Small-pox caused 34 deaths in Vienna and 7 in Buda-Pesth; and diphtheria showed fatal prevalence in Berlin and Dresden. In three of the principal Italian cities, the death-rate averaged 31.2, the highest rate being 32.4 in Venice; 12 deaths were referred to malarial fever in Rome, and 11 to diphtheria in Turin. The Roman return dates to the end of November. The average annual death-rate in four of the largest American cities was 27.1, while the rates ranged from 21.4 in Brooklyn to 35.1 in New York. Small-pox caused 14 deaths in New York and 7 in Philadelphia; scarlet fever showed fatal prevalence in New York and Brooklyn, and typhoid fever caused 14 deaths in Philadelphia.

BEQUESTS AND DONATIONS.—Mr. and Mrs. Nathaniel Montefiore have given £100 to University College Hospital.—The Hon. A. L. Melville of Brandon Hall, Lincolnshire, has bequeathed £100 to the Lincoln County Hospital, and £50 to the Lincoln Dispensary.—Mr. C. H. Turner of Dawlish has bequeathed £50 each to the Exeter Eye Infirmary, the Dawlish Hospital, the Wonford House Hospital for the Insane, near Exeter, the Exeter Dispensary, and the Dawlish Dispensary.—Mr. Charles Hodgson, of Southend Elvet, near Durham, bequeathed £4,000 to the Durham County Hospital, £3,000 to the Royal Albert Asylum for Idiots and Imbeciles of the Northern Counties, £1,000 to the Convalescent Institution of the Counties of Northumberland and Durham, and £1,000 to the Convalescent Home and Children's Hospital at Coatham.—Mr. Charles Pearce, of Hove, and of Lindfield, bequeathed £1,000 to the Hospital for Sick Children, and £1,000 to the Royal Infirmary for Children and Women.—The Norfolk and Norwich Hospital has received £899 7s. 4d. under the will of Mr. W. P. Sewell; the Grocers' Company have given £200, additional, to the Middlesex Hospital.—The Great Northern Hospital has received £200 under the will of Mr. C. R. Craddock, and £100 under that of Mr. J. Le Cappelain.—The Sussex County Hospital, Brighton, has received £128 13s. 7d. under the will of Mrs. M. A. Drought.

OPERATION DAYS AT THE HOSPITALS.

MONDAY..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S. 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear. Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p. Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30: Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical daily, 1.30; Obstetric, Tu. F., 3; Eye, M Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY.—Royal Medical and Chirurgical Society, 8 P.M., Ballot. 8.30 P.M., Sir Henry Thompson: On a case of Tumour of the Bladder (in the Male) successfully removed through a Perineal Section of the Urethra. Mr. T. Holmes: On Wounds of the Theca Vertebralis, with Discharge of Cerebro-spinal Fluid.

WEDNESDAY.—Royal Microscopical Society, 8 P.M. Ordinary Meeting.

THURSDAY.—Harveian Society of London, 8 P.M. Dr. Mahomed will introduce the subject of Collective Investigation of Disease. Mr. Juler: On the Symptoms, Pathology, and Treatment of Iritis.

FRIDAY.—Clinical Society of London, 8.30 P.M. Report of Committee on Chromidrosis. Dr. Barlow and Mr. Godlee: Case of Extirpation of the Kidney for Calculous Pyelitis. Mr. Howard Marsh: Case of Pyelitis; Exploration of the Kidney; Partial Removal; Death from Suppression of Urine. Mr. Pearce Gould: 1. Case of Spina Bifida cured by Injection of Iodine; 2. Case of Congenital Intestinal Obstruction. Dr. de Havilland Hall: Case of Primary Perichondritis of the Larynx. Dr. C. T. Williams will show a case of Phthisis which has been treated by Residence at High Altitudes.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CHLOROFORM AS AN ANÆSTHETIC, AND ITS PURITY.

SIR,—Since I wrote my last letter in the JOURNAL, March 11th, I have carefully examined several specimens of chloroform, and I have had a communication from Messrs. Duncan and Flockhart, which entirely coincides with what I myself have found out, viz., that absolutely pure chloroform, of specific gravity 1500, will not keep; and it is no trade secret that, in order to make it keep, from ½ to 1 per cent. of absolute alcohol is added; and exposure to sunlight and contact with air, in bottles partly filled, have then no influence in producing decomposition, or in the generation of phosgene gas, $CO Cl_2$.

I may state that the test of M. Yvon is, therefore, utterly useless, as it only tells us that some reducing body, such as alcohol, is present; but chlorinated bodies may be in abundance, and yet an impure chloroform may be proof against the test. I may also state that, if even methylated chloroform be kept in contact with permanganate of potassium and caustic potash for about a week, it will then stand M. Yvon's test, and distillation is not required. I have a specimen which has effectually resisted any reduction of the permanganate test for upwards of twelve hours. During the process of contact, a good deal of care is required, so as to have the bottle closely and tightly stoppered, as the stopper is liable to be forcibly shot out.

With all due respect for M. Yvon, I am obliged to say the medical profession must not be dictated to by a French chemist, who, if he do not know, should have known, that all acknowledged makers of chloroform, be they French, German, American, or English, add absolute alcohol to pure chloroform, so as to make it permanent. M. Yvon might as well say, in regard to our butter, that salt was an element that should not be there. Salt is added, not as an agent of adulteration, but as a preservative.

I have a sample of "Schering's chloral chloroform", and one of Mr. Martindale's, called "anæsthetic"; but chloral chloroform is the greatest sinner of all specimens that I have examined, because in a second or two it is condemned by Yvon's test. Mr. Martindale's is proof for a long time; but it gives way long before the sample I allowed to remain in contact with the permanganate of potassium for a week, and tested on decantation, but without distillation in this instance. I brought this subject before the South Durham and Cleveland Medical Society on March 7th, and demonstrated that the test of M. Yvon was unreliable.

For many years, the subject has been one of special study on my part. I have seen all forms of apparatus for inhalation. They are all bad; every one is objectionable—but a simple cone made out of a small napkin or a cambric handkerchief. All inhalers in any hospital should be discarded. They are only a nuisance, and cause much trouble. If anyone doubt my wholesale condemnation, let him try the effect of the inhalation of ether, or chloroform, or nitrite of amyl, or bichloride of methylene, on himself. On this subject I might add much more, but for the present refrain.—I am, etc.,

HENRY BROWN.

Northallerton, March 25th, 1882.

"AN OLD SUBSCRIBER" asks: Do any of the London ophthalmic hospitals take in patients upon the payment of a small sum weekly?

MEDICAL ETIQUETTE AND THE INDIAN MEDICAL SERVICE.

SIR,—I can fully sympathise with your correspondent who signs himself "In Adversis etiam Fides". I am afraid medical practitioners of the present day do not behave to their brother workers as the older members did and do, not only in the Indian Medical Service, but in other branches of the profession. Is it because, in these days, the profession is overstocked, and medical men find they cannot afford to be courteous to their colleagues in the race of life? The case he quotes will be found, unfortunately, by no means isolated.

In a village here are two practitioners. What can the elder think his profession he has all his life tried to uphold is becoming, when the younger informs the friends of a patient of his, whom they have lost by heart-disease, that "had he been called in, he could have saved her"? What remedy is there against this ungentlemanly practice? I am afraid the answer is "None". Many other acts of discourtesy I might mention. As a member of the profession remarked to me a short time ago, "Now-a-days, one must have two pockets: one for fees, and the other for affronts".—Yours faithfully,

M.R.C.S.

CRAMP.

SIR,—In answer to the appeal made by your correspondent "Spasm" in last week's JOURNAL, I beg to say that whenever I have to treat cramp, whether in old or young subjects, I find that a moderate dose of camphor before going to bed, and rubbing the limbs liable to the affection with strong spirits of camphor, gives, almost without fail, satisfactory relief.—I am, yours very truly,

Marlborough College, April 3rd, 1882. WALTER FERGUS, M.D.

SIR,—In reply to "Spasm" in your number for April 1st, 1882, I beg to say that a gentleman consulted me, about four months since, concerning his health. He was far advanced in diabetes; and his nervous system—on which, in my opinion, diabetes depends—was sadly shattered. He complained of suffering beyond endurance with violent cramps in his legs every night, and nothing he tried seemed to do the least good. I ordered him ten grains of salicylic acid three times a day. In a few days the cramp ceased completely, and never since returned.—Yours truly,

Coleraine, Ireland, April 3rd, 1882. JAMES C. L. CARSON, M.D.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

VERTIGO AMONG COAL-MINERS.

SIR,—Amongst coal-miners the following distressing symptoms are frequently met with, and, in my experience, are very difficult to get rid of. Vertigo sets in, especially on lifting the head after bending, and with it a glimmering and difficulty of steadying the eyes on any object. The air in which they work is good, and there is no cardiac or stomach disease. Their work necessitates lying on the side, with frequent rising. Aperients and tonics have had little effect. A temporary change of work did good; but on returning to the old work, they were soon as bad as before. Any suggestions as to the treatment of such cases will much oblige.—I am, etc.,

A JUNIOR MEMBER.

MR. WHITWORTH (St. Agnes).—There seems to be strong reason for regarding the case described as one of purpura hæmorrhagica; and we cannot see on what ground it was assumed to be of diphtheritic origin. The absence of any other cases of diphtheria in the neighbourhood will have, we should think, been by this time sufficient to allay any alarm that may have been caused by the registration of the death as the result of diphtheria.

ZOOLOGICAL ALCOHOLISM.

SIR,—Seeing that Jumbo, when he can get it, neither dislikes nor refuses beer or spirits, thereby flatly contradicting the assertion that he is, at least from choice, a staunch teetotaller, can any of your readers say whether, if beer, spirits and water, and pure water be placed in a stable, a horse will of its own accord select the water?—Yours, etc.,

C. L. H.

X. Y. Z.—Will any member who has obtained the M.D. Durham, after fifteen years' standing, communicate with "X. Y. Z.", BRITISH MEDICAL JOURNAL Office, 161A, Strand, W.C., with a view to correspondence on the subject?

USE OF STEAM FOR HEATING HOSPITAL WARDS.

SIR,—I observe, in your issue of March 11th, a letter asking for information on this subject, and also the opinions of several gentlemen on heating by hot water and heating by steam. I have had several years' practical experience of both; and I have no hesitation in saying that, for heating a large or moderately sized hospital, the value of steam is far beyond that of hot water.

It may possibly be interesting to some of your readers to know that we introduced steam for heating purposes about four or five years ago, and discontinued the hot-water system altogether. Under the hot-water system, we were subjected to various annoyances, such as violent banging and cracking noises in the pipes during the process of heating and cooling of the water, and frequent mishaps in very cold weather. All this has disappeared with the introduction of steam. The disadvantages of heating by hot water are numerous. 1. The system is more expensive than steam in fitting up at first, as larger pipes are necessary, and there must be a return set to the boiler; and the various details are more costly in keeping in repair. 2. In working, the arrangement is more costly than steam, especially when the water is required to travel a moderate distance, for the further the water is removed from the heating point, so in proportion will be the loss of heating power, and the cost will be considerably enhanced by the constant firing necessary day and night in order to obtain a minimum of heating power.

For heating a small hospital of twenty or thirty beds, the hot-water system, worked with a slow combustion stove, I dare say would answer all requirements, and might be found more convenient than heating by steam.

Heating by steam is economical in the first outlay, and also in its working. It is convenient of arrangement, as it can be conveyed in any direction and to any extent from one heating-point; hot water cannot be treated in this manner with a satisfactory result. Equal temperature can be maintained, and it is in every respect preferable to heating by hot water, excepting under the circumstances I have named.

The long corridors at this infirmary, upstairs and down, are heated by steam coils. We have also introduced steam into two of the medical wards, which has greatly contributed to the comfort of the patients, by now rendering it possible to maintain a suitable temperature both day and night during the most inclement weather. The size of each ward is as follows: length, 130 feet; width, 27 feet; height, 16 feet; and the distance from the heating-point is about 400 feet. A single two-inch pipe has been run round each ward, and the arrangements are such that the charge-nurse of each ward can turn the steam on or off in a moment. The condensed water is carried away by steam traps.—I am, sir, your obedient servant,

THOMAS BLAIR, General Manager.

The General Infirmary, Leeds, March 15th, 1882.

LADIES' WAISTS.

SIR,—I had hoped that the matter of the prevalent artificial deformity of the lower part of the female thorax was surely one subject on which doctors could not differ in opinion. I have read with utter astonishment the letter in last week's JOURNAL from Mr. C. Roberts, in which, though he begins by saying he "should be very sorry if anything he said could be looked upon as an encouragement to tight-lacing by ladies", yet goes on to say that he thinks Mr. Treves fell into an important error when he asserted "that a small waist in a draped figure is ugly, and offends our sense of the beautiful in the human form"; and towards the end of his letter cautions the dress reformers to bear in mind that a small waist is the result of a law of nature! But how does Mr. Roberts arrive at this extraordinary conclusion? He asserts that the waist forms the division of the body which gives certain proportions, according to a law discovered by Professor Zeising, which law of proportions is at the bottom of our sense of the beautiful. Presuming this statement to be correct—and I have no reason for disputing it—will Mr. Roberts explain why it should be necessary to constrict the waist to any degree whatever? The law seems to me to be only an argument for indicating a certain portion of the body that is in accordance with these proportionals by some well marked arrangement of the dress, such as one of the many forms of jacket, or, better still, by a girdle or belt. The law of proportions, as stated in Mr. Roberts's letter, has no reference to the circumference of the waist, but merely to its position; and I cannot think that any law of nature can be found to defend so outrageous a custom as that of permanently altering the shape of the bony framework of the body in order that it may be considered beautiful, no matter whether the figure be draped or nude.

Mr. Roberts remarks that because the custom is so general, it must have some *raison d'être*; but if he will read (if he has not already done so) Professor Flower's little work on *Fashion in Deformity*, he will find that the custom of flattening the skull has prevailed over a far larger extent of the earth's surface, and for a much greater period of time, than the custom of producing small waists; and yet I doubt if anyone can be found who will assert that the deformity in question was the result of a law of nature.

Mr. Roberts does not allude to the subject of pointed-toed boots, and the deformity of the feet induced by their use, which prevails in this country to a much greater extent than the deformity of the thorax, inasmuch as it affects both sexes and all classes of the community; but if universality is to be taken as implying *raison d'être*, we may perhaps be told that this fashion also is the result of a law of nature.

It is, I am sure, perfectly useless to talk of taking the ladies into our counsels, and discussing the subject with moderation, if we are to admit that some degree of constriction of the waist is necessary in order that a draped figure may be in accordance with our sense of the beautiful. Who is to say when waists are constricted too much, even from an æsthetical point of view? Certainly not the doctors, for I believe they are all but unanimous in condemning any degree of constriction of a part inclosing important vital organs; and if the matter be left to the *modistes*, we leave the subject where we found it, and have to consign our daughters' conformation to the designers of the hateful models seen in fashion plates. Possibly all our attempts to remedy this pernicious custom may be useless, and, as stated in one of the daily papers, Mr. Treves's lecture might as well have been delivered in the bottom of a coal mine; but before now vast changes in public opinion have been brought about by agitation and the dissemination of knowledge, and I am not without hope that even the stronghold of fashion, supported, as it apparently is, by so-called æstheticism, may be successfully assaulted by long-continued and consistent reasoning, and that the fair sex may not for all time be deluded with the specious argument that a small waist is a "law of nature".—I am, sir, yours, etc.,

R. LEWIS WILLCOX.

Warminster, Wilts, March 13th, 1882.

IRRITABLE BLADDER.

SIR,—A patient of mine, a lady aged 40, and several years married, but never pregnant, is suffering a good deal from irritable bladder. The attacks are becoming more frequent of late, and began nearly three years ago. There is no uterine, vaginal, nor rectal trouble of any kind; and her sexual relations are normal. She has suffered slightly from rheumatism around the right wrist-joint. I fancy there is some connection between this rheumatic trouble and the irritability of the bladder. All, or nearly all, the usual remedies have been tried, including hyoscyamus, which acts very disagreeably on the heart. Relief is quickly and easily enough obtained; but nothing cures. Can any reader suggest anything which offers strong hopes of arresting the annoyance permanently? My patient is gradually losing ground from the frequent recurrence of the attacks. I shall feel extremely indebted for suggestions in this case.—I am, etc.,

MEMBER BRIT. MED. ASSOC.

Iowa, U. S. A.

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THE LUMLEIAN LECTURES
ON
INFLAMMATION.

Delivered before the Royal College of Physicians.

By J. BURDON SANDERSON, M.D., LL.D., F.R.S.,
Professor of Physiology in University College, London.

Lecture II. Part II.—Etiology of Inflammation.

1. *The exudation of a normal inflammation is not infective.* The proposition that a normal inflammation has no tendency to extend beyond the limits of the injury of which it is the physiological effect, has already been illustrated; but it is further desirable to state what grounds exist for concluding that the introduction into the circulating blood of a relatively large quantity of exudation (which, so far as the organism as a whole is concerned, is the most important effect of a considerable local inflammation) does not produce secondary inflammations elsewhere. To arrive at this conviction, all that is necessary is to consider what actually happens. In the beginning of every acute inflammation of a vascular tissue, a large quantity of liquid leaks from the blood-vessels, and is discharged into the intervascular spaces. This liquid does not at first accumulate where it is effused, but is at once drained off by the lymphatics, which, in consequence, become distended with lymph. In an admirable series of experiments by Dr. Lassar ("Ueber Œdem und Lymphstrom bei der Entzündung", Virchow's *Archiv*, vol. lxix, p. 516), in which diffuse inflammation of the cellular tissue of the limbs was induced experimentally for the purpose of studying the mechanism of absorption, the amount of this drainage was estimated at different stages of the process. For this purpose, a cannula was inserted in one of the principal lymphatic vessels leading from the inflamed part, and the lymph collected. It flowed at the rate of about an ounce per hour—in such abundance, that, in the twenty-four hours during which the exudation was at its height, the quantity which would have entered the blood could not be estimated at less than a pound—*i. e.*, something like half the weight of the animal's blood. Now, inasmuch as a local inflammation of this kind rapidly subsides, and leaves no trace behind it, and is not attended by any serious constitutional disturbance, it is tolerably clear that the mere admixture of a large proportion of inflammatory exudation with the blood is not in itself a matter of very serious moment, and that whatever impressions may exist in our minds as to the toxical properties of pus-corpuscles must be discarded. So long as these structures retain their integrity, there is no reason to suppose that the mere fact of their having escaped from the blood in consequence of injury of the vascular wall, unfits them for re-entering the circulation.

In the early stage of the inflammatory process, there is every reason to believe that the process of absorption goes on exactly as in health, with the exception that as many ounces have to be drained away in the one case as drachms in the other. Subsequently, as the percentage of solids, and particularly the number of corpuscles contained in the lymph increases, the drainage diminishes, partly owing to partial obstruction of the lymph-paths by coagulation, partly because less is exuded.

2. *No organisms endowed with inflammation-producing phlogogenic particles exist in the atmosphere or in the ordinary aqueous liquids with which our bodies come into contact.* In dealing with this proposition, we have the same sort of evidence as with reference to the first; viz., that these supposed delinquents may be brought into contact with living tissues of all kinds without producing any local disturbance. But, before attempting to show this, I would ask you kindly to bear in mind that we have to do exclusively with the case of inflammation. I presume that no one here doubts that the air contains, or may contain, the seeds of specific diseases; and there are strong reasons for believing that these seeds are organisms. Whether they are or are not, does not at present concern us. My proposition is, not that there are no such things as air-contagia, but simply that its particles are not phlogogenic; and the first point to be settled is, how we are to bring these particles into contact with living tissues so as to test their properties effectually. As regards the air, one method which appears to me to be very conclusive, consists in passing large quantities of air through living tissues. In the rabbit, the subcutaneous tissue may be kept distended for days, by frequently renewed injections of unpurified air, without producing any inflammation; nor is the effect more serious if the same tissue be ventilated by a continuous current of the same air for a number of hours, even when that air is derived from a *post mortem* theatre; whence it seems clear that, so far as the tissue is concerned, air is tolerably harmless; for, by this mode of ventilating a tissue, floating matter can scarcely fail to be deposited.

The information yielded by similar experiments on unpurified watery liquids is, in one respect, more satisfactory—viz., that we have here to deal with media, in every particle of which we can very readily prove the actual existence of germs, in such a state of viability as to require only a suitable soil to ensure their development. Dr. Wegner, ("Chirurgische Bemerkungen über die Peritonëal Höhle," Langenbeck's *Archiv*, volume xx, page 51), who is the author of the ventilation experiment to which I have just referred, has tested these liquids, both on the cellular tissue and the serous surfaces, with similar results. I will ask your attention specially to those which relate to the peritoneum. When water, charged with septic bacteria (bacteria which had grown for this purpose in a "cultivation liquid", *i.e.*, a solution of nutritive salts) was injected into the peritoneal cavity of a rabbit, in quantity less than two ounces, it produced no effect whatever; and when the animal was killed the next day, it was found that the whole of the liquid was absorbed, and that the peritoneum was in a normal state. Whither had the organisms gone? Had they disappeared from the peritoneum, or were they reposing harmlessly on its surface? The examination of the lymphatic vessels of the diaphragm, which, as is well known, serve as the ordinary drainage-channels for the peritoneum, showed that for the most part they had been absorbed: for these vessels were full of bacteria, which had been arrested on their way from the peritoneum towards the venous system; but neither in the lymphatics nor in the peritoneum, did they occasion any inflammatory change. Similarly he found that, when a large quantity of liquid (warm 0.75 per cent. solution of salt) was led, by means of suitably arranged drainage-tubes through the peritoneal cavity, in a continuous stream for many hours, so that the membrane was exposed for a long time to whatever phlogogenic influences the liquid conveyed, no effect whatever was produced. So long as the liquid was constantly changed, there was no infection, no inflammation. If it were allowed to remain stagnant in the peritoneum in larger quantity than could be absorbed, these results followed inevitably. Hence, while a liquid which is actually charged with septic organisms is harmless if its quantity be such that it can be rapidly absorbed, common water, if it accumulate, will produce a fatal peritonitis.

It may thus be considered to be established that septic bacteria or their germs, in a viable state, are not necessarily phlogogenic; and I may, therefore, pass at once to my third point.

3. *Whenever an inflammation becomes infective, it owes that property to chemical change in the exudation-liquid, of which the presence of microzymes is a necessary condition. Conversely, septic organisms which are infectious owe their infectiveness to the exudative soil in which they have grown.* To illustrate these propositions, I will pursue the study of peritonitis a little further.

In experiments which I made a dozen years ago, I showed that, in rodent animals, peritonitis induced by the injection of irritant liquids is always infective. The exudation products of such inflammations were found to be septic, notwithstanding that the irritant used (*e.g.*, tincture of iodine) was not only free from germs, but destructive of them. This was understood to mean, that the first effect of the iodine was the effusion of liquid into the peritoneal cavity; the second, the infection of this liquid by formed ferments, which found their way into it, not from the atmosphere or from external media of any kind, but from the alimentary canal. A knowledge of the exact conditions which lead to this result, is obtained by simplifying the mode of experiment. We have already seen that water, whether contaminated with septic organisms or not, may be introduced into the peritoneum in limited quantity without effect. But, if water, which has just been boiled and cooled, be injected with antiseptic precautions in larger quantities—*i.e.*, in quantity so large that it cannot be rapidly absorbed—the result is entirely different. The water which is thus injected accumulates in the serous cavity, charges itself by diffusion, first with the salts, subsequently in increasing proportion with the proteids of the blood, and thus becomes a most favourable soil for the development of septic organisms, which, in their turn, act infectively or phlogogenically on the blood-vessels and living tissues with which they come in contact. A septic peritonitis ensues, which kills the animal by septicæmia in twenty-four or thirty-six hours.

This simple experiment serves, I think, to illustrate the fundamental principle that, although the seed is indispensable to the coming into existence of the infective process, the question whether that seed becomes morbific or not, depends, not on the seed itself, but on the soil. But there are other examples equally striking.

On a former occasion, seven years ago, I gave an incomplete account of certain experiments of my friend, Professor Chauveau, which I had then recently witnessed, and still regard as among the most valuable ever made with reference to the questions which now interest us. (Chauveau: *Nécrobiose et Gangrène*. Paris, 1873.) M. Chauveau's observations were founded on an operation which, under the name of *bistournage* of the testis, has been for centuries practised in the south of France, for economical purposes; and which, although extremely simple, is more scientific and better adapted for the end—that of annulling the function of the testis, with as little injury to surrounding parts as possible—than any of the operations which are practised in this country. The procedure is as follows. The organ, with its serous and fibro-muscular coverings, is freed from its attachment to the dartos; then twisted on the spermatic cord, so that its lower end is upmost; and finally rotated round the cord, as an axis, four or five times—the whole being accomplished without the aid of any instrument, and with wonderful rapidity. If the animal be killed and the arteries be injected, it is found that the spermatic artery is empty beyond the twist of the cord. Consequently, the circulation of the testis is completely cut off. The result, stated shortly, is that adhesions are promptly established between the organ in its new position and the dartos, as well as between the two layers of the tunica vaginalis; and that, in these adhesions, new vessels are formed. These, however, never extend into the dead organ, which consequently undergoes degeneration and atrophy. For our purpose, the value and interest of *bistournage* lies, first, in the evidence it affords—evidence based on ready-made experiments to be numbered by hundreds of millions—that, under favourable conditions, the inflammatory effects which result from fairly severe injuries of vascular tissue are strictly limited to the parts directly injured; and, secondly, as affording the opportunity of determining the nature of those conditions by observing the effect of varying them. Here, as in respect of every traumatic inflammation two factors had to be considered. The strict limitation of the inflammatory effect to the parts directly injured might be due entirely to the absence of septic organisms, or entirely to the circumstance that the surrounding structures were so little injured that they suffered thereby no appreciable damage. Experiment showed that both factors were operative. If, instead of allowing the organ to become grafted in its new position, the process of union were interrupted by repeated manipulation, an inflammatory process was set up between the dartos and the external surface of the fibro-muscular tissue, which resulted in suppuration; whence it was manifest that, without any change of the condition of the parts, as regards the exclusion of germs (for the integument remained perfectly healthy), the phlogogenic effect was increased in proportion to the injury inflicted. But this effect was not comparable to that which was produced when, without any modification of the operative procedure, means were taken to secure the existence in the circulating blood, and consequently in the blood-vessels of the organ, at the moment that its circulation was arrested, of infective material. This was accomplished by infusing into a vein a sufficient quantity of diluted pus, derived from an infective abscess, to impregnate the blood with septic products, without risk of fatal septicæmia. In an animal so prepared, the devitalised organ, instead of becoming engrafted, itself became the nucleus of an inflammatory tumour, which rapidly extended to surrounding parts, and resulted in the deaths of most of the animals experimented on, either by septicæmia or by diffuse suppuration.

Following on the lines of Professor Chauveau's investigations, Professor Kocher of Bern ("Die acute Osteomyelitis mit besonderer Rücksicht auf ihre Ursachen", *Deutsche Zeitschrift für Chirurgie*, vol. xi, p. 118) has materially extended their bearing by showing that, when septic products enter the circulation in what may be called the normal channel—*i. e.*, the channel by which they are constantly entering the circulation in greater or less numbers, they exercise a similar power, not of producing inflammation in undamaged tissues, but of transforming the normal effects of injuries into infective processes. The structure chosen for these experiments was bone. Having first found that in a healthy animal the most active irritants or caustics can be, if antiseptic precautions be used, injected into the medullary cavities of bones without extension of inflammatory changes beyond the limits of the injury, he repeated the experiment under special conditions as regards diet. Having produced a normal osteomyelitis in the way above described, and observed the animal during the first week, at the end of which its condition was perfectly healthy, he substituted for its ordinary food a diet of putrid material, charged with septic organisms. The result was in entire accordance with Chauveau's observations—namely, that the impregnation of the blood with material absorbed from the intestine converted the normal into an infective osteomyelitis. The dog became ill, and was subsequently killed. The medullary cavity of the injured bone was converted into an infective abscess. A result of this kind, perhaps, scarcely needs comment or explanation. We have already learnt that the presence of septic organisms (provided that they have not been bred inside the organism) is not necessarily attended with any danger. We have now learnt that they become sources of danger at once, when they are brought into relation either with devitalised organs, or with extravasated serous liquids of any kind, and particularly with inflammatory exudation.

4. *Micrococci which have found their way into the circulation may serve as vehicles for the dissemination of infective malariæ.*—The last of my four points relates to the purely mechanical part which micrococci seem to play in the dissemination of infective material. To illustrate this, I must revert to the experiments before referred to relating to the absorption of liquid from the peritoneum of the rabbit. I mentioned how, after injection into the peritoneal cavity of liquid charged with bacteria, the lymphatics leading from the peritoneum are found to swarm with bacteria, and these organisms also abound in the blood. If the animal be killed, say, ten days or a fortnight after the injection, yellowish opaque deposits are found here and there in the internal organs—particularly in the lungs, liver, and kidneys—which have been conveyed by the blood-stream to the places in which they are found.

If, instead of charging the circulation with harmless bacteria grown outside, you produce an acute peritonitis, the effect is the same mechanically, but pathologically very different. In both cases, the peritoneum contains liquid charged with septic organisms, which, in both cases, are conveyed therefrom by the lymphatics into the blood-stream; but in one case they enter the circulation incapable of doing any harm excepting such as may result from the plugging of capillary arterioles; in the other, they carry with them a phlogogenic virus, by virtue of which, wherever they lodge, they become the starting-points of infective abscesses. Now, as I observed before, it is not to be imagined that the particles by which infection is disseminated throughout the organism, so as to produce multiple abscesses in muscles and viscera, consist exclusively, or even chiefly, of aggregations of micrococci. All that can be maintained is that, wherever they exist in the circulation, they certainly take part in the process of dissemination; and we are strengthened in this conclusion by what is now known of ulcerative endocarditis, in which the circulating blood becomes (sometimes very suddenly) impregnated with infective material by the instrumentality of fibrinous matter separated from the mitral valve. In these cases, life is destroyed, not by the mere mechanical plugging of the arteries, but either by septicæmia, or by a slower process characterised by the development of miliary abscesses in the muscular tissue of the heart, liver, spleen, kidneys, and other internal organs. That the little emboli which here act as if they were seeds of infection consist chiefly of masses of micrococci, we know from direct observation, for they are found—as it were *flagrante delicto*—at the very spots where the mischief has been done, and surrounded by the evidences of its nature.

Still more remarkable is the history of the secondary lesions found in internal organs during the development of small-pox, which have been so thoroughly studied by Dr. Weigert (*Anatomische Beiträge zur Lehre von der Pocken*, part ii, p. 3, Breslau, 1875). He has shown that, early in the suppurative stage of small-pox—*i. e.*, before the secondary fever commences—cylindrical masses are to be found, on microscopical examination, in various organs, particularly in the liver, spleen, lymphatic glands, and kidneys, which consist simply of capillaries plugged with micrococci. At a somewhat later period, though the organs are still to the naked eye perfectly healthy, each plug is surrounded (in the section) by a zone of altered tissue, the change consisting in wasting of the nuclei of the cells. Up to this time, the process has given rise, to use the ordinary language, to no surrounding vascular reaction; but eventually the devitalised tissue becomes the seat of infiltration with leucocytes, and is thus converted into a circumscribed miliary abscess, with a surrounding border of hæmorrhagic congestion.

So far as relates to the mechanism of the process, it is almost as plain as it was in the case in which we produced the same results experimentally in the rabbit by injecting bacteria into the peritoneum. In small-pox, the micrococci, which take so prominent a part in the development of the cutaneous eruption, find their way (probably by the lymphatics) in myriads into the circulation. We have no evidence that they carry with them the specific contagium of the disease. All that is proved is, that they lodge in the capillaries of the internal organs. What they do there may well depend on circumstances. It may probably be assumed that in all cases they do some damage to the tissues in their immediate neighbourhood; but we have no evidence that in every case each capillary embolus becomes the nucleus of an infective abscess. Whether this happens or not will probably depend on the quantity and progress of the cutaneous suppuration, and on the degree in which the circulation becomes impregnated with septic material.

CROONIAN LECTURES
ON THE
CLIMATE AND FEVERS OF INDIA.

Delivered before the Royal College of Physicians of London.

By SIR JOSEPH FAYRER, K.C.S.I., M.D., F.R.S.,
Physician to the Secretary of State for India in Council.

Lecture II.

(*Continued from page 492 of last number.*)

Malarial Diabetes.—M. Verneuil has called attention to cases in which glycosuria appeared to be a sequel of malarial influence. In 1859, M. Brudel found sugar in the urine of eighty out of eighty-six cases of intermittent fever, but where the fever became remittent the sugar diminished; especially he observed it in pregnant or suckling women, and in all in cases of pernicious fever. He concluded that malaria frequently engenders glycosuria either with the attack of fever, and transient, or independent of the paroxysm, and permanent. My own experience confirms the occasional occurrence of glycosuria with or after malarial fever, but whether as a consequence I cannot say; though, in the general disturbance that takes place in malarial poisoning, it is probable enough that they may stand as cause and effect.

Pathological Anatomy.—Death in an uncomplicated case of ague is rare. Maclean says: "In Bengal, out of a strength of 344,152, with 111,687 admissions, the percentage of deaths to strength was 0.24; of deaths to admissions, 0.76." Simple attacks of ague, involve no change in structure, and, where death occurs early in the pernicious forms, there may be no evident change. But malarial influences, when protracted, involve changes in the blood and viscera, especially in the spleen and liver. Those in the blood result from imperfect elaboration by damaged blood-making organs, destruction of red corpuscles, transformation of hæmatine into pigment, high temperature, and in some cases loss of albumen owing to renal disease. The relative proportion of red and white corpuscles is altered, some say the latter are increased; there is excess of water, and the red cells are relatively diminished. Hertz says: "It has not yet been possible to demonstrate a multiplication of the colourless corpuscles." There is an accumulation of yellowish brown, or dark pigment, in the blood, which is the result of the destruction of the red corpuscles. The spleen sometimes attains great size, in rare instances the capsule becomes considerably thickened and tough, and the normal weight of five to seven ounces increases to pounds, as much as eighteen or twenty pounds have been recorded—even specimens forty pounds; whilst it has been found as low as two ounces (Russell). In the soft and pulpy state, it is easily injured, and is frequently the cause of fatal accidents; sometimes spontaneous rupture among natives. From a contraction of its fibrous elements, a state of cirrhosis may be induced, the structural change becoming chronic or permanent. In this state the blood becomes leucocythæmic. Change of climate and treatment may remove the enlargement, but whilst it remains it is an abiding cause of fever and cachexia. The liver also may become chronically congested and indurated, and enlarged from interstitial deposit; but not to the same extent as the spleen. It is dark in colour, marked with pigment patches, or may be softened as well as enlarged. Acute inflammation of the liver seldom occurs; but occasionally it suppurates insidiously. The rigors are liable to be confounded with those of fever, and it is only pain and bulging that reveal their real character. The muscular system may also degenerate, the heart sharing in the change. I have seen cases of this kind in which, while other signs of malarial poisoning had disappeared, cardiac asthenia remained. In the cerebro-spinal centres and membranes, exudation and thickening may occur, causing partial paralysis, or obscure cerebral symptoms; hyperæmia, punctiform extravasation, pigmented patches, discoloration and effusion of serum into the membranes of the brain or cord; or, it may be, molecular changes in the centres themselves. In some cases there is reason to fear that the structural changes are of permanent character; still, it is encouraging to know that many of these lesions are recovered from, in a temperate climate. I have alluded to the influence of malarial poisoning on the spermatic cords, which become intensely congested and enlarged; the area of distribution of the genito-crural nerve and nerves of the cord suffer. The enlarged cords widely distend the abdominal rings, and cause hernia; whilst the visceral congestion, extending to the kidneys, gives rise to albuminuria. The kidneys, in some fatal cases of malaria fever, may be found swollen, congested, and undergoing structural changes. In cases complicated with dysentery, structural changes are often found in the colon and rectum; ulceration and thickening in various stages, not always confined to the large gut, but extend beyond the ilio-colic valve into the ilium.

Remittent Fever.—Remittent fever prevails throughout India, and causes much of the mortality ascribed to malaria. It is merely another expression of malarial action, and may commence or end as ague. Intermittents may become irregular, and pass gradually into remittent, which is a more serious matter when it occurs in certain localities and seasons. My first experience of it on the North-east frontier, in natives who had been exposed to the influences of intensely malarious country, in the valley of the Brahmapootra, taught me its severity. The cases were not unfrequently brought in in a semi-unconscious condition, soon to pass into complete stupor, with tongue nearly black, with sordes, and then death. It is to this form that the term jungle fever is applied. Of course, all jungle fever is not so severe, though in certain places and seasons such cases are common. The various local types present certain differences in their features. There may be a more decided icteric tinge, dysentery, diarrhœa, vomiting, choleraic purging, or other indications of gastro-intestinal complication, may be present, and give rise to such terms as bilious-remittent, malarial dysentery, or choleraic fever. The fever of Peshawur, for example, presents some features that distinguish it from that of Bengal or the Deccan, and so on; but these point to varying effects of one, not to essentially different causes.

Remittent fever is liable to many complications, and hence has been described as simple and complicated. The period of incubation seems to vary. Heat, and concentration of malarial poison, may in certain cases act almost immediately; in others, a few days, to a fortnight or more, may elapse. The uncomplicated form, in a previously healthy person, generally terminates favourably in eight or ten days; but when it is the result of exposure to more concentrated miasm at the season of greatest activity, or when complicated, it is of longer duration, may become dangerous and even fatal. Its accession is preceded by langour, malaise, chills, cold feeling in the back and loins, loss of appetite, pain in the epigastrium, head, back, and limbs, vertigo, faintness, nausea, or vomiting; the tongue is coated with yellowish or white fur; the pulse is irregular. This may continue for some days before the cold stage sets in (which is not so well pronounced as that of an intermittent) and is sometimes altogether absent. It gives way to heat, thirst, dryness of skin, severe headache, quick hard pulse, pain in the eyeballs, and insomnia; the temperature rising to 104°, 106°, 107°; wandering or delirium may set in, and the breathing become oppressed. This continues for some hours, six or often much more, until the remission sets in; the skin then becomes moist, the pulse softer, the pain abates, the sufferer is relieved, perhaps sleeps, though want of sleep is generally a distressing symptom. The remission lasts from six to thirty-six hours or more, when the fever returns. The first exacerbation is often the longest, but the second is frequently more severe, and may set in without any premonitory chills or cold stage. If not now checked, succeeding paroxysms become more severe, with scarcely any remission, and a state of great prostration, with delirium, unconsciousness, a brown dry tongue, sordes, and hiccough, may supervene; yellowness of the skin and vomiting of bile and altered blood (black vomit) sometimes preceding death. The exacerbation may recur once or twice daily, but there is no regularity; the remission nearly always takes place in the morning, and is sometimes so slight that it may be overlooked. The character of the remissions, and the early or deferred return of the exacerbations, are indications of the probable severity or lenity of the attack. Well-marked remissions, free diaphoresis, diminished temperature, and headache or cerebral symptoms, are favourable indications; whereas higher fever, ill-defined remissions, accelerated exacerbations, with delirium, coma, and typhoid symptoms, vomiting of blood and bile, or symptoms of collapse appearing as the hot stage is passing away, indicate danger. The first attack sometimes comes on suddenly, with little, if any, premonitory warning, and without almost any cold stage, but it generally happens that there have been previous attacks of intermittent with imperfect and irregular intermissions; or in very malarious localities the first paroxysm of ague has been succeeded by a remission only. In favourable cases, amendment begins in from six to eight days, or sooner; the remissions become more complete; the patient sweats freely, the tongue begins to clean and moisten at the edges, sordes disappear, headache and thirst diminish, and the appetite begins to return. In a simple attack, the prognosis is generally favourable; but the brain, the lungs, or the abdominal viscera may be implicated, causing serious complications; sometimes the symptoms are so sudden and severe as to be mistaken for insolation; the patient passes rapidly into a state of fatal coma.

The type of fever will depend a good deal on the individual, as well as on the circumstances under which he is attacked. In the robust and plethoric young Englishman, it will be sthenic, or, as it has been called erroneously, inflammatory; the fever high, the pulse full and strong, racking headache, nausea, great thirst, and delirium, which will probably be followed by a well marked remission. Such cases are sometimes complicated by great solar heat, or by alcohol. In less robust individuals, there may be a tendency to the adynamic condition; the exacerbations reduplicate, the nervous power becomes depressed, and the patient passes into a low tremulous typhoid state, and the fever assumes a continued form. Sudden collapse may occur in this form of remittent; whilst, in the sthenic forms, cerebral symptoms, suggestive of apoplexy or effusion, may appear; but it is well to bear in mind that such symptoms may be a result of the direct action of the poison on the nerve-centres, and that convulsions, especially in children, as pointed out by Dr. Payne, are peculiarly likely to be so caused. Inflammatory cerebral mischief does occur occasionally, but the history of the case might encourage hope that the symptoms depended on malarial disturbance. The lungs and bronchi are liable to be implicated; congestion and inflammation may occur, and natives of India during the cold season are very prone so to suffer. Jaundice, either as the result of mechanical obstruction of the ducts or of arrested function, or bilious vomiting and epigastric tenderness, are of frequent occurrence; the spleen is not much enlarged, unless there have been previous malarial poisoning, nor is there the same amount of cachexia and anæmia as in intermittent, unless the disease have continued long or recurred often. Albumen in the urine is comparatively rare in remittent fever; whilst, in the yellow fever of the West Indies, it is said to be of constant occurrence. In any form of chronic malarial poisoning, the kidneys may suffer organically, and chronic Bright's disease result. Rheumatism is a frequent complication among the natives, but it occurs also among Europeans, and I not unfrequently find it to be a troublesome symptom in those who return to England for the recovery of health. It is chronic, nnd affects the extremities and trunk, but not the heart, unless it have preceded and been independent of the fever; it may be of the ordinary form, complicating the fever, but it is sometimes another mode in which the effects of malaria are expressed. Dyspepsia and irritability of the stomach are not unfrequent complications of chronic cases, causing debility and cachexia. Anorexia, flatulence, irregular bowels, irritability, nausea, eructation or vomiting, coated tongue with red edges, occasionally diarrhœa and abdominal tenderness, are present.

THE GULSTONIAN LECTURES
ON
PULMONARY CAVITIES: THEIR ORIGIN, GROWTH, AND REPAIR.

By WILLIAM EWART, M.D.Cantab., F.R.C.P.,
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Lecture III. Part II.

I have referred at some length, in the first part of my lecture, to the external changes which promote the collapse of cavities. Concerning the forces acting from within, which conspire towards the same result, my remarks must be brief. These forces are mainly: 1. The retraction of the trabeculæ; 2. The fibrous shrinking of the bronchi.

1. In respect of trabeculæ, it will suffice if I remind you of a statement contained in my last lecture. Owing to their derivation from collapsed alveolar substance, inclosing not only branches of the pulmonary artery and of the pulmonary veins, but frequently also the blood-vessels special to the wall of an adjoining bronchus, which has been laid open by ulceration, elastic tissue enters largely into their composition. In virtue of their elastic nature, trabeculæ, as long as they escape ulceration, must tend to approximate their points of attachment. The same observation applies to the denuded blood-vessels which stretch across the large vomicæ, due to caseous pneumonia. The tension to which I allude is often demonstrable in the recoil suffered by the segments of a trabecula, when the latter is divided. In addition to this purely elastic force, trabeculæ in chronic fibrotic cavities are apt to become the seat of a fibrosis, analogous to that occurring in the cavity-wall. The slow contraction peculiar to young fibrous tissue, in this case, associates itself with the elastic forces inherent to the original tissues, and contributes in no mean degree towards the result which I have indicated.

2. By the side of the influence exercised by trabeculæ, in lessening the distance between the opposed surfaces of a vomica, another force is exerted by the thickened bronchus, tending to produce a *retraction* of the cavity. Bronchi, in a state of health, are stretched between the root and the periphery of the lung; and, in virtue of the elasticity which they share with other pulmonary constituents, they would retract when divided. But this original elasticity, although appreciable, is small in comparison with the fibrous retraction of a more gradual nature, induced in the ulcerated air tubes by chronic irritation. The thickness acquired by bronchi connected with the cavities of phthisis is considerable; it is mainly due to an abundant growth of fibro-cellular material within the peribronchial sheath. The blood-vessels, richly supplied to the young tissue, undoubtedly possess some degree of elasticity, which should not be omitted as an additional agent of retraction, although clearly secondary in importance to the fibrotic shrinking. The results are striking: the bronchus terminating in a vomica becomes distinctly shortened in proportion to its thickening; and, by the shrinking of the bronchus, the cavity is drawn towards the root of the lung, and additional space is given at the periphery for the expansion of the alveolar tissue.

In large and chronic vomicæ, this special agency is obscured by the coincidence of many other changes; but in the case of smaller vomicæ, which have undergone contraction and have retreated from the surface, it is almost impossible not to recognise the action of a definite and continuous force, the direction of which lies in the path of the bronchus. My meaning will be made clearer by a reference to Fig. 6 (See Lecture III, Part I), where the retraction of the cavities has been depicted, diagrammatically it is true, but without exaggeration. I am the first to admit that this retraction is brought about by a combination of circumstances; among the latter, I hold the collateral expansion of the surviving tissue to be one of considerable importance. Compensatory hypertrophy, however, is a very complex force, the resultant of which cannot be expressed by a line, but rather by the surface-pressure more or less evenly distributed over all points of the circumference of the vomica. On the other hand, the force to which I would call your attention is obviously linear; its direction is clearly indicated by the course of the fibres constituting the ligamentous bands figured in the diagram (Fig. 6); and, were it possible to estimate the share which must be conceded to the other factors of retraction, its strength might almost be calculated from the thickness, from the length, and from the resistance of the bands. The view which I take of the existence of a retracting force, inherent to the diseased bronchus, receives support from a comparison of the conditions of the bronchial wall before the occurrence of excavation and subsequently to it. The shortening of the diseased bronchus is obvious to the eye, and its thickness from impalpable has become excessive. Again, instead of the remarkable pliancy of the healthy air-tubes, which adapt themselves with perfect ease to the to-and-fro movements of respiration, the rigidity which we observe in their thickened walls is such as to resist the stretching involved in a normal inspiration. From these various considerations, we are warranted in concluding that the retraction of the cavities is secondary to the bronchial changes, and is in a large measure dependent upon the peribronchial fibrosis.

It may be well, at this stage, to briefly recapitulate the forces which encourage contraction and retraction. The falling in of the thorax, the over-expansion of the surrounding tissue, the hypertrophy of the opposite lung, the rise of the diaphragm, and the growth of fibrous tissue, partly within the lung and partly in the pleura around it, all exercise some amount of constricting pressure upon the cavity; whilst the trabeculæ and the blood-vessels within them assist the tendency to contraction inherent to the capsule. Lastly, the remarkable displacement of cavities towards the root of the lung is the combined result of the traction, from the thickened bronchus, and of the pressure of the expanding pulmonary substance.

Contraction, which I have hitherto studied with you to-day, is but the first step towards the healing of cavities—the outcome of passive conditions, and of purely mechanical forces. Healing, I need scarcely point out, is a vital action, which presupposes not only an efficient, but an exalted state of nutrition. It implies agencies exactly opposed to those which have led to destruction of tissue. We have seen that phthisis, although originating in congestion, is ultimately productive of local anæmia. Softening or caseation is immediately preceded and is determined by a proliferation of cells within the alveolus, and, yet more important, by a cell-growth (well described by Dr. Wilson Fox) in the thickness of the alveolar wall, the combined result of which is to compress, and finally to obliterate, the capillaries. At this stage, the

vascular channels are choked by the growth of cells around them, and by the endothelial proliferation within. But, with the onset of reparative action, the balance of growth is reversed in favour of the blood-vessels. Cell-proliferation continues, it is true, but it is subservient, as in simple granulations, to the production of capillaries. Thus, in connection with the healing of cavities, we are led to inquire into the subject of their blood-supply.

As an introduction to this subject, I would quote a remarkable passage from Louis's *Researches on Phthisis* (Sydenham Society's translation, London, 1844, pp. 28-29).

"It was, no doubt, well known fifteen years past that the ramifications of the pulmonary artery penetrate neither into tubercle, properly so called, nor into grey semi-transparent granulations; but our knowledge on this subject has since then advanced. It is, in truth, now established by the inquiries of M. Schroeder van der Kolk, and more especially those of M. Natalis Guillot, that the branches of the pulmonary artery stop at a distance, one and a half, two, or two and a half lines (three, four, or five millimètres) from tubercles or grey granulations; and the more these adventitious productions increase in size, the further do the divisions of the artery stop from their perimeter. To such a degree is this true that, when tubercles are of large size, or have given place to cavities, they may be surrounded by a sort of involucrum, ten lines (two centimètres) broad, into which no ramification of the pulmonary artery makes its way. M. N. Guillot's injections (*L'Expérience*, tome i, p. 545) appear to me to render doubt upon this subject inadmissible.....The injections, dissections, and microscopical examinations of this observer likewise show that, during a space of time which is always very limited, the sort of involucrum in question exhibits no trace of vascularity. At the end of that period, a few red streaks with tapering extremities are perceived, the longest of them measuring half a line in diameter. These vessels, which are for a time perfectly unconnected with the rest of the vascular system, and consequently not the seat of apparent circulation, soon enter into communication with the bronchial arteries, or with those supplying the thoracic parietes. The connection with these latter vessels is effected by means of the false membranes so common on the pleural surfaces—false membranes themselves the seat of development of vessels, isolated at first, but eventually inosculating with the neighbouring arteries and the vessels of new formation. The seat of these vessels, as has been stated, is the interspace between the ultimate ramifications of the pulmonary artery and the periphery of the tubercle; but in the proportion as these multiply, enlarge, and soften, the vascular rete spreads in every spot where it has appeared, and ere long an entire lobe, oftentimes a large portion even of the lung, is the seat of this adventitious vascular system, replacing the pulmonary artery, the existence of which vessel ceases to be matter of demonstration."

I am not aware that the statements contained in this passage have since been disproved. It cannot be doubted that among the chief uses of pleural adhesions is the establishment of vascular continuity between the lung and the parietes of the chest. The probable existence of a normal vascular connection between the pulmonary artery and the bronchial system is a subject of considerable obscurity, ill suited for discussion in this lecture; but it may be stated that a case is recorded by Virchow, in which the bronchial system was found enlarged as a consequence of an impediment in the pulmonary supply; and I am in a position to adduce similar testimony in favour of a vicarious relation between the two sets of vessels. Whilst Curator of the Museum of St. George's Hospital, I exhibited before the Pathological Society a specimen which I now place before you, in which the right pulmonary artery was completely occluded by means of ancient fibro-atheromatous material. The lung, unfortunately, was not preserved. It was neither in a state of gangrene nor absolutely collapsed; but it was the seat of well-marked interstitial thickening. The blood-supply to this lung was obviously derived from some extraneous source; in a great measure, doubtless, from the bronchial artery. A similar specimen, which I have also placed on the table, had been exhibited before the Pathological Society in 1862 by Dr. Howship Dickinson. Here also the right pulmonary artery was completely occluded, owing to disease of old standing. In this case, the lung was considerably atrophied and fibrous, and the patient had suffered from severe dyspnœa.

Facts of this nature almost prove that the blood in the bronchial artery is capable of doing duty for the pulmonary blood, and that the substitution is facilitated by some pre-existing anastomosis between these two systems. In phthisis, the bronchial artery is not entrusted with any respiratory duties of this kind; its functions concern mainly the repair of the lung. This was admirably shown by Guillot's injections. The injections which I have attempted have not been sufficiently successful to be given as separate evidence; but their partial results were analogous to those of the French observer. The involucrum and the new vessels described by the latter I have also recognised; but I doubt whether the vessels of new formation are ever independent of the bronchial system.

A connection of the vascular network of the cavity with the bronchial artery is nothing more than might have been inferred from etiological considerations. If we bear in mind the purely functional purposes of the pulmonary distribution, we must conclude that the formation of fresh ramifications in a tissue deprived of air would be singularly inappropriate, and out of harmony with the complete obsolescence of the pre-existing set of arteries. Every probability points to their connection with the bronchial system, which has for its special office the nutrition not only of the bronchial tubes, but of the pulmonary tissue. In support of this view, we may adduce the great similarity found to exist between the inflammatory fibro-nuclear growth of the interalveolar tissue and the similar growth in the inflamed peribronchial sheath. The two structures may, indeed, be seen to merge into each other. A microscopical inspection of the tissues in phthisis not only shows that peribronchial irritation is inseparable from the disease, but that the inflammatory products in the alveolar tissues and around the bronchus are indistinguishable, and that the development of blood-vessels is identical in both.

It remains for me to apply these data to the study of the repair of cavities. If we are to trust to the results of Guillot's injections, and to the show of probability in their favour, every formative effort directed towards the limitation or healing of pulmonary lesions would originate with the bronchial vascular system. The development of capsules around cavities I conceive to take place in the following manner. The truncate extremities of the numerous bronchioles, intercepted by the vomica, become centres of inflammation and of fibro-nuclear growth, which soon overlap, and ultimately assume a continuous expansion, owing to vascular anastomosis. This continuity of the cavity-wall, and of the peribronchial tissue, is readily appreciable to the naked eye in many instances. The bright red colour of the bronchial blood-supply can be traced without any break from the air-tube into the capsule of the cavity, and the structural unity of the bronchus with the cavity-wall is equally evident. On careful inspection, this continuity is seen to be more absolute along the outer than along the inner surface. The peribronchial sheath passes entire into the capsule; but the internal surface of the tube is bevelled, and the mucous membrane thinned away at the entrance into the cavity. I have elsewhere insisted upon the danger of mistaking this condition for one of true bronchiectasis. In tubercular deposits, the comparatively limited size of the excavation, and the great regularity with which fibroid thickening and encapsulation occur within them, hand in hand with the process of destruction, render tubercular excavations specially liable to be thus mistaken.

The most characteristic feature of bronchiectasis is the continuous and unbroken mucous surface. Had I ventured, in these lectures, upon a study of bronchiectasis, I should have shown you that the last stage of a cavity of that nature is ulceration. To admit the bronchiectatic nature of the phthisical cavities provided with capsules, would be to admit the anomaly of ulceration occurring at an early date of the supposed dilatation. For with the microscope we seek in vain for any vestige of the existing membrane, or of the columnar cells, excepting within a limited radius of each of the bronchial orifices.

True bronchiectasis, when it occurs, is purely secondary, in my estimation, to the undue strain thrown upon the spongy structures which have escaped disease—its more common seat is within the upper sternal region.

We should equally guard against supposing that the capsule of the cavity is simply a distended bronchial sheath from which the other bronchial constituents have disappeared. It is in reality a new formation, continuous, but not identical, with the thickened peribronchial tissue. The nature of the relation existing between these structures is shown in one of the diagrams, which represents a cavity, invested with a fibroid layer clearly derived from a neighbouring peribronchial tract. The submucous tissue, and a few muscular fibres, in virtue of their more peripheral situation, and of their better vascular supply, are traceable a little beyond the mucous layer; but they also ultimately become merged into the fibro-vascular zone, which must now be termed, not the peribronchial, but the pericavernous sheath.

The practical result of what I have mentioned is of the greatest importance. Under the joint influence of the bronchial and of the pleural blood-supply, the reparative energy of which greatly outstrips that of the pulmonary circuit, the cavity is placed under circumstances of nutrition not far inferior to those of the bronchi themselves. In their power of resisting ulceration, they remain far behind the latter, mainly owing to the absence of a membrana propria, and especially of an epithelial layer. But, having regard to this deficiency, we can justly wonder that the necrosis should remain so limited as we observe it to

be. This is probably due to the bronchial nature, and to the abundance of the vascular supply, which is diverted from its original purposes to the service of the cavity-wall. The enduring power of the large pulmonary vessels for a time may help to consolidate the boundaries of the cavity; but it is a source of ultimate danger, owing to the gradual exposure and to the resulting varicosity of the vascular coats. The smaller blood-vessels of new formation, constituting the special supply to the cavity wall, present no such resistance, and their destruction follows strictly the level of the general ulceration; but serious hæmorrhage does not take place from them.

Whereas, in other organs, the obliteration of abnormal spaces is effected by a free *granulation* arising from the bottom of the cavity, surface-granulations are practically absent from pulmonary excavations. The occurrence, in the walls of cavities, of granulations worthy of the name, where it is observed, is, I think, clearly traceable to the influence of the systemic blood-supply. I have seldom witnessed strong, healthy granulation, excepting close to the orifice of the bronchus, or in portions of the cavity wall in immediate contact with the pleura. At both these points, the systemic blood-supply is peculiarly rich. In other situations, the granulating power of cavities is extremely weak. The absence of granulations is one of the great impediments to the healing of cavities.

Although it may be doubted whether pneumonic tissue is capable of producing granulations of good quality, I cannot admit the supposition that the lung-substance originally labours under any special disability of this kind. I rather hold that the invariable decay which overtakes granulations is the outcome of the mechanical conditions of cavities, and that, if freely drained, the latter would granulate successfully, and finally adhere. The air and the fluid present, in some cases, both offer an obstacle to the perfect contact of their opposed surfaces. In small cavities, the contraction of the membrane may be so complete as to expel all fluids; whilst the air may be finally excluded, owing to the obliteration of the bronchus. The same opportunities are not enjoyed by the larger cavities. The stagnation of their contents discourages within their walls the growth of granulations, at a time when the vascular conditions are most favourable. Sooner or later the necrotic action, which I have elsewhere described, exposes the fibrous constituents of the capsule, and ultimate cicatrisation is rendered improbable, unless contraction be rapidly induced, or the wall should become once more the seat of some degree of healing inflammation.

All situations do not afford like facilities for processes of healing. The upper lobe, owing to the preponderance within it of excavation, also supplies us with the largest number of instances of retrogressive cavities; but within this lobe further differences may be detected as to local facilities for reparative action. For a comparative study of these differences, clinical observation, although not always free from sources of error, supplies the necessary elements.

Most prone to heal are the cavities situated in the *inner subclavicular* district. The opportunities offered by this region are exceptionally good: the sternal lobe, when free from adhesions, as is usually the case in early phthisis, is capable of exercising by its hypertrophy effectual pressure upon the smaller cavities. Equally favourable to the limitation and ultimate repair of such cavities is the shortness of their bronchi.

Healing is more uncommon in cavities situated at the outer aspect of the apex, for there exists in this region a greater tendency to extension to the suprascapular region, and to secondary disease in the upper axilla; and, moreover, the deposition of a mass of secondary tubercle, commonly observed in this situation, generally leads to inveterate disease. More favourable by far are those cases where the pneumonic process at once involves the thickness of the outer apex. This enables the sternal region, which is supplied with independent bronchi, completely to expand, and the most brilliant instances of the virtual healing of cavities are perhaps afforded by this class.

Cavities situated in the *sternal* region do not usually occur from other causes than hæmorrhage, or as a late result of advanced phthisis. In the latter case, they are unlikely to heal; in the former, the possibility of a favourable termination is not excluded, although too often the cases in which blood is inhaled into this district present extensive disease elsewhere. The upper sternal region is probably more favourable for healing than the lower, which receives its bronchial and vascular supply from a greater distance.

In the *axillary* region, secondary excavation is, for obvious reasons, ill suited for recovery. The disease, constitutionally speaking, is invariably advanced, and the tendency to deterioration is progressive. The tissue immediately above is usually rigid, from the presence of active or ancient disease. Thus spongy elasticity, and the power of compensatory growth, are completely absent from the upper boundaries of the cavity, and the chances of its contraction are proportionately reduced.

Primary cavities in the axilla are placed under very different circumstances. They are surrounded by spongy material, capable of vigorous reparative action. I have frequently noticed, in the mid-dorsal or axillary region, small spherical scars, obviously the remains of small cavities; and I shall presently exhibit to you a specimen in which cicatrisation of a larger cavity, although uncompleted, had proceeded to a considerable extent.

Basic cavities are so uncommon, that the healing of vomicæ in this situation must be of very rare occurrence. The basic excavations, which belong to the last stages of the disease, are clearly unfitted for recovery, and to them I will not further allude. Probably many of the instances of healed basic vomicæ hitherto alleged, were really cases of mid-dorsal disease, in which the cavernous sounds were conveyed to the base by some transient consolidation. This is a mistake which it is sometimes difficult to avoid. Echo may have a share in the production of cavernous sounds at the base, when the original excavation situated in the opposite side of the chest is not in immediate contact with the spinal column. Dr. Mitchell Bruce, who alludes to this subject in his lectures on basic cavities (see *Practitioner*, March and April 1882) refers the causation of the phenomenon to a reflexion of the sounds along the bronchial tubes. It is sufficiently obvious that the disappearance of these phantom-caverns does not of necessity imply the healing of the original vomicæ. Again, in the large class of bronchiectasis, to which many basic cavities belong, the cavernous sounds are apt to disappear periodically, owing to the filling of the bronchial sacs, and an impression may be produced that a phthisical cavity has become obliterated.

Bearing in mind these sources of error, we shall feel the necessity of increased caution in resting upon mere clinical data a diagnosis of healed basic excavation; but, when due allowance has been made for these possible fallacies, it must be admitted that primary cavities may originate at the base in various manners, and that they are not incapable of recovery. I have already alluded to the accidental causes, such as injury, inhalation of foreign bodies, gangrene, empyema, and hydatid disease, and I have briefly mentioned the occasional presence of cavities due to syphilis; but, in the softening of hæmorrhagic nodules, we possess a cause for the localisation of disease at the base, which more specially belongs to the district of phthisis, and to which are probably to be referred most of those basic cavities in phthisis which are capable of healing.

If we review basic vomicæ independently of their origin and of their complications, it must be owned that they enjoy some unusual facilities for healing. One great disadvantage they all possess in common; I refer to the difficulty of drainage. Adhesions to the diaphragm also constitute, where they exist, a most serious complication; but, when we consider the amount of spongy tissue by which they are surrounded, the powerful cough-pressure which can be utilised for their voidance and for their contraction, we must conclude that they are, in these important particulars, singularly favoured; and we are led to surmise that cavities at the base may occasionally run through their stages unobserved, and ultimately heal more frequently than we suspect.

Closely allied to the subject of healing of vomicæ is that of encapsulated residues. Although there is much that opposes the view that vomicæ could ever assume the aspect of a solid mass surrounded by a capsule, the derivation of the products in question is so uncertain, that we cannot refuse to discuss any of the possibilities of the case. It may be safely asserted that these deposits are the outcome of some antecedent disease which has become arrested or cured. Of this I see no better proof than in the nature of their contents. The pultaceous masses I have found invariably rich in elastic fibres; and the size and abundance of the latter have suggested to my mind that the deposits were smaller than the area originally covered by the disease. This contraction could clearly have been induced either by excavation followed by closure, or by the mere shrinkage of a pneumonic consolidation. In deciding the question between these two origins, we should be guided by the presence or absence of a good-sized bronchus in the immediate neighbourhood of, or in contact with, the deposit. If in contact with the capsule and occluded, it is probable that the bronchus at some time or other was in open communication with the deposit, and that the latter was excavated, or at least ulcerated. From the character of the contents, we derive but little assistance. Cells may be recognised within them, both of the epithelial and of the exudative type. This demonstrates clearly enough that excavation, if it existed, had not proceeded to a complete removal of the inflammatory products. For the remains of extravasated blood, I have in vain examined the pultaceous deposits; but I am ready to admit that this

failure cannot be used as a conclusive argument against the hæmorrhagic origin which probably belongs to some of them.

I have imperfectly described to you some of the methods by which nature endeavours to heal pulmonary excavation. Although this great object is seldom fulfilled, we possess a clear proof of the energy with which the attempt is made, in the extent and the importance of the collateral results of a contraction of cavities. So much practical interest attaches to some of these results, that I shall venture to devote to their consideration the remainder of this lecture. The contraction of cavities is capable of exerting an influence in four chief directions: 1. upon the outline of the chest; 2. upon the shape of the cavities themselves; 3. upon the shape of the lung; 4. upon the position of the neighbouring viscera. Let us consider first the changes which are commonly induced in the outline of the chest. In estimating these alterations, we must not lose sight of pre-existing peculiarities of chest-formation, among which I need only remind you of the large thorax in chronic fibroid tuberculosis, and of the flattened thorax with drooping ribs, characteristic of catarrhal pneumonia. In accordance with these types, the changes referable to healed excavations may be slightly modified, but they are never completely veiled. Most constant is the occurrence of a local flattening over the site of excavation; in this, we possess one of the safest as well as one of the most obvious guides to a diagnosis of the latter. I have elsewhere sufficiently described the mechanism of this collapse. The local falling in of the ribs inevitably leads to a corresponding increase in the convexity of the costal arch. This secondary bulging of the outline of the chest is usually seen in the axilla: it supplies an important confirmation of the occurrence of excavation. A similar falling in may affect the whole side on which excavation has taken place; this is usually the combined result of excavating disease and of pleurisy. In these cases, the opposite lung is often of considerable size, and encroaches beyond the sternum. The clavicle is usually rendered more prominent, owing to the depression of the supraclavicular space, to the recession of the ribs, and to the atrophy of the upper part of the pectoral muscle. Extreme instances of this unilateral contraction closely resemble the deformity produced by pleurisy with lung-collapse, of which Laënnec has depicted so striking an illustration. Curvature of the spine, often of considerable extent, has repeatedly been observed by me; in youth, it is undoubtedly one of the active means of adaptation to altered thoracic conditions. In a striking case, this curvature was accompanied by a tilting of the pelvis.

As an instance of the varieties, too numerous for description, of the alterations in the thoracic outline, I have selected the remarkable case of a man aged 42, of whom I submit a photograph and cyrtometric tracing. You will not fail to notice that the left side of the chest,

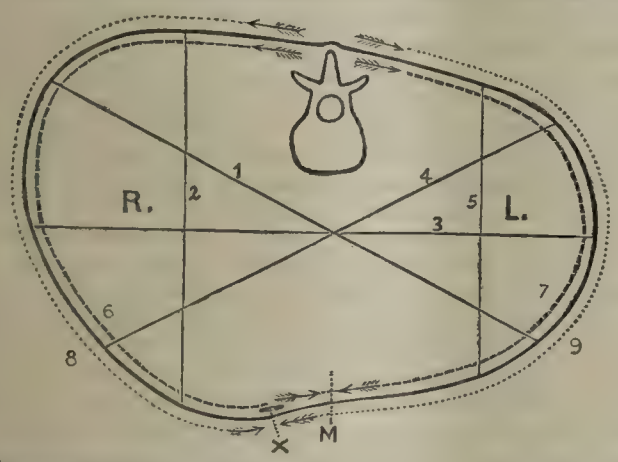

Fig. 8. Cyrtometric Tracing of Chest.

Cyrtometric measurements: (6) = $17\frac{1}{4}$ inches; (7) = $14\frac{5}{16}$ inches; (8) = $16\frac{3}{16}$ inches; (9) = $15\frac{1}{4}$ inches.

Lines: (1) = $11\frac{1}{6}$ inches; (2) = $7\frac{1}{2}$ inches; (4) = $10\frac{3}{16}$ inches; (5) = $5\frac{3}{4}$ inches.

M = middle line of body, passing through sternal notch. X = line drawn through xiphoid cartilage, parallel to M. Distance between M and X = $1\frac{1}{5}$ inches.

Right half of line (3) = $6\frac{1}{5}$ inches; left half = $5\frac{1}{4}$ inches.

viewed from the front, appears broader than the right, whilst posteriorly it is decidedly narrower. It appears probable that the dropping of the ribs, usually coupled with a recession of the sternum, was hindered in this case by the rigidity of the costo-sternal joints and the flattening of the costal arch, instead of leading to the usual bulging in the axilla, occasioned a displacement of the lower part of the sternum towards the right. The measure of this lateral displacement is indicated in the photograph by two lines, one being the middle line of the body bisecting the sternal notch, the other line, parallel to the first, passing through the centre of the xiphoid cartilage. The cavity which had induced these changes was of larger size, audible close to the spine from the upper scapular region to beneath the angle of the scapula; and the remainder of the left side was the seat of complete fibrosis. No history of antecedent pleurisy could be obtained from the patient, and the origin of the deformity appeared clearly traceable to excavation.

(To be continued.)

ABSTRACT OF LECTURES
ON THE
MORPHOLOGY OF THE MAMMALIAN SKULL.

Delivered at the Royal College of Surgeons of England.

By W. K. PARKER, F.R.S.,
Hunterian Professor of Anatomy in the College.

Lecture VII.—The Visceral Arches and Cranial Nerves of the Branchiata.

The visceral arches are the ventral parts of the cranial skeleton, and form the framework of the mouth and branchial apparatus. This region extends backwards further than the upper or cerebral part of the head. The lamprey, although not the lowest of the suctorial fishes, is most easily understood; and therefore may serve as a starting-point, especially as there is a close relationship between this type and the tadpole.

The proper cranial cavity in the lamprey lies entirely in front of the functional branchial pouches, which are seven in number. There are no intrabranchial cartilages, but the pouches are protected by a complex basketwork of extrabranchials, which also enclose the pericardium behind, and send a bar outside the hyoid region. There is no developed hyomandibular cleft. In this type, there are prolongations downwards from the basis cranii, which correspond to the suspensorium of the mandible and to the hyoid arch. There is no free mandible, and these first and second postoral arches are not differentiated from the basis cranii. There is a large lingual cartilage, which apparently corresponds to a basi-hyo-branchial in a very generalised condition. These rudimentary arches are supplied by the fifth and seventh nerves, which arise in front of the ear; but the nerve-supply of the seven branchial pouches emerges from behind the auditory capsule; the foremost branch of this forks over the first (hyo-branchial) cleft, and corresponds to the glosso-pharyngeal; the other six branches fork over the clefts behind, and all belong to the vagus. But the vagus is a cranial nerve, arising by several roots; and, in such forms as Notidanus amongst the Selachians, it passes out of the skull by several foramina. Hence it would appear that the cranium of the early extinct forms of vertebrates must have been of great length: for, leaving out the two first pairs of cranial nerves, as not corresponding in origin to the rest, we have to account for five pairs of pre-auditory and seven pairs of postauditory nerves, counting the vagus as six.

In the proper myxinoids (Myxine and Bdellostoma), the branchial pouches have retreated so far back, that the forepart of the heart and the hinder part of the last pouch lie under the twenty-fifth pair of spinal nerves, which is as far back relatively as the heart of the swan. In Myxine, the branchial pouches of one side all open by a common aperture; Bdellostoma more nearly resembling the lamprey, in that it has a separate opening for each. These pouches have no superficial basketwork protecting them, but in the head there is a considerable outgrowth of non-segmented visceral arches—the archaic ends of the proper intrabranchials of the higher fishes; but these are in a very generalised condition. There is no free mandible, but the hyoid region is well developed, and is continuous below with an enormous and complex lingual cartilage, behind which there is another basi-branchial piece.

The next higher form of visceral arches is seen in the tadpole. Here, again, the suspensorial part of the lower jaw is a large arched outgrowth from the skull, with which it is continuous both before and behind. In the larval state of the mouth, each ramus of the rudimentary lower jaw, now free as a Meckel's cartilage, is in the front of the face, the suctorial disc being placed between the two. For some time, the only part of the hyoid arch which is developed is its lower region —the cerato-hyal; and each of these is continuous with its fellow below

by a soft basi-hyal tract. The upper part of the hyoid arch (pharyngo-hyal), two or three weeks after the development of the cerato-hyal, is formed as a small stapedial plate. Afterwards, in most species, the second pharyngo-hyal is formed; and this may break up into three segments, and so give rise to an auditory chain of four pieces, viz., stapes, interstapedial, medio-stapedial, and extra-stapedial. Behind the distinct basi-hyal, there is a large first basi-branchial, with a rudiment of a second; and, embracing these, two broad hypobranchials, whose inner edges meet. From the upper surface of these arise on each side four small rudiments of cerato-branchials; but the support of the three branchial pouches, with their copious tufted gills, is a framework of four pieces of large extrabranchials continuous with each other above and below, the second and third pairs being broad bands, and the first and fourth large pouches; these send inwards short processes, so that the arches become pectinate. These four cartilages correspond with the four bars which protect the first three branchial pouches in the lamprey.

Most Urodeles possess four branchial arches, some forms only having three. In any case, only the first three carry gills, which are epiblastic in origin, and each of which is single and feathery. The hyomandibular cleft does not open; and the pier of the mandible is very complex, being attached to the skull by three processes behind, and sending forwards a pterygoid process, which is continuous with the one or two separate cartilages in the ethmoidal region. There is a large cerato-hyal bar, and the distal part may be broken up into three or even more pieces. In some of the larger forms of Urodeles, there is a separate epihyal, which coalesces with the suspensorium. In all, a small pharyngo-hyal rudiment fills the *secondary* fenestra ovalis as an opercular plate; and in some kinds, such as Menopoma, Cryptobranchus, Spelerpes, and Desmognathus, there is a second pharyngo-hyal nucleus of cartilage, which becomes partly ossified from the stapedial plate; thus we have an auditory columella, or incudo-stapedial rod. The subdivision of the branchial arches is much less than in fishes; only the two first are divided at all, and these have a very short cerato-branchial in comparison with the epibranchial. This latter segment loses no part above as a pharyngo-branchial. There are two basi-branchials. The part which supports the larynx—the so-called thyro-hyal—differs in these two types; that of the Urodeles resembling the bird, in that the dilated distal end of the second basi-branchial performs this office; whilst in the frog, as in the mammal, the larynx is supported by hypobranchial bars. The gill-arches become largely absorbed both in Urodeles and in Anura; but these will be referred to again when describing the Branchiata.

In the Selachians, we find the most perfect development of the visceral arches, all of which in an early state bear branchiæ. The first of these forms both the upper and lower tooth-bearing cartilaginous jaws, whilst the hyoid differs but little from a normal branchial arch. The upper part of the first arch (pterygo-quadrate) is attached to the skull by ligaments, one in the ethmoidal, and the other in the post-orbital region. The pedicle in this part is deficient: it is represented by a separate metapterygoid cartilage in the skate, and by from one to three small rays in the shark. In most forms, the upper part of the hyoid arch (hyomandibular) carries both its own lower segment, and is also attached to the hinge of the jaw. Hence this kind of skull is called *hyostylic*.

In Chimæra, as in the Dipnoi, the hyoid does not assist in supporting the mandible, the pier of which is fixed to the base of the skull, and thus the skull is spoken of as *autostylic*. In a few Selachians, however (viz., Cestracion, Notidanus), there is a sort of transition between the two; hence called *amphistylic*. The hyomandibular of the shark corresponds to a pharyngo- and an epi-hyal, and is directly in a line with the lower piece; in the skate, it is merely a pharyngo-hyal, and is dislocated forwards from the rest of the arch. There is in both types a single basi-hyal.

The branchial arches are divided into the normal pharyngo-, epi-, cerato- and hypo-branchials, with a basi-branchial plate common to them below; this is nearly divided longitudinally into two parts in the skate, but in neither type is there any cross segmentation. In the hyoid of the shark, the branchial rays are pectinate, but those on the branchials are simple; each of these latter arches has an extrabranchial outside. In skates, the rays are all simple, and dilated at their ends, and there are no extrabranchials. There are seven arches behind the hyoid in Heptanchus, six in Hexanchus, and five in all other Elasmobranchs.

In the Sturgeon, the arches are more or less ossified, and rays still linger on them, but there are no extrabranchials; the pharyngo-branchials of the two first are double. The mandibular and hyoid arches are greatly modified; the pterygo-quadrate and Meckel's cartilage are not large, and are very free under the skull. Their upper part is fastened behind to a large shield-shaped metapterygoid plate, composed of a tesselated series of paired and unpaired cartilages. The hyomandibular is immense, and a separate symplectic is detached from it; between this and the cerato-hyal there is a separate interhyal. There is no separate epihyal; this seems to be included in the hyomandibular. The middle of the hyomandibular and the cerato-hyal are greatly ossified. This is the most pronounced of all hyostylic skulls.

Lepidosteus approaches the Teleostei, but the separate metapterygoid bone is articulated with the skull, and the hinge of the mandible is far forwards; there are also mesopterygoid and palatine splints. The palato-pterygoid cartilage is not ossified, and is free in front. The symplectic is separately ossified, but not cut off as in Acipenser. There are five proper branchials in both Lepidosteus and Acipenser, but the hinder ones are imperfect. The skull of Lepidosteus is amphistylic.

In Teleosteans, the skull is hyostylic. The palatines are ossified and articulated with the skull, and there is a quadrate and a metapterygoid, besides the pterygoid and mesopterygoid splints. The symplectic is a separate ossification of the large hyoid pier; both the interhyal and epihyal are ossified, the latter as a separate centre of the cerato-hyal piece. The hypohyal, as in Lepidosteus, is segmented off; in the latter, it has one bony centre, while in Teleostei there are two. In both types, the glosso-hyal (or basi-hyal) is generally bony and dentigerous. The five branchial arches are more or less ossified, are normally segmented, and have no cartilaginous rays, but small bones and tooth-rasps. They degenerate behind; and, in Teleostei, the pharyngo-branchials carry teeth to oppose those on the last rudimentary arch—a mere cerato-branchial, which is spoken of as the inferior pharyngeal bone, the upper dentigerous pieces being called the superior pharyngeal bones.

CARDIAC THERAPEUTICS.

By E. WOOD FORSTER, M.R.C.S.Eng., L.S.A., Darlington.

Case I.—In June 1880, I was called to attend a young gentleman about fifteen years of age. I found that he had suffered for some time from intermittent pains of the left mammary region; that he complained of being soon tired—soon pumped out; that his breathing, too, would be inconveniently rapid after running or undertaking an ascent. There was also a history of nervousness, of being easily startled, of considerable timidity, and of calling out in sleep. His family is subject to hereditary renal disease; and upwards of two years before this time there had been, to my knowledge, albuminuria without organic disease. Now, the urine was clear and non-albuminous.

The functions of the liver and stomach were healthy. Examination of the heart showed absence of valvular lesion, but slight hypertrophy with energetic impulse, and pulsations about 100 per minute: an intense condition of cardiac irritability. There was not an actual intermission of pulse-waves; but it was very noticeable that a succession of stronger beats was followed by a succession of feebler ones.

In connection with hygienic influences, digitalis was administered on the 18th, five drops three times a day in half an ounce of simple water, and continued until the 30th of June. To this time it had not "quieted the system"; but the neuralgic stitches of the mammary region were well, and the pulse-waves flowed more regularly. The cardiac irritability, with high pulse-beat and disagreeable nerve-consequences, still remained. On the 30th, three drops of veratrum viride were repeated three times a day in half an ounce of simple water. This treatment was most efficacious, so that in two or three days the medicine was ordered to be taken only once a day, or every other day, and was discontinued at the end of the fortnight.

I believe it would have been more therapeutically correct to begin at once with the veratrum. The general system of arterioles was healthy, and did not require to be interfered with. The indications were that the heart-muscle was the organ to which a remedy ought to be applied. It was not the regulating apparatus that was at fault, but rather the musculo-motor to which attention was to be directed. Digitalis therefore failed, because it is a musculo-motor stimulant. This was not required in such a case as I have just described.

Veratrum "diminishes the force of the heart-beat by a direct influence on the cardiac muscle" (Wood)—I presume through the musculo-motor ganglia. And the advantage of the small dose is that, firstly we so use our remedy that its influence does not extend to other organs but is expended on that organ which, being diseased, most sensitively feels its therapeutic power; and, secondly, we keep clear of inducing any disagreeable effect on the patient; and thus, by keeping well within the therapeutic dose, we can effect a "safe, speedy, and permanent cure, whenever a cure is possible".

CASE II.—On May 18th of last year, I was consulted by a lady of about seventy years. She came panting into my room, with livid lips, dilated nostrils, and a bumping heart. There was evidence of an obstruction of the liver, with some stomach-derangement, and scanty urine, containing urates, but non-albuminous. There had been for a month œdema of the right leg. There was mitral disease (said to be hereditary), rapid cardiac action, pulse 90, palpitation, intermission, and a short dry cough. Undoubtedly the heart was primarily at fault; but its condition was aggravated by the obstructed state of the hepatic system, the consequence of its own incompetency. By the third day, these obstacles were removed; the colour and odour of the evacuations became natural; and the urine increased in quantity under small doses of mercury.

Attention was now entirely given to the heart, and tincture of spigelia (Savory and Moore's) was administered. This is a powerful remedy in suitable cases; to this I can testify. (See Phillips; also Sharpe in *Practitioner*, May 1878, p. 331.) It was given because of its special action on the heart. The kidneys, acting well, did not require the subordinate action of digitalis. Likewise, the rapid irritable state of the cardiac muscle seemed to imply nervous excitement; therefore the exclusion of digitalis. However, spigelia failed to relieve, in five-drop doses thrice daily, the cardiac oppression and its concomitants. Why did it fail? Therapeutically, it was a wrong remedy. The small dose kept up the force and frequency of the heart's action. It probably acted as a stimulant to the accelerator nerves, and tended to increase the venous congestion. If I had given large doses, I might have considerably lowered the pulse; but then spigelia at the same time physiologically produces palpitation, with strong beating.

On the 25th, the cardiac agitation, dyspnœa, and hot dry skin pointed, with no uncertain indication, to aconite. One minim of Fleming's tincture was given in half an ounce of simple water thrice a day. Its efficiency was quickly apparent. In the course of a week, there was amelioration of all the symptoms; and, when I saw the old lady on July 4th, she was well and jocose.

"The method by which the aconite influences the heart is not certainly settled" (Wood). Therapeutically, in small doses, its beneficial influence is exercised through the cardiac ganglia. The hot dry skin was an important indication of treatment. Aconite, being known to dilate the arterioles, and to "increase the capacity of the vascular system" (Ringer), promotes perspiration and relieves congestion. Thus we obtain, in addition to the direct action on the cardiac ganglia, a powerful drain to the surface.

In weighing the probabilities between veratrum and aconite in a case of cardiac disease, we should deliberately consider the totality of symptoms present in the particular case. In the former case, veratrum was chosen, because of its direct effect on the heart *only*. The kidneys were acting normally; the skin also was normal; and temperature was normal; therefore, to have given aconite in such a case would have been a needless waste of aconite influence, and might possibly have produced a feeling of increased lassitude. In the latter case, veratrum would not have touched either the kidneys or the skin. As aconite embraced these within its beneficial range, it was emphatically *the* remedy, and did not require the clumsy expedient of combining with it spirits of nitre, or potash acetate, to effect that which it was quite capable of doing alone.

The advantage of the single medicine is its simplicity, and its accuracy in operating *only* upon the diseased organ in proper therapeutic dose, which must be far removed from the physiological one.

If a medicine have a special action upon a special organ or part in health, so it would seem very desirable and judicious to administer that particular remedy in disease of that same part which appropriates the remedy in health. But we must bear in mind, as a clinical fact, that the tissues in disease are much more sensitive and responsive to the action of a drug, so that the dose to be then therapeutic must be small.

ANDOVER.—Mr. Farr has little to report for the past year. He states that of the total deaths (144) 64 occurred amongst persons over 60 years, and children under five years of age—a result which is attributed to the unusually severe weather which prevailed in the early part of the year. Of the zymotic causes, scarlatina was the most fatal, causing seven deaths, typhoid fever being credited with three, diarrhœa with two, and measles with two. Diseases of the chest were fatal to 13 persons, and heart disease to eleven, phthisis causing two deaths only. Alluding to the prevalence of typhoid fever Mr. Farr states, an inspection of the surroundings of the 43 cases which happened showed that they were due, directly or indirectly, to imperfect drainage. In this connection it is satisfactory to note that the Town Council have before them a scheme for the construction of a complete system for the disposal of sewage, and in other ways seem alive to the importance of their duties.

A NEW PROCESS FOR THE ESTIMATION OF URIC ACID.

BY EDMUND ALLEYNE COOK, F.C.S., L.R.C.P. & S.Ed., etc.

THE published methods for the estimation of uric acid are numerous; but, from the now classical mode of adding hydrochloric acid and crystallising, to the last of Pavy, they are either unpractical or otherwise unsatisfactory in their application to the estimation of the uric-acid in urine; nevertheless, the number of efforts made in this direction are sufficient proof of the desirability of a good process.

The process of precipitation by hydrochloric acid is unsatisfactory, on account of the whole of the acid not being thrown down, even after prolonged standing, and the proportion left in the solution, if urine be the substance operated on, is very different from that which remains after the decomposition of a simple urate solution, and varies with the varying constituents and the gravity of the original liquid. In 1871, Salkowski proposed to precipitate the urine by hydrochloric acid, and then, after removing the precipitate, to render the solution ammoniacal and filter, and then precipitate by a solution of nitrate of silver; but this process never found favour: for, although to a certain extent more accurate, it was much more troublesome.

From a table of twenty-eight experiments, the following are extracted.

No. of Experiment.	Urine in c.c.	Specific Gravity.	Uric Acid in 200 cubic centimètres.			Uric Acid Absolute Amount.
			By HCl.	By Ag NO_3.	Total.	
15	1040	1019	0.0275 ..	0.031	0.0585	0.304
16	880*	1018	0.087 ..	0.026	0.113	0.477
17	1230	1018	0.033 ..	0.070	0.103	0.633
19	1500	1014	0.0 (!) ..	0.031	0.031	0.232
23	—	1018	0.037 ..	0.044	0.081	—
26	900*	1017	0.0085(!) ..	0.059	0.0675	—

This process was commented upon by various observers, and it will be seen that, if it is to be considered accurate, we must modify greatly our ideas of the quantity of uric acid passed by an adult, as the results given are manifestly low.

Later, Bunsen proposed a method by heating the uric acid containing fluid with baryta, in a closed tube, with certain precautions; but the process is not readily executed, and not accurate.

In 1875, Fokker proposed a new method, which he considered not free from error, but still, more accurate than those then existing. It consisted in rendering the urine alkaline, and adding sufficient ammonium chloride to precipitate the uric acid as acid urate of ammonia; this was collected, treated with acid, washed, dried, and weighed. This process is certainly more accurate and practical than any previous, but it still seemed unsatisfactory: for, only a short time back, we find a proposal to revert to the old hydrochloric acid process, with the modification of violent agitation.

Pavy lately proposed a method by which the reducing action of uric acid on an alkaline copper solution was taken advantage of; and he showed that, in normal urine, his process was accurate enough, provided no other substance capable of reducing copper solution was present. I have tried this process, among others, and think it still leaves much to be desired. The colour of the urine is very apt to mask the terminal point of the reaction; and, it appears to me, urine is too varying a fluid to hope to apply any volumetrical method to any constituent which exists in it in so small a percentage as does uric acid.

In contemplating some physiological experiments, all these processes, and some others, were passed in review, and found unsuitable; and, therefore, efforts were made to devise a better mode.

The amount of uric acid daily excreted by a healthy adult is variously stated by different authors, and is generally thought to be below ten grains per day, while the amount of urine passed averages fifty ounces. Taking these figures as accurate, it will be seen that the uric acid solution voided is equal to 1 in 2400, which is certainly a very dilute solution. The urates are all slightly soluble in water, and a very insoluble compound would be necessary in order to precipitate a proportion of uric acid so small as exists in ordinary urine.

After many trials, it was found that urate of zinc was probably the most suitable insoluble compound to form a basis for a process to estimate the acid. If to a solution of urate of soda, slightly alkaline, a solution of zinc sulphate be added, a white gelatinous precipitate will be thrown down; and if 100 c.c. of a very dilute solution of zinc sul-

* Not all.

phate be taken, and one or two drops of a solution of urate of soda, containing .648 grm. of uric acid, in 100 c. c., be added, a permanent precipitate of urate of zinc will result; and, although this precipitate is certainly soluble, it is very slightly so in neutral or slightly acid solutions. It is soluble in caustic alkali and in free acid.

If 10 c. c. of the above solution of urate of soda be placed in a urea estimation apparatus, with sodium hypobromite, it will, at 60° Fahr. and 30 in barometer, yield 8.5 c. c. of nitrogen gas. If 10 c. c. of such a solution be added to 90 c. c. of water, and precipitated with a strong solution of zinc sulphate, the precipitate washed with water saturated with zinc urate and then filter and precipitate placed in a urea estimation apparatus, with sufficient sodium hypobromite of full strength, it will yield 8 c. c. nitrogen at the above temperature and pressure.

To apply these facts to the estimation of uric acid in urine, it is sufficient to take 300 or 400 c. c. of the urine and add a few drops of strong solution of caustic soda, enough to render it decidedly alkaline; allow the precipitate of phosphates to subside, and pour off 100 c. c. of the clear solution; add to this clear solution about 4 c. c. of a solution of zinc sulphate, 1 in 3 strength. The solution of zinc sulphate renders blue litmus red, and it must be added to the urine until a drop of the mixture on blue litmus gives a slightly red circle. If the solution be too acid, a drop or two of caustic solution will render it neutral. The precipitate is thrown on a filter, and washed with a saturated solution of zinc urate. This solution is made by adding a little zinc sulphate to distilled water, and then adding urate of soda until a permanent precipitate remains; this is allowed to subside, and the solution is used for washing until all urea and ammonia are removed. The drained precipitate is folded in the filter, and placed, with 50 c. c. of hypobromite of sodium of full strength, in an urea estimation apparatus, and agitated carefully. The gas evolved will be an indication of the amount of uric acid present in 100 c. c. of the urine. The evolution of gas does not commence immediately, and there is sufficient time to insert the stopper and note the number at which the water stands in the gas-tube. If a reaction begin immediately, the precipitate has not been sufficiently washed. The reaction is complete at the end of half an hour, without the application of heat. On many occasions, when the urine precipitate was mixed with the hypobromite, a blue colour appeared, and again disappeared, and at first this was supposed to be due to a substance other than uric acid; but, in repeated experiments with urate of zinc, made from pure white crystals of uric acid, the same blue colour was observed. This blue is not indigo. A quantity of pure urate of soda was precipitated with zinc sulphate, and washed; the precipitate mixed with distilled water, and hypobromite of sodium added drop by drop; the colour appeared, and deepened to a dark blue. Tartaric acid was then added, when the colour disappeared, and would not return when the solution was rendered alkaline; nor on further addition of hypobromite. The zinc precipitate can be dissolved in caustic soda solution, diluted, and used with boiling Fehling's solution, in the manner proposed by Pavy.

Effect of the Presence of Ammoniacal Salts on the Precipitate.—Ten c. c. of the standard solution of urate of soda were added to 90 c. c. of water, and 1 grain of ammonium chloride added. The mixture was then precipitated as usual with zinc sulphate, filtered, washed, and placed in urea apparatus; the gas yielded equalled 8 c. c., indicating that the presence of ammoniacal salts is not detrimental, as the whole of the ammonia can be removed by washing.

Hippurate of zinc is soluble in water, and the other nitrogenous constituents of urine, if precipitated with the uric acid, are in too small amounts to sensibly affect the result.

With a filter pump, the precipitation, and washing, and evolution of gas, may all be completed in one and a half hours; and, of course, several experiments may proceed at one time.

Although this process will not give a mathematically accurate estimation of uric acid, it is one which, with ordinary care, will give very approximate results; and, although it may be urged that the solubility of zinc urate may be greater in urine than in water, yet the results of a number of experiments will always be comparable with each other. It may be possible that, under special circumstances other substances may be precipitated, and may interfere with the estimation, yet, in normal urine, the sources of error are small, and a series of estimations have given very interesting results; moreover, there are many drugs which will not themselves affect the composition of the precipitate, and therefore are no bar to accuracy.

In describing his new process for uric acid estimation, Pavy suggests that, if his results be confirmed, the normal amount excreted by a healthy adult is much higher than has been hitherto supposed. The results obtained by the above-described process confirm this observation; and in a series of experiments, carried on with but slight intermission for three months, the total uric acid excreted by one individual, in apparent health, was never less than 10 grains, and seldom less than 12 grains, per twenty-four hours; while many apparently trivial circumstances increased the amount largely. The results were occasionally confirmed by decomposing the zinc precipitate with dilute sulphuric acid, drying and weighing the resulting crystals. It was found that, when hydrochloric acid was used to dissolve the zinc urate, there was much less tendency for the uric acid to separate. The results of a series of observations, and the effect of the administration of various drugs in a healthy individual, will be given in a future paper in detail; but it may be stated here that any results, based on the estimation of urine voided at any given period of the day, are utterly fallacious; and, further, an estimation, based on the analysis of the urine of any one period of twenty-four hours, is also apt to be misleading.

SOME PRACTICAL POINTS IN THE TREATMENT OF HÆMOPTYSIS.*

By JAMES M. WILLIAMSON, M.D.Edin., Ventnor.

In bringing forward, in a very brief manner, some practical points in relation to this question, I will, for the convenience of the first part of my object, divide cases of hæmoptysis into three kinds: first, the slight; second, the copious; and third, what may be termed the explosive.

In the *slight* form, the basis of the sputum is composed of mucus which is stained more or less deeply with blood, the bleeding vessel being of small size. The most successful remedy for this form is ergot.

In the second or *copious* variety, the expectoration consists of pure blood, the quantity of which may vary up to a very large amount; and the bleeding ceases gradually until the attack is over. Here again the most successful remedy is ergot, and indeed it is in this kind of hæmoptysis that ergot is especially efficacious. In order to prove efficient in hæmoptysis, however, ergot must be given boldly. One teaspoonful of the liquid extract is a suitable dose, and it may be ordered every half-hour, hour, or two hours, according to the urgency of the case. If it is doing good, it is a mistake to leave it off before the sputa are bloodless, although the intervals between the doses will be lengthened as the hæmorrhage abates. In a few of these cases, ergot will fail; not in many, but now and then. If seven or eight doses be ineffectual, it is best to abandon it. The next remedy worthy of confidence is gallic acid, which it is necessary to give freely, in doses of fifteen to twenty grains, at intervals the same as in the case of ergot. Should there be tedious delay in the final clearing up of small traces of blood from the sputa, an acid mixture with quinine is usually effectual; or, if very obstinate, ipecacuanha, in twenty-minim doses of the wine pushed to slight nausea, will generally remove them.

In the third or *explosive* variety of hæmoptysis, the attacks are profuse, sudden in their onset, all at once ceasing, often for many hours, then abruptly bursting out again. There is no gradual subsidence. The lesion is probably a rupture of some aneurysmal sac in the wall of a cavity. Now it is in these cases that ergot is hardly ever of much use. In my experience, the best remedy is turpentine internally, with cold applications over the chest. Three half-drachm doses of oil of turpentine may be given, half an hour apart; or, if care be taken to follow it with castor-oil, even more than three. When the turpentine is left off, it is well to follow up closely with a mixture of gallic and aromatic sulphuric acids, sulphate of magnesia, and quinine. It is particularly in this type of case that digitalis is often useful for calming vascular excitement. As the patients often make blood very rapidly, the free use of aperients ought to be enjoined.

Nothing would be easier than to quote a long string of remedies for hæmoptysis, but my present object is to leave prominently on the mind one or two that are to be relied upon, and to indicate their spheres of usefulness. Nor is it necessary to dwell on certain instructions which apply to all forms of blood-spitting. Constipation must not go unrelieved, and is best treated by salines. A quick pulse must be steadied by digitalis, of which perhaps the most handy form is the digitaline granule of Homolle and Quevenne. Cough is to be soothed; the simpler the mode of accomplishing this the better, but it must be done; and nothing answers better for this than a chloroform pad laid over the sternum.

Speaking in a general way, and not alluding to hæmoptysis of cardiac origin, I hold that we should keep before our minds the advisability of stopping all blood-spitting in phthisis without delay. To this rule, perhaps, there are two exceptions. The first is trivial. It is

* Introduction to a discussion on the treatment of hæmoptysis, at the January meeting of the Isle of Wight District of the Southern Branch.

that dirty-red, slimy, bad smelling, never abundant expectoration which hysterical women with phthisis often exhibit at the bottoms of their spittoons; this may be left to itself. The other exception is a serious one; it comprises those forms of hæmoptysis, usually copious and angry, occurring in advanced and very chronic cases where there is a considerable amount of fibroid induration. In such patients, notable dyspnœa on exertion has for a long time past been a prominent symptom, and respiration has been maintained by a very small extent of lung-substance. These cases are open to a special danger—that of fatal embolism in the right chambers of the heart or the pulmonary artery. Not uncommonly, the course followed is for the bleeding gradually to abate in quantity, remaining, nevertheless, of the same angry red; then urgent dyspnœa suddenly sets in, and death takes place within forty-eight hours. These are cases calling for extremely careful treatment. Can it be right, where only a small surface is available for respiratory function, to contract those few vessels with ergot? Or can it be good practice to pass styptic medicines into a patient's circulation when his cachectic state, his low vitality, and perhaps some febrile movement, render him especially liable to the formation of thrombi? It is wisest to limit ourselves to external applications, chloroform-pads, dry cupping, sinapisms at a distance or other derivative treatment, with appropriate general management.

Perhaps I may be allowed to conclude with two cautions, commonplace they may seem, but both of them the outcome of bedside experience. One is, to have some responsible person in attendance night and day, on all cases of severe bleeding, till the attack has completely passed away. Death in hæmoptysis is generally sudden, and it is very appalling to discover too late the consequences of omitting this precaution. The other is, to decline positively to examine a patient's chest while there is any hæmoptysis. Irrespectively of the danger of the process, an opinion arrived at by auscultating a chest during or immediately after a bleeding is not a reliable one.

NOTE ON A CASE OF PSEUDO-HYPERTROPHIC PARALYSIS (?): RECOVERY.

By H. DONKIN, M.B., F.R.C.P.,
Senior Assistant-Physician, Westminster Hospital; Physician to the East London Hospital for Children.

On the 19th of November last (1881), I saw a boy six years old among my out-patients at Westminster Hospital, whose mother brought him on account of his having been unaccountably "falling about" for a week, and being quite unable to run or walk fast. She stated that he had been "slow and inactive" for about five or six weeks previously, and that she had noticed that his calves and buttocks seemed larger than before. These facts were given spontaneously, not elicited by questions.

The child's previous medical history included the occurrence of some inflammation of the eyes at birth, measles, and whooping-cough. At three years old, he was observed to be excitable and passionate, this state lasting some months; but he had no "fits" of any kind. The only other child in the family died at the age of six months with diarrhœa. There was no evidence of parental syphilis. The mother had had two miscarriages; and the history of the father, who is dead, was obscure. Subsequent inquiry failed to find the trace of any affection like pseudo-hypertrophic paralysis in the mother's family.

The boy stood with his legs wide apart, straddled and swung from side to side as he slowly walked, fell down on attempting to walk quickly, and was unable to raise himself from the sitting posture without pressing on one of his knees, and previously turning round and sitting on all-fours. There was protrusion of the abdomen, and a noteworthy degree of lordosis. On stripping him, it was obvious to me and the students who were present that his calves and buttocks were remarkably large for a boy of his size. The skin, especially over the lower part of the body, was markedly mottled; and, after repeated trials, I failed to elicit the knee-jerk, except perhaps very slightly in the left leg. Knowing, however, how erroneous it often is to attach any value to the absence of this latter phenomenon in children, and the general want of knowledge about the importance of this symptom at all, I mention it only because, on the recovery of the boy, which is the excuse for this record, the knee-jerk was elicited in both legs with as much ease as could be expected in the case of a rather excitable child. There was not any obvious enlargement of the muscles of the upper extremity. But I was able on that day to make but an imperfect examination, and unfortunately postponed both the measurement of the girth of his calves and all further methods of inquiry. Owing to an unavoidable absence, I did not see the case again till January 7th, more than six weeks after the first visit. Then, to my surprise, beyond some waddling in walking, I noticed no symptoms of loss of power. The boy could run with ease, and raise himself from the ground in the ordinary manner, even without placing his hands on the floor. The calves still appeared to me to be somewhat large; but the mother, again spontaneously, observed that both the calves and buttocks had "got quite small again". There was no mottling of skin. On the 14th, I saw him again. He still waddled slightly in walking; and I again failed, as I had also on the 7th, to produce any knee-jerk after careful trial. The mother believed the child to be now quite well. On the 21st, I could detect nothing abnormal about the child or his movements, with the exception of the knee-jerk symptom. I saw him again on February 10th, when I did not examine him; and for the last time on March 11th, when I found the appearance of the body normal; the gait in no way altered; running performed with perfect ease; and the knee-jerk produced with tolerable readiness.

The treatment I ordered from the first was complete rest; the boy having previously been exercised by the mother, believing, as she did, that he was careless. For medicine, as he looked somewhat weakly and pale, although quite cheerful, I gave him our mixture of iron and nux vomica. This he discontinued taking on February 10th.

I am well aware that this is but an imperfect report of the case, and that the diagnosis may be open to question. Still there is enough to show that we may have to look out at least for a set of symptoms *simulating* the disease about which so much has been written and so little is known. And there would seem to be no reason in nature why there should not be some temporary affection of the nerve-centres (even if this disease be regarded as connected with changes in the cord) giving rise to transient symptoms, just as we have the same possibility hinted to us in the occurrence of other forms of recovering paralysis.

I would disclaim any very probable connection between the drug-treatment and the result, believing that, to whatever the symptoms were due, *rest* must be far more reasonably credited with their disappearance.

STRANGULATED UMBILICAL HERNIA AFTER PARTURITION: OPERATION: RECOVERY.*

By HERBERT BRACEY, M.R.C.S.Eng., Birmingham.

Mrs. L., aged 41, who had had twelve children, and one miscarriage, had suffered from bronchitis for some years. She was confined on January 30th, 1881, at nearly full time. Labour was natural. The child was alive, and fully developed. The patient was suffering from a severe attack of bronchitis at the time of parturition. Great care was taken in applying the binder securely, as the abdomen was very flabby, and when she coughed the abdominal muscles seemed to give way, as if they had no power of resistance. There was no appearance of any tendency to umbilical hernia, nor had she ever suffered from one. I left her at 9 P.M., and was called to her again at 4 A.M. the following day, when I found her suffering intense pain, and discovered an umbilical hernia, about the size of an orange, very tense, and nearly black. With difficulty this was reduced, a pad was placed over the ring, and a plate and several napkins over that, and the binder firmly applied.

The next day, February 1st, I applied a pad made on purpose, and secured it by strapping, and all seemed to be going on well; but on the next day, February 2nd, the third day from the confinement, the cough being still very violent, the hernia was again protruded. The symptoms were very urgent, intense pain and great distress; vomiting, which nothing checked; anxious expression of countenance; with small feeble pulse and cold clammy skin. Reduction was again tried, but failed; and after consultation with Mr. Bartleet, it was decided that operative measures were imperative. The patient was put under chloroform by my assistant Mr. Holdsworth; and, with Mr. Bartleet's kind assistance, I made an incision in the median line, over what appeared to be the neck of the sac, and divided the very thin layers of fascia on a director. On reaching the sac, the ring was found to be very tight. An incision was made, without opening the sac, in a direction immediately upwards, but still reduction was difficult; when suddenly the sac burst, and its contents, which appeared to be partly omentum and partly bowel, were readily returned. The rent in the sac was carefully not examined; but the whole thing was quickly pinched up, and the skin brought together by silk sutures; and a pad, plaster, and bandage were applied. The patient was at once relieved, and no vomiting recurred.

It is unnecessary to record the daily notes of temperature and pulse. It is sufficient to say that the progress of the case was one of uninter-

* Read before the Midland Medical Society.

rupted recovery. After the first two days, all pain subsided; the cough continued very troublesome; so that, in addition to the pads and bandages, a nurse had to be kept constantly by the bedside to make firm pressure over the seat of the mischief whenever an attack of coughing came on. This, however, gradually got better; and on February 21st, nineteen days after the operation, twenty-three days from the confinement, I applied a truss with a conical ivory centre of about an inch and a half diameter at the base, placed in the centre of a second flat pad six inches in diameter, and the patient was allowed to get up, and made a good recovery.

I have been unable to meet with any recorded cases of strangulated umbilical hernia occurring during, or soon after, parturition successfully operated upon; and I therefore make this case public, and should be glad to know if any other member of our Association has had a similar experience.

TOXICOLOGICAL MEMORANDA.

THREE CASES OF POISONING BY STRAMONIUM.

CASES of poisoning by stramonium are by no means common; but, apart from this fact, it is interesting to trace the accident by which these persons were poisoned with it. On March 19th I was summoned to a house where three members of a family (mother, daughter, and granddaughter), who had been quite well up to the time of having dinner, were soon afterwards seized with symptoms of poisoning, apparently by belladonna. I found on inquiry that they had had for dinner broth, with dried herbs in it, and also some beef, with turnips, carrots, and potatoes. In about ten minutes after taking the broth, and before rising from the table, they began to feel uncomfortable symptoms, these differing in each case. The mother felt her head first affected, the daughter her throat, and the child her stomach, causing nausea and vomiting. These symptoms supervened much more quickly than is usually experienced in poisoning by belladonna. As they had eaten nothing else for dinner besides what I have mentioned, it seemed hard to understand how they had been poisoned. I, however, obtained the remainder of the dried herbs, but there were only a few small pieces left. On adding boiling water, in order to make an infusion of them, the leaves expanded, and I found two unmistakable portions of the leaf of the datura stramonium, also two of the characteristic buds of the plant and the corolla of a flower. On filtering the solution, I applied a few drops to my eye, and it rapidly and fully dilated the pupil, causing indistinctness of vision and loss of accommodative power, which lasted for forty-eight hours. A stramonium plant most probably had been growing amongst the herbs and was unwittingly picked and dried with the rest. The following is a short record of the cases. Mrs. A., aged 70, was quite unconscious when first seen four hours after dinner; her pupils were widely dilated and insensible to light. Her lips were swollen and the lower one was of a purplish hue. She was quite unable to swallow. Her pulse was 90, soft and compressible. There was complete loss of power in her lower extremities, accompanied by subsultus tendinum, but she was busy with her hands pecking at imaginary objects. She also had several convulsions. My stomach-pump, unfortunately, being out of order, I gave her a subcutaneous injection of one-sixth of a grain of pilocarpine, followed by a similar one in a quarter of an hour. This produced free vomiting and perspiration. She then began to rally, and I left her after giving her a fourth of a grain of morphia in pill. She had a fair night, but was very giddy and weak next day and unable to get up. Susan A., a daughter of the above, was in a less serious condition, being in a state of mirthful and busy delirium and very restless. Her pupils were widely dilated, and her cheeks flushed. She was able to take an emetic, and her bowels had been very freely moved—four times since dinner. She complained much of her throat, also of headache and vertigo. Her first sensations of discomfort, she afterwards told me, were referable to her throat. She gradually improved, but her throat and the mucous membrane of her mouth were sore for several days after. The granddaughter, a child four and a half years old, appearing poorly and vomiting after dinner, was taken home, nearly a mile off, to which she walked, though wandering more or less in her mind. She then came under the care of another medical man, who found her very restless and suffering from illusions. She was able to swallow an emetic which caused renewed vomiting, and she was then treated with small doses of opium, under which she gradually became quieter, and was nearly well on the following day. Morphia, physostigma, and pilocarpine are all physiological antidotes to belladonna and its allies; but if pilocarpine can be depended upon to cause free vomiting (physiologically) as in the above case, its value would be enhanced in such cases of poisoning.

Todmorden. H. COUPLAND TAYLOR, M.B.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

UNIVERSITY COLLEGE HOSPITAL.

TWO CASES OF MALIGNANT DISEASE OF THE ŒSOPHAGUS.

[FOR the notes of these cases we are indebted to Mr. STANLEY BOYD, F.R.C.S., Surgical Registrar.]

CASE I. *Stricture of Œsophagus: Gastrostomy: Death: Necropsy.* (Under the care of Mr. MARSHALL, F.R.S.; Notes taken by Mr. TILLEY, Ward Clerk.)—W. F., married, aged 65, a coachman, of very temperate habits, was admitted on October 22nd, 1881. Three months earlier, whilst he was eating, a piece of beef stuck in his throat; but he managed to push it down with a spoon. Before this, he had had no symptoms. Since the occurrence, he had been unable to swallow any solid food, as it always seemed to stick in the gullet opposite the cricoid cartilage. He became an out-patient soon after the difficulty in swallowing began; and during this time bougies No. 9 to 21 were passed, causing little pain—the mucus covering the larger sizes showing twice or thrice a single streak of blood. No other blood was ever expectorated. At first, relief was experienced; but after a time there was some difficulty in passing the stricture, and he was admitted an in-patient.

The patient was a thin man, not at all anæmic, and fairly strong. He gave no history of syphilis, or of injury to the gullet. The loss of flesh seemed accounted for by want of food. Neither finger nor eye detected any swelling in the neck. The stricture was about eight inches from the teeth, and could be entered only from the left side. Bougies Nos. 9 to 18 were passed, and gave marked relief, the patient becoming able to swallow bread-and-butter and eggs; he also gained three pounds. Being able to pass bougies for himself, he was sent home. About three weeks later, however, he returned, unable to introduce any instrument through the stricture, and having lost weight, liquids only having been swallowed during the two previous weeks.

Mr. Marshall now decided to perform gastrostomy, and this operation was done in two stages. The first (on November 29th) consisted in making an incision about three inches long parallel to the costal margin, and having its centre opposite the tip of the ninth cartilage. The anterior edge of the liver was felt immediately, by the finger introduced into the peritoneal cavity. Passing along the under surface of the organ and down along the anterior surface of the small omentum, the stomach was found at once, and seemed much contracted. The colon was not seen. The stomach was now fixed to the anterior abdominal wall by two circles of sutures; the first attaching the gastric peritoneum to the parietal peritoneum and the under layer of the sheath of the rectus; the second approximating the gastric peritoneum and the skin. The spray was used, and an antiseptic dressing applied.

Between the first and second parts of the operation, the patient had no symptoms. The highest temperature was 100.6°, on December 1st; but it fell afterwards to normal. He was fed by enemata every four hours, and his only complaint was that his throat felt rather dry. The second part of the operation was performed on December 3rd, no anæsthetic being used. An incision was made into the stomach large enough to admit a tracheotomy-tube; this caused only slight pain. Antiseptics were still continued. On December 4th, it was found that a free escape of dark fluid was occurring from the stomach through the tube, which gastric fluid had caused numerous superficial ulcers of the skin of the abdomen. The tube was plugged; and the abdomen was powdered with chalk, and covered with lint soaked in carbolised oil. On December 5th, the patient was comfortable. Four tablespoonfuls of pancreatised food were given by the mouth every four hours, and he swallowed more easily. On December 7th, the enemata were discontinued; two ounces of food were injected into the stomach every four hours; milk was taken by the mouth in small quantities. He continued to do well until December 9th, the temperature varying from normal to slightly above it. On the 9th, he seemed to choke whilst drinking. He made frequent attempts to expectorate for three hours afterwards, and permanent orthopnœa set in. On the 10th, the temperature varied from 101° to 100°; the pulse was 28, small and weak; respiration was shallow; the tongue was covered with a brownish fur; and the patient felt very weak. On December 11th, he was still weaker; the voice was failing; there was slight delirium at night; the temperature was 99.4° to 100.2°; on December 12th, 98.4° to 100.4°. The pulse was

144, and thready; the respirations were 40. A small patch of deficient resonance was detected below the right scapula; expiration there was high pitched, and fine crepitation was detected at the same spot. The abdomen was very hollow and tender at many points; the features were sunken; and there was profuse sweating. Death occurred during the night of December 12th.

NECROPSY.—Hypostatic pneumonia of the posterior margin of each lower lobe was present, together with many patches of bronchopneumonia; and the bronchi were full of pus. Near the apex of the left lower lobe was an abscess as large as a cobnut, over which the pleura was purple from hæmorrhage, and fixed to the chest-wall by recent lymph. The stomach was firmly attached to the abdominal wall all round the wound; and there was but one other adhesion, a little to the right of the wound. The organ had been opened about four inches from the pylorus; it was little, if at all, contracted—a fair-sized cardiac end being packed away in the splenic region. The mucous membrane was slightly congested round the opening. The transverse colon bent down so as to cross the abdomen close above the pubes; but in the splenic region it lay over the cardiac end of the stomach. The œsophagus was strictured about one inch below the cricoid by a mass of new growth about one inch long, ulcerated into a fusiform cavity in the centre, and having a prominent margin at either end; this was wanting on the left side above, whereas on the right side there was a *cul-de-sac* one-third of an inch deep. This probably explained the comparative ease with which the stricture was entered from the left side; and the fusiform cavity, with a constriction at either end, gave rise to a sensation so similar to that which would have been expected from the existence of two strictures, as to cause some to believe that two were really present. The glands nearest to the growth were small and pigmented, and, on microscopic examination, were free from new growth. The piece of the œsophageal growth, which was put aside for examination, was unfortunately lost; and the growth itself was preserved in such weak spirit, that sections of it are somewhat hard to understand. There seems to have been a stroma of well-formed fibrous tissue, in which lay collections of closely packed cells of small size, staining uniformly, so that the nucleus is not evident. It is probably a form of epithelioma; but it is impossible to speak certainly as to its nature.

REMARKS BY MR. MARSHALL.—The patient seemed to have died from asthenia; but the unexpected and unusual occurrence of the one small abscess in the lung might have had some share in depressing his vital force. He was doubtless weakened by previous deprivation of food. The operation would have had a better chance of success had it been performed a few weeks earlier.

CASE 2. *Epithelioma of Œsophagus: Death: Necropsy.* (Under the care of Dr. SYDNEY RINGER; from the Notes of Mr. G. H. COLLINS, House-Physician.)—James A., aged 64, a carpenter, was admitted on October 12th, 1881. His family history presented no points of importance, and gave no suggestion of phthisis or of malignant disease. Within the previous two and a half years he had suffered three times from acute gout. About eleven weeks before admission he swallowed his breakfast of toast, bacon, etc., about 9 a.m., but at noon found himself unable to swallow even a single mouthful; the attempt, moreover, caused great pain. For a week after this he managed to swallow solids minced very fine; but later he lived entirely on liquids; under this regimen he lost two stones in eleven weeks. When admitted, he presented an emaciated anæmic appearance. There was a slight arcus senilis, and the arteries were tortuous and locomotive; nearly all the joints were surrounded by large chalk stones. Soon after swallowing any liquids, vomiting came on, and deglutition was very painful, and for solids quite impossible; a No. 14 bougie, however, was passed into the stomach with ease, and without encountering any constriction; bougie No. 23 was stopped when ten inches had been introduced. No tumour could be detected externally. On October 17th, a No. 16 bougie was passed, but a slight grating sensation was encountered when about twelve inches had been introduced; on the following day, egg and milk was injected into the stomach through a hollow bougie, but this caused so much annoyance to the patient that it was not repeated. The prostration rapidly increased, and the patient died on October 19th.

At the necropsy (twenty-three hours after death), the arteries were found to be atheromatous, and every joint examined contained gouty deposits. The œsophagus was swollen opposite the episternal notch by a firm growth in its wall, and the tissues round about it were slightly matted together. No glands were enlarged. There was no dilatation of the gullet. No. 16 bougie passed through the stricture with very little force. The new growth surrounded the tube, and was about an inch and a half long, with prominent margins above and below; it was three-quarters of an inch thick in parts. It was an ordinary squamous epithelioma, with but little tendency to the formation of cysts.

These two cases seem worth reporting for several reasons, apart from the interest at present attaching to the operation of gastrostomy. In neither case was the new growth seated at a point of narrowing of the gullet. In both cases, the onset of the symptoms was sudden; and they may, therefore, well be added to some similar cases recorded last year by Mr. Pugin Thornton. The habit of bolting large pieces of food is so common, that no one would be surprised to hear that a moderate narrowing of the gullet had been revealed by the impaction of such a mass; but the truly strange part of these cases is the absence at first of interference with deglutition by infiltration of the œsophageal walls with new growth, and the continuance of marked dysphagia from the moment at which the first sign of stricture appeared. The second case has a further interest from the onset of gout late in life, with most extensive and rapid involvement of the joints.

ST. THOMAS'S HOSPITAL.

EXTIRPATION OF UTERUS, JUST ABOVE OS, FOR LARGE FIBROID: RECOVERY.

(Under the care of Mr. SYDNEY JONES.)

S. H., aged 51, was admitted on September 27th, 1880. She first noticed a lump about eight years earlier; it gradually increased; menorrhagia was very profuse, and she had for some time suffered extreme pain; she was very pale and anæmic, and was losing flesh. The tumour rose out of the pelvis to about two inches above the umbilicus, and extended more to the right side than left; it projected forward considerably, especially near the umbilicus. It was inelastic and nodulated; the uterus admitted the sound for five inches and a half; the direction of the axis was towards the left. There was slight systolic cardiac murmur. The urine was of specific gravity 1028, and contained a trace of albumen.

October 26th.—Ether was administered, and the operation was performed by Mr. Sydney Jones, under the carbolic spray. The incision extended above the umbilicus, and was large enough to enable the tumour to be lifted out of the abdomen. After separation of the attachments, the neck of the uterus, an inch above the os, was transfixed by a needle with double thread. These threads being secured, the neck above was cut through, and the uterus and ovaries removed. Silk and catgut sutures were inserted, and antiseptic dressings were applied.

October 27th. The patient slept for six hours during the night; she vomited four or five times.

October 28th. She had passed a comfortable night, but had vomited at 5 A.M.

The wound was dressed on November 2nd for the first time; it was all healed except at the lower part for about an inch. The deep silk sutures were removed. The temperature was 98°, and the pulse 92.

November 4th. A slight cough interfered with her comfort, and there was wheezing over the chest; some moist crepitation was heard at the right base on deep inspiration. The temperature was 99.2°, and the pulse 100.

November 8th. She had cough and occasional difficulty of breathing since last note. She stated that she had been subject to such bronchial attacks. Her cough gradually improved; she took food well and readily, and soon began to pick up flesh. She left the hospital well, and has since improved in health and strength, and remained perfectly free from pain.

LABOURERS' DWELLINGS.—Canon Gilbert, of Moorfields, in giving evidence before the Select Committee on artisans' and labourers' dwellings, now sitting, has stated that the Peabody dwellings were not used by the poorest classes of the metropolis, the rents charged being too high. In his opinion, tenements ought to be erected giving accommodation to the very poor at cheaper prices than they could obtain in the present industrial dwellings. The Peabody Trust was not carried out so as to benefit the poorest classes, and it would be well if some of the money the Trust were putting by were spent in the reduction of rents. He was well acquainted with the very poor classes of London. Mr. Samuel Walker, surveyor, stated that in cases where compensation for disturbance had been claimed from the Metropolitan Board of Works, he had given evidence before juries both for and against the Board. When the site of the New Law Courts was cleared he had superintended the distribution of compensation. He had removed 834 families and distributed £3,249 in compensation, in sums varying from £1 to £10. In August, 1866, alone, he had removed 304 families. These people did not find any difficulty in obtaining suitable tenements in other parts of London. There was a great deal of room for such people in Peckham, Clapham, and Wandsworth.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, APRIL 11TH, 1882.

JOHN MARSHALL, F.R.C.S., F.R.S., President, in the Chair.

On a Case of Tumour of the Bladder (in the Male), successfully removed through a Perineal Section of the Urethra: with Remarks on the Applicability of the Operation in certain Cases.—By Sir HENRY THOMPSON.—Thomas R., aged 29, consulted Sir H. Thompson on July 26th, 1880. Eight years previously he had passed "a piece of gravel of the size of a pea." After this he felt nothing unusual until 1877, when his micturition became more frequent, and was followed by pain in the end of the penis; also, occasionally, blood appeared in the urine, especially after exercise. The patient was sounded, and a small calculus was found. On August 5th, Mr. Bailey gave ether, and Mr. Furber, who had seen R. previously, was present at the operation. It was a small oxalate of lime calculus, and was easily crushed and removed. Very little improvement followed the operation. The bladder was not quite emptied by the natural efforts; the gum catheter was used daily, and on two occasions gave signs of the presence of something in the bladder, which a subsequent exploration with the lithotrite did not discover. Being relieved, he resumed his employment, and was occasionally seen relative to the still-existing slight symptoms, which gradually increased. On October 5th, Sir H. Thompson examined the bladder, and removed a quantity of phosphatic deposit with the lithotrite. He then seized what at first felt like a calculus, and partially crushed it under pressure; but it was evidently fixed, giving an impression of partially impacted stone. More phosphatic matter being washed out, it was decided to watch the result for a short time, and to open the bladder if necessary. Accordingly, as after three weeks he had received very little benefit from the last operation, Sir Henry cut, as in median lithotomy, on the 6th November, 1880. Professor Paggi, of Florence; Dr. Seegen, of Vienna; and Mr. Ceely, of Aylesbury, were present. Having introduced his finger well into the bladder, and pressure being made above the pubes, Sir H. Thompson recognised a tumour, about the size of a chestnut, growing apparently from the opposite wall or fundus, and somewhat to the patient's left, coated with phosphatic matter, and evidently the fixed body he had formerly seized with the lithotrite, and denuded of its sabulous covering. Taking a pair of small forceps, he adjusted them to a full and firm hold, and then twisted off the mass without difficulty; a small piece or two were subsequently withdrawn, but the tumour appeared to be entirely removed, and very little bleeding followed. He had no bad symptoms, made a rapid recovery, and speedily regained good health, never having had any return of symptoms since the operation. The patient was presented at the meeting, in excellent health, and quite free from all urinary symptoms. Regarding this and other cases which had afforded similar results, the author advised that, in certain cases of hæmaturia which was clearly vesical, and was not explicable, except by the hypothesis of impacted calculus or vesical tumour, an incision of the membranous urethra from the perinæum, for the purpose of exploring the bladder, should be made. He proposed the incision ordinarily made in the median operation of lithotomy for the purpose of introducing the finger, and forceps if necessary, for research and removal when necessary. The symptoms were described, the possible presence of which generally indicated the necessity or, at all events, the propriety of adopting such a proceeding. The tumour was examined by Mr. Stanley Boyd, of University College Hospital, and was found to be a simple fibroid.—The PRESIDENT said that it was evident that there must have been many cases of the kind in which an operation would have been useful; and Sir H. Thompson's case offered great encouragement for its performance. The diagnosis of tumours of the bladder, and the mode of operation and after-treatment, were important matters.—Mr. BRYANT approved of the operation adopted by Sir Henry Thompson, the theory of which had been yearly growing in favour. He had not had an opportunity of operating for tumour in the bladder, though the proceeding had suggested itself to him in three cases, in which hæmaturia and other symptoms were present. In one of the cases, the bladder was found, after death, to be full of villous growths. In the other two, there was cancer. Any operation would have been useless in these cases; but the records of surgery contained reports of many cases in which surgical interference would have been justifiable. A clean cut into the bladder, for the purpose of exploration, was not a severe matter, and was quite justifiable in cases which, without it, were evidently hastening towards death. Good results sometimes followed simple incision in inflammatory states of the bladder. As regards the kind of operation, the median was perhaps the best, where the prostate was healthy and the neck of the bladder sound; while, in other conditions, the lateral operation was to be preferred.—Mr. REGINALD HARRISON said that he had little doubt that the case described would give an impetus to operations on the bladder for other purposes than the removal of stone. He could remember the time when, if a surgeon, in performing lithotomy, found anything but a stone, he was looked on with suspicion. He asked whether median cystotomy was really the best mode of proceeding in a case of tumour involving the wall of the bladder. He had opened the bladder from every accessible part; and had always felt that the median operation gave him least command over the parts, while the lateral incision gave most room. He thought that the danger of hæmorrhage in the lateral operation had been rather overrated.—Mr. HENRY MORRIS asked whether an incision in the median line was not equally justifiable, when, though a cure could not be obtained, relief of pain and other symptoms might be afforded, as in chronic cystitis and tubercular cystitis. He had lately met with an obstinate case of chronic cystitis, in which he had made an incision in the middle line of the perinæum, with great relief to the patient, who, however, died at the end of seven weeks from suppuration of the kidneys. He preferred the median incision, because the wound had less tendency than the lateral incision to heal rapidly.—Mr. HOLMES said that opening the perinæum for chronic cystitis was a different matter from the operation described by Sir Henry Thompson. It seemed that the great difficulty was to diagnose between tumours such as those in Mr. Bryant's cases, and chronic cystitis. He did not wish to cavil at the operation of opening the bladder in cases of tumour; he had himself contemplated its performance. When the sufferings of the patient were very great, and the presence of a tumour was indicated, an operation for its removal was justifiable; but where the symptoms were acute, and the growth was making rapid progress, the operation should only be undertaken at the urgent request of the patient's friends. Cystotomy, for the relief of chronic cystitis, was an established operation. He thought that there was no difficulty in keeping the wound open after the lateral incision; and this appeared a better means of reaching all parts of the bladder than the median incision.—Mr. BERKELEY HILL said that cases where a tumour in the bladder could not be dealt with were probably not so numerous as was supposed. The fate of all cases of tumour of the bladder seemed so certain, that it would not be right to be deterred from operating by fear of hæmorrhage. An opening should be made at once, whenever there appeared any reason to suppose a tumour to be present.—Mr. PEPPER had seen five cases of operation for tumour in the bladder. The first case was that of a female child at University College Hospital, under Mr. Marshall. The child died; and the bladder was found to be filled with a mass of gelatinous polypi. In the second case, there was an enlarged middle lobe of the bladder, which was excised before removing a stone; the man died. The three other cases were at St. Mary's Hospital. Two of the patients died: one from hæmorrhage, and one from pyæmia; and the third had an incurable fistula left after the operation. He asked Sir Henry Thompson what would be the best mode of operating on the female bladder. The choice of operations would depend on the character and structure of the tumour.—Mr. GODLEE asked whether actual examination gave an aid to diagnosis.—The PRESIDENT said that cases of tumour of the female bladder stood entirely apart from those of the male bladder; rapid dilatation of the female urethra enabled the bladder to be readily examined. Encouragement to operate on tumours in the male bladder was afforded by the fact, that the deaths after the operation in males were not more numerous than those in females. In the diagnosis, the age of the patient must be taken into account. The movable tumours (fibroid and polypoid) occurred in children and middle age; cancerous and villous growths later in life. As regarded the operation, some surgeons might prefer one to the other; but the lateral incision seemed to have been generally chosen; it was used in all the successful cases. In most of the unsuccessful cases, the growths had been pedunculated; and, in all the successful cases, the patients had gone on remarkably well, without hæmorrhage or other unfavourable symptoms.—Sir HENRY THOMPSON would define the conditions on which operations for the removal of vesical tumours should or should not be performed. There had been great want of clearness in the definition in the successful cases; prostatic outgrowths having been often confounded with tumours of the bladder, from which they were totally distinct. No case of malignant tumour should be operated on; but it was difficult always to identify such tumours. This might be done by rectal exploration, when an irregular hard mass would be felt, especially when pressure was made on the bladder from above. Still the diagnosis was difficult. He would not operate in such cases, nor in villous tumours. He had desired to bring under notice the pro-

priety of making an incision through the perinæum in proper cases. Incision was a very simple matter, and often gave much relief; and it was indicated in other conditions besides tumour of the bladder. He believed that there was no difficulty in exploring the whole interior of the bladder by the finger through either the median or the lateral incision, unless in very stout persons. The patient should have an anæsthetic, and an assistant should make pressure above the pubes. In a case of obstinate vesical hæmorrhage, he made, two months ago, an incision, and removed a small flake of phosphate from the bladder; since that time there had been no return of the hæmorrhage. He had also operated three weeks ago on a medical man, who, for the last year or more, had passed all his urine through a catheter. The patient believed that there was a calculus impacted at the neck of the bladder; but nothing of the kind could be found. An incision was made in the median line, and the mucous membrane of the bladder was fond to be healthy. The patient was greatly relieved, and required to pass urine only seven or eight times, instead of fourteen or fifteen, in twenty-four hours. The operation was not cystotomy, but perineal section; and it was mostly all that was wanted. In lithotomy, it was not the incision that was dangerous, but the removal of the stone. He preferred median incision; but the mode of operating to which the surgeon had been accustomed was the best. He did not advocate opening the bladder in all cases of difficulty; he had only desired to point out where this might be done with advantage.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, APRIL 4TH, 1882.

SAMUEL WILKS, M.D., F.R.S., President, in the Chair.

Report of Morbid Growths Committee on the Specimens of Myosarcoma of Kidney shown by Mr. Frederick Eve and Dr. Dawson Williams.—The report, drawn up by Messrs. MARCUS BECK and R. J. GODLEE, confirmed the general accuracy of the description of the tumours given by the exhibitors, and referred at some length to two other cases which had been reported in Germany. One case was that of a child, aged 19½ months, reported by Marchand (*Archiv für Path. Anat. und Phys.*), the second that of a boy, aged 3½ years, reported by Huber (*Archiv für Klin. Med.*). In both cases, the growth involved the tissue of the kidney, and in both contained cysts which appeared to be derived from the renal tubules. The reporters inclined to the theory that these tumours were derived from the Wolffian body, that view being supported by the situation in which they were found, by their congenital origin, and by the occurrence of similar growths in the testicle. On the other hand, the cysts invariably found were obviously of two kinds; in one, epithelium was present, while in the other it was not; while, therefore, a growth merely of the Wolffian bodies might involve the renal tissue, yet in the specimens submitted the cystic spaces did actually represent renal tubules.

Intestinal Obstruction caused by Diverticulum of the Ileum.—In the absence of Mr. Sydney Jones, Mr. BERNARD PITTS related the history of the case. The patient was a man, aged 26, who for nine days before admission suffered from severe vomiting. At the time of admission, it had become fæcal. In infancy, there was a long continued discharge from the umbilicus. The abdomen was opened by Mr. Sydney Jones, and a tube immediately beneath the umbilicus which contained a quantity of pus was opened; this tube was ligatured and removed. The patient died next day, and at the necropsy it was found that there was a diverticulum from the ileum, and that this was also attached to the cæcum. The canal of the diverticulum was constricted where the ligature had been applied. Mr. Pitts also referred to two other similar cases which had recently occurred in St. Thomas's Hospital. In one of these cases, a child was admitted with a strangulated hernia at the umbilicus; the hernia was liberated by operation, but the child died; there appeared to be a persistent vitelline duct with adhesion to the umbilicus, and giving way of the abdominal wall at the umbilicus.—Dr. HADDEN said that he had made the *post mortem* examination in the first case. The divided diverticulum had already contracted adhesions, and a loop of intestine had slipped under this. He thought that this observation showed that, to divide and return these diverticula, was not unattended with danger. He believed that the case pointed to the advisability of dividing these diverticula close to their origin.—Sir JOSEPH FAYRER said that, in the case of a patient of his who had died of abscess of the liver, at the *post mortem* examination he found a very long diverticulum, of a calibre as large as that of the gut. The specimen was shown.—Mr. GAY said that he believed these cases were not so rare as had been supposed. He believed that many of the so-called bands of adhesion were really hollow tubes, and that it might therefore be somewhat dangerous to divide them in the manner suggested by Dr. Hadden.—The PRESIDENT remarked that probably the cases were not rare; at the last meeting of the Society, a large number were shown.

A New Tract of Spinal Degeneration.—Dr. W. B. HADDEN said that the microscopical specimens he showed were made from the upper cervical region of the spinal cord of a patient, who was said to have suffered from locomotor ataxy; but the clinical history was otherwise unknown. In front of each crossed pyramidal tract, *i.e.*, in the anterior root-zone ("the fundamental region of the lateral columns" of Flechsig), was a symmetrical area of degeneration; no other change was anywhere visible; the posterior columns, as well as the grey matter, were quite intact. The degeneration appeared to be granular, and at the boundaries of the degenerative area swollen axis-cylinders and amyloid bodies were seen; in the area itself, only granular *débris* was seen; the blood-vessels in some parts were thickened. Sections made at a higher level in the cord showed no degeneration, and Dr. Hadden therefore thought it probable that the lesion was ascending, and this was confirmed by its bilateral distribution. Dr. Gowers had recorded a case in which an area of degeneration in this region was secondary to a crush of the lower part of the cord. The specimen from which the sections were made had been for two years in spirit before it was given to Dr. Hadden by Professor Greenfield.—Dr. GOWERS showed sections of the cord from his case, but observed that he was not quite certain whether the degeneration was the same as in Dr. Hadden's specimens. The tract, he said, had not exactly the same form in both the cases, and it was impossible to say whether they occupied precisely the same region. If they were the same, then Dr. Hadden's case was of great interest, as tracing up the degeneration a little higher than he had himself been able to do. Degeneration of the medulla in this region had not often been observed, but he believed that it was an ascending degeneration, and involved a tract of fibres concerned with the conveyance of sensory impressions. This view was confirmed by some recent observations of Flechsig.

Congenital Cardiac Disease.—Dr. W. B. HADDEN related a case of congenital cardiac disease. The patient was a female child, four months old, and was under the care of Dr. Bristowe at St. Thomas's Hospital. On admission, the face was pale, the hands and lips livid, the chest expanded badly; the respiration was 66. Lung-resonance in front was impaired, but breathing was vesicular. At the bases, there was impaired resonance, with crepitation and rhonchi. No cardiac murmur was heard; no mention was made of heart's dulness in the notes. Improvement followed the next day. On the third day, there was dulness over the left lung anteriorly, and scattered dulness at both bases, with crepitation and rhonchi. Before death, the respiration was 96, and the temperature 101°. *Post mortem*, the heart weighed four ounces, the average weight at patient's age being rather less than one ounce. The septum between the ventricles was imperfect above, admitting the middle finger easily. The right ventricle was much hypertrophied, a quarter of an inch thick in some parts; the cavity was dilated at the right apex-wall half an inch transversely. The muscular papillæ were much hypertrophied; the left ventricle was much hypertrophied; the foramen ovale and ductus arteriosus, although allowing the entry of a small probe, were practically closed. The pulmonary artery was large, the aorta inversely small. Both arose from the ventricle in the usual way. Both the lower lobes of the lungs were collapsed; the upper lobes were relaxed and crepitant; the bronchi were dilated. The nature of the case was not suspected during life, perhaps because the pulmonary trouble obscured physical signs referable to the heart. It is worthy of note that the heart weighed nearly five times the usual amount.

Microscopic Specimens from a case of Farcy.—Some microscopic specimens were exhibited by Mr. STANLEY BOYD, showing the cutaneous changes in farcy. The patient had been a stableman, aged 18, and some of the horses he served were glandered. On August 1st he experienced rigors, joint pains, and great *malaise*; a week later, an abscess formed below the head of the left fibula; on August 18th, the left eye began to swell, and became closed. When admitted into University College Hospital, on August 23rd, there was a large sloughy ulcer on the left leg where the abscess had been; there were a few pustules on the right cheek, an abscess over the wrist, and several circumscribed red patches on the limbs; the left eye was much projected, the whole left temporal fossa was swollen, but no pus could be obtained in the orbit or fossa by the aspirator. The temperature ranged from 101° to 103°, and he was delirious. The pustular rash spread rapidly, and the contents of the pustules became bloody; there was no discharge from the anterior nares, but there was frequent expectoration of a sanio-purulent fluid. Before death, which occurred on the twenty-sixth day of the disease, the right eyelids began to swell, the left cornea lost its polish, the respirations rose to 44, and he became semi-comatose; the temperature rose to 108° Fahr. two and a half hours before

he died. At the *post mortem* examination there was purulent inflammation of both ankles and knees, and among the deep fibres of the temporal muscle on the left side, and among the muscles of the orbit; in the lungs were numerous abscesses, varying in size from a millet-seed to a filbert; on the upper surface of the liver was an abscess the size of an orange; the kidneys were in a condition of cloudy swelling; a few pustules were found about the pharynx, near the orifice of the larynx. Mr. Boyd remarked that the accounts given in the text-books of the microscopical anatomy of farcy buds were unsatisfactory; he believed the pustules were really small abscesses in the superficial layer of the skin, and differed from the small-pox pustules, in which the effusion occurred into the rete Malpighii, destruction of the papillæ, if it occurred, being secondary. Referring to Mr. Bendall's recent communication to the Society, he had not found—by the use of osmic acid—any abnormal fat about the pustules; he had also prepared specimens with "Bismarck brown," and with methyl violet, but had failed to find any organisms in the mature pustules.—Mr. BENDALL observed that there seemed to be a considerable degree of variation in the character of the contents of the farcy buds; some were true pustules, and when opened were found to contain pus, but in other cases there seemed to be a localised slough; he attributed this difference to the varying intensity of the inflammatory action.—Mr. GODLEE said that, in a case he had seen, the buds had different characters at different periods of the disease. It was interesting to learn that organisms were found in the early, but not in the mature, stage of the pustules; this coincided with the observations of Ogston. These cases of acute farcy resembled cases usually clssed as "Pyæmia with pustular eruption;" might not the latter be really instances of farcy?

Colloid Scirrhus of Prostate.—Mr. S. BOYD, who also showed this specimen, said that the patient was a groom, aged 55, who, about two years before his death, was suddenly seized with retention of urine. The urine, when drawn off, was found to be thick and turbid; frequency of micturition ensued with foul, turbid urine, and on several occasions small calculi were passed. When admitted into St. Peter's Hospital, the urine was alkaline, and tinged with blood; the blood came at the end of micturition, and was often followed by pus and sloughy tissue; the patient died somewhat suddenly. No complete *post mortem* examination could be made, but the bladder and prostate were removed. The prostate was infiltrated with a new growth, which extended back and implicated the bladder, leaving only the posterior part of that viscus unaffected; both vesiculæ seminales were filled with colloid new growth, and the opening of the ureters was, in each case, at the summit of a nodule of growth. The microscopical examination showed a fibrous stroma, with numerous alveoli; the stroma was never so dense as in scirrhus of the breast; there was extensive colloid degeneration, which was a rare and interesting phenomenon.—Mr. ROGER WILLIAMS said he had seen the patient during life. Scirrhus of the prostate was very rare, and colloid degeneration of it had, he believed, never before been recorded. In a portion of the growth he had examined, he had found more colloid change than Mr. Boyd had described.—Mr. BOYD said that he had chosen the least degenerated part for examination.

Great Enlargement of the Right Auricle of the Heart.—Dr. LEECH (of Manchester), who showed this specimen, stated that the patient was a woman, aged 42, who had suffered from rheumatic fever when 15. About nine years before death, symptoms of heart disease began; in 1879, there were anasarca, ascites, bronchitis, and signs of mitral stenosis. There also appeared to be great dilatation of the right auricle; later in the case a murmur, attributable to tricuspid disease, appeared. She improved materially under treatment; but, about six months after she had been discharged from the hospital, she again returned in much the same condition as above described. She gradually grew worse; the murmurs heard varied from time to time; the pulse became excessively weak, ascites increased, and she died. At the necropsy, the heart was found to be very large, the enlargement being due chiefly to the great increase in the bulk of the right auricle, which measured six inches in length, by five inches in breadth. There was marked stenosis of the tricuspid and of the mitral valves, the right ventricle was very little enlarged, the left auricle considerably, and the left ventricle not at all.

Two cases of Myxoma.—Mr. BUTLIN said that specimens of pure myxoma were so uncommon that he had thought it well to bring forward these two cases, which had recently been met with at St. Bartholomew's. The first was a myxoma of the breast. When the patient was first seen, the tumour had all the appearance of an ordinary adeno-fibroma; in the other breast, at that time, were numerous sinuses; after these had healed (two years later), the tumour in the breast grew in one year from the size of a walnut to that of a cricket-ball. It was then thought advisable to remove it. It was found to be distinctly encapsuled, and to present all the general characters of a myxomatous tumour; but, on microscopical examination, very few stellate cells were encountered. Recurrence occurred in the scar, and the tumour was again removed. It was again circumscribed to some extent, but involved the skin and the subjacent muscle; the growth had the same character, but the cells were more numerous. The axillary glands were not affected. The second case was that of a man who, when first seen in 1880, presented a tumour in connection with a scar about the scapula. He stated that a tumour had been removed from the neighbourhood about two years earlier. It was again removed, but recurred in two months in two places; on this second occasion, it was adherent to the skin and muscles. At the first removal the specimen was a pure myxoma, but at the second the cells were rounded, or oval, or signet shaped. He believed the tumours were really of a sarcomatous nature, for they spread in the way in which sarcomata spread; the cells varied much in form, and the clinical history was that of sarcoma. He suggested that it might be possible in time to abolish the separate class "myxoma," believing that it would be found that all tumours to which that name was now applied would fall under the head either of sarcoma or of fibroma.—Mr. ROGER WILLIAMS referred to a case of a large tumour in the loin, which at first was a true myxoma, but, on recurrence, took on more of the character of sarcoma.—The PRESIDENT said that he believed the tumours were the same as those which, in his earlier days, went by the name of "gelatinous sarcoma."

Bilateral Paralysis of Glottis-Openers and Compression of the Trachea, in a Case of Malignant (?) Tumour of the Thyroid Gland.—Dr. FELIX SEMON showed a larynx and thyroid gland, which had been sent to him by Dr. Byers of Belfast. The specimen was removed from the body of an old gentleman, who had consulted Dr. Semon in July 1881. The patient showed the remarkable combination of very noisy inspiration, free respiration, and unimpaired voice, which is almost pathognomonic (according to Riegel) of bilateral paralysis of the glottis-openers (posterior crico-arytenoid muscles). Laryngoscopic examination completely corroborated this preliminary diagnosis, the vocal cords coming completely together on phonation, but not even separating up to the cadaveric position on deep inspiration. Careful examination of the organs of the thorax, of the neck, and of the centres, failed to give any clue as to the cause of the paralysis; and the diagnosis, in this respect, was left in suspense—the possibility of a gravely myopathic disorder being kept in view in this case for special reasons. A serious prognosis was given, and early tracheotomy advocated, in the event of other measures (electricity, hypodermic injections of strychnia, etc.) failing, as was rather anticipated. This operation was ultimately performed, but gave only partial relief. Attacks of dyspnœa occurred repeatedly; the patient became unconscious on the evening of the fourth day after the operation, and died on the morning of the fifth, the heart finally failing. Only a partial examination of the body could be obtained. The thoracic organs were found to be quite healthy, and the cerebrum was not examined. The larynx and thyroid gland were sent to Dr. Semon, who examined the specimen, in conjunction with Mr. Stewart and Dr. Seymour Taylor of St. Thomas's Hospital. The thyroid gland was found to be rather large for an old man, but, looked at from the front, did not present any abnormality. On looking into the larynx (which had not been opened), it was plainly visible that the vocal cords did not occupy the usual cadaveric position, but were lying so close to each other that their inner borders almost touched. This, Dr. Semon believed, was due to the membrana elastica of the larynx having lost its natural tension, in consequence of the long duration of the affection. Both posterior crico-arytenoid muscles were found to have undergone extensive fatty degeneration and atrophy; whilst the striation of the interarytenoid muscle was found to have remained intact. Thus there was isolated affection of the abductor muscles. This affection was seen to be due to the left recurrent laryngeal nerve being pressed upon by the hindermost part of the left wing of the thyroid gland, and to the right recurrent being firmly implicated in a hard mass, which was situated on the posterior fourth of the trachea, and contiguous with the hindermost part of the right wing of the thyroid gland. This mass, moreover, pressed from behind, and to a small extent laterally, upon the uppermost rings of the trachea, softened them completely, and bulged the parts on which it pressed so much inwards that there was a second tracheal stenosis, by compression, underneath the laryngeal, due to the nervous disorder. The nature of this mass was somewhat doubtful; it seemed to be mostly fibroid, with perhaps some cancerous elements in its deepest layers. In referring to the manifold points of interest in the case, Dr. Semon expressed a strong opinion that the tumour could not have been felt by palpation during life, it being situated behind the trachea. What had been considered to be a tumour was, no doubt, the large thyroid gland. Under no circumstances, could the existence of the second obstruction by compression have been diagnosed during life—the constant approximation of

the vocal cords not only explaining fully the dyspnœa, but at the same time preventing an inspection of the lower parts. The case taught the important lesson that, in such cases, one always ought to have the possibility of a second stenosis lower down in view. The softening and atrophy of the tracheal cartilages was a good illustration of Rose's view—viz., that the comparatively frequent occurrence of sudden death, in cases of goître, is often due to the fact that the trachea, after having been changed by the pressure of the goître into a soft yielding tube, was tilted during sleep, after extirpation of the goître, etc., round its own axis, and that suffocation was thus produced. The paralysis of the left cord had been possibly due to pressure upon the right pneumogastric nerve, in accordance with Dr. George Johnson's theory; more probably, however, to the direct pressure upon the left recurrent nerve. The existence of an isolated paralysis of the abductors, the whole nerve trunks being evidently affected, was a new good corroboration of the doctrine he had himself advanced—viz., that the abductor-fibres of the motor nerves of the larynx were more prone to suffer, in cases of organic disease, than the adductor fibres.

Bronchocele, with Secondary Growths.—Mr. WARRINGTON HAWARD said that the specimen showed consisted of a tumour of the thyroid, and a number of tumours in other organs of the body. The patient, when admitted into St. George's Hospital, complained of dyspnœa, consequent on the sudden enlargement of a goître, which had long existed. Attached to the vertex of the skull was a small tumour, which had existed for about seven months; another tumour, of a similar character but pulsating, was found over the scapula; and another over the ilium. Paraplegia subsequently developed, and she died during a sudden attack of dyspnœa. The thyroid growth resembled to the naked eye an ordinary bronchocele, and all the other tumours had the same naked eye appearance. A growth projected from the cervical vertebra into the canal, and compressed the cord. Deposits of this growth were found in the lung, liver, and spleen. Microscopical examination was made by Mr. Crompton. The tumour of the thyroid was found to be, for the most part, a mere hyperplasia of the structure of the gland; but in some places there was an ingrowth of a small-celled growth. The other tumours presented precisely similar microscopical appearances, with the exception of the tumour of the lung, which was an undoubted sarcoma. Mr. Haward said that his case resembled very closely one that Mr. Henry Morris had shown about a year earlier. The generalisation which had occurred in these cases raised questions of great interest, which it was useless to attempt to discuss at so late a stage of the proceedings.

Specimens shown by Card:

Mr. SYDNEY JONES: Tumour of the Shoulder-joint. Fibroid of Uterus successfully removed.

Dr. MORRISON: Kidney from a Case of Calculous Hydro-nephrosis.

Mr. J. HUTCHINSON, junior: Pyæmia in a Lamb.

Mr. ROGER WILLIAMS: Hyperostosis of Lower Jaw. Sequestrum from Stump of Amputated Femur. Sequestrum from Popliteal Surface of Femur.

SURGICAL SOCIETY OF IRELAND.

FRIDAY, FEBRUARY 24TH, 1882.

J. K. BARTON, F.R.C.S.I., Vice-President, in the Chair.

Rupture of Jejunum.—Mr. HEPBURN showed a recent specimen, taken from the body of a man, J. N., aged 46, who was admitted into the Meath Hospital, in a state of partial collapse, following intense pain, caused by a fall on the stomach. There were no external signs whatever of injury to be discovered. Death soon followed. The *post mortem* examination showed signs of peritonitis, and a laceration about the size of a halfpenny was discovered in the jejunum, which Dr. Hepburn considered an unusual seat for such injuries.

Large Sequestrum from Temporal Bone.—Mr. ARTHUR BENSON showed a piece of bone which had come away through an opening behind the ear of a child, M. C., three years and a-half old. The specimen measured one and a-half inches, by one inch, by seven-eighths of an inch; and comprised the greater part of the right temporal bone. The squamous, mastoid, and petrous portions were each well represented. The child had had otorrhœa for eighteen months previously, during the latter twelve of which she had been under Mr. Benson's observation, at St. Mark's Ophthalmic Hospital. It was remarkable that, notwithstanding the extent of the necrosis, the child remained in excellent health throughout, showing no sign of cerebral abscess or pyæmia; nor was there at any time a trace of facial paralysis. The hearing power in the ear, after the removal of the sequestrum, was "conversation voice" at one mètre. A probe could be passed directly inwards to the extent of two inches along the sinus without meeting the slight obstruction.

Encysted Tubal Abscess.—Mr. LAWSON TAIT showed the ovaries and Fallopian tubes of a woman on whom he had performed abdominal section, for the purpose of finding the cause of continuous pains, which no treatment seemed to influence. The right ovary was adherent and disorganised, and the corresponding tube contained one drachm of pus. The left ovary and tube were in a similar condition. The tube was dilated to the size of a hen's egg, and, on Mr. Tait laying it open before the Society, it was shown to contain an accumulation of pus. Such cases Mr. Tait regarded as of far more common occurrence than was usually supposed. Their removal by operation was the only treatment, but that procedure was not always easy owing to adhesions, and considerable hæmorrhage was liable to occur.

An Experimental Research on the Value of the Details of Listerism in Abdominal Surgery.—Mr. LAWSON TAIT read a paper on this subject. There were three general principles, or axioms, with a statement of which he would begin his paper. 1. In discussing the question, all empirical statements should, as far as possible, be avoided. 2. The smaller the range and the fewer the disturbing elements the better; *i.e.*, for the deciding of such questions, it was better to compare the results obtained in one series of operations, for example, ovariotomies, than to compare those of several series of major and minor surgical operations. In other words, a series of repetitions was more likely to give accurate results than mixed cases. 3. In the peritoneum was a cavity peculiarly susceptible to septic influences; the abdominal viscera were, therefore, a peculiarly good field for such an investigation. The basis of Lister's theory of putrefaction by means of bacteria, etc., had long ago been proved beyond dispute as regards dead matter. But Mr. Lister assumed for living matter the same sequence of events as in the case of dead. This had never been proved. If a wound were full of blood-clot, and this was kept antiseptic, it would become organised, and form part of the tissue it lay near, just as a blood-clot would do in the interior of the body, being, in both cases, protected from the attacks of the bacteriæ in the air. Blood-clots in the body were not truly dead, but only in a low state of vitality, insufficient, however, to preserve them from the attacks of bacteriæ. Dr. J. Hamilton, of Edinburgh, in his experiments on sponge-grafting, had shown that a thoroughly dead sponge would do without Listerism what the blood-clot would do with it—viz., become organised. It would even do this in a putrescent wound, because it was sufficiently tough to resist the attacks of the bacteriæ, while the blood-vessels of the neighbourhood were working their way into, and forming a network through, its substance. In the same way, the blood-clots, being finely porous, offered support to the fine blood-vessels developed; but being too frail to resist the attacks of bacteria, became putrescent before time had occurred for the vessels to be formed, unless protected by antiseptics. Mr. Tait enunciated his opinions to the effect that, whilst accepting the germ theory, he repudiated Mr. Lister's application of it in surgery. However, putting theory and inclination aside, he determined to give Listerism a fair trial in one hundred abdominal sections, nearly sixty of which were for ovarian tumours; and the conclusions arrived at were all against Mr. Lister's views. The most valuable information was to be obtained, not by noting the ratio of deaths, but by observing under what mode of treatment the recoveries were most easy, even, rapid, and uncomplicated. For this purpose he exhibited comprehensive charts of a large number of cases treated by various methods, showing temperature, pulse, duration, etc., of the cases in each group. Those treated by complete Listerism gave the worst results. He, therefore, wished to try if this result was due to the method or to the carbolic acid used. He divided the investigation into three groups: (1) the use of the spray; (2) the preparation of the sponges; and (3) the details during the operation. In group 1, the spray was used regularly, beginning with the carbolic acid solution, 1 in 20; then reduced to 1 in 30, then to 1 in 50, 1 in 100, 1 in 1,000, and finally a spray of pure water was used. The recoveries improved in ease as the carbolic acid was reduced in strength. In group 2, the sponges were treated with solutions of the acid gradually reduced in strength, as in group 1, with similar results; so also group 3. The investigation lasted over two years. He, therefore, gave up the use of carbolic acid altogether; but still keeps his instruments, ligatures, sponges, etc., in a bath of pure water—not to avoid bacteria, but to keep them wet. Bacteria, which produced putrefaction in dead matter, he considered harmless in the living peritoneum. Lister's plan had done an infinity of good, but his theories of its action had been proved to be untenable.—Dr. ATTHILL objected to the use of the spray, not so much because of the carbolic acid as because of the coldness which it necessarily produced. He hailed, therefore, with satisfaction the statement that it was not useful.—Mr. FITZGIBBON remembered when ovariotomy was regarded

as almost certain death, if performed in a general hospital; but now under spray it was a very safe one.—Mr. WHEELER got better results without than with the spray in general surgical operations; the temperatures did not run so high. Listerism did not do what it was supposed to do—viz., destroy the micrococci, for these had been found in wounds dressed most strictly.—Mr. CROLY asked Mr. Tait, as he had admitted the germ theory, whether he considered the pus in an abscess as living or dead?—Dr. MASON asked how it happened that, immediately after the introduction of Listerism, the statistics improved rapidly.—Mr. THOMSON thought that the opponents of Listerism were not always logical, for while granting the premisses, they refused the conclusion. The great question was not so much what number die or recover, but how many can be saved out of the margin who have a tendency to die? In a crowded Western General Hospital in Glasgow, eight ovariotomies had been done under spray without a single death. Dr. Matthews Duncan had improved his results by adopting the use of the spray, and Mr. Thomson thought that it was not justifiable to set aside the methods of Mr. Lister in favour of those recommended by Mr. Tait. According to the early statistics published by Mr. Tait, his successes had been largely improved by the adoption of Listerism.—Mr. FRANKS regarded Listerism as a crutch which would materially help inexperience. In one case of knee-joint suppuration, which had come under his care, and which was dressed antiseptically, erysipelas appeared in the foot, and spread up to the dressings, and also appeared above the knee-dressings; but left the portion covered with carbolic gauze entirely free from the disease.—The PRESIDENT, Mr. ORMSBY, and Dr. KENNEDY, also took part in the debate.—Mr. TAIT, in reply, said that he had thirty-eight deaths out of his first fifty ovariotomies; but that the result was due to bad hospital arrangements, his own inexperience, and the use of the clamp; and that the subsequent improvement in his statistics was not due to the use of Listerism, but to the improvment of these particulars, and the use of intraperitoneal ligatures. Even Mr. Spencer Wells never had less than 20 per cent. of deaths while using the clamp, but rapidly improved when that was given up.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, FEBRUARY 25TH, 1882.

WILLIAM STOKES, M.D., President, in the Chair.

Melanotic Sarcoma of Eyeball.—Mr. J. B. STORY showed the left eyeball of a maiden lady, aged 33, who had suffered from erysipelas over the left temple at the age of three years, and had been struck with a twig in the eye six years ago. Her sight had been failing for the past twelve months, and she saw balls of fire in the eye. After enucleation of the eyeball, a tumour 13 millimètres in its antero-posterior diameter, and about the same equatorially, was found occupying the ciliary body and anterior portion of the choroid at the upper outer quadrant of the globe. It projected 4 millimètres inwards into the retina, and 4 millimètres outwards under the conjunctiva, having partly pierced the sclerotic, and partly pushed it in front of it. Examined microscopically, the tumour was seen to consist of both round and spindle cells; in places it was melanotic, in others it was non-pigmented. The latter portion of the sarcoma contained many large polygonal cells, with bright starry nuclei, and spaces like vacuoles in their interstices.

Large Gallstones.—Dr. J. W. MOORE read an account of the passage of several large gallstones by a lady, aged 41 years, which had been forwarded by Surgeon-Major G. Hare, Army Medical Department, now stationed at Mooltan, Punjab, India. The patient had suffered, more or less, from biliary colic for the past five years. Latterly, the attacks were followed by jaundice. Three unusually large gallstones were recently passed, *per anum*, by the patient—the first on November 11th, 1881, cuboid in shape, with seven well-defined facets; the second on November 25th, nearly a perfect octagon, with eight triangular facets, and the third on January 24th, 1882, also of octagonal form. The attacks of biliary colic indicating the passage of these calculi through the common bile-duct, had occurred three or four days previously in each instance, and were of terrible intensity. Nor was this to be wondered at, seeing the stones were all from 1¾ to 2 inches in circumference.

Calculi from the Bladder and Urethra.—Dr. E. H. BENNETT exhibited a series of calculi which he had received from Surgeon-Major Robinson, H.M. Bengal Army. The first stone was removed from the bladder of a hill-man, who was shot in the right gluteal region early in 1879. The bullet passed through the right ilium, finally lodging in the bladder, where it became the nucleus of a phosphatic calculus weighing (with the bullet) 420 grains. The patient suffered no uneasiness until the beginning of 1881, when all the symptons of stone appeared. The other specimens were three small calculi, which Surgeon-Major Robinson had removed from the very capacious urethra of a young man to whom they had caused little or no inconvenience. The largest of these rare calculi was 12 millimètres in circumference.

SATURDAY, MARCH 4th, 1882.

WILLIAM STOKES, M.D., President, in the Chair.

Excessive Granulation-Tissue.—Mr. H. G. CROLY submitted the middle finger of the right hand of a woman, aged 30, who had been severely bitten, the teeth entering the joint between the second and third phalanges. The injury necessitated amputation through the metacarpo-phalangeal articulation. A large mass of granulation-tissue had formed over the injured joint.

Sequestrum from the Os Calcis.—Mr. H. G. CROLY presented a sequestrum from the os calcis of a boy, aged 8, the result of an injury received whilst jumping.

Epithelioma of the Tongue.—Mr. H. G. CROLY also presented a large portion of the tongue of a man, aged 50, whose proclivity to smoking had led to the formation of an epithelioma.

Primary Cancer of Œsophagus.—Dr. J. M. FINNY showed a remarkable example of primary cancer of the œsophagus, with secondary deposit in the left lobe of the liver and gastric glands. The patient, a ship-carpenter, 52 years of age, had been ill from October last, complaining chiefly of pain in the epigastrium, and of difficulty of swallowing—food and drink would stop for some time, and then pass suddenly into the stomach. Death was brought about by hæmatemesis supervening on cancerous cachexia. The œsophagus was dilated and extensively ulcerated from the place where it is crossed by the aorta to within a quarter of an inch of the cardiac orifice. A fœtid abscess was found in the posterior mediastinum, causing pleural adhesions, and involving the posterior portions of the lungs, which were hepatised. The diaphragm was not affected, but a cluster of glands near the lesser curvature of the stomach was much enlarged, and a typical nodule of recent cancer existed in the left lobe of the liver. The stomach was free from disease, but its surface was in places hyperæmic, and of a puce colour.

The Etiology of the Dissemination of Tubercle.—Dr. PURSER exhibited a microscopical specimen illustrating the etiology of the dissemination of tubercle. Tubercular foci were visible in the inner coat of the pulmonery veins—a mode of infection which had been described by Weigert in Virchow's *Archiv* for 1879. Dr. Purser alluded to Ponfick's earlier researches on tuberculosis of the inner coat of the thoracic duct as a cause of dissemination of the tubercular veins.

Large Fibro-lipoma Simulating Umbilical Hernia.—Dr. BENNETT, for Dr. Travers Barton, Surgeon to the County Donegal Infirmary, showed a large fibro-lipoma, which Dr. Barton had removed from the abdominal wall of a strong, middle-sized man, 30 years of age. The tumour, which had appeared seven years ago as a small lump beside the navel, grew rapidly during the past six months. It was oval in shape, extended from the umbilicus to the left anterior superior spine of the ilium, and measured 23 inches round the base. It was composed chiefly of fat and fibrous tissue, portions of which were degenerating into a round-celled sarcoma.

REVIEWS AND NOTICES.

THE RELATION OF BRAIN TO MIND. By J. CLELAND, M.D. Glasgow: J. Maclehose and Sons. 1882.

Professor CLELAND is rapidly making for himself a reputation in Scotland, not only as an excellent professor of anatomy, but also as a man peculiarly qualified to deal with that delicate range of problems that lie on the borderland of physiology and psychology. It is with great pleasure, then, that we receive this pamphlet—which, although it was designed merely as a lecture to a University Society, contains, nevertheless, an excellent summary, all the better for being short, of the writer's views upon a range of topics, perhaps the most difficult, and at the same time the most urgent of all those that have been raised by modern discovery.

Beginning with a careful definition of life, Dr. Cleland passes over the questions raised by the cell-theory, and takes up particularly the function of irritability, which he defines "as the susceptibility of a living corpuscle to undergo physical change in consequence of a stimulus applied." We quote this, because it is one of the few points at which we are inclined to criticise the writer. The definition is really inadequate: for everything depends on the meaning given to "stimulus." Dr. Cleland would not surely call the destructive action of vitriol upon living tissue a case of irritability; yet it is included in the terms of his formula. He passes rapidly, however, to deal particularly with the

special function of the nervous system, which he calls "an apparatus by means of which irritations at the surface of the body are transmitted to a centre, and thence distributed so as to lead to combined action of muscular, glandular, or other arrangements." He regards it accordingly as capable of entire physical completeness, apart from anything in the nature of consciousness altogether. But he explains of course that, at least in mammals, there can be none of the higher operations of consciousness apart from the cerebral hemispheres, which must be, therefore, in some sense "the organ of the mind." To define *the* sense in which he uses this much-abused phrase, he asserts, on the one hand, as beyond doubt, that "with every mental action, whether intellectual, emotional, or volitional, a corresponding amount of oxidation of material takes place in the brain"—quoting particularly the authority of Mosso's plethysmograph—and repudiates, on the other hand, as simply "unthinkable" the frequent rash suggestions that "the thought and the cerebral change coincident with it are one and the same thing." Any physical change, as he argues, is a movement in "space modified" according to circumstances, but conceived by us as in any case a *movement* simply; but this idea is to us incompatible with the notion of "thought." Certainly, no one would say, apart from theoretical explanations, that he took "*thought*" to be anything *in space*. Surely, thought, looking at it simply as a fact of our experience, is defined by nothing more naturally than by this, that it is in time but is not in space. To call thought, then, or consciousness, the same thing as the material and spatial nerve-change is really to talk nonsense.

Dr. Cleland next discusses, very shortly but very lucidly, the new elements imported into any merely physical series of nerve-changes when consciousness intervenes. Having noticed sensation and attention, and formulated the important law that "the *degree of sensation* varies according to the amount of the stimulus, and the irritability of the nerves and brain, provided always that the attention is the same," he contrasts the fact that "the *amount of subsequent mental action* set up by a sensation has *no* quantitative relation to the sensation, and, therefore, none to the amount of energy liberated by the stimulus." His inference from the comparison of these two facts, which in themselves will hardly be disputed, we give in his own words:—

"I find myself forced to a conclusion which I have not hitherto held, namely, that the mind, non-material though it be, is affected by physical change in brain-substance; and that, in the initial mental process (to wit, the sensation), the *cerebral* is the antecedent of the *mental* change; while, in the whole train of mental phenomena succeeding the sensation, the *mental* changes are the antecedents of the *cerebral* changes which accompany them."

There are, therefore, two transition points—one, in sensation, at which a merely physical change is the antecedent to a double change, partly physical and partly mental; and the other, in voluntary or emotional action, where conversely a double change, partly physical and partly mental, is the antecedent to a merely physical change. He is led, therefore, to put forward, "with the diffidence which so startling a result suggests," the theory that the conservation of energy is a law which crosses the bounds of physiology into psychology; or, in other words, that in the production of sensation, for example, a "certain minute amount" of physical energy passes into the psychical world, and becomes a moment of thought. This, as he holds, would, however, "instantaneously return to the excitation effected by the sentient mind on the substance of the brain." Although thought, therefore, is not motion, it is yet so far a function of motion that the two are convertible, and that, in some sense and way as yet unknown, the one can become the other. "Nor will this statement long continue after all, perhaps, to wear a startling aspect to those who grasp, that spirit is the one substratum of everything."

We have said enough of this little book to show our readers that it is a remarkable contribution to the literature of a supremely difficult subject, on which, above all things, clear views and accurate definition of terms are needful. It may not be amiss to express a hope that the writer will work out, upon a larger scale, the views, new and old, which he has here sketched out too briefly. There is a strong tendency to leave all these questions to purely materialistic theories, under which we run a risk of forgetting that there are enormous objections to all such explanations. It is time that some competent physiologist out of the opposite camp should state his reading of the facts. No one seriously supposes that the question, whether we have a self or soul distinct from, and other than our body, is settled in the negative; and yet current scientific literature often reads as if it were so. It lies with men like Dr. Cleland to take away the reproach of the idealists.

THE population in Devonshire has, it is said, only increased 0.5 per cent. during the last ten years; the pauper lunatics having increased 20 per cent. in the same period.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1882.

SUBSCRIPTIONS to the Association for 1882 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, APRIL 15TH, 1882.

ACTINOMYCOSIS IN MAN.

A TUMOUR-LIKE disease of the jaws of cattle, which had long been known in many parts of Germany under the name of "Wurm" or "Knochenwurm", and is also seen in Italy, was shown by Professor Bollinger of Munich in 1877 to be invariably associated with the presence of one of the larger kinds of filamentous fungus; and that author described the disease, under the name of actinomycosis, as "a new fungus-disease in the ox". Up to that time, the tumour-like formations which usually grow from the alveoli of the lower molars, and protrude externally near the angle of the jaw, had been known to veterinary pathologists sometimes as scrofulosis, at other times, as osteo-sarcoma of the jaw, or as maxillary sarcoma; and it is still admitted that the whitish tumour-substance, in the cavities of which the fungus-bodies were found, possesses the granulation-like structure that is common to some sarcomata, as well as to the group of infective new growths which are not tumours in the restricted sense of the term. What Professor Bollinger precisely did was to show that the tumour-substance of the jaws contained, in abscess-like cavities in its interior, a number of small yellow bodies of the size of a hemp-seed and of fatty consistence. The same sulphur-yellow bodies were found within similar cavities on the tongue, and in the midst of similar tumour-formations of the fauces, larynx, the mucous membrane of the stomach, and in the respective lymphatic glands of those regions. On closer examination, the yellow bodies proved to be felted masses of mycelium-threads with a radiate arrangement, forking towards their circumferential end, and ending in flask-like swellings. These parasites he named the "radiate fungus" (*Actinomyces, Strahlenpilz*), and the disease in which they occurred he re-named Actinomycosis.

About two years afterwards (April 1879), Professor Ponfick of Breslau chanced to make the *post mortem* examination of a man aged 45, who had been admitted with chronic lung-disease of the left side, and who had several fistulous openings in the skin of the infraspinous region and other parts of the back. In the seropurulent contents of those sinuses, Professor Ponfick found the peculiar sulphur-yellow bodies first described by Bollinger (and familiar to himself from the examination of maxillary tumours of the ox made both at Göttingen and Breslau), and he proceeded to Berlin the same evening in order to communicate his discovery to the Surgical Congress then in session. Having had his attention thus directed to the occurrence of actinomycosis in man, Dr. Ponfick has collected four other cases in the course of the two years following, and has now published a comprehensive monograph on the subject, of which we purpose to give a brief account (*Die Actinomykose des Menschen, eine neue Infections-krankheit*, with six plates. Berlin, 1882.) He identifies his own cases in man with three cases recorded, a year before his first case, by Dr. James Israel of Berlin as "a new form of fungus-disease in man", and with a case observed by Professor von Langenbeck in 1845, and published from his original notes by that author as a pendant to Israel's cases. There are, at the present time, sixteen cases on record, including a fourth case by Israel, three cases by Rosenbach (Göttingen, 1880), and two cases by Partsch (Breslau, 1881). Dr. Israel's precise share in the discovery has, unfortunately, become the subject of controversy; and readers who are

curious in the matter will find that author's statement of his claims in one of the latest numbers of Virchow's *Archiv*.

Professor Ponfick's original case was that of a powerfully built man, aged 45, who had suffered from the sequelæ of pleurisy on the left side for a year and eight months. After death, there was found an extensive prævertebral phlegmonous inflammation in the posterior mediastinum, with a parapleuritic abscess-cavity extending both to the right and left, at the level of the seventh, eighth, and ninth intercostal spaces; with this cavity there communicated a complex system of sinuses, extending through the substance of the longissimus dorsi, the scapular muscles, and the subcutaneous tissues of the whole back. The sulphur-yellow fungus-bodies were found upon or between the granulations of these sinuses and in their substance, as well as in the sero-purulent discharge; they were also found in a cavity, of the size of a cherry, which occupied the centre of a hepatised area of the left lung (lower lobe), as well as in the exudation that filled some of the neighbouring alveoli. The second case was that of a woman aged 61, admitted with an abscess of the lower part of the abdominal wall; she subsequently developed another abscess of the left iliac fossa, without recurring symptoms of peritonitis, and died from exhaustion. After death, caries (with prævertebral collection of pus) of the three lower lumbar and first sacral vertebræ, abscesses in both iliac fossæ, and perityphlitic adhesions, were found. The yellow fungus-bodies were found in the pus of the prævertebral abscess. The third case was that of a woman, aged 45, who had suffered an injury of the right thumb three years before, with swelling of the arm, which did not subside, but extended to the neck and back, and was accompanied by progressive weakness. The necropsy revealed extensive sinuses on the left side of the neck and in the prævertebral tissue, a knob-like excrescence of new growth extending into the lumen of the internal jugular vein, a tumour, of the size of an apple, growing into the right auricle and ventricle, with corresponding whitish centres in the ventricular substance, and gelatinous nodules in the spleen and in the occipital lobe of the right cerebral hemisphere. In this remarkable case, the fungus-bodies were found in the sinuses of the neck, in the substance of the sarcoma-like growth of the jugular vein, in the tumour of the right auricle and ventricle, and elsewhere. In the fourth case, the illness began fourteen months before death, following the extraction of an upper molar; it consisted of swelling in the region of the right maxillary joint, swelling of the face, and subsequently of the neck; successive outbreaks of abscesses and sinuses in these regions; death occurred from extreme exhaustion. The yellow fungus-bodies were frequently obtained in this case from the sinuses during life. The record of the case is too elaborate to be given, even in outline; but it may be mentioned that there was, besides the extensive sinuses and granulation-centres of the face and neck, a prævertebral abscess extending from the basilar process of the occiput to the fourth dorsal vertebra, with osteophytic growths from all the bones, together with caries of both occipito-atlantal joints and of the right atlanto-axial. In the fifth case, a boy, the first indication of illness was a year before death, when he had symptoms of pleurisy; nine months later, there were a new and much more severe affection of the same side, general dropsy, progressive swelling in the lower part of the back, and evacuation of pus from a cavity opposite the eleventh left rib. *Post mortem*, a large prævertebral cavity was found on the left side, partly retropleural at the level of the eighth, ninth, and tenth ribs, and partly retroperitoneal at the level of the last two ribs and the left kidney; also several perforations of the diaphragm. There were numerous centres of actinomycosis in the muscles of the back, in the intercostals, and in the left psoas; also in the muscular substance of the left ventricle, and in the upper end of the spleen.

We have left little space to give an account of the able monograph which Professor Ponfick has drawn up on the basis of those five cases. It contains a chapter on the actinomycosis of the ox and of the pig, and a discussion of the natural history of the fungus itself. A series of experiments were undertaken to test the communicability of the disease in the first instance to the dog and rabbit, and afterwards to the calf. Neither the tumour-tissue as a whole (with the fungus involved in it) nor the pure fungus, appeared to be capable of growth in dogs or in rabbits, although various means of communication were tried. But, with calves, the introduction into the abdominal cavity of a number of tumour-fragments from the maxillary growths of the ox had the effect of establishing the same kind of new growth on the serous membrane at various places; and in one case, in which the tumour-particles were also inserted under the skin of the neck, there were centres of new growth in the neck, and miliary nodules in the lungs as well. One of the most interesting experiments yet remains to be done; viz., to try the effect of introducing the pure fungus into the calf. There is no doubt that the fungus is always present in the midst of the granulation-like tumour-structure; but its exact place in the pathology and causation of the disease yet remains to be determined. In the last section of the work, Dr. Ponfick reviews, with the skill and knowledge which distinguish the trained man of science, the occurrences of the disease in man, with a view to the establishment of its general characters and its affinities to diseases already known.

MEDICAL METEOROLOGISTS.

THAT there is an intimate connection between meteorology and disease has been long known; but, until accurate records both of meteorological events and of deaths, if not of disease, were kept, no valid comparison could be instituted between them. Since, however, the returns of deaths have been accurately classified and summarised at the General Register Office, and the use of photography has been invoked for recording the constant variations in the thermometrical and barometrical readings at Greenwich and elsewhere, the data for obtaining trustworthy results can be had. One of the chief difficulties in studying this question is the fact that we never meet with variations for a lengthened period, in one or two only of the elements of the weather, without changes in the others also. Thus, rapid changes in the height of the barometer are chiefly due to alterations in the direction or force of the wind; so that not only the influence of increased or diminished pressure has to be considered, but the more important element of change in the direction or velocity of the wind. Almost everyone's sensations will tell him, without looking at the vane, whether the wind blows from the east or the west; as, putting aside the difference of temperature, in this country easterly winds are usually much drier than those coming from the west. Again, as regards temperature, the effects on health vary to a great extent with the hygrometrical condition of the air, as great heat and moisture are very relaxing and depressing, whilst great heat with comparatively dry air is by no means so exhausting. In India, the regions of excessive heat are said not to be so unbearable or injurious as in the vicinity of the sea, where the air is almost saturated with moisture. Variations in the electrical state of the atmosphere also ought to be considered. As the effect of variations in all these conditions of the atmosphere cannot be worked out by one operation, it is necessary that a comparison should be made between the deaths of a given locality, and each of these conditions, that is to say, between deaths and variations in barometric pressure; the temperature, moisture, and electrical state of the air; the direction and velocity of the wind; the amount and average duration of rain; and the hours of cloud or sunshine. Now it is evident, when this has been done, that we only obtain results which are not absolutely reliable, as the modifying power of the atmospheric states not then under consideration have not been allowed for. Besides these, the greatest care must be employed in comparing a uniform population, at any rate as regards numbers, with the meteorological conditions under discussion. Some attention has been drawn to this aspect of the subject by a recent correspondence in our columns. No doubt some papers have been published, on which an immense amount of labour has been expended, which are worse than useless, because misleading, in consequence of the number of persons forming the basis of the inquiry having varied from time to time, whilst no allowance was made for these variations. Again, if the diseases or deaths amongst two populations be compared with the meteorological variations of the localities, and one should contain a much larger pro-

portion of persons in affluent circumstances and their servants than the other, the deductions will be to a certain extent erroneous. That this must be so, is well shown by the mean death-rates amongst the residents of the different wards in Glasgow. If deaths be compared with meteorological observations, a sufficient time must be allowed for the duration of the diseases set up, for instance, by cold weather, and the resulting death and registration.

It must not, however, be supposed that these remarks are made to discourage the tendency at present existing to make comparisons between atmospheric changes and disease, because the researches already made show that the effects of extreme heat or cold, or of fog, in a given population, can not only be calculated with considerable accuracy, but the diseases from which the excess of deaths will occur can also be predicated. Under these circumstances, it is satisfactory to know that there are about 150 meteorological stations in England and Wales, besides a large number in Scotland, where observations are regularly made with compared instruments and at corresponding hours. At very many of these, not only are ordinary observations made, but the estimated duration of rain daily in hours, the comparative humidity, the amount of sunshine, and the temperature of the earth are recorded, so that a very extensive field for work is now open to those who will give the necessary labour. This is the great difficulty, as very few amateurs are prepared to take up so laborious an inquiry, and the societies and others who receive the returns are not in a sufficiently good pecuniary position to discuss and elaborate them in such a manner as to bring out the causes of atmospheric variations. It is true that, owing to deaths and removals, many of the stations have been discontinued, when they had existed sufficiently long to be useful for this purpose; but even now there is a plethora of observations as compared with the discussing power. This must be altered, if meteorology is to become practically useful.

SYPHILITIC DISEASE OF THE HEART.

In most of the cases of syphilitic heart-disease on record, death has occurred suddenly, and the nature of the disease has only been revealed at the necropsy. The following case, therefore, lately reported by Dr. Mannino in the *Giornale Italiano delle Malattie Veneree e della Pelle*, is of interest, from the fact that the diagnosis was made during life and verified after death. The chief points of the case are briefly as follows.

A man, aged 36, was admitted into the hospital at Palermo, under the care of Dr. Federici, and stated that he had always had good health until eight years before, when he contracted some venereal disease, which was followed by pains all over the body. These pains were relieved by iodide of potassium. Since that time, however, he had suffered every winter from an eruption on the lower limbs, and for a few months previous to admission he had had occasional attacks of dyspnœa. These attacks had become worse during the last few weeks; a troublesome cough also added to his distress; and he gradually became too ill to continue his occupation. On admission, the patient was very weak, and complained of difficulty of breathing. Cough was frequent, sometimes dry, and sometimes attended by expectoration. The belly was swollen; both lower extremities were œdematous, and covered with coppery stains, pustules and scaly patches, some being ulcerated. There was also enlargement of several groups of lymphatic glands. The cheeks, lips, and tip of the nose were blue; the great veins of the neck were prominent and turgid, while arterial pulsation was very weak. The skin of the trunk and neck was mottled, and the radial pulse imperceptible. The hands were cold. The heart's impulse was diffused, and the exact situation of the apex-beat could not be defined. The pulsation was visible also in the epigastrium to the left of the sternal line. The area of cardiac dulness was not increased, the lowest limit being the fifth intercostal space. At the apex, the first sound was obscure, and accompanied by a very weak blowing murmur. At the base and at the second right intercostal space, the *bruit* was somewhat louder, and the second sound weak, but clear; but the *bruit* was much more distinct at the epigastrium than in any other situation. The percussion-sound was normal over the anterior part of the chest; but the posterior thoracic parietes were œdematous. Slight mucous *râles* were audible in places; elsewhere, the respiratory murmur was normal. The area of hepatic and splenic dulness was somewhat increased. The urine was scanty, acid, specific gravity 1025, and contained traces of albumen.

From these various symptoms, Dr. Federici diagnosed—first, that the right side of the heart was chiefly at fault, because the *bruit* was more distinct at the base and towards the right than at the apex, and still more distinct in the epigastrium; secondly, that the disease was not in the valves, but in the muscular structure of the heart, because of the rarity of primary disease of the right side of the heart, the normal area of dulness, and the peculiar and very feeble way in which the heart contracted, together with the great increase of tension in the venous system and the emptiness of the arteries. Lastly, he diagnosed syphilitic disease, from the presence of the syphilitic rash, etc. Hypodermic injections of mercury and large doses of iodide of potassium were prescribed. Soon after admission, the attacks of dyspnœa became gradually more and more severe, especially during the night; but the patient slept pretty well in a semi-erect position. The pulse was regular, but never perceptible at the wrist, and even in the larger arteries—the femoral, for example—was very weak indeed. The temperature was usually below normal. The *bruit* became fainter, but was always heard best at the epigastrium. The sputa became bloody, the dyspnœa more and more urgent; and finally death occurred somewhat suddenly, after a meal, nine days after the patient's admission into hospital.

Post mortem, the pericardium contained about 3 ounces of clear serum. The heart was globular in form, and weighed 393 grammes (nearly 14 ounces); the enlargement being due more to the left than to the right ventricle. On the anterior surface of the right ventricle was a large whitish patch of fibrous induration, eight centimètres long and three centimètres wide. On the left ventricle was a similar patch, of the size of a five-franc piece; and other smaller patches were scattered on the surface. A hard fibrous cord, studded with nodules, followed the direction of the interventricular septum. These parts resisted the knife, were pale in colour, and creaked on section. The tricuspid valve was healthy, except a slight swelling on one of the cusps. The endocardium was opaque in patches. The left ventricle was considerably dilated. The mitral valve was healthy. The endocardium of the conus arteriosus was white, indurated, and shining, like cartilage. The musculi papillares of both ventricles were pale and shrunken. Under the microscope, the affected portions of the muscular substance showed the usual appearances of syphilitic myositis. The lungs were adherent in places, partly emphysematous, and contained numerous infarcts. The liver showed a patch of syphilitic interstitial hepatitis in an early stage. The spleen was rather hard and large, and its capsule opaque, and adherent in parts to the thoracic wall. The kidneys were highly congested. The other organs of the body, as well as the large blood-vessels, were normal.

Sir Erasmus Wilson, the President of the Royal College of Surgeons, has been suffering from a severe attack of gastro-enteritis, but is, we are glad to be able to state, improving somewhat. The attack has been acute, and has much reduced the strength of the veteran and accomplished dermatologist.

There are evident signs of the advent of strong public feeling which will move the Government to abolish the present pernicious system of levying stamp-duty on patent medicines in such a manner as to give an immunity for any sort of misstatement as to their poisonous or non-poisonous character, and which allows their vendors to sell freely narcotic poisons without any of the precautions required under the Poisons Act. This week, again, a coroner's jury at Devonport returned a verdict of death from narcotic poison in a case in which a child three years old had expired suddenly, after taking successive

doses of a "linseed compound" administered for a cough. The jury attached no blame to the mother; but the coroner, at their desire, undertook to write to the Home Secretary pointing out the danger of allowing patent medicines containing narcotic poison to be sold freely by grocers and others.

THE QUEEN'S RESIDENCE AT MENTONE.

A CORRESPONDENT in Mentone wrote to us a few days ago: The health of the Queen and of the royal household continues to be satisfactory. Her Majesty has derived from her sojourn at Mentone the benefit hoped for and anticipated. The Queen looks remarkably well, and is active and in good spirits, walking and driving daily. The weather has been so fine, ever since Her Majesty arrived, that she has not been confined to the house a single day. The usual equinoctial gales and rain have not taken place; they have been represented merely by some gusts of wind, and by one rain and hailstorm in the night. Her Majesty expresses herself as thoroughly satisfied with the climate, with the scenery, with her residence, and with her reception. The temperature is rising slowly; from the 5th to the 8th, the day maximum has been about 65°, and the night minimum from 48° to 50°. On Wednesday, the 5th, Dr. Henry Bennet and Dr. Siordet were presented to Her Majesty, at the Chalet des Rosiers, by Sir Henry Ponsonby. Her Majesty had spent some time at Dr. Henry Bennet's garden at Grimaldi the day before, and expressed to him the pleasure the visit had given her, and her admiration of the flowers and views. She also made various remarks and inquiries about the cultivation of flowers in such an apparently barren rocky mountain site, and on the scenery at Bordighera. Her Majesty thanked Dr. Siordet for the trouble he had taken in investigating the sanitary arrangements of her residence, the Chalet des Rosiers. This Dr. Siordet had done at the request of Sir William Jenner. On the following day, Dr. Frank and Dr. Bright of Cannes were also presented to Her Majesty. These gentlemen had been entrusted with similar duties when Cannes was thought of as the residence of Her Majesty, previous to the final decision in favour of Mentone. A few days before, Dr. Henry Bennet had been honoured by an invitation to dinner with the officers of Her Majesty's household, Lord Spencer, Lord Bridport, Sir Henry Ponsonby, and Dr. Reid, by command of Her Majesty. A large bouquet of exotic flowers sent to the Chalet des Rosiers last week by the authorities of the Gambling House at Monte Carlo, was at once and peremptorily refused. Her Majesty left Mentone on Wednesday, in good health. Her residence in the south has been most satisfactory in every respect. The weather on Wednesday was fine and sunny.

PHYSICAL EDUCATION OF GIRLS.

IT is very satisfactory to note that, in the course of the progress of the movement for the higher education of girls, a wise attention is being directed, in influential quarters, to their physical education. At a recent school congress, Miss Müller, a member of the London School Board, directed attention, in happy and energetic language, to the still prevalent neglect of physical exercises in our girls' schools. "It generally happens," she said, "that, if we walk into a playground, the boys during their playtime are in full swing; one or two of the masters are half joining in and half directing the fun; there is scrambling, and laughing, and running, and shouting, and no thought of anything but play. All this is very good for the lungs and the muscles, and makes the blood circulate freely. But in the girls' playground we see groups of feeble, languid girls dawdling about. Sometimes the swings are locked up during play-hours, because the teacher considers it 'unladylike' for girls to swing.....The elastic movements of a graceful woman, the buoyancy of her step, and the dignity of her bearing, are the result, not of lessons on deportment, but of much free and unchecked activity in youth. The girl who can ride and skate and walk is the one who forms and retains a graceful figure, not the one whose only idea of locomotion is to walk with self-conscious stiffness for a quarter of a mile along a paved street." We are glad to see that, in the first number of the *Girton Magazine*, just issued, great stress is laid upon the value of the tennis-court as part of the collegiate system in the education of girls, and on the cultivation generally of physical exercises, which are, it appears, vigorously and vivaciously pursued at Girton. At the recent exhibition of hygienic dress held in London, under the auspices of the National Health Society, which attracted crowds of fashionable ladies, one of the most useful stalls was contributed from Girton, and the Girton corset was especially noticeable as a well-devised tribute to the laws of physiology applied to dress. M. Bert lately said shrewdly, "When you educate a boy, you perhaps educate a man; when you educate a girl, you are laying the foundation for the education of a family." This is as true physically as it is morally and mentally, and too much stress cannot be laid upon the importance of physical education and recreation in girls' schools.

A PHARMACEUTICAL EXHIBITION.

AN exhibition, on a large scale, of pharmaceutical preparations, both organic and inorganic, of laboratory appliances, and of works relating to pharmacy, will be opened in Madrid on November 21st, 1882. The exhibition will be under the immediate auspices of the College of Pharmacy of Madrid, and will be presided over by Don Fernandez Izquierdo, to whom all communications should be addressed.

SCARLET FEVER AND BUTCHERS' MEAT.

THE rapidly accumulating evidence as to the influence of food in spreading infectious disease has recently received a remarkable addition at the hands of Dr. Robertson, who, in his last annual report on the health of the Penrith Rural District, includes an account of several cases of scarlet fever, which he is strongly inclined to believe were communicated through butchers' meat. In a butcher's family there was an exceedingly mild case of scarlet fever, so mild that no medical man was called in, the disease, in fact, not being recognised; but the free desquamation of the skin, and the former history of slight fever with sore throat, leaves no doubt as to the nature of the illness. The occurrence of such a case in a small house, and where no precautions were taken, renders it an easy matter to spread the disease in the manner Dr. Robertson suggests. The number of cases in the neighbourhood continued to increase, notwithstanding all the precautions that were used, in addition to the closure of the schools. The meat is the only means by which Dr. Robertson can imagine the disease was carried in several of the cases; in others, the wanton carelessness of the public, after being fully warned of the danger of having public meetings and private gatherings, was a fruitful cause of its spread. In another village, a large number of cases of scarlet fever occurred, and the health-officer has strong reason for suspecting the butcher's meat as a medium by which the infection was spread. The circumstances here were almost identical with those of the first outbreak. The first case was at a butcher's house; it was a slight one, not recognisable by the parents at first; free desquamation took place, and the child was allowed to run all over the premises.

OPINION IN LIVERPOOL ON VIVISECTION.

AT the eleventh ordinary meeting of the Liverpool Literary and Philosophical Society, held on March 20th, the paper of the evening was read by Frederick Pollard, M.D.Lond., on "The Justifiability of Scientific Experiments on Living Animals." Dr. Pollard began by giving a historical sketch of the antivivisection agitation, and of the legislation which had taken place on the subject. He then discussed at length the arguments for and against vivisection, and the limits within which painful experiments ought to be allowed. He concluded with a protest against the spirit in which the antivivisection agitation had been carried on, and against many of the devices which had been employed to prejudice public opinion on the subject. In the discussion which followed, one or two of the medical men present thought Dr. Pollard had been too lenient in his criticism of the Act of 1876, and urged that no legislation was required to regulate vivisection, while others agreed with the author of the paper, that the Act of 1876, though needing revision, was beneficial in its action, since it protected licensed

experimenters from vexatious prosecutions, and prevented unskilful persons from inflicting needless suffering on animals under the pretext of making scientific observations. There was no opposition to Dr. Pollard's position from the so-called humanitarian point of view, and several of the Liverpool papers, in commenting on the discussion, supported the conclusions which Dr. Pollard had formulated. From this we may infer that, in Liverpool at least, the majority of intelligent people are not deceived by the exaggerations and perversions which have been assiduously disseminated by the antivivisectionists during the last few years.

THE MCINTYRE MEMORIAL GIFT.

WE are able to record a generous and filial act of honour to the memory of the late Dr. McIntyre, who practised for forty years at Muthill, in Perthshire. His son, Dr. McIntyre, of Odiham, a well-known member of our Association, who still retains the old home, wishing to keep the memory of his father still alive, has, last month, sent £1,000 to the minister of the parish, to be invested in good securities, and the interest of it paid half yearly to twenty poor people in the parish, to be called "The McIntyre Memorial Gift." The deed, and the thought which prompted it, are alike honourable and pleasant to record. The useful, gentle, and laborious lives of rural practitioners more often deserve than receive such generous commemoration.

SMALL-POX IN SHEFFIELD.

A GOOD deal of alarm is felt in Sheffield in consequence of the occurrence of some cases of small-pox in the town. For some years no death has been caused in Sheffield by small-pox; but for several years prior to 1872 the town suffered very severely. In the ten years 1861-70, there were 1,206 deaths; and in the following two years, 1871-2, no fewer than 1,006 deaths were due to small-pox; so that it is but natural that there should be some anxiety lest the disease should again become epidemic. Since 1872 there have not been a dozen deaths from small-pox altogether. Until the end of last year, there was no accommodation for any infectious cases in Sheffield, except a few beds at the workhouses. This disgraceful state of affairs has since been partially relieved by the erection of a hospital with sixty-four beds for infectious cases by the corporation. This hospital was opened at the end of last year. Up to the present, there have not been many cases of small-pox since the first occurred; and, with one exception, so far as we can learn, they were all "modified" and mild in character. This exception was a young man who had never been vaccinated, and who died of confluent hæmorrhagic small-pox, contracted in a neighbouring town from a girl who had the disease in a "modified" and very mild form. For some time the domestics and others resident in the administrative block of the hospital have suffered from sore hands and other slight ailments, which point to some defect in the drainage of that department. Fortunately, nothing of the kind has been observed in the wards. Later on, one of the nurses was attacked with varioloid; and on Sunday week, Dr. Whitelegge, the resident medical officer, was taken ill. Next day, the cook was attacked; she had not only been vaccinated in infancy, but she had suffered from small-pox in childhood. As there is no visiting staff, the committee of management requested Dr. Hime, the Medical Officer of Health, to undertake the charge of the hospital until Dr. Whitelegge's recovery. Dr. Hime's valuable services during the emergency have been acknowledged by the thanks of the committee, and at the town council meeting it was stated by the chairman that Dr. Hime had exhibited "a noble example of self-sacrifice and humanity, and deserved the highest consideration from the council." As Dr. Hime would not undertake sole charge for an indefinite time, Dr. Sparrow has been appointed *locum tenens*. We learn that scarlet fever has broken out in the barracks at Sheffield, and that there is not proper means of isolation. The question has arisen as to whether patients from the barracks should be admitted to the Borough Hospital, and, if so, whether they are to be paid for, like other patients, and by whom. It would, indeed, be short-sighted policy were the War Office to hesitate to pay for proper means of isolating infectious soldiers and their families. The Sheffield Borough Hospital is built in five detached blocks, and contains eight wards, with eight beds in each. The plans are those of Mr. S. L. Swan, architect, selected by Captain Douglas Galton, F.R.S., from among the competitors' plans. Dr. Thorne Thorne, of the Local Government Board, also inspected and approved of the site, and the plans were passed by the Board itself before lending money for its erection. It is simply astounding if, within a few months of the opening of such a hospital, it should be found that, on inspection, the drainage is defective.

PROTECTION OF INFANT LIFE.

THE Infant Life Protection Act is one of the legislative measures which will always stand largely to the credit of the BRITISH MEDICAL JOURNAL, which took a prime part in laying the foundations for that measure, and in bringing it into the sphere of practical politics. It is satisfactory to learn from the police that there is reason to believe that the operations of the Act have been most influential in stopping the pernicious practice of baby-farming; and it is satisfactory from time to time to see that appointed agents for carrying out this law do not altogether sleep, but keep a more or less vigilant eye upon those who attempt to break it. Mary Ann Walker, a married woman, has been sentenced, at Worship Street, under the Infant Life Protection Act, to six weeks' hard labour, for having had more than one infant under the age of one year for the purpose of nursing apart from their parents. This woman was a hardened offender, and just one of those which the law is intended to restrain and punish. For the evidence showed that she had in her possession three infants who were badly kept and dirty; and that she, her husband, girl, and two children all lived in one room together, and she did so because she desired to evade the Act, and was afraid of being found out. The rooms in neither house were registered, and the prisoner well knew the requirements of the Act, as she had before been summoned and punished with six months' imprisonment with hard labour for baby-farming.

OUTBREAK OF TYPHOID IN AN INFIRMARY.

WITHIN the past few days Leicester Infirmary has been the scene of an outbreak of typhoid fever, by which no fewer than ten of the dressers, nurses, and servants have been prostrated, and two others have died. Dr. Buck, the Medical Officer of Health, has instituted an investigation, from which it appears that all the victims had drunk raw milk. As the house-drains appeared to be in good condition, an inquiry was instituted. It was then found that the person who supplied the milk had been affected by similar symptoms, and that the owner of the farm from which it came had also suffered. The farm-premises were next inspected. It was ascertained that the well was situated near an overflowing and leaky cesspool, and that it stood near the end of the house-drain. An analysis of three samples was made, and it was shown that the water used for domestic purposes, and with which the milk-cans were washed, was quite unfit for use, being polluted with sewage. It was therefore inferred that the outbreak had arisen from the use of contaminated milk. The patients were, at the last report, progressing favourably.

EXCISION OF THE PYLORUS.

ON April 5th, at the Manchester Royal Infirmary, Mr. F. A. Southam removed the pylorus, along with nearly a third of the stomach, from a man aged 43, suffering from carcinoma of the parts which were taken away by operation. The patient had been under the care of Dr. James Ross for the relief of symptoms of pyloric obstruction. A hard and freely movable mass could be felt through the abdominal walls; and operative measures were determined upon at Dr. Ross's suggestion. The operation was peformed by Mr. Southam, with the assistance of Mr. Whitehead, antiseptically, after the method adopted by Professor Billroth. Thirty-nine silk ligatures were found necessary for uniting the duodenum to the stomach. The shock succeeding the operation, which lasted one hour and a half, appeared to be very slight, and for twelve

hours the patient's condition was all that could be desired. No sickness ensued; the pulse was very fair; and the temperature did not fall below 97.6°. Towards evening, the temperature rose gradually; and, fourteen hours after the conclusion of the operation, death occurred somewhat suddenly, apparently from collapse, but "no doubt", in the opinion of the operator, "as the result of that acute form of septicæmia, or rather septic intoxication, to which Dr. Marion Sims has directed attention, and which is, no doubt, the real cause of death in many cases of abdominal surgery, especially where no outlet is afforded for the discharges." The temperature just before death had risen to 102°. At the necropsy, the condition of the parts around the seat of operation was carefully examined, and tolerably firm adhesion was found to have already taken place between the cut surfaces of the stomach and the duodenum. There were six and a half ounces of blood-stained serum in the peritoneal cavity. We hope to be able to afford an early insertion to further and fuller particulars of this case.

IODOFORM IN ENGLISH ANTISEPTIC SURGERY.

As our readers are aware, Professor Lister made some experiments during the past year with various preparations of eucalyptol, and he is at present testing the suitability of iodoform. Iodoform is chemically nearly related to chloroform, their formulæ differing only in the substitution of the one halogen for the other (Iodoform = CHI_3). Both bodies have powerful antiseptic properties, the addition of less than 1 per cent. of chloroform, for instance, to an animal or vegetable infusion will prevent decomposition for, at least, many months. Iodoform occurs in the form of a dense yellow crystalline powder. Hence it is more convenient than other ordinary antiseptics for the treatment of local sores, for introducing into chronic sinuses or into scrofulous joints after incision; but it is not easy of application to an amputation or to most other operation wounds; and is quite unsuitable for use with the spray. For this reason Professor Lister still operates under the carbolic acid spray, though he now seems to attach rather less importance to its continuous use, and will stop it, for instance, for a short time during an operation if the cloud it produces be found to interfere with a clear view of the wound. The dressings used consist of cotton wool impregnated with iodoform, and the drug itself is, in certain cases, powdered over the wound from a sprinkling-box. "Iodoform wool" has also been extensively used at University College Hospital, and we learn from Mr. Gerard, pharmacist to that hospital, that the great difficulty encountered in preparing the wool is to obtain an even distribution of the iodoform. The desired end is best obtained by treating the powdered drug with ether, in the proportion of about eighty-eight parts of ether to eight of iodoform. In about four pints of this mixture, half a pound of fine clean cotton-wool is soaked for a short time; the wool is afterwards placed in a drug-press. About three pints of ether can be squeezed out, and, when dry, the wool contains about 10 per cent. of iodoform. The same objection is made against this wool as against salicylic wool—namely, that its use spreads about the room an irritating dust, with this further disadvantage, that the odour is to most people very offensive. A little glycerine added to the ether used in its preparation, checks the former tendency, and the latter drawback is minimised by the addition of eucalyptus oil. The wool ought to be stored in air-tight boxes, and not handled more than necessary before use. It is too early, as yet, to speak decisively of the value of this antiseptic from experience gained in England, but we believe that it has given a good deal of satisfaction to those who have used it, and has proved itself especially valuable in cases where carbolic acid is, either from idosyncrasy or from the delicate nature of the parts involved, too irritating to be borne.

ADULTERATION IN AMERICA.

THE House Committee appointed by the United States Congress to inquire into different matters relating to the commerce of the country has issued an alarming report upon the subject of adulteration. Of eighteen samples professing to be cream of tartar, an article generally used in bread making, only six were pure, the remainder containing lime in large quantities up to 90 per cent., while in two there was absolutely no cream of tartar at all. As to black pepper the report states that the trade appear to have lost all knowledge of the character of the true article. The ingredients of adulteration in this case consist of baked flour, rice, sago, potato-starch, brown and white mustard, wheat, bran, flour, oatmeal, ground gypsum, wood, and sand. Teas were found to be adulterated with black lead, indigo, Prussian blue, chrome yellow, Venetian red, carbonate of copper, and arsenite of copper. Experiments with a great variety of other articles yielded no more satisfactory results.

POOR-LAW MEDICAL SERVICE AND STAFF IN ITALY.

UNSATISFACTORY as the position of poor-law medical officers in England is in many respects, it is, nevertheless, considerably better than it appears to be in Italy. In that country the administration of poor relief is entirely in the hands of irresponsible guardians, chosen in the small communes, from whose decisions there is no appeal. A petition has lately been addressed to the Italian Parliament on this important subject by over 3,000 medical officers in charge of poor-law districts all over the kingdom. The petition pathetically enumerates their sorrows and grievances, and calls urgently for some legislative measure of relief. The chief grievances are the absence of any adequate retiring allowance, the smallness of the salaries, and the tyranny of the local officials. The petition is couched in strong language, and describes the medical officer's position as little better than that of "a slave, overwhelmed with official duties, and responsibilities in store after a life of severe and unthankful labour, then an old age of disappointment and penury." This picture may perhaps be slighty overcoloured, but, making all due allowance, if only a portion of the statements contained in the petition referred to be correct, the condition of poor-law medical officers in Italy requires immediate reformation.

SMALL-POX IN BIRDS.

IN a recent publication issued by the Washington Board of Health, attention is drawn to this subject. It stated that in Europe and Hindostan variola is so common in pigeons and poultry as to constitute a veritable plague. Thus Guersant records that out of a dovecote of one thousand, scarce one hundred could be found that did not bear marks of the disease; while Tytler says the poultry-yards in India were habitually depopulated by the plague. Bechstein and others claim that it is the true small-pox derived from the human being, and conveyable back to man; while others, like Foggia and Gilbert, assert that it is communicable to the sheep. That this affection has not been recognised among us may be due to a difference in the environment which modifies the infection, or perhaps to the fact that men and pigeons do not live so much in common here as in Italy and India. Such an occurrence under Italian skies should, however, demand a careful investigation into the reality of such affection in the United States, and especially in the Southern ones, during the prevalence of an epidemic of small-pox, so that whatever danger arises from this source may be detected and guarded against.

LAW AT THE ANTIPODES.

ON the charge of having improperly and negligently given a certificate declaring a man named Smith, residing at Melbourne, to be of unsound mind, Solomon Iffla, a surgeon and justice of the peace at Emerald Hill, Melbourne, has been sued in the Supreme Court of Victoria for £1,000 damages. From the particulars given in the *Australian Medical Gazette*, it appears that the certificates were obtained at the instance of Mrs. Smith, who alleged that her husband had, without cause, made charges against her of improper conduct; and it was said Smith was labouring under delusions; and Smith was incarcerated in the Yarra Bend Asylum for nearly two months, when he was released by order of his honour Mr. Justice Williams. It was contended for the defendant that Smith was labouring under delusions as regarded his wife, that he was insane at the time of his incarceration; but that, even if he were not insane, the defendant had exercised proper care and caution in

examining the plaintiff, and in making inquiries before he signed the certificate as to his lunacy. For the plaintiff, it was urged that, even if he were under a delusion, he was not insane in the sense that he should be sent to an asylum, and that the defendant had not made reasonable inquiries about him. The jury gave a verdict for plaintiff, damages £520. We understand that the plaintiff intends proceeding against the medical men who jointly signed the certificate in question.—Abraham John Van Heekeren has been charged at the Sydney Central Criminal Court with attempting to procure a miscarriage on the person of a single woman, by means of a male catheter. It was urged in defence that the premature birth of the child was due to some pennyroyal taken with that intent by the advice of the girl's master, and that the charge against the accused had been trumped up to screen the real offender. The jury not being able to agree, after being locked up a whole night, the prisoner was liberated in his own recognisances and two sureties to appear when called upon.—Dr. J. R. Joseph of South Brisbane, we learn, from the *Australian Medical Gazette*, has been indicted for causing the death of a woman by carrying the contagion of puerperal peritonitis from another patient of his, both of whom he is said to have attended on the same day. The evidence, however, was found insufficient to justify a conviction. The fact of this prosecution, however, gives point to our leading comment on this subject in a former number of the BRITISH MEDICAL JOURNAL.

HYPNOTIC EXPERIMENTS.

M. CHARCOT objects to the statements made by M. Milne Edwards, concerning the danger of making hypnotic experiments on the human subject, adverted to in the BRITISH MEDICAL JOURNAL of February 25th (page 282). M. Charcot read the following statement, at the Académie des Sciences, in which he classifies the different conditions resulting from hypnotism practised on hysterical patients. 1. In the cataleptic state, the eyes of the patient are wide open; she looks fixedly, and is perfectly still; the limbs remain for a long time in the position in which they are placed. Reflex action of the tendons is absent, or very feeble; the intervals of breathing are prolonged. The patient is sometimes impressed by different suggestions made, and instigated to automatic movements. 2. In the lethargic state, the eyes are closed; the limbs are flaccid; the respiration hurried; there is considerable excitability—that is to say, the muscles have a tendency to contract when under the influence of a mechanical stimulus acting on the tendon, muscle or nerve. 3. In the somnambulistic state, the eyes are closed or half closed; the patient seems to be numbed. If the surface of a limb be slightly irritated, it becomes rigid; this rigidity does not cease when the opposed muscles are stimulated, which is the case in the lethargic state. The most varied and complicated automatic acts can be induced by admonishing the patient. On pressing the eyeball, the somnambulistic state is succeeded by the lethargic state.

VACCINATION IN NEW YORK.

Dr. SAYRE, of New York, has recently published in the *Herald*, of that city, some statistics about vaccination furnished to him by Dr. Whittlesey, who was in charge of the Nursery Hospital on Randall's Island for some years. The nursery hospital had from 2000 to 3000 inmates each year from 1851 to 1861. Prior to 1854 there were several cases of small-pox. In the three years, 1854-55-56, Dr. Whittlesey attended personally to the vaccination of every child on its admission, and no case of small-pox occurred during those years, although four children were brought there suffering from the disease. During the succeeding five years, the vaccination of new inmates was left to subordinates, who sometimes neglected the duty, with the result that there were forty-four cases of small-pox during that time, twenty of which originated in the institution. During this time, Dr. Whittlesey retained under his personal supervision the Refuge Hospital, and persisted in his plan of vaccinating every inmate on admission. There were 2440 inmates of the Refuge Hospital during that time, and not a single case of small-pox or varioloid occurred, notwithstanding the admission of some children suffering from the disease, thus exposing the inmates to contagion. Dr. Sayre, it may be remarked, was, thirty years or more ago, the resident physician or health-officer of New York, and collected a great deal of statistical information about vaccination and small-pox at that time, on which he bases his strongly expressed opinion that "vaccination is a positive preventive of small-pox."

SCOTLAND.

ALARMING OCCURRENCE AT INVERNESS.

A SERIOUS occurrence took place, on the 7th instant, at Inverness, where over a hundred persons were suddenly seized with violent sickness and vomiting, and showed all the symptoms of having been poisoned. It was soon discovered that all had been eating hot cross buns, bought at a particular shop. The baker himself, his family, and his assistants, had all suffered more or less. Steps were taken to stop the sale of the buns, as all the circumstances pointed to their being the cause of the mischief. This was done, and the remainder of the stock was seized by the authorities for the purpose of analysis. It is suspected that the poison had found its way into the spices used in flavouring the buns. Altogether, one hundred and forty persons suffered; but no fatal results followed. Portions of the buns and spice have been forwarded to Dr. Littlejohn of Edinburgh, for analysis; and, until his report is received, the cause of the occurrence must be merely conjectural, although all the symptoms of the sufferers point to some irritant poison.

GLASGOW UNIVERSITY COURT.

AT the meeting of the Glasgow University Court held last week, the resignation of Dr. Hector C. Cameron of his examinership in surgery and clinical surgery was accepted. There were several applications for the vacant appointment, to which Mr. Walter Pye of London was unanimously elected.

EDINBURGH VETERINARY COLLEGE.

THE appointment of Professor of Physiology in the Dick Veterinary College having become vacant through the translation of Dr. Cunningham to Dublin, the Town Council of Edinburgh on Tuesday elected Dr. James (recently appointed Assistant-Physician to the Royal Infirmary) to the Chair of Physiology in the College. The other candidate, Mr. Johnson Symington, M.B., had previously withdrawn his application, so that there was no contest.

UNIVERSITY OF EDINBURGH.

AT a recent meeting of the University Court, a resolution was adopted which is of some importance to students who propose studying and graduating in the University of Edinburgh. It was resolved "to apply to Her Majesty in Council for approval of an alteration of Ordnance No. 5, Edinburgh No. 2, under which attendance on the classes of practical physiology, practical pathology, and practical materia medica would be made imperative. The instruction accepted as equivalent to a course of practical materia medica would in future be apprenticeship for not less than two years in compounding and dispensing drugs, under a registered medical practitioner or a member of the Pharmaceutical Society of Great Britain; the position of practical midwifery instructor in the regulations would be altered, and the number of subjects, in which extra-academic teaching might be taken, would be increased from four to five; these alterations to apply to students who commenced their medical studies after session 1881-82." The alteration proposed (and especially that referring to materia medica and midwifery), have, within twenty-four hours of their publication, become the subject of hostile criticism in one of the public prints, in a letter signed by a member of the General Council. At the same meeting, it was resolved, on the recommendation of the Senatus, to agree to the discontinuance of the fee of £1 1s. which the Professors of Clinical Medicine were authorised in 1876 to charge for their tutorial class.

The appointment of Mr. Arthur Thomson, M.B., as principal demonstrator of anatomy, by Professor Turner, was approved. He succeeds Dr. D. J. Cunningham, now Professor of Anatomy in the Royal College of Surgeons, Dublin. For the preliminary examination, held lately, over 400 candidates appeared; for the first professional examination about 200; and for the second professional examination about 280 appeared, this large number being doubtless owing to new regulations that allow a candidate to appear for two subjects at one time in the second professional examination.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General, for the week ending April 1st, it appears that the death-rate in the eight principal towns was 22.0 per 1000 of estimated population. This rate is 1.3 above that for the corresponding week of last year, but 0.5 below that for the previous week of the present year. The lowest mortality was recorded in Leith —viz., 15.6 per 1000; and the highest in Paisley—viz., 30.3 per 1000. The mortality from the seven most familiar zymotic diseases was at the rate of 3.1 per 1000, or 0.7 below the rate for last week. Whooping-cough was the most fatal epidemic, and was most prevalent in Glasgow. Acute diseases of the chest caused 115 deaths, or one less than the number registered last week. The mean temperature was 44.4°, being 1.7° above that of the week immediately preceding, but 8.8° above that of the corresponding week of last year.

IRELAND.

AN outbreak of scarlet fever recently took place in Athy union; but, fortunately, the epidemic was of a mild character, as in every instance the parents refused to send their children to hospital.

THERE will be an election of a professor of ophthalmic and aural surgery in the Royal College of Surgeons in Ireland, in room of Mr. H. R. Swanzy, who resigned the chair prior to his appointment as an examiner in the same subject for the licence of the College, on the 8th of May next.

ROYAL UNIVERSITY OF IRELAND.

TWO of the members of the Senate of this University—the Rev. Gerald Molloy, D.D., Vice-Rector of the Catholic University of Ireland, and Dr. Redfern, Professor of Anatomy and Physiology in the Queen's College, Belfast—have, it is stated, resigned their seats on the Senate, in order to qualify themselves as candidates for fellowships in the new university. In their respective branches of science two more efficient or able Fellows of an university could hardly be selected. The election of Fellows will take place next week.

THE KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

THE President and Fellows of this College have appointed Dr. Fleetwood Churchill a *locum tenens* in the room of the late Sir Edward B. Sinclair, to discharge the clinical duties of the King's Professor of Midwifery in Sir Patrick Dun's Hospital. The election of a successor to the chair of King's professorship will not take place, in accordance with the charter, until July next, being three months after its becoming vacant. Several candidates are already in the field.

A COLOURED medical man is reported to have been appointed assistant-physician at the Central Lunatic Asylum, Richmond, Virginia. This is stated to be the first time a man of negro blood has received a public office in Virginia State.

METEOROLOGICAL SOCIETY.—At the ordinary meeting of the Society, to be held at 25, Great George Street, Westminster, on the 19th instant, at 7 p.m., the following papers will be read:—"Barometric Gradients: Wind Velocity and Direction at the Kew Observatory," by Mr. G. M. Whipple, B.Sc., F.M.S., and Mr. T. W. Baker, F.M.S.; "On Difference of Temperature with Elevation," by Mr. George Dines, F.M.S.

SELECT COMMITTEE ON THE CONTAGIOUS DISEASES ACTS.

AT the meeting of the Committee on Tuesday, the 28th March, Mr. Wheeler was recalled and further examined by Mr. Fowler, Mr. Osborne Morgan, General Burnaby, and others. He was particularly questioned as to a certain "leaflet" signed by him, and very extensively circulated under the auspices of the Association for the repeal of the Acts. In it the following passage occurs with reference to the form of voluntary submission signed by many women before they attend the examination:—"Hundreds of terrified girls have signed this crafty form under the threat and terror of imprisonment." At the previous sitting of the Committee Mr. Wheeler's attention was called to this statement, and he was invited to authenticate it by naming one single instance in which such injustice had been committed; excluding, of course, the case then under consideration, viz., that of Caroline Wybrow. His reply was, that at that moment he was unable to give any such instances, but would be ready at the next meeting of the Committee to mention certain definite cases.

Accordingly, the very serious nature of his allegation was again pointed out to him, and he was requested to explain it by reference to some actual facts. After some time, he said he could only refer to the statements on which his opinions were based, and he specially mentioned the evidence of Mr. R. B. Williams before the Royal Commission in 1871; he was, however, not prepared with details. Being further pressed to either justify or withdraw this vague charge, he refused; but said that before the next meeting of the Committee he would endeavour to collect evidence in support of his statement, and if he found he had made a mistake he would modify the objectionable paragraph.

The facts of the case of Caroline Wybrow, already alluded to, are very briefly these. For a considerable time she had been known to the police as the habitual nightly associate of registered prostitutes and soldiers, in brothels and on the lines at Chatham. In February 1875 she was ordered by the police to attend for examination, and signed the form of voluntary submission. She refused to be examined, and was thereupon committed to the Lock Hospital, under form L, by the examining surgeon, who concluded from her manner that she was conscious of having disease, but was unwilling, from shame, to disclose her condition. Subsequently, on superficial examination, without a speculum, she was found to be suffering from a copious thick discharge, having all the appearance of a gonorrhœal one. She was detained nine days, and was then discharged, as cured. It is to be feared that an undoubted error of judgment was committed in detaining the girl in hospital on suspicion of disease, instead of summoning her before a magistrate, when she refused to be examined. But in so doing the surgeon acted with the kindest possible motives, preferring to spare the girl the painful ordeal of an appearance in a police-court on such a matter. The error has been frankly admitted, and the parties concerned have received a reproof from the War Office, together with strict instructions as to the course to be followed for the future in similar cases. Moreover, the whole of the papers bearing on the case will be published without reserve, that the public may form its own judgment in the matter.

Mr. Wheeler admits that it took ten months from the time of the occurrence to get up the case; and it was a whole year before the statutory declarations of the girl and her mother were forwarded to the Home Office. The event itself occurred just seven years ago, and as it is practically the only case in any way made out by the opponents of the Acts, it may be presumed they have no others of more recent date to bring forward.

The Rev. Hugh Ryves Baker, Vicar of St. Michael's, Woolwich, was next called and examined by Mr. Stansfeld. The reverend gentleman is a very strong opponent of the Acts, and far from admitting that there is any diminution of public immorality in the streets of Woolwich, he thinks that things are now very much worse than formerly.

In this matter he entirely disagrees with the Rev. Thomas Tuffield, a Nonconformist minister, who gave evidence last year. Mr. Baker had heard the evidence given as to the increased energy of the police in other places in checking this kind of disorder of late, but was unable to say why they had apparently so neglected their duty in Woolwich. He agreed that the number of brothels was diminished, but denied that this by any means lessened the number of prostitutes, who migrated to other houses that did not come under that designation.

He was inclined to think that in the young men of Woolwich sexual vice was now practised at a much earlier age than formerly; and he knew that in certain shops in the Arsenal there was a fearful amount of immorality. He attributed this precocity partly to the tendencies of the age, but more to the tendencies of the Contagious Diseases Acts,

which enabled sin to be committed with impunity. Being reminded that this was most powerful testimony to the hygienic success of the Acts, he replied that he would qualify his previous statement by saying that sin could be committed with impunity "to a certain extent"—but to what extent the reverend witness did not define.

He handed in a report obtained from the secretary of the London Lock Hospital, from which it appeared that out of 537 patients under the Acts admitted in 1881, only 24 were reclaimed, *i.e.*, a little over 5 per cent. : while, out of 642 voluntary patients, 272 were rescued, or rather more than 40 per cent. From this he argued as to the "hardening" effect of the Acts, and the great difficulty in obtaining any good moral results with the women sent in under its provisions.

But it is not denied that there is much greater difficulty in dealing with women sent in under the Acts, for these reasons. In the first place, the great majority of them belong to the lowest and most ignorant class of the population. On the other hand, the voluntary patients, who from the very fact of their being such, show a desire for their physical welfare, belong to a totally different category. Many, no doubt, are prostitutes, but they mostly belong to a superior class, while very many are dressmakers, shop-girls, servants, and such like, and numbers of respectable married women are admitted to the "voluntary" wards in the course of the year. Naturally, with such as these any efforts at reclamation are much more successful. Moreover, the figures 537 do not represent that number of distinct patients, as many of the women sent in under the Acts are admitted several times in the course of the year, and on each occasion such a one would be entered as a separate case. However, it was decided to call as the next witness the Rev. Flavel Cook, Chaplain to the London Lock Hospital, who will, no doubt, explain these points more fully.

Mr. Baker referred to a petition from Woolwich for the repeal of the Acts, signed by the large number of 8,000 persons,—the total population of the district subject to the Acts being about 40,000. Signatures to this petition were collected by his mission women and others. He himself signed it, and he was the only Church clergyman who did so. Nor was it signed by one single magistrate, or member of the Local Board. He was not acquainted with the views of the present Members of Parliament for Greenwich on the subject of the Acts.

The reverend gentleman stated positively that he had never heard of any case in which the police had acted harshly in carrying out the Acts, and from his position he could hardly fail to know if there had been such. Not only had no respectable women been molested, but he was not aware of a single instance even of undue interference with a prostitute on their part.

COLLECTIVE INVESTIGATION COMMITTEE.

ON THE COLLECTIVE INVESTIGATION COMMITTEE'S MEMORANDUM ON CHOREA.

SIR,—The criticism which Dr. Donkin has offered on the memorandum on chorea calls for some reply. The paper in question was written by Dr. Stephen Mackenzie, on behalf of the committee, and was presented to the committee for revision and criticism before it was published. Dr. Sturges, who is a member of our committee, was present when the paper was under discussion; he had previously pointed out the necessity of distinguishing between well-pronounced articular and equivocal rheumatism in this inquiry, and I was under the impression that his requirements had been met; I find, however, that he also objects to the passage to which Dr. Donkin takes exception. The acceptance by the committee of incomplete evidence of rheumatism in these cases exists only in appearance, but not in fact.

If a general inquiry were made whether the patient had ever suffered from rheumatism, it is certain that, as Dr. Sturges pointed out, both cases of well-recognised rheumatism and also those with "vague pains and feverishness," would alike be returned. The committee have taken the precaution, therefore, of asking for returns to be made under the head of "Rheumatism" in three classes, viz. :—

Rheumatism—With distinct joint affection. Date.
,, With fever. Date.
,, With vague pains. Date.

When we are in possession of our returns, it will, therefore, be possible to separate all those cases with only "vague pains," and exclude them from the distinctly rheumatic group. Dr. Donkin may rest assured that the committee will not regard every case of "vague pains" occurring in children as rheumatic; but it will be necessary to judge each case on its own merits. Thus, I suppose Dr. Donkin would scarcely refuse to admit "vague pains with feverishness" to be rheumatic when repeatedly occurring in the case of a child who, previously to an attack of chorea, had developed well-marked heart-disease, and who had a strong family history of rheumatism. Such a case as this is no imaginary one; I have seen many like it. Indeed, the very common opinion that "vague pains with feverishness" in children are often rheumatic, has been arrived at quite apart from the question of chorea, from the frequent occurrence of these symptoms in those children who develope heart-disease, and have a strong family history of rheumatism.—Yours faithfully, F. A. MAHOMED,

12, St. Thomas's Street, Southwark, S.E., Hon. Secretary.
April 8th, 1882.

ASSOCIATION INTELLIGENCE.

BRITISH MEDICAL ASSOCIATION:

FIFTIETH ANNUAL MEETING.

THE Fiftieth Annual Meeting of the British Medical Association will be held at Worcester, on Tuesday, Wednesday, Thursday, and Friday, August 8th, 9th, 10th, and 11th, 1882.

President: BENJAMIN BARROW, F.R.C.S., Consulting-Surgeon to the Royal Isle of Wight Infirmary.

President-elect: WILLIAM STRANGE, M.D., Senior Physician to the General Infirmary, Worcester.

An Address in Medicine will be delivered by W. F. WADE, F.R.C.P., Physician to the Birmingham General Hospital.

An Address in Surgery will be delivered by WILLIAM STOKES, M.D., F.R.C.S.I., Professor of Surgery in the Royal College of Surgeons, Ireland.

The business of the Association will be transacted in Eight Sections, viz.:—

SECTION A. MEDICINE.—*President:* Thos. Clifford Allbutt, M.D., F.R.S. *Vice-Presidents:* George W. Balfour, M.D.; William Henry Broadbent, M.D.; G. H. Philipson, M.D. *Secretaries:* Edwin Rickards, M.B., 14, Newhall Street, Birmingham; H. Ashby, M.D., 13, St. John Street, Manchester.

SECTION B. SURGERY.—*President:* Augustin Prichard, F.R.C.S. *Vice-Presidents:* T. W. Walsh, F.R.C.S.; Reginald Harrison, F.R.C.S.; T. H. Bartleet, M.B., F.R.C.S. *Secretaries:* F. E. Manby, F.R.C.S., 10, King Street, Wolverhampton; Richard Clement Lucas, M.B., F.R.C.S., 18, Finsbury Square, E.C.

SECTION C. OBSTETRIC MEDICINE.—*President:* William Leishman, M.D. *Vice-Presidents:* Henry Vevers, M.R.C.S.; J. G. Sinclair Coghill, M.D.; Arthur W. Edis, M.D. *Secretaries:* C. J. Cullingworth, M.D., 25, St. John Street, Manchester; Tom Bates, L.R.C.P., Worcester.

SECTION D. PUBLIC MEDICINE.—*President:* Alfred Carpenter, M.D. *Vice-Presidents:* Alfred Hill, M.D.; Horace Swete, M.D.; E. T. Wilson, M.B. *Secretaries:* Geo. Haynes Fosbroke, jun., M.R.C.S., Bidford, Redditch; Francis Edward Atkinson, L.R.C.P., Settle, Yorkshire.

SECTION E. ANATOMY AND PHYSIOLOGY.—*President:* George M. Humphry, M.D., F.R.S. *Vice-Presidents:* S. S. Roden, M.D.; Frank Payne, M.D.; Gerald Yeo, M.D. *Secretaries:* J. B. Haycraft, M.D., Mason's College, Birmingham; James Shuter, M.B., F.R.C.S., 58, New Broad Street, London.

SECTION F. PATHOLOGY.—*President:* J. Hughlings Jackson, M.D., F.R.S. *Vice-Presidents:* W. R. Gowers, M.D.; H. T. Butlin, F.R.C.S.; Wm. Smith Greenfield, M.D. *Secretaries:* Sidney Coupland, M.D., 14, Weymouth Street, London; F. Treves, F.R.C.S., 18, Gordon Square, London.

SECTION G. OPHTHALMOLOGY.—*President:* James Vose Solomon, F.R.C.S. *Vice-Presidents:* David Everett, F.R.C.S.; F. Mason, M.R.C.S.; Edwyn Andrew, M.D. *Secretaries:* Geo. Edwin Hyde, L.R.C.P., Worcester; J. A. Nunneley, M.B., 22, Park Place, Leeds.

SECTION H. OTOLOGY.—*President:* W. Laidlaw Purves, M.D. *Vice-Presidents:* Geo. P. Field, M.R.C.S.; A. H. Jacob, M.D.; E. Cresswell Baber, M.B. *Secretaries:* J. J. Kirk Duncanson, M.D., 22, Drumsheugh Gardens, Edinburgh; Peter McBride, M.D., 20, Alva Street, Edinburgh.

Honorary Local Secretaries: George W. Crowe, M.D., Shaw Street,

Worcester; H. C. Moore, M.R.C.S., 7, King Street, Hereford; Thelwell Pike, M.D., 2, Montpellier, Great Malvern.

Honorary Treasurer: G. A. Sheppard, M.R.C.S., Worcester.

TUESDAY, AUGUST 8TH.

2.15 P.M.—Meeting of Committee of Council.
3 P.M.—Meeting of the Council of 1881-82.
4.15 P.M.—Short service in the Cathedral, with sermon by the Dean of Worcester.
8 P.M.—General Meeting. President's Address; Annual Report of Council, and other business.
Tea and Coffee after the Meeting.

WEDNESDAY, AUGUST 9TH.

9.30 A.M.—Meeting of Council of 1882-83.
11 A.M.—Second General Meeting. Address in Medicine.
1.30 P.M.—Luncheon given by the Worcester and Hereford Branch to Members of the Association (limited to 500), and afterwards presentation of bust of Sir Charles Hastings to the Mayor and Corporation of Worcester.
3 to 5.30 P.M.—Sectional Meetings.
7.45 P.M.—Special Service in the Cathedral, at which, by permission of the Dean, Haydn's Sacred Oratorio, "The Creation", will be performed by the Philharmonic Society, assisted by members of the Gloucester and Hereford Choirs, and conducted by W. Done, Esq., Organist to the Cathedral.

THURSDAY, AUGUST 10TH.

9 A.M.—Meeting of the Committee of Council.
10 A.M.—Third General Meeting. Reports of Committees.
11 A.M.—Address in Surgery.
2 to 5.30 P.M.—Sectional Meetings.
6.30 P.M.—Public Dinner. Tickets will not be issued later than twelve o'clock on the day of the dinner.

FRIDAY, AUGUST 11TH.

9.30 to 11.30 A.M.—Sectional Meetings.
11.30 P.M.—Concluding General Meeting. Reports of Committees.
3 P.M.—Garden Party, at Madresfield Court, Great Malvern, given by the Lord-Lieutenant and the Countess Beauchamp.
9 P.M.—Soireé of the President and G. W. Hastings, Esq., M.P.

Excursions to places of interest in the neighbourhood—Malvern, Hereford, the Wye, Stratford-on-Avon, etc.—on Saturday, August 12th, are in contemplation.

ANNUAL MUSEUM.

The sixteenth annual exhibition of objects of interest in connection with medicine, surgery, and their allied sciences will take place in the Music Hall, Worcester, during the second week of August, 1882; the floor-space of which building amounts to 4,000 square feet. The Committee appointed to take charge of the arrangements for this Museum will be glad to receive—1. Pathological specimens (wet or dry); 2. Drawings or diagrams illustrating disease; 3. Casts or models; 4. Surgical instruments and appliances; 5. Microscopic preparations; 6. Microscopes, thermometers, and other instruments of investigation; 7. Preparations, diagrams, etc., relating to investigations in anatomy and physiology; 8. New drugs, chemicals, pharmaceutical preparations, and dietetics; 9. Sanitary appliances, including drawings or models illustrating the ventilation of hospitals or private dwellings; 10. New medical books. It is intended that the surgical instruments, sanitary appliances, etc., shall be *bonâ fide* novelties, or improvements on those in common use. The pathological specimens will be arranged in departments.

Exhibition of Instruments and Apparatus.—It is intended to arrange for the exhibition of complete series of instruments, electro-therapeutic apparatus, instruments for physical diagnosis, and appliances relating to sanitary science and public health. Facilities will also be afforded, when requested, for the display of instruments in action, or for special explanation by the exhibitors of apparatus, etc.

The Catalogue.—It is intended to print a catalogue, which will be as complete as circumstances may permit. The Committee earnestly request those who intend to exhibit to bear in mind that it is impossible that descriptions, etc., can be included in the catalogue unless sent in early. They should be received at least a month before the meeting, that is, not later than July 8th.

Communications, objects intended for exhibition, etc., to be addressed to the Secretary of the Museum Committee, Mr. J. RANDLE BUCK, 26, Sidbury, Worcester. During the week preceding the meeting all articles should be sent direct to the Music Hall, Worcester, and addressed to the care of the Curator of the Museum of the British Medical Association.

NOTICES OF MOTION.

Dr. MILNER FOTHERGILL hereby gives notice that, in accordance with By-law 43 of the Association, he will move, at the annual meeting of the Association, that an addition be made to By-law 12 in the following words, viz.:

"That the Editor shall be elected for a period of five years, but shall be eligible for re-election for a like period."

Dr. WARD COUSINS hereby gives notice that he will move, and that Dr. GRIGG will second:

"That the following alterations in By-law 35 are desirable: 1. The President of the Association to be an *ex officio* member of the Journal and Finance Committee. 2. The annual retirement of four of the elected members, who shall remain ineligible for re-election for two years."

FRANCIS FOWKE, *General Secretary*.

London, April 13th, 1882.

BRANCH MEETINGS TO BE HELD.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The next meeting will be held at Tredegar on Thursday next, April 20th. Gentlemen intending to be present are requested to communicate the fact to Dr. Sheen, if they have not already done so, *on seeing this notice*. Papers, etc., promised.—Mr. George A. Brown (Tredegar): Eight recent Cases of Tracheotomy in Croup; Case of Death from an Unusual Cause after Parturition. S. H. Steel, M.B. (Abergavenny): Pathological Specimens. Dr. Sheen (Cardiff): Two Cases of Femoral Aneurysm: Ligature of External Iliac: Recovery.—A. SHEEN, M.D., D. A. DAVIES, M.B., Honorary Secretaries.—

THAMES VALLEY BRANCH.—The next meeting of this Branch will be held on Thursday, May 4th, at the Griffin Hotel, Kingston-on-Thames, at 6 P.M. Members desirous of bringing any communication forward are requested to give due notice to the Honorary Secretary.—EDWARD L. FENN, M.D., Honorary Secretary, Richmond.—April 10th, 1882.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting of the above District will be held on Thursday evening, April 20th, at half-past eight o'clock, in the Reading-room of the London Hospital Medical College, when the following papers will be read. Joseph Hunt, M.D.: On the Diagnosis and Treatment of Pleuritic Effusion in Children; Stephen Mackenzie, M.D.: On Vertigo.—FREDERICK WALLACE, Honorary Secretary, 96, Cazenove Road.—April 6th, 1882.

METROPOLITAN COUNTIES BRANCH: NORTHERN DISTRICT.—The next meeting of the District will be held at the house of Dr. T. Morton, 1, Greville Road, Kilburn Priory, N.W., on Thursday, April 27th, at 8.30 P.M. Dr. Stretch Dowse will read a paper on the Inhalation-Treatment of Bronchial and Lung Affections. Dr. Morton will preside.—G. W. POTTER, M.D., Honorary Secretary, 12, Grosvenor Road, N.—April 5th, 1882.

SOUTH-WESTERN BRANCH.—The next quarterly meeting will be held at the house of Mr. C. B. Rendle, Liskeard, on Monday, April 17th, at 2 P.M.; Dr. Hudson, of Redruth, President, in the chair. Members intending to read papers, or make communications, are requested to give notice. Mr. Rendle will be pleased to receive any members at lunch at 1 P.M.—S. REES-PHILIPPS, M.D., Honorary Secretary, Wonford House, Exeter.—March 29th, 1882.

NORTH OF ENGLAND BRANCH.—The spring meeting will be held at the Hospital, Stockton-on-Tees, on Friday, April 28th, at 3 P.M. The first business will be the election of a President-elect, in the place of the late Dr. Robert Wilson of Alnwick. The following papers and cases have been promised. 1. Dr. Philipson: On Fixed Abdominal Pain. 2. Dr. Foss: Case of Fractured Patella treated by Aspiration of the Knee-Joint. 3. Dr. Foss: Case of Double Amputation. 4. Dr. Drummond: On some Points in the Diagnosis of Chronic Pulmonary Phthisis. The following subjects will be brought forward for discussion. *a*. Communication from Dr. J. M. Fothergill regarding the Editorship of the BRITISH MEDICAL JOURNAL. *b*. Communication from the South-Western Branch regarding Homœopathic Practitioners. Members and their friends will dine together at the Stockton Club at 5.30 P.M.; charge (exclusive of wine), 6s. 6d.— T. W. BARRON, M.B., Durham, DAVID DRUMMOND, M.D., Newcastle, Honorary Secretaries.—April 12th, 1882.

NORTH WALES BRANCH.—(*Amended Notice.*)—The next intermediate meeting will be held at Portmadoc, on Thursday, the 27th instant. Notice of papers to be read, and other communications to be made should be sent in by Wednesday, the 19th instant. The arrangements for the meeting will be duly advertised in the JOURNAL of the Association.—J. LLOYD-ROBERTS, Honorary Secretary.—Denbigh, April 3rd, 1882.

SOUTH-EASTERN BRANCH: EAST AND WEST SUSSEX DISTRICTS.

A CONJOINT meeting of the above Districts was held at the Grand Hotel, Brighton, on Wednesday, March 29th, 1882; Dr. EWART, of Brighton, in the chair.

Papers.—The following papers were read.

1. Dr. Lee gave a condensed account of his experience of the treatment of Infantile Paralysis during a period of ten years, deduced chiefly from his observation of rather more than one hundred cases at the hospital in Great Ormond Street. One case, extending over eight years, was particularly mentioned, in which the amount of wasting was singularly small, and the results of the treatment employed very satisfactory. In Dr. Lee's opinion, the electro-therapeutic system of treatment was by no means so successful as the plan adopted in the case referred to, where, by means of artificial warmth, and motion sedulously pursued, the wasting of tissues had been prevented. Certain

injurious effects produced by electro-galvanism were pointed out; and the proper management of this class of cases, so as to do what was best for the patients, and discourage the tendency of parents to resort to quackery were dwelt upon.

2. Dr. Treutler read notes of a case of Spinal Meningitis from Injury.

3. Mr. Willoughby Furness showed an adult man presenting the symptoms of Pseudo-hypertrophic Paralysis.

4. Dr. Mackey read a paper on the Treatment of Whooping-Cough, instancing one case in particular which yielded to morphia pushed to the stage of advanced narcotism.

5. Mr. Bernard Roth read a paper on the Treatment of Lateral Curvature of the Spine, chiefly by means of movements according to prescribed exercises.

6. Mr. Noble Smith showed some cases of Caries of the Vertebræ under treatment by means of Steel Supports.

Investigation of Disease.—In the course of the meeting, Dr. Moore drew attention to the work of the London Committee for Investigating Disease, and recommended the appointment of a local committee to assist in the work; which committee was subsequently elected.

The Next Meeting of the East Sussex District will be held at Hastings in May. Dr. Trollope will preside.

CORRESPONDENCE.

ACONITE AND ACONITIA.

SIR,—I am surprised that in recent discussions on aconite little stress has been laid on the fact that the term aconitia, if unqualified, is meaningless. What is aconitia? Of course we are told in works on materia medica that it is an alkaloid obtained from *Aconitum napellus;* but is this the case? Commercial aconitia is certainly not a simple substance, and is probably a mixture of several alkaloids. Professor Binz of Bonn, at the last International Medical Congress, stated that there was no definite chemical compound met with in commerce under the name of aconitia, the various preparations obtained in England, France, Switzerland, and Germany differing so much in character that any results arrived at by experimenting with them were applicable only to the particular sample employed, and not to aconitia in general. Flückiger and Hanbury, in the last edition of the *Pharmacographia*, state that commercial aconitia is a mixture of aconine, pseudaconine, picraconitine, and other bodies. Wright apparently recognises three alkaloids obtained from different species of aconite—aconitine, from *Aconitum napellus;* pseudaconitine, from *Aconitum ferox;* and japaconitine, from one or more Japanese species. What is the source of our aconitia? Is it obtained from *A. napellus*, from *A. paniculatum* (which both Fleming and Christison found to be inert), from *A. ferox* (the Bish poison), or from the Japanese species? Is our "aconitia" aconitine proper, or is it pseudaconitine, or japaconitine, or a mixture of all three? Messrs. Cleaver and Williams recently stated, at the Pharmaceutical Society, that extract of aconite is frequently made from *Aconitum paniculatum*. Mr. Holmes finds that a large proportion of the aconite-root now sold as *Aconitum napellus* is in reality Japanese aconite, and he has every reason to believe that *Aconitum ferox* has been used in this country, even during the last three or four years, in the preparation of the alkaloid.

It is generally stated that English aconitia is at least seventeen times as active as the German, the French being intermediate in power; but this classification into English, French, and German is clearly unreliable and unscientific. Professor Plügge of Gröningen, in a recent paper, stated that he had investigated the physiological action of seven different kinds of commercial aconitia, and considered that they might be arranged in the following order of decreasing activity: 1. Petit; 2. Morson; 3. Hottot; 4. Hopkin and Williams; 5. Merck; 6. Schuchart; 7. Friedländer (Trommsdorf of Erfurt). This list is obviously incomplete, no mention being made of Duquesnel's crystallised aconitia, which is said—see his paper—to be more active than any of the amorphous varieties. Plügge finds that Merck's aconitia is from twenty to thirty times as active as Friedländer's, whilst Petit's is eight times as active as Merck's.

This is not a mere matter of curiosity, but is of considerable practical importance, several cases of poisoning having occurred from the substitution of one kind of aconitia for another. M. Desnos, in a recent number of the *Bulletin de Thérapeutique*, records the case of a gentleman, the subject of aortic disease, who suffered from severe anginal attacks. With the view of affording him relief, his medical advisers prescribed Hottot's granules of aconitia. The chemist, to whom the prescription was taken, substituted for the special aconitia which had been ordered an aconitia which he happened to have in stock, the source of which is not known, but which was probably of German origin. Gradually, by the advice of the physicians, the dose was increased to four granules a day. This quantity was taken daily for several days, with marked relief to the anginal attacks, and without the production of disagreeable symptoms. At last the chemist, having exhausted his original stock of aconitia, went to Hottot's for a further supply. On the following day the patient, after taking the usual number of granules—which, unknown to him, had been prepared with the new aconitia—suddenly presented alarming symptoms of aconitia-poisoning: pains in the head, vertigo, loss of voice, great muscular weakness, pallor of the face, anxiety, weakness of the pulse, failure of the heart's action, tendency to fainting, coldness of the extremities, and profuse perspiration. The respiration became feeble, irregular, short, and sighing. The patient was, in fact, in a most critical condition, and it was many hours before he was out of danger. In another case, which was investigated by Professors Plügge and Huisinga, and published in the *Berliner Klinische Wochenschrift*, the patient was killed by the substitution by the chemist of Petit's nitrate of aconitia for Friedländer's, which the physician had intended to prescribe, but had neglected specifically to indicate. In Germany, three cases of poisoning by French aconitia were reported by Busscher. The doses which occasioned the toxic symptoms were, respectively, four-tenths of a milligramme (about 1-160th of a grain), one and a half milligrammes (about 1-45th of a grain), and four milligrammes (about 1-15th of a grain). In the last case death occurred. The dose had been ordered by a physician who was under the impression that the French and German aconitiæ were the same.

There is evidently a general impression that aconitia is rarely prescribed for internal administration, and it may be as well to consider what grounds there are for this opinion. Not very long ago the New York Therapeutical Society was engaged in considering the best mode of administering this remedy, and suggested the following formula: Aconitia (Duquesnel's) gr. 1-10th; glycerine, alcohol, āā ℥j; peppermint water to ℥ii. Dose, a teaspoonful. In the late Professor Gubler's *Leçons de Thérapeutique*, published only two years ago, he says of aconitia, "C'est un médicament d'une très grande puissance, et certainement appellé à beaucoup d'avenir." He speaks of its effects on trigeminal neuralgia as being truly marvellous. In the second edition of the *Commentaires Thérapeutiques du Codex*, the case is recorded of a man on whom Nélaton had performed resection of all the branches of the trigeminal nerve for neuralgia without benefit. The patient was in despair, and attempted suicide. It was then proposed to remove the Gasserian ganglion; but, as aconitia had not been tried, it was determined to see first what it would do. The patient began with fourteen of Hottot's granules a day, equivalent to seven milligrammes, or about a fifth of a grain. He obtained almost immediate relief, and the good effect was kept up by taking from eight to ten granules daily. The patient was so free from pain that he said he felt as if he was in paradise, and declared that nothing that had ever been done for him had given him such thorough and lasting relief. Gubler considers that it is equally beneficial in other painful affections, and says that it has been employed with success in irritating and painful affections of the circulatory system and respiratory tract. He especially commends it for asthma, paroxysmal cough, palpitation, angina pectoris, and for the relief of the pain of acute rheumatism and gout. In all these cases it is evidently intended that the drug should be given internally, for, he says, it is not wise to begin with more than half a milligramme—about a thirty-second of a grain—of amorphous aconitia, twice a day; but it may be gradually increased to two, four, or even five milligrammes. Dumas considered that aconitia is useful, not only in neuralgia, but in many catarrhal affections. He finds that it is readily tolerated if methodically administered, and that it may be given for a long time without fear of the effects of accumulation. Dr. Oulmont, in a paper in *Le Progrès Médical*, in December 1879, advocates the use of aconitia, not only in neuralgia, but in dental caries, otitis, and paraplegia. He gives details of four cases of acute rheumatism in which aconitia was given with marked benefit. Acute rheumatoid arthritis, he finds, may also be treated successfully by the same remedy. In four individuals, to whom it was administered in doses of half a milligramme *per diem*, increased gradually to one and a half milligramme, a cure was effected—in one instance in eight days, and in another ten days. He says it is sometimes convenient to give aconitia hypodermically, in doses of half a milligramme of the crystallised alkaloid once or twice a day. As an external application for the relief of neuralgia and old rheumatic pains it has been recommended by Turnbull, Headland, Fuller, and others, and also by Tilt as a sedative application in uterine affections.

Much more evidence of a similar nature might be adduced as to the

value of aconitia as a remedial agent, but it is unnecessary to multiply examples, especially as testimony is forthcoming from another source. In the price lists of different firms of druggists, we find aconitia quoted just like any other alkaloid, and it may be presumed that there is a demand for it; in fact, in one of the trade journals it was stated, not very long ago, that the demand for crystallised aconitia was greatly in excess of the supply. At the International Medical and Sanitary Exhibition aconitia was shown by several firms, Merck, of Darmstadt, alone exhibiting three kinds. We find too, that aconitia is constantly quoted in chemists' retail lists, and that is a pretty good proof that somebody uses it. In Mr. Martindale's list an aconitia solution is mentioned for hypodermic use, the strength being 1 in 240; in Messrs. Savory and Moore's list we find gelatine discs each containing $\frac{1}{60}$th of a grain, and in a list issued by another large firm we find quotations for soluble aconitia pilules made with Duquesnel's crystallised alkaloid, the dose being either $\frac{1}{480}$th of a grain or $\frac{1}{200}$th. It must not be forgotten too, that aconitia is largely used in what is called Dosimetric Medicine.

As regards the treatment of poisoning by aconitia, there is little to be said. The stomach-pump or an emetic, and the free administration of stimulants—ammonia, brandy, champagne, etc., naturally suggest themselves. The patient should be kept strictly in the horizontal position, and warmth should be applied to the extremities; friction with the warm hand and a mustard leaf over the region of the heart would be of service. The physiological antidotes are atropia and digitaline, and it would be right to give a hypodermic injection of either, say a sixtieth of a grain of atropia or of twenty minims of tincture of digitalis. I saw one case in which inhalation of nitrite of amyl was given with marked benefit. When the patient is suffering intense pain, there is naturally a desire to give a hypodermic injection of morphia, but such a step would be unjustifiable.—I am, Sir, your obedient servant,

WILLIAM MURRELL, M.D., Lecturer on Materia Medica and Therapeutics at the Westminster Hospital.

THE *RAISON D'ETRE* OF LYING-IN HOSPITALS.

SIR,—In your issue of the 1st instant, page 420, in speaking of the Liverpool Lying-in Hospital, you say, "We congratulate the subscribers on the decision at which they have arrived" (to keep open the hospital for obstetric cases), and "no doubt the new committee will energetically set to work to bring the hospital up to the level of the obstetric knowledge of the day." From the latter sentence I conclude that you are not aware that from the year 1875 the death-rate in the hospital has been one in seventy-six. When you can show another in-door maternity charity in the United Kingdom with a lower mortality, a hospital in which cases can properly be said to be aggregated, for, of course, with 50 cases in a year there can be no aggregation, the staff may, perhaps, be fairly entitled to blame; but until you can show this, I modestly submit that your implied censure is undeserved.

A comparison with a workhouse lying-in ward is not a fair one, as there are so many points of difference between the two.

1st. In the workhouse the cases exactly correspond, clinically, to those of our out-door department, in which our mortality has been 1 in 1,223 (1876 to 1880 inclusive), whilst that of the workhouse has been 3.2 per 1,000, or about 1 in 300.

2nd. In the workhouse the cases are admitted, when their time is "up," into "waiting" wards, by which a double useful purpose is served. The patient is pretty certain not to have to cab it to the hospital during labour; any ill-health, such as dropsy, cephalalgia, and dimness of vision, can be attended to, and thus convulsions may be averted. This "waiting" ward also serves as a place of quarantine, so that the risk of introducing infectious diseases into the wards is diminished materially; whilst, in an in-door maternity charity, patients as a rule, are not admitted until labour actually sets in; serious consequences may ensue from a journey in this state in a cab, and the patient may come direct from a house in which scarlatina is playing havoc. Indeed, it is a fact that the last outbreak of puerperal fever was introduced in this way, and cost three lives before the hospital was closed. This was in 1879 or 1880.

I trust enough has been said to show that the staff have not been as much to blame as you have been led to believe. I may say all this quite disinterestedly, as my appointment is of so recent a date that I cannot come in for either praise or blame, and my only reason for writing is that I take a great interest in the place, as a medical man naturally does in the institution to which he has the honour to be attached, and it is, to say the least, disagreeable to one's feelings to have undeserved blame thrown upon the hospital or its staff, when the fault, if any, really lies in the system of aggregation, which is shared in by other institutions of more repute and less success.

From the paragraph in to-day's issue, page 519, it would seem that previously you had been misinformed on some part of the subject. The scheme of the committee was supported by nearly the whole body of the profession in Liverpool on medical grounds; the opposition, as a letter writer humorously puts it, represents "the touching unanimity of one individual."

The new committee have been appointed, but have not pledged themselves to any particular mode of action. If a divorce is brought about between the obstetrical and gynæcological departments, so that each shall be placed under a separate and distinct staff, one bad result is likely to follow. Two courses of lectures have been delivered annually to pupil midwives and monthly-nurses; the former have had their practical training in the hospital and in the out-door department, whilst the latter have received theirs in both departments of the hospital, gynæcological and labour, and also at the dispensary. For the last twelve months no nurses have been taken as pupils, owing to the closure of the special wards. If a separation is brought about between the two departments, the facilities for training nurses will cease—a result that cannot fail to be prejudicial to both rich and poor. I should add that this training has been afforded at least since the amalgamation of the two charities in 1869.—I am, etc.,

J. E. BURTON,
Surgeon Ladies' Charity Lying-in Hospital, Liverpool.

*** Mr. Burton does not touch the real question at issue. In comparing the mortality of lying-in hospitals and the lying-in wards of workhouses, he enters upon a question not discussed in the observations he made; and which has really no bearing on the question. That question is simply whether adequate grounds have been shown for diverting the funds subscribed, and altering the constitution of a hospital, founded for a lying-in hospital, into something different. The reasons for such a revolutionary measure must be strong and definite. The signatures of fifty medical men to a statement that it would be beneficial "to limit hospital relief to lying-in women to those cases in which special difficulty or danger is anticipated," is important, but requires interpretation in its application to the case in point. Such a statement admits that some lying-in women should be treated in hospitals; it postulates that these should be cases in which "danger is anticipated." Is not this to concede the whole question? Any woman at the time of labour may be in danger. It is impossible to exclude any woman on the ground that her case will not be one requiring hospital treatment. And the very women who are excluded are the more likely to fall into danger under the circumstances of distress and destitution to which they would be left. The beneficial working of lying-in hospitals in large communities is abundantly proved by the experience of London and Paris. Some years ago, it might not be unfairly contended, that the benefits of lying-in hospitals were largely alloyed by disasters attendant upon aggregation. But nothing is now more clearly demonstrated than that, by the strict application of improved hygienic and antiseptic measures the mortality of lying-in hospitals may be kept down to a point that will bear comparison with domiciliary midwifery. This being so, the charitable element of the question must be decided in favour of the maintenance of lying-in hospitals. Some refuge for the many poor women left without resource in the hours of greatest need must be found. No more urgent duty is incumbent upon the public. To close one already established would be a grievous error. If a hospital for diseases of women be wanted, it may fairly be suggested that those interested in having one should establish it on an independent footing.

ANÆSTHETICS.

SIR,—As it is wise to be guided by the dictum of general experience in the choice of the safest anæsthetic, and general experience is made up from the experiences of individuals, it would be well if all administrators of anæsthetics would shortly give their several opinions.

For my part—although I have on many occasions given chloroform, ether, and dichloride of ethidene—as a general rule bichloride of methylene has been used; in fact, little else has been used for some years back at the South Devon Hospital, or, in the private practices of the medical men of this town. Methylene has been the usual anæsthetic for thirteen years, when it took the place of chloroform; and, although many hundreds of operations are performed every year, there has not been any serious accident to record in connection with anæsthetics since the introduction of chloroform in 1848, nor at the Royal Eye Infirmary. I am not to be understood that we have never had a scare during its administration, for, of course, there have been several; but the inversion, or Nelaton's method, being at once resorted to, so far, has been eminently satisfactory in resuscitating the patient. The only death of which I have heard officially in connection with an

anæsthetic in this part of the country was during the administration of ether, and then, as with all such misadventures, it was impossible to determine what part fright, prior to, or shock during the operation, played in producing the fatal result. We know that many deaths took place in minor operations prior to the introduction of chloroform—conspicuously; the two fatal cases to whom "Simpson of Edinburgh," was to have given for the first time for the purpose of anæsthesia in these isles the present despised chloroform, but, happily for its introduction, "Simpson" was prevented from attending, and the deaths were not credited to chloroform.

And this leads me to remark what uniformly good results the Edinburgh school obtain with chloroform; and brings to my mind the conclusion that its danger lies not in its administration, but rather in the manner of its administration. I have seen practitioners take an hour to get a patient under its influence, and the same with methylene. For short operations I usually throw about one ounce of methylene into a leathern mask, lined with flannel, containing a sponge or absorbent wool; and for long operations, such as ovariotomy, use Junker's apparatus, and have had better results, as regards vomiting and head symptoms, with methylene, than with any other anæsthetic, not excepting dichloride of ethidene; indeed, ovariotomies take methylene well. The worst fright I have had with methylene was in a private case, when a scion of a noble house, contrary to orders, indulged in a full meal prior to operation. The mask had been taken off the mouth for at least a minute, when he suddenly became syncopic. We suspended him by his heels at once, and after a time (it seemed so long) he came to; the operation was completed. A month afterwards, I had to give him methylene again, when it was taken without a bad symptom. It leads me to think, in connection with other cases, that a loaded stomach not only embarrasses the thoracic viscera, but that then the nerve-centres and ganglia of the tripod of life are particularly susceptible to the paralysing influence of an anæsthetic and their resisting nerve force is at a low ebb.

One would expect that the greater number of deaths would occur in connection with that anæsthetic that is most frequently administered. Chloroform is almost universally used by country practitioners; and methylene for dentists, at any rate, in this town.

In conclusion, I believe any or every anæsthetic to be very dangerous in the hands of an unskilled or timid operator. As regards statistics, it is evident that the relation of deaths to the number of administrations require modifying, as the *Lancet*, in a recently published leader, gives it as one in 2,500 for chloroform. Now, conjointly, at the South Devon Hospital and Royal Eye Infirmary, I find, with Mr. H. Square's help, that chloroform has been given 11,000 times, and methylene 6,000 times, or, in a succession of years, chloroform or methylene have been given 17,000 times without a death. As regards the case reported in this week's JOURNAL from Carlisle, the death was from apnœa, caused by the pressure of the bronchocele, and not from chloroform, as will probably be quoted, "Another Death, etc." Mr. Wilson, who reports the case, states that chloroform was not to blame.

It must be remembered that, in many of the early cases of deaths from chloroform, the patients were in the sitting posture; notably, the first case of a woman at Newcastle, quoted by a contemporary this week, and then narcosis was produced in half a minute, conditions quite contrary to our notions of safety and not at all a fair test.

Two deaths are reported this week from syncope during tooth extraction without any anæsthetic having been administered!—Yours faithfully,

AUGUSTUS H. BAMPTON, M.D., M.Ch., late Chloroformist, etc., South Devon and East Cornwall Hospital, Plymouth.

2, North Devon Place, Plymouth, March 18th, 1882.

SIR,—Dr. Ormsby denies having objected to the use of chloroform in any case. His first letter is on record. He concedes what I claimed for chloroform—its superiority in obstetric surgery. It does not always kill by its direct action on the heart, and numerous recorded cases show respiration to have ceased whilst the pulse continued at the wrist. That it oftener affects the heart primarily, I admit; but I deny that it always does so. It diminishes blood-pressure, and herein lies its safety. Supposing we give ether to a person nearly seventy, with granular contracted kidney, and senile atrophy of the brain; and we use Esmarch's bandage on the lower extremity—what should we expect? The very method of giving ether shuts out oxygen, and causes *effete* products to accumulate in the blood, which alone increase blood-pressure. Esmarch's bandage determines additional blood to the viscera, and ether excites to increased pressure. I maintain that, under the above conditions, the combined effect would be a *commotio cerebri*, that must be fatal in many cases. Mr. Hutchinson records a death from coma after giving ether to an old man who four months previously took ether without a bad symptom for a more protracted operation (BRITISH MEDICAL JOURNAL, 1873). Another case is recorded (BRITISH MEDICAL JOURNAL, 1880, page 537), where ether produced such alarming symptoms that chloroform was substituted with the happiest results. I firmly believe that death is constantly happening after the use of ether; and when we hear of cases never recovering after the effects of the operation, it is legitimate, on physiological and pathological grounds, to attribute it, in many instances, to the ether. Meningeal hæmorrhage will produce coma, and necropsy only can reveal it. Mr. Lister has shown, and Mr. Holmes concurs, that only 4.5 per cent. of chloroform evaporates from the usual quantity thrown on to a cloth, and that the quantity poured on is a matter of secondary importance. Special inhalers, then, are contrivances for economising chloroform, and not for regulating dilution. Dr. Ormsby's assertion about the haphazard use of chloroform falls to the ground in argument. To argue from existing statistics is a patent logical fallacy. Many country surgeons operate oftener than ordinary hospital surgeons; and experience in most parts of England and Wales has convinced me that chloroform is almost always used, but we have no records of country practice. Syme, Fleming, Holmes, and Hutchinson, had not a death in their practices up to 1873. A man may be fortunate with ether as with chloroform, and conversely; but we must have the experience of the whole, and not of a part, of the profession in England if we are to argue effectually from statistics. If we knew how many thousand times chloroform is used every week, we should not be so ready to alarm ourselves about a fatal accident. Could Lister claim for carbolic acid the same immunity from danger, it would, indeed, be well for his deserved fame.

To confine ourselves to the use of one anæsthetic in every case would, in the present state of science, not only be unscientific, but unpardonable. I give chloroform under the following conditions:—To children under six months and to persons over sixty years of age; to persons in whom I suspect granular contracted kidney, or degeneration of arterial walls or nervous centres; in operations about the face where a cautery is used or a candle necessary, as in cottages; and, above all, in every obstetric difficulty. At present I would use ether in other cases—*i.e.*, when healthy tissues counteract evil effects of ether, but I am not sure yet if ether does not interfere with early union, consequent on the deposition of *effete* products in the blood and tissues.—I am, yours, etc.

JOHN LOWE.

Lichfield, March 25th, 1882.

SIR,—Exact statistics in this controversy seem to be impossible at present; but, as an approximation to such knowledge, I may quote our experience at the Liverpool Northern Hospital. During the last six years ether has been almost exclusively used, given by means of Ormsby's inhaler; chloroform very occasionally. Allowing, as a low average, ten cases requiring an anæsthetic per fortnight, in one of which chloroform is the agent used, that will give us—ether, 1,404 cases; chloroform, 156. For the sake of argument, I am very much understating the number of times ether is used, and very much overstating the chloroform numbers, as the house-surgeon counts his chloroform cases by units at long intervals. And with what result? We have had one death from ether (1 in 1,404), and one death from chloroform (1 in 156), besides several cases of alarming syncope during its administration. The mode of the death from ether was as follows. The subject was an out-patient, who came up for a minor operation, was told to return at a certain hour, and to be sure not to take his dinner. He was anæsthetised, vomited, and, before his head could be turned to one side, had made an effort at inspiration, and filled his bronchi with the vomit. On *post mortem* examination, the entire bronchial system of tubes was found blocked with food in a state of small division. Death was from suffocation, and might have occurred equally in a drunken man, or from any anæsthetic. This case did not in the slightest degree shake the confidence of any of us in ether.

One objection to its use I have, viz., that it is so powerful a stimulant to the heart's action that, after an amputation, for example, we have to tie a much larger number of small vessels than I remember seeing done when I was a student in Edinburgh. This is a disadvantage which may be considered an argument in its favour.

There are some cases in which ether is contraindicated, such as operations on very young children, operations on the jaw, or vessels of the neck, and in which chloroform or ethidene must be used. There is, therefore, no intention of *abolishing* chloroform, which will always remain also the more convenient to carry. But where this is no object, an agent which allows the operator to forget that his patient is anæsthetised, and devote his whole attention to the operation, is surely worth any little extra trouble in administration. It is better to have chloroform and ether to use than chloroform alone, as the latter's

admirers would have us. Some of your correspondents seem to me to be begging the question in bringing midwifery and convulsion cases into the argument. I presume that every one is convinced that chloroform, given in the way Dr. J. C. Murray describes, is the proper, besides the most convenient, in midwifery, and that ether would be of little service in convulsions, either puerperal or infantile. Why, then, bring these subjects into a discussion which, I take it, refers to the proper anæsthetic to be used in surgical operations? The upholders of chloroform seem to imagine that they alone have experience of its use, or that their mode of administration is the safe and proper one. I hope their change of opinion will not be forced upon them by more fatal cases.—I am, sir, yours,

W. MACFIE CAMPBELL, M.D.,
Surgeon to the Liverpool Northern Hospital.

P.S.—I have a letter from our late house-physician, Mr. C. Shears, in which he remarks: "I am inclined to think that anæsthesia is more rapidly produced by chloroform than by ether; but the freedom from anxiety which one has in giving the latter quite counterbalances this. I found, as a rule, that I used 1 oz. ether for every ten minutes the patient was under its influence." W. M. C.

Prince's Gate, Prince's Road, Liverpool, March 25th, 1882.

PROPOSAL FOR THE ENDOWMENT OF A CHAIR OF PATHOLOGY IN GLASGOW.

SIR,—In giving notice of a resolution on this subject for discussion and, I hope, adoption, at the next meeting of General Council of the Glasgow University, I did so as shortly as possible, thinking that the details might with confidence be left to a committee.

I have issued a circular, containing a notice of the proposed resolution, to a considerable number of Glasgow medical graduates, asking for support and promise of subscription. I have had replies as yet from only a few; some of these contained promises of most handsome subscriptions. I trust, however, to hear from many others during the next fortnight.

It is, unfortunately, but too well known that professional ability, education, skill, and industry do not at all meet with adequate pecuniary returns; and, therefore, in such a matter as this, one merely expects a small subscription, but that from many. If we, as medical graduates, unite in subscribing a certain sum, we can, with more assurance, ask the aid of those whom Providence has more liberally endowed with wealth, and wisdom to use it.

I have little doubt as to the ultimate result of this resolution; but, as I state in the circular, it would much strengthen my hands if, in proposing it, I was able to say that I had assurances of the support of a given number of graduates, and of a considerable sum in promised subscriptions. Trusting this may catch the eye of many interested in the movement,—I am, yours truly, J. A. CAMPBELL, M.D.

Cumberland and Westmorland Asylum, Garlands, Carlisle,
April 11th, 1882.

THE VIVISECTION DISCUSSION.

SIR,—If my position in this matter is as much isolated as you seem to believe, I must accept it. I regret to say that I am driven to it by the very writings you name, in which, it seems to me, the case against vivisection is made worse by each article as it appears. As I mean to make my views public on this subject within the next few weeks, I need not occupy your valuable space in discussing them.—I am, etc.,

LAWSON TAIT.

1, Great Charles Street, Birmingham, April 7th.

SUPERINTENDENTS OF IMBECILE ASYLUMS.

SIR,—I am glad to see, from Dr. Wood's letter in the BRITISH MEDICAL JOURNAL of April 8th, that he does not approve of the doctor to an asylum for imbeciles living far from his patients. One of the chief points in my letter—viz., that the superintendent should be skilled in nervous diseases, and well up in physiology, since upon this groundwork the training of imbeciles is carried on—Dr. Wood does not notice. Now, I contend that no lay superintendent can have this knowledge, and I do not believe that any doctor, fully engaged in private practice, will have the time or leisure to study the patients individually (as they should be studied), and to adopt for each case the appropriate treatment; most certainly not if the institution has a large number resident in it. I never said or inferred that the resident doctor should stand or sit by the patient to see his orders carried out, though I have often done so in serious cases. Judging from my own experience here, which is not by any means unique, no doctor living even a mile off could do the work, for of the 530 inmates in the asylum a large number are of very feeble health, and are taken ill at all times during the twenty-four hours. In consequence, I have to visit the wards often four and five times in the day, not to mention the occasions on which I am called up at night.

Dr. Wood may be of opinion that the management of epileptics during convulsions can be quite well trusted to trained attendants, but such an opinion I do not think will commend itself to the general body of the profession, and I most certainly do not agree with him. A third of the patients here are subject to epileptic fits, and many have ten, twenty, and sometimes more during the day, besides the *status epilepticus* into which some of them fall, so that I am frequently called to the wards for epileptics. I do not think that any trained attendant should be intrusted with the responsibility of attending to such cases without due medical supervision, which, in my opinion, is not met by a doctor living away from the asylum. It is the custom here for the the attendants to summon me when a patient, not known to be an epileptic, has a fit, and this is the answer to Dr. Wood's question, so far as the inmates of Darenth Asylum are concerned. The contributions to medical literature, which the resident medical superintendent could, and, I think, should make, with reference to his special study, I do not refer to, as Dr. Wood may consider such a subject of no importance.

FLETCHER BEACH,
Medical Superintendent Darenth Asylum.

April 10th, 1882.

SIR,—In Dr. Alexander Wood's remarks in your issue of the 8th of April, there seems to me a strange forgetfulness of the very *raison d'être* of training institutions for imbeciles. They do not exist for the purpose, on the one hand, of doctoring the feeble bodies of their inmates; and, on the other, of mere pædagogic instruction of their feeble minds. But, to use the words of the late Dr. Seguin, in every successful system, "the physiological training of the bodily organs must precede (and open up the way to) the education of the mind." In a well-managed institution there can, therefore, be no independence of the doctor's and of the schoolmaster's functions; the two must go hand in hand. Nay, more, the schoolmaster's functions must subordinate themselves to the scientific direction of the physician; and those who have held the office of medical superintendent of an imbecile asylum, know full well that such scientific direction of the school education forms, perhaps, the more important part of their duties.

I cannot, however, agree with Dr. Wood that, even as regards physical ailments, there is no advantage in an imbecile asylum being provided with a resident medical officer. It may safely be asserted that but few imbeciles possess a healthy bodily organisation; and their illnesses are often sudden and obscure, and sometimes unintelligible to those not familiar with the patients in health. Dr. Wood makes no reference to the loss to science which will accrue from the investigation of the pathology of idiocy being left in the hands of visiting medical men, who cannot be expected to be fully conversant with the mental peculiarities displayed by their patients in life; but surely this is a loss which our profession can hardly afford to ignore.—I am, etc.,

G. E. SHUTTLEWORTH, B.A., M.D.,
Medical Superintendent Royal Albert Asylum, Lancaster.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS, Thursday, April 6th.

The Case of Lead-Poisoning.—Mr. BURT asked the Secretary of State for the Home Department if his attention had been called to the case of Hannah M'Carthy, who died in the Shoreditch Infirmary on Thursday last from lead-poisoning; whether he had seen the evidence given at the inquest by Mr. Forbes, Medical Officer of the Shoreditch Workhouse, who was reported to have said: "Cases of lead-poisoning, fatal and otherwise, are of frequent occurrence. The deceased worked at a lead-factory in Southgate Road, where she had been engaged for ten months only. The nature of the work was very deadly.....My experience tells me that the workers in lead-factories require more looking after. I have had sixteen cases under my care in a few months; and the worst of it is, that the married women who work in lead-factories absorb the poison and give it to the suckling child in the milk"; whether he could compel the owners of lead-factories to adopt means to prevent what the jury in their verdict characterised as "the wholesale poisoning by lead" which now went on in these places; and, if he had not now sufficient power, whether he would apply to Parliament for any alteration in the law, so as to afford protection to the lead-workers while following their employment.—Mr. BROADHURST asked the Secretary of State for the Home Department whether his attention had been called to a report of an

inquest held on the body of Hannah M'Carthy by the coroner for East Middlesex, who died from the effects of lead poisoning after only ten months' employment at the lead works, and to the recommendation of the jury that "Legislature should at once take steps to compel the proprietors of lead works to provide proper protection to those in their employ;" whether the present Factory and Workshops Acts were sufficient to give the necessary protection to the lives of the people engaged in these deadly works, and, if not, whether he was prepared to ask Parliament for increased power in respect of lead works; and whether he would consider if it would not be advisable to prohibit the employment of women and young persons in lead works.—Sir C. DILKE, replying to these questions in the absence of the Home Secretary, said,—This case has already engaged the attention of the Home Secretary; who has called for a special report thereon from the Chief Inspector of Factories. The recommendations of the jury and the suggestions of the hon. members will receive due consideration.

MILITARY AND NAVAL MEDICAL SERVICES.

THE NEW DIRECTOR-GENERAL OF THE ARMY MEDICAL DEPARTMENT.

SURGEON-GENERAL THOMAS CRAWFORD, M.D., whose appointment as director-general of the Army Medical Department, vice Sir W. M. Muir, K.C.B., M.D., has been notified in the *London Gazette* of the 7th instant, entered the Army Medical Service as assistant-surgeon in February 1848. He was promoted to be full surgeon in February 1855, surgeon-major in February 1868, and was raised to the rank of deputy-inspector-general for special service in February 1870. He became surgeon-general in December 1876. While an assistant-surgeon with the 51st Light Infantry regiment, Dr. Crawford served in Burmah throughout the Burmese war of 1852-53, including the storming and capture of Rangoon. For this service he received the Burmah medal with the clasp for Pegu. Dr. Crawford was subsequently gazetted to the 18th Royal Irish regiment, and while surgeon of this corps served in the Crimea during the Eastern campaign from February 1855 to the fall of Sebastopol. He received the Crimean medal and clasp of Sebastopol, together with the Turkish medal, for this service. He was subsequently selected for the position of head of the medical branch in the director-general's office in London, and held this appointment for several years during Sir Galbraith Logan's rule of the department. At the conclusion of this service Dr. Crawford proceeded to India and fulfilled the duties of superintending-surgeon of the Sirhind circle in Bengal. Having completed this tour of foreign service, Dr. Crawford returned to England and held the appointment of head of the Army Medical Department in Ireland, but not long afterwards left again for India, this time with the elevated position of chief of the whole British Army Medical Department in that empire. It is from this responsible position that Dr. Crawford is now returning to assume the duties of the director-generalship of the Army Medical Service. Throughout the whole of his distinguished career, Dr. Crawford has always enjoyed the reputation of being a prudent and earnest medical officer; while from the considerate and friendly manner he has always evinced towards the officers who have been brought into contact with him in his various administrative positions, he has earned for himself universal popularity in the service. Sir William Muir, whom Dr. Crawford is shortly to succeed, has held the office of director-general of the medical department since April 1874, a period of eight years. The disruption of the old arrangement of the department into staff and regimental medical officers, and the unification of the medical body into a single corps, which was commenced during Sir Galbraith Logan's tenure of office, and while Dr. Crawford was head of the medical branch, has been consolidated and placed on a fixed basis by Sir William Muir; and with the greatly increased advantages in respect to the pay, relative rank, and retirement rates, conferred by the last Royal Warrant, he will hand over the department to his successor in a far more settled and contented condition than it has been in for many previous years. The new director-general is expected to arrive in England towards the close of the present month.

It has been remarked as an unusual circumstance that Dr. Crawford has been gazetted to be director-general before the vacancy has actually occurred. We are not aware of the particular cause to which this departure from the ordinary custom in such matters is due.

THE NURSING STAFF OF HER MAJESTY'S FLEET.

SIR,—I trust you will allow me to appeal, through your columns, for the interest of your powerful Association in advocating the claims of the nursing staff in Her Majesty's ships. As a rule, in fact, with the most occasional exception, they constitute a willing, hard-worked, and devoted class of public servants, miserably underpaid, and compared with other classes of men, in my opinion unfairly so. For example, the ship's steward, who assists the paymaster in serving out provisions and stores, gets pay ranging from 2s. to 3s. *per diem*, and allowances which often double this. The naval schoolmaster, whose duties often amount to a sinecure, receives from 4s. to 6s. *per diem*. The sick man, however, is not so valuable. To attend on him, there are three rates of sick baymen, with pay 1s. 4d., 1s. 9d., and 2s. 5d. Now, these men often have to nurse cases of fever, and may have yellow fever, small-pox, or any disease to encounter; they have to cook for the sick, and to give general assistance to the surgeon. In most ships with from two hundred to three hundred men on board, there is only one medical officer, with a one-and-ninepenny man to assist him, who, though willing, has often had no training, and yet, when the doctor is away for an hour or two, may have to manage the numerous minor injuries met with amongst seamen, and is left in sole charge in fact. I would suggest that these men all pass through a course of training in nursing, dressing, and dispensing, at our naval hospitals, and that they enter the seagoing ship, commencing with 2s. a day, and rising by triennial increments to 5s., with corresponding increase of pension. Thus, I consider, a good class of men might be procured, which would usefully compensate to a certain extent for the present attenuated condition of the medical branch of the Navy. I hope I may be allowed to add to this by-and-by, and for the present remain, yours obediently,

A MEDICAL OFFICER.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE DELANCY FEVER HOSPITAL.

THE report of this institution for the year 1881 is of unusual interest, and shows how completely epidemic disease may be held in check, if only adequate care and vigilance are used. In the past year two outbreaks of small-pox have been arrested by prompt removal to the hospital, and the trustees are now able to state that, on fifteen occasions during the eight years that have elapsed since the institution was opened, small-pox has been effectually stamped out upon its introduction into the town, without, in a single instance, extending beyond the family first attacked. These striking results are due no less to the vigilance of the medical practitioners of Cheltenham than to the hearty co-operation of the health-officers of the town, and of the neighbouring local boards. The scarlet fever wards, both public and private, have been used to considerable extent, there having been thirty-one cases treated in the latter, and twenty-three in the former during the year; all these cases have done well, with one exception, in which death took place the day after admission. The administrative block has also proved of much service to several convalescents, as a half-way house between the hospital and their homes.

Owing to the forcible and repeated representations of the trustees, the Town Council and the Cheltenham Board of Guardians have recognised the importance of the Delancy Hospital, and its position in the sanitary machinery for the suppression of epidemic disease, and a yearly subscription of £100 and £50 will in future be paid by these sanitary bodies respectively.

By the munificent donation of £2,000, from the Rev. J. H. L. Gabell, a permanent endowment fund has been secured to the Hospital, and the trustees have lost no time in carrying out a reduction in the charges, which they have long and anxiously wished to effect.

From the 1st December last, the terms for admission to the private wards for subscribers of one guinea or donors of ten guineas, and members of their households, have been reduced one half; and patients are received into the public wards at a uniform charge of two shillings a day, instead of three as formerly.

One of the larger schools has already, by a yearly subscription, secured exceptional advantages for its pupils, and it is believed that in time more of these establishments will be induced to take a similar course, but the space at present available would certainly be inadequate, if all cases of scarlet fever were sent to the hospital; and the trustees are forced to consider the necessity which may arise in the immediate future for erecting the two wings or public wards, which were contemplated in the original plan of the building.

ANDERSON'S COLLEGE DISPENSARY, GLASGOW.

FROM the report just made public, at the fourth annual meeting of this institution, the amount of work done during the past year has been of an extensive nature, and at a comparatively small outlay. During the period embraced in the report, 7,878 patients have received the benefits of the dispensary, while no less than 907 were visited at their own homes, this being one of the distinctive features of the charity, that it not only gives gratuitous advice to the sick poor, but visits them at their own homes if necessary. This latter work is partly carried on by senior students, under the supervision of the medical staff, and has been found of great service in giving the students a practical acquaintance with a large variety of diseases. So much, however, has this part of the work increased, that it has been found necessary to limit the area of home visitation, as it was found impossible to overtake all

the work. The financial state of the dispensary seems also satisfactory, the amount of debt having been diminished during the past year. No doubt, when the objects of the institution are more generally known, it will meet with increased sympathy and support from the public.

GLASGOW DISPENSARY FOR SKIN-DISEASES.

THE twenty-first annual meeting of the supporters of the above institution was held on April 5th. The report, which was read and approved, showed that there had been an increase in the number of new cases treated over those of the previous year, the numbers being 1,297 against 1,192. This was the case also as regards the patients treated in the special wards of the Western Infirmary, those in the past year numbering 106, against 84 in the previous year. There was a good attendance of students at the dispensary classes, 46 having enrolled. The income of the institution was £438, and exceeded the expenditure by £94, which it was proposed to expend in reducing the debt upon the building. Altogether the annual report is a satisfactory one, and the dispensary is evidently doing good work, both as a school and as a place of treatment for the class of diseases for which it was inaugurated.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

SANITARY MATTERS IN WALES.

IN the Dolgelley Rural District, the death-rate for the past year was considerably in excess of the birth-rate, the rates being respectively 26.0 and 23.0 per 1,000 of population. In his last report on the health of the district, the health-officer, in alluding to this question, points out that the sanitary condition of the district is far from satisfactory, and calls for the serious attention of the sanitary authority. He shows that many of the cottages are built without the slightest regard to sanitary science, and that they will soon become as objectionable and unhealthy as the old huts and hovels which already disfigure his district. Privy accommodation is defective, and some of the privies are described as "filthy and dangerous." Public scavenging is not properly carried out, and the Common Lodging House Act has not yet been adopted. In this connection Dr. Jones states that he has reason to believe that the common lodging-houses are often dangerously overcrowded, and that all sexes are huddled together in a confined bedroom, without the smallest regard to decency or morality. With such a complication of evil, the cause of the exceptionally high rate of mortality is not far to seek, and the health-officer is to be congratulated upon the fearless manner in which he has brought the subject before the notice of his authority, who evidently do not give that attention to their district which its condition deserves.

DR. DANFORD THOMAS AND THE WORKHOUSE INFIRMARY MEDICAL OFFICERS.

SIR,—That Dr. Thomas should take exception to the observations I felt myself justified in making in reference to his recent action in refusing fees to the medical officers of workhouse infirmaries for making *post mortem* examinations, and attending to give evidence under his warrant, is what I expected; but, before he complains of "a want of that courteous consideration which is due to every public officer," in which principle I agree, let us note whether, in the instance before us, he has first set the example. That he has been thus wanting in consideration for the feelings and interest of others, I believe I shall prove before I conclude.

Dr. Thomas need not fear for me. "I venture to hope"—nay, am very well satisfied—that I shall carry the goodwill of every reputable member of the profession in my protest against Dr. Thomas's proceedings; notably, when I state that I have not the smallest personal interest in this matter, and have only taken this question up on public grounds.

Dr. Thomas was, as is well known, for some years the deputy of the late Dr. Hardwicke, Coroner for Central Middlesex, and in that office presided over many inquisitions. At the death of Dr. Hardwicke, he solicited and obtained the help of the profession (among whom was included some Poor-law medical officers) in getting the position he now occupies. I therefore consider that if he (so recently elected) decides on making a fresh departure, in interpreting a clause in an Act of Parliament in a sense totally opposed to that entertained by his predecessors, and by gentlemen holding the same position elsewhere, thereby injuring the interests of members of the profession, the least capable of all of protecting themselves, unless he can present the most absolute reason for this sudden action, he lays himself open to rebuke, in which rebuke I am satisfied I shall be supported by every right-thinking member of the community, whether belonging to the profession, or otherwise.

Dr. Thomas, in his reply, states that the payment of fees to medical officers of union or workhouse infirmaries is regulated by law. Granted. My contention is, that he has wholly misinterpreted that law. Dr. Thomas takes the ground that, as in county or other lunatic asylums (which are mentioned in section 5), the officers are precluded from recovering fees for *post mortem* examinations, etc., therefore the medical officers of the separate infirmaries and hospitals erected under the Metropolitan Poor Act should also be included. I maintain, on the contrary, that these respective establishments were, in their inception and management, wholly different. County and borough asylums were built and maintained by county or borough rates. They are controlled by justices of the peace, or by borough magistrates; whilst workhouse infirmaries have been built by funds raised from local rates, are controlled by boards of guardians, or by a committee of the same, and the inmates are admitted and discharged under exactly the same regulations as prevail in the parent workhouse, from which they are transferred. Granting, however, that Dr. Thomas be right, then, as a logical consequence, the vast majority of the fees accorded by coroners all over the kingdom to workhouse medical officers have been illegally given; for there is hardly a workhouse existent where sick-wards are not provided; and, if this interpretation of the law be correct, then the medical officer is not entitled to a fee on any inquest held in such workhouse, except in the rare instances where the death takes place in what is called the body of the house. What are separate infirmaries and sick asylum hospitals, but continuation sick-wards of workhouses? I pass over Dr. Thomas's reference to the explanation given by Mr. Wakley, as to the circumstances which led to the introduction of the section on which Dr. Thomas relies, as it is absolutely correct; nor will I comment on his disbelief that guardians do take into consideration the incidence of fees in fixing the stipends of their medical officers, contenting myself with the remark that Dr. Thomas must be unaware of the relations existing between boards of guardians and the medical officers they appoint, when he assumes that such fees are not taken into account.

Personally, it seems Dr. Thomas "is not averse to the payment of gentlemen called to give evidence for State purposes"; and therefore it must be evident that it is only from his recent reading of the Coroners' Witnesses Act that (in opposition to the views of others) he has taken this fresh departure.

Dr. Thomas (it would appear) expresses "the hope that, in making inquiries of the magistrates, I may not advance my own views, and may damage my professional brethren." I thank him for this remark; and proceed to tell him that my inquiries were directed to ascertain whether, as alleged, the Middlesex magistrates had objected to the payment of fees to the medical officers of workhouse infirmaries. Finding, as I expected, that they had not, it was sufficient for my purpose.

Dr. Thomas takes credit to himself for having aided his predecessor in the establishment of mortuaries and coroners' courts—a very praiseworthy act, but in which he has only followed the lead of those who did the same years ago. It is, however, no justification for his dragging the Medical Superintendent of the Holborn Workhouse Infirmary and his assistant medical officer two miles to his court to give evidence touching the cause of death of a person dying in the workhouse hospital, when the same inquiry could have been held there; nor for threatening to commit them for contempt because they naturally objected to make a *post mortem* examination and give evidence without fee or reward; and for dismissing them without payment, amidst the amusement of his court, thus adding insult to injury.

In conclusion, I may state that—having given evidence many scores of times in coroners' courts, both in a workhouse infirmary, where I have been always paid, and elsewhere—I never yet could understand that any benefit ever accrued to any one besides the coroner by the latter being a medical man.—I am, etc., H. S.

NOTIFICATION OF NUISANCES.

SIR,—In Section 94 of the Public Health Act, 1875, it says: "On the receipt of any information respecting the existence of a nuisance, the local authority shall, if satisfied of the existence of a nuisance, serve a notice on the person," etc. I want to know if, in order to give such notice, the notice must first be sanctioned by the sanitary committee, and subsequently by the authority in general meeting (a town council, for instance), or can a sanitary committee generally authorise the medical officer of health to give the notice, and follow it up before the justices in each case; and, if the sanitary committee cannot do so, can the town council give the general authority to the officer of health without his first bringing the cases either before the committee or council; that is, that he should, on ascertaining a nuisance, be able at once to issue the notice in the name of the sanitary committee or sanitary authority, and follow it up by a summons before the magistrates, or must the medical officer of health get each notice sanctioned by the town council at a general meeting.—I remain, sir, yours faithfully, R. P. B. TAAFFE.

P.S.—Can the sanitary authority delegate a general power to the medical officer of health?

*** Officers of sanitary authorities do not possess those general powers which our correspondent evidently hopes they do. As a medical officer of health, he has power to distribute any notices of a warning character, but notices which are distinctly intended to serve as the basis of legal proceedings must be the result of a distinct motion passed by the local authority in each particular case. As to this, there can be no doubt whatever. The point is one which has often been considered. If our correspondent will read carefully the very section he quotes, he will see at once that there is to be a direct relation between each particular nuisance and the particular notice which is to be served because of the nuisance. Then again, Section 200 may be said to imply the necessity of full supervision by the council over the proceedings of committees; and it is in the highest degree objectionable that committees should exercise unlimited powers of conducting prosecutions, even if such powers can be conferred on them, which is by no means certain.

MARTLEY RURAL DISTRICT.—Scarlet fever, after an absence of four years, appeared last year in this district in an epidemic form. The disease appears to have been of a mild character, since of the total cases (72) which came to the notice of the health-officer, only eleven terminated fatally. In some parts of the district the closing of the schools had a decidedly favourable result in limiting the spread of the contagion. Mr. Hyde reports a death rate of 14.12 per 1,000 against 14.08 for the previous year, which was probably the lowest rate ever recorded. Of the total deaths (206), eleven were caused by scarlatina, four by whooping cough, four by typhoid fever, and two by measles, the zymotic rate being equal to 1.45 per 1,000. An infantile rate equally low is recorded, since of the total deaths thirty-one only happened in infants under one year of age. An important improvement in the sanitary condition of the district has been effected by the completion of the sewerage works at Leigh, and in several parts of the district an improved water supply has been obtained.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A QUARTERLY Meeting of the Council of the College was held on Thursday, April 13th. The minutes of the Ordinary Council, held on the 9th March, were read and confirmed. Reports were received from the several Annual Committees and from the Committee on the conditions of admission to the Pass examination for the diploma of member. [We are obliged to defer the publication of the report until next week. The substance of it is, that candidates are not to be admitted to the Pass Examination for the membership within two years after passing the primary examination, except in certain circumstances which are specified.]

Mr. J. COOPER FORSTER moved :—"That in future all candidates for the primary or anatomical and physiological examination, whether for the Diploma of Member or of Fellow of the College, be only required to attend one winter course of lectures on anatomy instead of two courses of such lectures. And that candidates for the final examination, whether for the membership or fellowship, be required to produce the following additional certificate, viz. : Of having attended during three months a course of surgical or regional anatomy, with demonstrations."

The first and last part of the motion was referred to the Nomination Committee for consideration ; the second to the Court of Examiners, to which also was referred Mr. SPENCER SMITH'S motion :—"That it be referred to the Court of Examiners to consider and report to the council whether or not it is desirable that all students rejected in the pass examination for the Diploma of Member should be placed in the same category as regards the time required to elapse before they can present themselves for re-examination."

Professor HUMPHRY was re-elected a member of the Court of Examiners.

A letter was read from the Secretary of State for the Home Department in reference to the sale of poisons, which was referred to the President and Vice-Presidents to consider and report to the Council ; and another letter was read regarding the appointment of two public analysts to undertake *post mortem* examinations in criminal cases, one to be nominated by the President of the College of Surgeons, and the other by the President of the Royal College of Physicians. The Council accepted the duty of nomination on behalf of their President.

The Report of the Visitors on the college and other examinations was referred to the President and Vice-Presidents to consider and report upon to the Council after conference with the Board and Court of Examiners.

The Jacksonian prize was awarded to Dr. William Alexander, of Liverpool.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in Anatomy and Physiology, at a meeting of the Board of Examiners, on the 5th instant, and when eligible will be admitted to the pass examination.

Messrs. John Gay, Charles H. Upham, Charles B. Innes, Charles Gayford, and Archibald E. Garrod, students of St. Bartholomew's Hospital ; George Morgan and Henry A. Sheppard, of the Charing Cross Hospital ; James Milner and George H. Scott, of the Leeds School ; Thomas M. Smith and Priestley Leech, of the Manchester School ; George A. Bolton, of St. George's Hospital ; George S. Wild, of the Liverpool School ; Harold G. Dixon, of the Cambridge School ; Thomas Young, of the Birmingham School ; Charles Andrews, of University College ; John F. Bateson, of the Edinburgh School ; Alexander Y. Reily, of the Middlesex Hospital ; and Harry Tuck, of the Westminster Hospital.

Five candidates were rejected.

The following gentlemen passed on the 6th instant.

Messrs. John Elliott, Frederic P. Maynard, Alfred G. Francis, Samuel H. Habershon, Andrew A. Orr, and Charles E. Tanner, of St. Bartholomew's Hospital ; George O. White-Cooper, Herbert W. G. Doyne, Francis H. Mead, and John T. Williams, of St. George's Hospital ; George A. Carpenter, Herbert Bidwell, Edward S. Whelpton, and John R. Staddon, of St. Thomas's Hospital ; William T. Rees and George H. Allden, of the London Hospital ; Edward R. F. Mason, of the Leeds School ; Albert E. Nelham and Albert Bowhay, of the Charing Cross Hospital ; Charles H. East, of King's College ; and Thomas Pennington, of the Manchester School.

Four candidates were rejected.

The following gentlemen passed on the 10th instant.

Messrs. Francis H. Napier, Charles P. Mathew, Alfred C. Francis, Frank A. Spreat, Arthur M. Jackson, George A. E. Murray, and Harry C. Chapman, of St. Bartholomew's Hospital ; Edwin J. Norris, Alfred J. R. Tyler, and George F. Hentsch, of the Charing Cross Hospital ; Henry C. Bowman, Herbert D. Harthan, and Edward Somers, of the Manchester School ; George A. Shackel, Charles C. Reilly and George F. Welsford, of St. Thomas's Hospital ; Philip H. Nutting and John M. Evans, of the London Hospital ; Tudor G. Lavie and H. Marmaduke Page, of St. George's Hospital ; Francis Penny, of King's College ; Edward B. Parfitt, of University College ; and George B. Harrop, of Guy's Hospital.

Four candidates were rejected.

The following gentlemen passed on the 11th instant.

Messrs. Frederick G. Failes, Herbert W. Chambers, Philip R. W. Santi, William T. Gardner, Charles Kebbell, John P. Roughton, and Edward C. Smith, of St. Bartholomew's Hospital ; Robert Lawson, Arthur B. Druitt, Charles J. West, and Seth Gregory, of St. Thomas's Hospital ; Reginald J. C. Cottell, Charles E. Liesching, Henry E. South, and Henry Potter, of St. George's Hospital ; James E. Jefferis and John W. Carr, of University College ; Frank Hichens, Edwin Volckman, and John J. Langston, of the London Hospital ; Edward J. Smith, of the Charing Cross Hospital ; and Walter H. Brazil, of the Manchester School.

Four candidates were rejected.

The following gentlemen passed on the 12th instant.

Messrs. Frederic H. Wigmore, H. Winstanley Shadwell, Alfred T. Price, and Herbert Fox, of St. Bartholomew's Hospital ; Francis A. Saw, Herbert M. Morris, Charles W. Ward, and George R. J. W. Fletcher, of the Charing Cross Hospital ; Francis G. C. Danican, Barnes Nowell, and George C. Bell, of St. George's Hospital ; William E. P. Phillips, James Chadwick, and Charles Caldecott, of Guy's Hospital ; A. Beaumont Woakes and Frederick A. Floyer, of St. Thomas's Hospital ; J. Harley Gough and Robert S. Robertson, of the Manchester School ; Sydney D. Ashley and Henry W. Godfrey, of the London Hospital ; Henry S. Walker and Alfred Lawrence, of University College ; Alfred R. Hall, of St. Mary's Hospital ; and Ernest G. Foot, of the Middlesex Hospital.

Four candidates were rejected.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, April 6th, 1882.

Banerjea, Nahendra Nath, Calcutta.
Bostock, John, 29, Rutland Road, Victoria Park.
Brooks, Walter Tyrrell, Penge Park Lane, Stoke Newington.
Hart, Marmaduke James, South Hill Park, Hampstead.
Hoyland, Stanley Streeton, Clifton Road, Rotherham.
Maitland, Alfred Derwent, 10, Chester Place, W.
Willcocks, Arthur Durant, Scarsdale Villas, Kensington.

The following gentlemen also on the same day passed their Primary Professional Examination.

Cox, Joseph Bethell, St. Bartholomew's Hospital.
Greet, Charles Harvey, London Hospital.
Smith, W. A. Winwood, St. George's Hospital.
Todd, Henry, London Hospital.

MEDICAL VACANCIES.

The following vacancies are announced :—

BRISTOL GENERAL HOSPITAL—Assistant House-Surgeon. Salary, £50 per annum. Applications by May 4th.

BRITISH HOSPITAL, Buenos Ayres, South America.—Resident Medical Officer. Salary, £200 per annum. Applications by May 1st.

CALLAN UNION—Medical Officer for Ballingarry Dispensary District. Salary, £100 per annum, with £20 per annum as Medical Officer of Health, registration and vaccination fees. Election on the 19th instant.

CAMBRIDGE COUNTY LUNATIC ASYLUM.—Assistant Medical Officer. Salary, £100 per annum. Applications by the 15th April.

CHELTENHAM BRANCH DISPENSARY—Resident Medical Officer. Salary, £180 per annum. Applications by April 17th.

CHESTER GENERAL INFIRMARY—Visiting Surgeon. Salary, £80 per annum. Applications by 22nd instant.

CLINICAL HOSPITAL AND DISPENSARY FOR WOMEN AND CHILDREN, Park Place, Manchester.—House-Surgeon. Salary, £80 per annum. Applications to Mr. Edwin Marshall, Secretary, 38, Barton Arcade, Manchester, by 29th instant.

COTTAGE HOSPITAL, Scotland.—House-Surgeon. Salary, £30 per annum. Applications to No. 161A, BRITISH MEDICAL JOURNAL Office, 161A, Strand.

ENNIS UNION—Second Medical Officer and Apothecary to the Workhouse, at a salary of £75 per annum.

GUEST HOSPITAL, Dudley.—Member for the Honorary Medical Staff. Applications by the 24th instant.

HARTLEPOOL UNION—Medical Officer for the District. Salary, £50 per annum. Applications to the Clerk by May 17th.

HARTLEPOOL UNION—Medical Officer for the Workhouse. Salary, £65 per annum. Applications to the Clerk by May 17th.

LONDON HOSPITAL, Whitechapel, E.—Aural Surgeon. Applications by the 18th April.

NATIONAL DENTAL HOSPITAL, 149, Great Portland Street, W.—House-Surgeon. Salary, £50 per annum. Applications by April 26th.

SCARBOROUGH FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Resident Medical Officer. Salary, £200 per annum. Applications by April 15th.

SCHOOL OF DENTAL SURGERY—Teacher of Dental Metallurgy. Applications to the Dean of the Medical School, Dover Street, Liverpool, by April 25th.

SUNDERLAND INFIRMARY—Junior House-Surgeon. Salary, £60 per annum. Applications to Chairman of the Medical Board by the 27th instant.

TOWNSHIP OF MANCHESTER.—Resident Assistant Medical Officer. Salary, £140 per annum. Applications, endorsed "Medical Appointment", by the 15th April.

WEST RIDING LUNATIC ASYLUM, Wakefield.—Resident Clinical Assistant. Applications to Dr. Herbert Major, Medical Superintendent.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Physician. Honorarium of £100 a year. Applications by April 24th

MEDICAL APPOINTMENTS.

FRASER, F., M.B., appointed District Medical Officer to the Sevenoaks Union.
HOPKINS, H. C., M.R.C.S., appointed Assistant-Surgeon to the Royal United Hospital, Bath.
HOUGH, C. H., M.R.C.S., appointed Surgeon to the Derby Provident Dispensary, *vice* T. Highton, M.R.C.S., resigned.
JACOB, David, M.D., elected Medical Officer of the Maryborough Dispensary District.
MAILL, C. E. D., M.R.C.S., appointed Medical Officer of Health to the Westbury and Whormelkdown Union.
PARTRIDGE, Thomas, M.K.Q.C.P., re-elected Medical Officer of Health for the Rural and Urban District, Stroud Union.
PYE, Walter, F.R.C.S., appointed Examiner in Surgery and Clinical Surgery at the University of Glasgow.
SALTER, J. R., M.B., appointed Second Assistant Medical Officer to the Kent County Lunatic Asylum, Chartham.
SCOTT, Richard J. H., M.R.C.S.Eng., appointed Assistant-Surgeon to the Royal United Hospital, Bath.
TRESTON, M. J., L.R.C.S., appointed Assistant Medical Officer to the Rochester and District Friendly Societies' Medical Aid Association.
WOOLBY, J. B., M.R.C.S., appointed Physician's Assistant to the Bristol General Hospital, *vice* R. J. Bryden, M.R.C.S., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., *which should be forwarded in stamps with the announcements.*

BIRTH.

FORRESTER.—At Sandgate, Kent, on the 6th inst., the wife of James S. Forrester Esq., Army Medical Department, of a daughter.

DR. LOMBARD TANNER has resigned the post of Assistant Medical Officer of the Cork District Lunatic Asylum.

DR. KENRICK H. B. WILLIAMS, of Movannedd, has been placed on the Commission of the Peace for Denbighshire.

VACCINATION.—Mr. John Hannay has been awarded by the Local Government Board a gratuity of £8 12s. for efficient vaccination in the Weobley district of the Weobley Union.

SOUTH KENSINGTON MUSEUM.—Mr. Edward Bellamy, Surgeon to the Charing Cross Hospital, will commence his course of lectures on the anatomy of the human form on Friday, the 12th proximo, at four o'clock, in the Science and Art Department of the above museum.

DISCOVERY OF HUMAN REMAINS.—The recent discovery of human remains, by some workmen engaged in Percy Mews, Newman Street, and their examination by Mr. Lloyd, and some other medical men who assisted him, has led to the conclusion that the remains are those of persons whose bodies had been used for anatomical purposes. The examination, which was a cursory one, made in a shed in the police-station yard, by the light of a lamp, revealed a mummified trunk and two dried and cleaned pelves, one male and one female. Both were undoubtedly anatomical preparations. The mummified trunk had apparently been wrapped in some fabric similar to those used for enveloping mummies. There was further found an exact cast of the lower part of the aorta in red waxy material, such as that used for injecting arteries prior to dissection. Also one or two humeri-fibulæ, tibiæ. etc., cleaned and prepared. The remains, which are supposed to have been in a cellar of the mews for many years, were removed to the mortuary of St. Pancras Workhouse, where only a few nights previously had been deposited a woman's foot, which had been found by a constable at no great distance, in London Street, Fitzroy Square.

HEALTH OF FOREIGN CITIES.—The following facts and figures, derived from a table in the Registrar-General's last weekly return, afford trustworthy indications of the recent health and sanitary condition of various foreign and colonial cities. According to the most recently received official weekly returns, the annual death-rate in the three principal Indian cities averaged 34.6 per 1,000, and was equal to 28.1 in Calcutta, 33.6 in Bombay, and 43.3 in Madras. Cholera caused 28 deaths in Calcutta, 42 in Madras, and small-pox 8 in Madras; fever fatality continues to show a marked excess in each of these three cities, the deaths from this cause in Calcutta and Madras being more numerous than in previous weeks. The death-rate in Alexandria rose again to 30.5, the 106 reported deaths including no fewer than 18 fatal cases of typhoid fever. In 22 European cities the death-rate averaged no less than 32.7, and exceeded by 10.4 the average rate prevailing last week in the 28 large English towns. The death-rate in St. Petersburg showed an increase upon recent weekly numbers, and was equal to 57.7; the 741 deaths included 58 from typhus and typhoid fever, and 27 from scarlet fever. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate averaged 21.8; measles caused 12 more deaths in Copenhagen, showing, however, a decline from the numbers of fatal cases in previous weeks. In Paris the death-rate showed a further increase to 31.2; the deaths included 70 from diphtheria and croup, 41 from typhoid fever, and 15 from small-pox. The rate in Brussels also increased to 25.4, and 3 fatal cases of small-pox were reported; and in Geneva the high rate of 29.3 was again recorded. In the three principal Dutch cities the death-rate averaged 25.9; the highest rate was 29.1 in Rotterdam. The Registrar-General's table includes returns from nine German and Austrian cities, in which the death-rate averaged 33.1, and ranged from 23.8 in Dresden, to 41.1 in Vienna and 42.4 in Prague. Small-pox caused 33 more deaths in Vienna and 11 in Buda-Pesth, diphtheria 44 in Berlin, and typhoid fever 4 in Prague. In three of the principal Italian cities the death-rate averaged 29.7, the highest rate being 32.9 in Turin; typhoid fever caused 6 deaths in Venice and 4 in Rome, and diphtheria 9 in Turin. The Roman return relates to the first week in December, no more recent return having been received. The annual death-rate in four of the largest American cities averaged 27.9, and ranged from 23.1 in Brooklyn and Baltimore to 34.5 in New York. Small-pox caused 28 deaths in Brooklyn, 11 in New York, and 10 in Philadelphia. Scarlet fever and diphtheria continue to show fatal prevalence in New York.

AN AUSTRALIAN REMEDY FOR ASTHMA.—As to the correctness of the claim which has often been made on behalf of a species of *Euphorbia* indigenous to Queensland, and known scientifically as *E. pilulifera*, that it affords a remedy for asthmatic and bronchial affections, a correspondent of the Sydney *Town and Country Journal* writes to that paper that an ounce of the leaves of the plant placed in two quarts of water, and allowed to simmer till the quantity is reduced to one half, will afford a medicine which, taken a wine-glassful at a time, twice or thrice a day, will relieve the most obstinate cases of asthma, as well as coughs and ordinary chest affections. The leaves may be easily gathered and dried, and kept for a considerable length of time. Evidence of the virtues of a decoction of the leaves of this species of *Euphorbia* is very general in Queensland and parts of New South Wales, as other kinds of *Euphorbia* have a considerable medicinal reputation in India and elsewhere. Thus the leaves of the *E. nereifolia* are prescribed as a purgative by the native practitioners in India, while the root of the *E. ipecacuanha* is said to be equal in all respects to the true ipecacuanha. This extensive genus of plants evidently deserves the careful study of skilled botanists and druggists.

DONATIONS AND BEQUESTS.—The British Home for Incurables has received one hundred guineas each from Messrs. Copestake and Company, Mr. Herbert Clarke, and Mr. F. A. Beavan, and fifty guineas from "A Member of the Common Council."—The Society for the Discharge and Relief of Persons Imprisoned for Small Debts have given £100 to the Chelsea Hospital for Women, and £50 additional to the Dental Hospital of London.—Mr. Edwin Lawrence has given £100 to the purchase of freehold fund, and £10 10s. to the general fund, of the Royal Hospital for Women and Children.—The Rev. Canon Coulson and Mr. R. Tangye have each given £50 to the building fund of St. Peter's Hospital for Stone.—Mr. Richard Worsley has given £50 to University College Hospital.—Sir William Miller, Bart., has given £50 to the proposed Scarlet Fever Convalescent Home.—Messrs. Crosse and Blackwell have given fifty guineas additional to the Middlesex Hospital.—The Drapers' Company have given fifty guineas to the Chelsea Hospital for Women.—The Mercers' Company have given fifty guineas to Queen Charlotte's Lying-In Hospital.—The Goldsmiths' Company have given £50 to the East London Hospital for Children.—The Great Northern Hospital has received £899 17s. 6d. consols under the will of Mr. Edward Curshee.—Mrs. Hannah Sarah Brightwen bequeathed £500 to the Great Yarmouth Hospital.—Mr. John Hartnell, of Blomfield Street, Upper Westbourne Terrace, bequeathed £200 each to the London Hospital, the Westminster Hospital, the Earlswood Asylum for Idiots, and the Hospital for Sick Children, and £100 each to the Charing Cross Hospital, the Middlesex Hospital, the Royal Free Hospital, the Royal London Ophthalmic Hospital, the Samaritan Free Hospital for Women and Children, the Royal National Hospital for Consumption and Diseases of the Chest at Ventnor, the Royal Hospital for Incurables, the London Fever Hospital, the National Hospital for the Paralysed and the Epileptic, the Metropolitan Convalescent Institution, the Seaside Convalescent Hospital at Seaford, and the Royal Sea Bathing Infirmary at Margate: in case of the death of Mrs. Isabella Weston Roberts without issue, all the above amounts are to be doubled out of the "residue" of his real and personal estate.—Mrs. Turner has given £350 additional to the Royal National Hospital for Consumption and Diseases of the Chest at Ventnor.—Mrs. Selina Theresa Mangles, of Sunningdale, Berks, has bequeathed £200 to St. George's Hospital.—Sir Moses Montefiore has given £100, Mr. A. Leland Noel £50, the Duchess of Bedford £25, and the Dowager Lady Wolverton £25, to the proposed Scarlet Fever Convalescent Home.

OPERATION DAYS AT THE HOSPITALS.

MONDAY..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S. 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p. Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M.Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Mr. Edmund Owen will show an Infant who has been treated for Acute Suppuration in the Hip-Joint Mr. Lund (of Manchester) will introduce a new method of treating Simple Fracture of the Patella. Mr. Henry Morris: Ichthyosis and Cancer of the Tongue.

TUESDAY.—Pathological Society of London, 8.30 P.M. Specimens to be shown—Mr. Eve: Cancer originating in Membranes of Brain; Calcareous Tumour in Brain; Camel's Lung with Filaria Sanguinis. Dr. J. M. Hobson: Malignant Lymphoma. Mr. Roger Williams: Calculus formed on a Shell. Dr. B. Fenwick: Intrathoracic Tumour. Mr. M. Baker: Two cases of Prurigo of Hebra; Acneiform Keloid (living specimens). Mr. A. P. Gould: Lateral Asymmetry of Bones and Brain. Mr. Alban Doran: Papillary Cysts of the Ovary. Card specimens—Dr. S. West: Defects in Valves of Heart; Obliteration of Coronary Artery, etc. Mr. Golding-Bird: Aneurism from Palm of Hand. Mr. Eve: Perforating Ulcer of Foot. Dr. Lediard (of Carlisle): 1. Dislocation of Ankle; 2. Abscess in Fossa of Skull.

WEDNESDAY.—Hunterian Society, 8 P.M. Dr. Dundas Grant: A Case of Myxœdema. Mr. C. J. Symonds: Acute Palmar Bursitis treated by Pressure Dr. Hughlings Jackson: Multiple Neuroses the result of Syphilis. Mr. Gilbert: A case of Neurotic Asthma.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

MEDICAL MEN AND HOUSE DUTY.

SIR,—I find that medical men are charged inhabited house duty at the rate of ninepence in the pound, even though they use two rooms, one as a surgery and the other as a consulting room. A man engaged in business, who uses part of his house as a shop or warehouse, is only charged at the rate of sixpence in the pound. I think this is unjust to medical men, who are rated and taxed the same in other respects as the man who only pays sixpence.—Your obedient servant,

ONE HEAVILY TAXED.

*** In the debate upon the Inhabited House Duties Act of 1851, Mr. Duncombe stated, in the House of Commons the same year, that a great number of professional persons, including medical men, complained that they were rated at ninepence in the pound for the occupation of houses which were much larger than they required for their private dwellings, and urged that such habitations should, as shops were, be rated at only sixpence in the pound. The Chancellor of the Exchequer, however, made an adverse reply to this equitable request, on the ground that the classes of persons who would be included in this category would be far too numerous. We, nevertheless, hope that the matter will again be brought before the notice of Parliament, and that medical men will soon be relieved of the excessive house duty which is imposed upon them.

DR. JOHN BARCLAY.—In order to practise in France, it is necessary for a medical man not possessing a French degree to pass the requisite examinations of the French Faculty of Medicine, of which he will obtain particulars by application to the Dean of the Faculty of Medicine of the University of Paris. If he desires to restrict his practice to one department of France, he can obtain a licence for practice in that department by passing the minor examination of the *Officier de Santé*.

IMPURITIES OF ANÆSTHETICS.

SIR,—In the correspondence which has been carried on in your JOURNAL on the subject of anæsthetics, there is one point which, so far as I have noticed, has not been touched upon. When a death occurs during the administration of chloroform, it is, of course, quite natural that the surgeon should suspect the purity of the anæsthetic; and we know that, in many cases, the fatal result has been attributed to deleterious substances supposed to be present in the chloroform. Not being a physiologist, I would not venture to express an opinion on the probability of such being the case, except to the extent in which the subject is one of ordinary evidence, such as a jury would be expected to comprehend. Now we know that the impurities which inferior chloroform contains, are simply traces of the "oils" that are obtained in considerable quantity in the purification of chloroform. These "oils" have not been chemically examined, but evidently consist of a complex mixture, as they begin to distil at a temperature below 100° Cent. (212° Fahr.), rising to above 160° Cent. (320° Fahr.). So strong and characteristic an odour does this mixture possess, that one part in fifty thousand of chloroform can easily be detected by the nose. We may say that a sample containing one in forty thousand could never be allowed to pass. The question then arises, is it credible that this small proportion of impurity in a chloroform can in any case have been the cause of death? We shall leave this question for others to answer, only observing that we have never experienced any ill effects from the inhalation of these impurities, even when working with them "pure and simple"; and that the amount of such in an inferior chloroform would scarcely exceed one-hundredth of a grain in the ounce.

It only remains to say that we should be happy to supply samples of chloroform of all degrees of purity, and of the impurities themselves, to any physiologist who cared to investigate the matter.—I am, sir, yours faithfully, D. B. DOTT.

J. F. Macfarlan and Co., 93, Abbey Hill, Edinburgh.

IN Mr. Holderness's note on Fractured Patella (JOURNAL, April 8th, page 500, column 1), for "Lister's temperature-regulator", read "Leiter's temperature-regulator". The signature to the article on Poisoning by Nitrate of Potash should be "Richard Cross", not "Antonio Cross".

A WARNING TO HOSPITALS.

SIR,—There is a man who goes about imposing upon hospitals, named Charles Clark, from Tadley, Hants. He has favoured us with two visits, and, upon the second occasion, he abused our hospitality by absconding with sundry small sums of money, collected from his fellow-patients under the pretence of buying stamps or stationery for them, when he went out for his constitutional walk. The rector of the parish from which he comes writes as follows. "Charles Clark is a very bad character. One of his tricks is to make a home of some London or county hospital during the winter, and then leave; he is a great impostor."

The man can easily be recognised, as he has lost his left hand, and wears a hook. He has also an impediment in his speech, and drags his right leg when walking. If you will kindly give publicity to these facts, they may serve to warn the authorities of other hospitals; and should he (as I think is probable) have obtained admission to some other hospital, I should be very glad to learn of his present whereabouts. He left here on Friday, March 31st.—I am, dear sir, yours faithfully, SIDNEY M. QUENNELL, Secretary.

Westminster Hospital, Broad Sanctuary, S.W., April 5th, 1882.

Medical Coroners.

Sir,—I have read with interest a correspondence which has recently appeared in the Journal, having reference to the course adopted by the medical coroner for Central Middlesex in the matter of the payment of medical witnesses in his court. I have no desire to express any opinion upon that particular dispute, but, referring to it, I do desire, with your permission, to express the opinion I have long entertained, that the members of the profession are scarcely to be credited with at least worldly wisdom in advocating the election of medical coroners. May I offer my own personal experience in this matter?

I happen to practise on the borders of two counties. In the one, the coroner is a solicitor; in the other, a medical man. In every case involving the slightest doubt, the legal coroner calls medical evidence, and generally orders a *post mortem* examination to be made; whereas, unless there is a very strong and generally expressed reason to suspect foul play, the medical coroner decides the doubt himself, and appears to entertain the strongest possible objection to summon a medical witness. Accordingly, it is a very rare occurrence for any of the medical men practising in his district to obtain a fee for evidence at an inquest. So much for the selfish view of the question. Then as to the conduct of the inquiry. The evidence in the legal coroner's court is carefully taken, and the proceedings are conducted with regularity, thoroughness, and despatch, while the medical witness is treated with deference and respect, which are not always accorded him in his medical brother's court, although I can make no personal complaint on this score. In the medical coroner's court, on the other hand, the commonest elements of the laws of evidence appear to be unknown, or, at all events, are disregarded; the inquiry is conducted in the most perfunctory manner, and the summing up is usually according to the following formula: "Gentlemen, there is no doubt in my mind that this case is one of death from natural causes (or one of accidental death, where no one is to blame but the deceased himself, as the case may be), and that, I presume, will be the verdict of you all." I could instance several cases where there has been grave suspicion as to the cause of death, and where a *post mortem* examination of the body or medical evidence would have cleared up all doubt, but where neither has been ordered.

Now, I have reason to believe that my experience is also that of others practising in different parts of the country; and, therefore, in the interest of the profession (for in a county or borough, where dozens of medical men may practise, only one can hold the office of coroner), and in the interest of the State, I hold, and always have held, that the profession is mistaken in advocating the appointment of a medical man to the office of coroner.

For obvious reasons (for our medical coroner is in many respects a good fellow), I somewhat unwillingly sign myself, Incog.

M.D.—The pamphlet should, we think, be laid before the authorities of the University of Glasgow, who could, no doubt, move the Medical Council to act in the matter. The police authorities might also be induced to take action, under Lord Campbell's Act.

Steam Heating of Hospitals.

Sir,—As a late resident in the Leeds Infirmary, I can corroborate what Mr. Blair, the manager, says in your last issue as to the efficiency of the warming, provided the fire is properly kept up; but the case of this hospital is not one which bears on the general question of steam *versus* water. Some few years ago, two powerful steam-boilers were erected for the purpose of supplying the cooking apparatus, and a steam-engine belonging to the laundry. It was then found convenient to use the steam for warming purposes. This is virtually "waste steam", which it is generally allowed can be economically used, as the extra fuel required is hardly worth mention, and skilled attendance is at hand. To stoke a steam-boiler well and economically, requires an amount of skill very different from that which suffices for an ordinary hot water boiler. As an instance of a large hospital efficiently warmed with hot water, I may mention St. Thomas's.—I am, etc.,

Leeds, April 8th, 1882. Ernest H. Jacob, M.D.

The Attraction to Edinburgh.

Sir,—I will endeavour to give "Civis Acad. Edinensis" the explanation he desires. The facility with which a Scotch university degree can be obtained naturally induces the Scotchman to work for it in preference to any minor qualification. So notorious is this, that a very large number of English students either enter on or finish their studies in Edinburgh. If we in the south would, with the same facility obtain a degree, the Colleges of Physicians and Surgeons might have to close their doors, and possibly those in Edinburgh would have to do the same. The reason why so many, after having obtained the M.R.C.S.Eng., run up to Edinburgh to take the L.R.C.P., is because no chemistry or botany is there required. If the London College of Physicians abandoned chemistry as a subject, very few, if any, of those holding a surgical qualification, would then go north. I have studied chemistry, Greek, and Hindustani; but I must confess my inability to pass an examination in the two former subjects, whereas I have done so in the last, and have found it to be of the utmost practical utility to me; and I am glad that the tendency of our day is to overthrow the theoretical for what is really practical.—I remain, yours truly, A. T.

A. O. H. W., and other Correspondents.—The attention of our correspondents is once more directed to the standing notice which appears every week, requesting that notices of changes of address and other matters of business should be forwarded to the Manager at the office, and not to the Editor, who has nothing whatever to do with advertisements, changes of address, or any such matters; and he cannot be responsible for their being carried out.

Corrugated Paper Splints.

Sir,—I have had so many inquiries concerning the corrugated paper splint material which I described in your columns a few weeks back, that I shall be much obliged if you will allow me to state that the full name and address of the maker is George Smyth and Sons, 47A, Arlington Street, Islington, N.; who will answer all inquiries concerning it.—Faithfully yours, Walter Pye.

4, Sackville Street, W., April 4th, 1882.

"Medicus" should address the Queen's Secretary, Windsor, on the subject.

Infantile Paralysis.

Sir,—I have a patient, a young girl fourteen years of age, who has had no use in her left arm or right leg for the last ten years, the result of infantile paralysis; and I shall feel much obliged if any of your subscribers can give me any advice as to what maker I can best apply to for a machine—tricycle or otherwise—to be easily worked by the right arm and left leg, so as to enable her to get about better from place to place, as at present she is entirely dependent upon the use of a crutch, and cannot go far without fatigue.—Faithfully yours,

Ernest G. Francis, L.R.C.P., M.R.C.S.

Kronstadt, Orange Free State, South Africa, March 7th, 1882.

Owing to want of space, and to unavoidable delay in preparing the illustrations, we have been reluctantly compelled to defer till next week the promised complete account of the American acrobat, Warren, who possesses a voluntary power of dislocating some of his joints.

A Self-acting Reporting Machine.

Iron gives an account of an instrument, invented by Herr A. Gentilli, of Vienna, and named by him the glossograph—consisting of an ingenious combination of delicate levers and blades which, placed upon the tongue and lips and under the nostrils of the speaker, are vibrated by the movements of the former and the breath flowing from the latter. The vibration is transmitted to pencils, which transcribe the several signs, produced by the action of the tongue and lips and the breath from the nostrils, upon a strip of paper moved by a mechanical arrangement. As in shorthand, a special system of writing, which may fitly be termed glossography, is produced, based upon the principle of syllabic construction and combination of consonants. It is said to be especially suitable for those languages the orthography of which differs least from the phonetic record of the apparatus. The instrument is self-acting in the fullest sense. Moreover, its application involves as little fatigue to the speaker as severe attention on the part of the person transcribing. In reporting proceedings in Parliament or courts of law, it is not necessary that the speaker should use the apparatus himself. Anybody may articulate it by repeating in a low voice the words of a speaker, which is sufficient for recording the signs.

Guy's Hospital Biannual Festival of 1882 will take place this year at Willis's Rooms on Thursday, May 18th, when Mr. Edward Cock has consented to preside.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. Lush, Weymouth; Mr. A. Teevan, London; Mr. Lawson Tait, Birmingham; Mr. E. Owen, London; Mr. W. J. Mackie, Turvey; Dr. Tripe, London; Mr. A. R. Barnes, Hastings; Mr. A. J. Routh, London; Mr. S. Snell, Sheffield; Mr. J. Farquharson, Stockton-on-Tees; Dr. O. Sturges, London; Dr. Lloyd, London; Mr. Knott, Dublin; Dr. Brett, Watford; Dr. Jacob, Leeds; Dr. A. J. H. Crespi, Wimborne; Mr. T. Partridge, Stroud; Dr. G. W. Potter, London; Dr. Fairlie Clarke, Southborough; A Surgeon-General; Dr. Keen, Philadelphia; Our Glasgow Correspondent; Mr. Vincent Jackson, Wolverhampton; Dr. Sheen, Cardiff; Dr. Shuttleworth, Brighton; Mr. Parker, London; Dr. C. S. Clouston, Gunnersbury; Our Dublin Correspondent; Dr. Hobson, Croydon; Mr. Francis, Kronstadt, South Africa; Dr. Goodhart, London; Mr. R. H. J. Scott, London; Mr. John Furley, London; Mr. Howse, London; Dr. J. A. Campbell, Carlisle; Mr. F. St. George Mivart, London; Mr. E. H. Hardwicke, Solihull; Mr. J. H. Williams, Bootle; Dr. Schuster, Aix-la-Chapelle; Dr. R. Cross, Scarborough; Mr. O. Bowen, Liverpool; Dr. Wallace, London; Mr. Southam, Manchester; Dr. Ferguson, Peebles; Mr. H. Bracey, Birmingham; Mr. E. A. Cook, Richmond; Mr. T. M. Stone, London; Mr. W. Wilson, Carlisle; Mr. S. Quennell, London; Mr. W. H. Jebb, London; Mr. T. S. Hutchinson, Newington, Sittingbourne; Dr. W. Sneddon, Beith; Mr. B. J. Bateman, Birmingham; Mr. A. W. M. Robson, Leeds; Mr. T. Laffan, Cashel; Dr. C. Parsons, Dover; Dr. Hickinbotham, Birmingham; Dr. Saundby, Birmingham; Dr. Morgan, Pontypridd; Dr. Fletcher Beach, Darenth; Mr. J. E. Barlow, Liverpool; Dr. Richard Ryder, Nailsworth; Dr. H. Lionel Smith, Uttoxeter; Dr. Mahomed, London; Dr. J. Barclay, Leicester; Mr. Harrison, Elgin; etc.

BOOKS, etc., RECEIVED.

Transactions of the International Medical Congress. By Sir W. Mac Cormac. London: J. W. Kolckmann. 1881.

The Science and Art of Midwifery. By W. T. Lusk, A.M., M.D. London: H. K. Lewis. 1881.

The National Temperance League's Annual. London: National Temperance Depôt. 1882.

Diseases and Injuries of the Eye. By J. R. Wolfe, M.D. London: J. and A. Churchill. 1882.

The Water-Supply of England and Wales. By C. E. De Rance. London: E. Stanford. 1882.

The Student's Handbook of the Practice of Medicine. By H. A. Husband, M.B. Edinburgh: E. and S. Livingstone. 1882.

The Hair in Health and Disease. By Dr. J. Pincus of Berlin. London: Chatto and Windus. 1882.

Clinical Surgery. By Dr. T. Billroth. London: New Sydenham Society. 1881.

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THE LUMLEIAN LECTURES
ON
INFLAMMATION.

Delivered before the Royal College of Physicians.

By J. BURDON SANDERSON, M.D., LL.D., F.R.S.,
Professor of Physiology in University College, London.

Lecture III. Part I.—Etiology of Inflammation.

The most important of the propositions which I submitted to you in the last lecture was this: that the attribute which distinguishes an infective inflammation (*i. e.*, one which is capable of extending and reproducing itself) from a normal one (which tends to discontinuance on the removal of its cause)—in a word, the property of infectiveness—is but the pathological expression of a chemical state of the tissue and exudation-liquids of the inflamed part, for which, in the absence of any reliable chemical characteristics, we gladly accept the microscopical test of the presence of septic organisms. A second proposition, to which I also attach great importance, related to the agency of the floating particles of air and to the viable organisms which we know to be present in ordinary water, and moreover to be capable of exciting putrefaction. I endeavoured to show that there is no scientific reason whatever for attributing to either of these phlogogenic properties. As I am very desirous to present this question from both sides, I will endeavour, by way of sequel to my last lecture, to place before you the argument of one of the most strenuous and efficient supporters of the opposite view that I know, Professor Hueter of Greifswald. Formerly, says Professor Hueter (*Grundriss der Chirurgie*, page 1), it was taught that inflammation was produced by mechanical, chemical, or thermal irritants. We now know that the most severe injuries can be inflicted without producing inflammation. Consequently, when an inflammation takes its origin from a wound, all that the wound does is to play the part of a door of entrance for the real *noxa*—water-germ, air-germ, or germ which sticks to the surface of the weapon or missile which inflicts the injury—as the case may be. When, on the other hand, the injury is not of such a nature as to occasion a breach of surface—as, for example, in the experiments I related in my first lecture, in which heat was employed for the purpose of producing inflammation—the reason why the warmed part becomes inflamed is, according to Hueter, that its vitality being depressed, air or water germs are enabled to penetrate it. Honestly following out the theory to its legitimate issues, Professor Hueter continues: Septic organisms exist everywhere, ready, whenever access is offered to them, to enter the body and fulfil their morbific function. Consequently, inflammation may be defined, with reference to the universality of its cause, as an *epidemic and contagious disease which prevails universally over the whole world*, with the exception of mountainous regions, near and above the line of perpetual snow. Here there are no germs, and, we may presume, no possibility of inflammation.

Such is the theory. Its ostensible foundation is the alleged experimental fact that the most extensive and severe injuries of vascular parts—involving bone, muscle, cellular tissue—may be inflicted under antiseptic precautions without producing any inflammatory effects whatever. To prove this, Professor Hueter has made extensive series of experiments, all of which had this in common, that large portions of deep-seated tissues were destroyed—usually with the aid of Paquelin's cautery—without injury to the skin or superficial textures. As soon as the cautery had done its work, the external wound, which was so directed that it did not coincide with the track of the cautery, was brought together, and of course treated antiseptically. With the exception of a few instances in which these precautions could not be carried out, the wounds not only healed by the first intention, but gave rise to no disturbance of any kind; so that, inasmuch as the operation was itself performed under deep anæsthesia, it may be fairly assumed that, notwithstanding the severity of the operation, there was little or no suffering. The animals were killed at various periods after the injury, varying from a few days to a few months. In the successful cases, the wounded surfaces of muscular tissue were as it were welded together, so completely that, on microscopical section of the hardened part, the line of junction could only be distinguished by a blackened mark due to the charring action of the cautery.*

Now, *primâ facie*, these facts seem very like establishing Professor Hueter's aphorism; for it is clear that there were here no appearances suggestive of inflammatory exudation. I need scarcely say that there are other facts, both clinical and experimental; though I doubt whether any bear so directly on the point at issue. The most noteworthy are those which relate to the extraordinary results which, thanks to the antiseptic method, have been obtained during the last few years in the transplantation of tissues—such, for example, as the substitution of removed portions of peritoneum, by bits of dead membrane, without producing peritonitis†—a kind of sewing of new cloth on to old garments which a few years ago we should have thought absolutely incredible. All of such cases, which it would be easy to multiply, Hueter would say, are instances of injury without inflammation—proofs that if inflammation is the physiological effect of damage, you may, under aseptic conditions, have the cause without its consequences. But I venture to think that this is not the correct way of putting it. All that is definitely proved is, that in the absence of septic contamination, inflammatory changes are of limited extent and duration, not that they are absent. Surely, this is triumph enough for Lister's great discovery.

There is an experiment which is daily performed in the streets of London, and elsewhere besides, which is very much to the point. Its results constitute a very serious objection to the theory that the presence of "viable inflammation-exciters", as Hueter calls them, is a condition *sine quâ non* of inflammation. That experiment is simple fracture, which affords us an example of a severe but localised injury inflicted on a part to which germs cannot possibly find access. In every fracture a good deal of blood is extravasated, and in many a good deal of vascular tissue is damaged. Does that tissue inflame or not? Hueter says, consistently with his theory, No. We say, as emphatically, Yes; and need not, I think, fear to stake the correctness of our view of the etiology of inflammation on the issue. Now, the progress of the partly pathological, partly physiological changes which take place in a fractured bone, is exceedingly well known. They have been investigated in man and in animals macroscopically and microscopically. The decision of the question has nothing to do with the first stage in the process—that of extravasation, coagulation, and absorption of blood. It has still less to do with the third stage—that of the formation of the callus. All turns on the appearances which the injured part presents during the short period which begins with the absorption of the extravasated blood and precedes the earliest regenerative changes in the periosteum—those which lead to the formation of the provisional callus. At this time the surrounding muscular tissue, and the medullary cavity of the bone, the contents of the Haversian canals, are alike the seat of infiltration with small cells. The periosteum is separated from the bone, near the line of fracture, by a microscopical layer of similar character, through which the periosteal capillaries pierce to the bone—and all this at a time when no calcareous matter has begun to be deposited in the neighbourhood of the periosteal vessels. The example of simple fracture confirms the proposition laid down in last lecture—that every injury which is sufficiently severe, provided that it fall short of directly killing the tissue, produces inflammatory exudation.

Having occupied more time than I originally intended to give to the subject which at the present moment has, perhaps, more interest than any other—that of the cause and origin of inflammation—the time has come for considering how I may best bring my task to a conclusion within due limits; and, with this view, the best course open to me seems to be to select from the many topics which I have not found opportunity to discuss a few of the most important and interesting.

During the ten or twenty years which followed the anatomical and physiological discoveries of the middle of the present century, pathologists looked in two directions for the explanation of the phenomena of inflammation; namely, to the blood-vessels and their recently investigated muscular coats, and to the vital properties of cells. The vascular phenomena, it was hoped, might receive their complete explanation in vaso-motorial action; the textural changes, in the germination of tissues. In my first lecture, I endeavoured to show that neither of these modes of physiological action is directly concerned in the process. I trust that I have already given you sufficient evidence that an acute local process characterised by heat, redness, and swelling, may be induced under conditions which preclude the possibility of textural germination. In any case, I do not propose to try to add to it, but will

* "Experimentalstudien über das Verhalten tiefer Brandwunden" (*Deutsche Zeitschrift für Chirurgie*, vol. ix, page 381), and "Ætiologische Lehre der Entzündung" (same volume, page 401).

† Gluck, Ueber Transplantation, Regeneration, und entzündliche Neubildung. Langenbeck's *Archiv*, vol. xxvi, p. 896.

content myself with adverting to one or two considerations which are likely to suggest themselves as tending in the opposite direction. One of these is the supposed fact that the production of heat is greater in inflamed parts than in others; the other, that, in many cases, inflammation appears to lead immediately to new growth. If it could be shown to be the case that a focus of inflammation is also a focus of calorification—that, in an inflamed part, the chemical changes which produce heat are more active than elsewhere—that fact alone would be fatal to the simple conception of inflammation which I have been endeavouring to enforce in these lectures; for, inasmuch as the production of heat is the direct result of normal tissue-activity, a process dependent on diminution or arrest of tissue-activity could not lead to increased thermogenesis. Fortunately, the experimental evidence on the subject is now clear and decided. Twenty years ago, we all thought that John Hunter's sagacious utterance on the subject—that a "local inflammation cannot raise the temperature of an inflamed part above the source of the circulation"—was mistaken; for, by the very remarkable observations of Mr. Simon in this country, and of the late Professor Otto Weber in Germany, it appeared to be shown that the temperature of the blood-stream returning from an inflamed part actually exceeded that of the heart. Notwithstanding the extraordinary care with which these observations were made, they have not been confirmed by those who have repeated them. It has been established by observations relating to all sorts of inflammations, and made at every stage of their progress, that the temperature of the inflamed part never exceeds that of the rectum. Here, as in respect of other matters, we find that the most complete experimental observations are those of Cohnheim, who has shown in the most striking way that the increased temperature of external organs, when inflamed, depends on the activity of the circulation. For this purpose, comparative measurements were made by him of the temperature of the fore-paw of a dog in a state of acute inflammation, and that of the opposite paw after division of the axillary plexus; the conditions compared being hyperæmia from vascular paralysis on the one side, from inflammation on the other. It was always found that the temperature of the paralysed paw was slightly warmer than the inflamed; the difference between them being least when the inflammation was in the initial stage, and consequently the circulation most active. On this subject, therefore, John Hunter turns out to be quite correct, both in fact and theory.

The other question that I suggested may be thus put. On the one hand, we know that the inevitable issue to which every acute inflammation tends is necrosis by arrest of the capillary circulation of the inflamed part; on the other, we observe that it often happens that regeneration of tissue follows so closely on the heels of this essentially destructive process, that we can hardly say where the one ends and the other begins. What is the relation between the processes of inflammation and repair in cases of this kind—as, for example, in simple fracture of the bone, when we see the physiological process of callus-formation preceded by a normal inflammation involving all the vascular tissues injured? The instance of bone, for the very reason that it serves well to illustrate the blending of inflammation with repair, is, of course, not suited for the investigation of the relation between them. For this purpose, I must ask your attention once more to the cornea, where both processes can be studied either together or separately, and under conditions which are so perfectly simple that no question can arise as to the significance of what is observed. When, in the manner described in my first lecture, the central part of the cornea of a rabbit is destroyed by the action of chloride of zinc, the immediate result is, as we then saw, that the tissue dies, and that its structural elements waste and disintegrate. We also saw that, outside of the necrotic area, these elements show themselves in an unaltered condition. But, in a cornea which is removed in an animal killed three or four days after the injury, it is seen that these marginal cornea-corpuscles have begun to extend their branding processes in the direction of the dead area; and, if this be compared with another cornea excised a few days later, appearances present themselves (in sections parallel to the surface) which indicate that, in their further growth, these processes are gradually pervading the whole area. In this way, a new cicatricial tissue is formed, which consists of the same elements as the tissue which it replaces, although it differs from it in the way these elements are arranged. Here there can be no question that the vital endowments of the injured part have nothing whatever to do with the new growth by which its destroyed structures are restored. The regeneration takes place by an exogenous growth from the margin, not interstitially. The cells which take part in it lie outside of and beyond the limit of injury, from the direct effects of which they enjoy complete immunity. As accounting for their behaviour, all that can be said is that, being in the neighbourhood of a defect or gap that requires filling up, they bring about that end by growing into it.

However clear may be the purpose of this regenerative growth of the cornea-cells, I do not think that we are in a position to explain the nature of the conditions which determine it; so that here, as in other cases, we must have recourse to that provisional kind of explanation which consists in placing the particular instance in rank with a number of others with which it corresponds so closely that, whatever the determining conditions may be, they are the same for all. The instances to which I refer are those in which a gap or defect in living tissue is filled, not as in the famous experiment by which Hunter discovered the process of animal grafting, but by a bit of some porous material, such as elder-pith, sponge, or catgut. Thanks to antiseptic surgery, it has of late years been shown that what we should at one time have called the "organisability" of such materials is almost unlimited. Probably everyone here is acquainted with the remarkable success which has been achieved by Dr. Hamilton of Edinburgh ("On Sponge-grafting", *Edinburgh Medical Journal*, November 1881) in what he calls sponge-grafting. Dr. Hamilton has found that, when a granulating wound is filled with purified sponge, the granulation-tissue grows into the interstices of the sponge in such a way that eventually the whole of it disappears, having been incorporated in the cicatrix. Again, if an excised cornea be introduced into the peritoneal cavity of a rabbit, under antiseptic precautions, it occasions no disturbance whatever. It soon becomes enclosed in a vascularised envelope, the capillaries of which are derived from those of the serous membrane to which it adheres, and the same thing happens if you substitute a bit of sponge or catgut. These last cases differ from that of the cornea, in the presence of vessels, as well as in the circumstance that the framework or tissue does not belong to the place it occupies; but all have the same relation, or rather antagonism, which exists between inflammation and new growth. The one condition which is essential to the institution of a reparative or regenerative process, is the the existence of a solution of continuity. Whether the defect be occupied by sponge, by tissue derived from another part of the body, or by dead tissue of the same part, the result is the same—namely, that the dead becomes incorporated with—grafted into—the living, by the agency of the normal elements of the uninjured part.

There is one other question which I am desirous to bring before you in these lectures; and it will necessarily be the last. It is that of the influence of the nervous system on the inflammatory process. I have already placed before you, very shortly, the evidence which exists that, in the well known case of inflammation of the cornea after section of the fifth nerve, the origin of the process is not neuroparalytic. On similar grounds, it has been established that the bronchopneumonia, which inevitably follows section of both pneumogastric nerves, is also a traumatic inflammation due to the entrance of portions of food and other foreign bodies into the respiratory passages; and is, therefore, only an indirect consequence of the severance of the nerves.*

When these neuroparalytic phenomena were first known, they served, if not to suggest, at least to strengthen the belief that the action of nerves had a great deal to do with inflammation, either by virtue of a trophic influence exercised through them on the tissues, by the cerebro-spinal centres, or by vaso-motor reflex action. Thus, the attempt has been made to show, but with signal failure, that pleurisy could be induced by extirpation of the third cervical and first dorsal ganglia of the sympathetic chain in the neck; that meningitis, in like manner, would result from destruction of the superior cervical ganglion.† With somewhat better success, Dr. Brown-Séquard (*Leçons sur les Nerfs Vasomoteurs*, Paris, 1872, page 44) made certain experiments for the purpose of ascertaining why, in the human subject, severe burns are so frequently followed by inflammatory lesions of the intestinal mucous membrane. What he found was, that such results could be produced in guinea-pigs by similar causes; and, further, that it was essential that the nervous connection between the injured limb and the spinal cord should be intact. He accordingly was led to regard the visceral lesions which occur in burns as examples of "reflex inflammation". We may accept the fact, but scarcely its explanation.

But the point to which I wish more especially to draw your attention is not that of the relation of the nervous system to the causation of certain inflammations, but the part which it may be supposed to play in its initial phenomena. The phenomena I mean are those of determination of blood, or affluxus, or, as Virchow calls it, surging of blood ("Blutwallung", *Handbuch der Speciellen Path.*, vol. i, p. 141) towards an irritated part, of which we have the most familiar example in the congestion of the conjunctiva, which promptly follows the introduction

* A good summary of what is known on this subject will be found in Professor S. Mayer's "Speciellen Nervenphysiologie", published in the second volume of the *Handbuch der Physiologie*. Leipsic. 1879.

† See on this subject Vulpian, *Leçons sur l'Appareil Vasomoteur*, vol. ii, 1875, pp. 570, 571, as to the source of fallacy in these experiments.

of a grain of dust between the eyelid and bulb. In many inflammations, this preliminary rush of blood along the dilated vessels is absent: witness the cases dwelt on in my first lecture, in which the inflammatory state comes into existence *d'emblée*, in consequence of exposure to heat or cold; or the case of mycotic inflammation of the cornea, in which the episcleral vessels do not become affected until the infective material has slowly found its way from the ulcerated surface to the limbus; or in the case of erysipelas, where redness and swelling invade the skin in company, without any antecedent active congestion; whence we conclude that, although determination of blood is a frequent precursor of inflammation, it is not a part of it; and we are confirmed in that opinion by the observation that the "inflammatory blush", as Hunter called it, presents itself as the sole response of the vessels to local irritation; of which fact no better illustration can be given than the famous instance in which he observed it day after day in a patient whose toe he had occasion to cauterise regularly. "After each application", he relates (*Treatise on the Blood and on Inflammation*, 1794, p. 158) "the surrounding parts put on a blush; and all the veins on the top of the foot, as well as up the leg, immediately began to swell, and became large and full."

No experiment can be better adapted to show the complete distinction between determination of blood and inflammatory hyperæmia than that described by Dr. Williams in the Gulstonian Lectures to which I have already referred. Hunter had shown by his experiment that it is possible for the inflammatory blush to subside, leaving no trace, or the injured part to be flooded with blood and then return to its original condition. But Hunter's attention was entirely fixed on the blood-vessels, to the action of which he attributed the whole process. For the purpose of separating Hunter's "incipient enlargement of the vessels upon the first excitement of inflammation", (*Treatise on the Blood, etc.*, p. 279) from the definitive changes which followed it, Dr. Williams most judiciously adopted this method of graduated irritation of the web of the frog's foot, which was at that time the only field of experimental observation. He found that a weak solution of capsicum applied to the web causes dilatation with acceleration of the movement of blood (hyperæmia with increase of motion) in arteries and capillaries; but if the solution were strengthened, or the application several times repeated, the quickening soon gave way to slowing and commencing stagnation. (See *Principles of Medicine*, third edition, pp. 241 and 263.) The effect of the weak excitation was transitory, and the observation could be repeated any number of times on the same web. The stronger solution produced permanent damage of the tissue, resulting in inflammatory congestion, exudation, and stasis. In the mammalian mesentery, the same effect may be produced in a similar way. The substitution of 1.5 per cent. solution of salt for the ordinary .75 per cent. solution which is used as an irrigating fluid, has the effect, as Dr. Thomas has shown,* of fluid at once hurrying on the blood-stream; and if this is done at a time when the mesentery has already undergone inflammatory slowing, and the colourless corpuscles are hugging the walls of the veins, these corpuscles at once resume their place in the axial current; so that, so far from the initial affluxus being itself an inflammatory phenomenon, we can, by inducing it, arrest an inflammatory process when it is in progress.

(*To be continued.*)

* Thomas, "Ueber Entzündliche Störung des Capillarkreislaufes bei Warmblütern." Virchow's *Archiv*, vol. 74, Sep. abdr., p. 27.

REMOVAL OF PLACENTA IN MISCARRIAGE.—Dr. Crummer gives the following instructions in the *Transactions of the Illinois State Medical Society*, 1881. 1. One index finger introduced into the womb while the organ is depressed well into the pelvis, and steadied by the other hand applied externally. In this way a moderately contracted os may be dilated, a sharp anteflexion of the uterus straightened, and, using the finger as a hook, the uterus may commonly be thoroughly emptied. 2. With one or two fingers in the vagina for counter-pressure against the anterior surface of the womb, and the other hand making firm pressure over the fundus and posterior surface of the uterus, the contents of the womb may sometimes be pressed out. These procedures, though somewhat painful, do not require an anæsthetic. But, in a certain proportion of our cases, they do not succeed. Very often the detached after-birth can be just felt at the tip of the finger, or glides from it in any effort at extraction. We may then resort to: 3. The introduction of the hand into the vagina and one or more fingers into the uterus, and this requires an anæsthetic. 4. In some cases where the vagina is small, or an anæsthetic not desirable, I have succeeded admirably with Loomis' placenta-forceps in grasping and removing the offending substance.

CROONIAN LECTURES
ON THE
CLIMATE AND FEVERS OF INDIA.

Delivered before the Royal College of Physicians of London.

BY SIR JOSEPH FAYRER, K.C.S.I., M.D., F.R.S.,
Physician to the Secretary of State for India in Council.

LECTURE II.—(*Concluded.*)

Pernicious Forms.—The conditions to which the term "pernicious" is applied occur as intensifications of any of the stages. The cold stage may be unduly prolonged and occupy the whole paroxysm, the patient either sinking, as in the collapse of cholera, or reaction taking place slowly. The hot stage may be intensified and prolonged, the patient becoming delirious, comatose, convulsed; stupor begins with the commencement of the paroxysm, and gradually deepens into complete coma and death, or the symptoms may gradually disappear as the period of the paroxysm passes away. The sweating stage may be very profuse and prolonged, the pulse sinks, and death may take place from exhaustion, or extreme depression, during which the patient is intelligent but hardly sensible of his own weakness, when any exertion or even the erect posture is attended with danger. These are the principal dangers with which I am acquainted. There are other conditions pointing to the cerebro-spinal centres and abdominal viscera, arising out of the general disturbance produced by the malaria rather than by its direct action. Pernicious symptoms sometimes come on suddenly with little warning, after one or two ordinary paroxysms, probably from the intensity of the poison in those who have been unusually debilitated. In the damp hot months in certain parts of India, the symptoms which indicate cerebral disturbance are most likely to occur.

Masked Malarial Fevers.—To certain conditions the term masked has been given: neuralgia with imperfectly developed fever, hot hands, aching pain extending along the course of the great nerve trunks in the limbs; gastralgia often intense, and various forms of disturbed innervation, functional derangement of the liver and other abdominal viscera, nervous irritability, dyspepsia, asthma, hæmaturia, bronchial irritation, insomnia, and symptoms pointing to the effects of malarial poison on the nervous system. The symptoms may be those of collapse, as in cholera, or apoplexy, epilepsy, cerebral effusion, hæmorrhage from stomach, bladder, bowel, or kidney; but the history and the circumstances under which the symptoms occur, indicate their true nature, and malarial origin. Malarial symptoms, are influenced by the state of the weather, and the natives think by the full or new moon. This subject has been discussed in the *Medical and Physical Transactions of Bombay*, by Mr. Murray and Dr. Peet. Morehead says a familiar fact for the hospital physician in India is to find several of the inmates in his wards affected by febrile disease on the same day, though all were free previously; that these days are coincident with the lunar changes; and that those who have suffered from malarious fever had recurrences on those days. But, as it was generally observed that there were atmospheric changes on those days, the fever was due to them, not to the moon. Such is probably the real explanation of the so-called solilunar influence, advocated by Dr. Balfour, who declared that the meridional periods, diurnal and nocturnal, were distinguished by remarkable changes of the weather, which were most remarkable at the lunar periods.

Malarial Cachexia.—A frequent result of exposure to malarial influences and of repeated attacks of periodic fever is anæmia, or even though there may have been no fever, often a profound state of cachexia, with which is associated structural changes in the abdominal viscera, and notably in the spleen. The sufferer has a puffy blanched face, pearly conjunctivæ and lips, short and hurried respiration, weak cardiac action, hæmic murmurs, and a feeble pulse, a tumid abdomen, not unfrequently dropsy, œdematous lungs and areolar tissue generally, wasted muscles, and a bronzed discoloured skin, with a large spleen extending sometimes as far as the iliac fossa (ague cake). Such is common enough in the notoriously malarial regions of India, where the whole population present more or less of this appearance, and where the physical degeneration is accompanied by an almost equally well-marked mental and physical torpor; depression of energy being characteristic signs of this state. I have known individuals return to this country too late to profit by the change. I have also seen a

profound state of malarial anæmia in persons who, having resided for some years in malarial districts, were found to be free from splenic or hepatic enlargement, but in whom the kidneys had suffered, the urine being of a low specific gravity, loaded with albumen, and containing renal casts. The presence of albuminuria is, however, not frequent, nor is it, when in small quantity, of such serious import as might at first sight be supposed. There are other sequelæ of malarial poisoning which are very distressing, such as neuralgia, which may affect any area of nerve-distribution. The fifth nerve, the brachial plexus, and the sciatic are especially prone to suffer; and I have seen many cases in which the suffering was very great. These attacks of malarial neuralgia have their periods of remission and exacerbation, in some assuming the quotidian, tertian, or quartan type; in others being altogether irregular, and though often very obstinate, frequently also yielding to quinine. Asthma is also a frequent mode in which malarial poisoning expresses itself, and though often purely functional, is liable to produce emphysema and chronic bronchial changes.

Treatment of Malarial Fevers.—The days of bleeding and mercurialism had passed, or nearly so, when I went to India in 1850; so that I have had no experience of a mode of treatment which fifty years ago was believed to be absolutely essential. Twining says: "The practice of bleeding in the commencement of the cold stage has always proved safe and generally more successful than any other remedy." He is careful to say that he did not bleed his patients to relieve inflammation, but congested abdominal vessels. But it was a spoliative and needless proceeding, as the practice of later times has shown, though not abandoned altogether, I believe, in some countries. How far the mortality in former years may have been attributable to depletion I cannot say, but it certainly has diminished of late years, and death from uncomplicated malarial fever in a European is not frequent now. During an experience of more than twenty-two years I can remember few fatal cases, and I think this is the experience of most medical officers who have served in India during the last thirty or forty years. The general plan of treatment of intermittent fever in India is as follows. An aperient, to relieve constipation and congestion of the portal system, is generally the first step. This may be followed by a saline aperient, which it may be expedient to repeat. If there be signs of gastric irritation, or of a tendency to dysentery or diarrhœa, one or two full doses of ipecacuanha, fifteen grains or twenty grains, may be desirable. During the cold stage, warm drinks, warm clothing, hot bottles or bricks are useful, and during the pyrexia diaphoretics, cooling drinks, and ice to the head if there be much pain. One-eighth part of the following may be taken every two or three hours. ℞. Liquoris ammon. acet. ℥ij; ætheris nitrosi ℥ij; potassæ acetat. ℥ij; misturæ camphor ℥vj.—M. In the sweating stage rest and quiet are required, care being taken to avoid chills. Quinine should now be given and repeated every three or four hours. I have generally given it in the following form:—℞. Quinæ sulph. gr. xl.; acidi sulphur. dil. ℥j; tincturæ aurantii ℥ij; aquæ ℥viij.—M. One-eighth part for a dose. The diet should be light; stimulants, unless there be some special necessity, are not required. The patient should avoid fatigue, excitement, or exposure to vicissitudes of weather, and he should continue to take quinine, after the first three or four doses, at longer intervals—say of six hours—until cinchonism begins to appear, when it may be gradually relinquished. Should a second or third attack have occurred, it is well to take a dose about an hour before the onset is expected, and if the first dose of five grains have not made a decided impression, ten grains may be given. Many give ten grains at first. I have generally found five grains sufficient in ordinary cases, and when the time comes for diminishing the quantity, three grains, and at longer intervals. The bowels must be kept open, not merely with the object of removing accumulation, but of relieving the portal system, liver and spleen. Quinine will have little effect without this; with it, it is most efficacious in diminishing the intensity, and in preventing return of fever. In uncomplicated cases of intermittent, with no visceral engorgement, this mode of treatment will generally be efficacious. Persistent return of fever will need larger doses of quinine, or arsenic.

Treatment of Remittent Fever.—In this form the high fever, racking headache, muscular and epigastric pain, nausea, vomiting, and other painful symptoms, call urgently for relief, but not by bleeding, unless, indeed, a few leeches be applied, and that very seldom. The bowels should be freely acted on by colocynth or jalap, with a moderate dose of calomel, acet. of ammonia, with ether, to induce diaphoresis; cooling drinks and iced water should be given, whilst ice is applied to the head, which should be shaved if the heat and pain be great; cold affusions, sponging, or even the wet sheet may be used if the temperature is very high, care being taken not to apply cold long enough to cause depression. Draughts of tepid water will soothe the stomach and relieve it of bile and other matters; if the retching be obstinate, swallowing small pieces of ice is grateful. Effervescing draughts of citrate of potash and iced soda-water, the application of a sinapism or chloroform on a piece of lint over the stomach, will sometimes give relief. Pain over the liver and spleen may be met by hot fomentations; or it may be expedient, if very severe, to apply few leeches, though this is seldom necessary. The most important indication is to watch for any sign of remission, which generally occurs in the morning, when a full dose of quinine, ten to fifteen grains in solution, should be administered; twenty or even thirty grains are sometimes given; I doubt if they do more good than ten grains, though fifteen to twenty grains may occasionally be necessary. It sometimes happens that the stomach will not retain quinine. If so, it may be given by hypodermic injection or by enema; the former is best, and if the needle be made to enter the subcutaneous areolar tissue, turning the aperture away from the under surface of the skin,* there is little danger of local mischief, though abscess, sloughing, erysipelas, and even tetanus, have followed the operation. In cases combined with splenic cachexia, it should be avoided if possible; a solution of the neutral sulphate, or of borate of quinoidine (of Dr. De Vry), which is very soluble and has an alkaline reaction, dissolving in three-parts of cold water, may be used. Mr. Scriven dissolves the sulphate in tartaric acid, and has used it with efficacy and safety. He has not found it produce abscess, ulceration, sloughing, or tetanus, if the precautions he suggested were observed. It is preferable to the solution of the neutral sulphate on account of its higher concentration, the tartaric solution containing one in three, whilst the neutral sulphate is only one in twelve. Quinine must be continued until the symptoms abate, the remission becomes more perfect, the tongue cleans, and the condition of prostration improves. It is not necessary to continue large doses, but enough to keep up a moderate degree of cinchonism. Where the fever tends to assume the adynamic form or become continued; when there is delirium, sordes of teeth, muttering, tremor of muscles, dry hot skin, abdominal, hepatic, and splenic tenderness with delirium, depressed cardiac action, and feeble pulse, and no signs of remission appear, or only in the most transient form, quinine should be given irrespective of remission, and I never hesitate to give it during the pyrexia of malarial remittent; a coated tongue and confined bowels need not deter, in a bad case, from giving it. Nourishment and stimulants are to be carefully administered. Pulmonary and bronchial congestion and inflammation are often dangerous and frequent complications. Hepatic and bowel complications may also occur, and will require appropriate management. In the adynamic state, wine, brandy, and other stimulants are necessary. The amount will depend on the state of the pulse; animal broths, milk, or other nutrients will be required. Change of climate should be enjoined as soon as the strength is sufficiently re-established to enable the patient to undertake a voyage. Quinine seldom fails if judiciously used. Experience has taught me that large doses of twenty to thirty grains sometimes given are not generally necessary, though there may be exceptions to this rule. However carefully administered, it will sometimes neither arrest the paroxysms nor alter the character of the fever; indeed, in certain cases it seems rather to do harm than good; though, as far as my experience goes, such cases are rare. I have heard intelligent natives ask not to have quinine given to them, as "they did not wish to make the fever worse." Had a dose of calomel and colocynth, or of compound jalap powder, or some neutral salt been given before the quinine, the effect might have been more satisfactory. In former days calomel was regarded as an essential part of the treatment, and large and frequent doses were given; an occasional dose of a few grains combined with colocynth may be useful, especially when there are hepatic complications, but beyond this it is not required. The essential principle of treatment is to keep the bowels open (not purged), relieve visceral engorgement, bring down the temperature, and neutralise the action of the poison. I know of nothing better than the cinchona alkaloids; they neutralise the poison, diminish blood-pressure, decrease temperature, and prevent, or modify, periodicity. Their most marked effects are shown in their influence on malarial fevers; but quinine is useful in other pyrexial conditions, and I cannot regard it as a crucial test of the nature of a fever; in the most fervent of all fevers—the ardent or thermic—when the temperature rises so high as to imperil life, hypodermic injection of quinine has been thought to have a powerful effect in reducing the temperature; and I believe it is now given in enteric fever in this country with this object. In pernicious attacks with collapse, either in the cold or sweating stages, quinine must be combined with stimulants and warmth. In the cold stage it may sometimes be advantageously combined with opium, whilst warmth is applied to the body generally. When coma super-

* Scriven uses a syringe devised by Dr. Buzzard.

venes, ice to the head, revulsives, sinapisms or turpentine stupes to the legs and trunk, and stimulating enemata, in which thirty grains of quinine may be combined, or a few leeches to the mastoid processes, may be useful. Blisters are sometimes applied. Under the influence of quinine the fit may terminate like ordinary ague. Stertor, congestion, coma with high temperature, suggest active measures, but not of a depleting character. When there are gastralgia and vomiting, I have found opium afford great relief. Time does not admit of dwelling on numerous other antiperiodics; none are comparable to cinchona and its alkaloids. The mixed alkaloids now prepared in India from cinchona grown in the plantations at Darjeeling and other hill stations, have been submitted to trial and found very efficacious, though certain objections were made that they caused nausea; it seems as though this and other objections are not so serious as at first imagined, and that the drug will come into general use. Though economically it may have advantages, it will not supersede the sulphate. Dr. De Vry brought this preparation to notice. Dr. Verckhuysen says quinetum is of great value as a febrifuge, but takes longer to act, and will not replace quinine in pernicious fever. It has the same apyretic effect as quinine, but is less powerful; larger doses are, therefore, required at longer intervals before the paroxysm than quinine. It produces no unpleasant effects, no noises in the ear, and can be taken by those who cannot take quinine. It is more efficacious in chronic cases as a tonic, whilst in masked malaria it is incomparably superior to quinine. Arsenic is a valuable febrifuge and antiperiodic. When quinine does not succeed, arsenic sometimes will do so, given in doses of five drops of the liquor arsenicalis. Care must be taken not to continue its use until symptoms of gastric irritation are set up. In the treatment of the early conditions of malarial fever I have never found it equal to quinine; but in cases of chronic malarial poisoning, with frequent returns of fever, neuralgia, or other indications of the chronic action of malaria, I have seen benefit arise from the continued use of arsenic in small doses—three or four drops of the liquor potassæ arsenitis twice a day, after food. The antiperiodic powers of opium are probably the chief reason why opium-eating and smoking has become so widely-spread a habit in China and India. There is little doubt that it does possess such a power, and that in the earlier stages it gives great relief; it relieves pain, soothes and breaks or stops the periodic return of fever; and it seems to assist those exposed to malarial influences in resisting them; it has been used for this purpose since the time of Galen. Trotter, Lind, and others, in the last century, prescribed it, and there may be cases where it might be expedient to use it now; it would probably be hurtful during the hot stage, yet in the cold and sweating stages it might be beneficial. Waring says he has seen it cut short the cold stage like a charm, and mitigate the severity of the following hot stage. I have had no experience of it as a febrifuge, and as there are so many others that would better fulfil the purposes required, except in intercurrent conditions, which might complicate malarial fever, I should not resort to it. Many other drugs are spoken of both in the officinial and native pharmacopœia, but they are inferior to the cinchona alkaloids; arsenic, gelsiminum, biberine, salycine, strychnine, atees (aconitum heterophyllum), piperine, ilicin, bonduc nut (fruit of *Cæsalpina Bonduchi*), salts of iron, zinc, picric acid, the mineral acids, and a variety of native drugs—the hyposulphites and alcohol. These, or some of them, especially iron, may be of service in certain stages of the fever, or in the cachexia following it. Atees is much used in native practice, and is a valuable drug, as an antiperiodic, tonic, or as combined with gentian, chiretta, or other vegetable bitters, but it can in no way take the place of quinine, quinetum, or arsenic. I may not omit to mention the tincture of Warburg. I have never found it better than quinine, though it certainly possesses febrifuge and diaphoretic properties. Dr. Maclean and others speak highly of it, and as its composition has been declared, the objections to its use have been removed; but I must leave it with this brief notice. In the treatment of malarial cachexia, with enlarged liver and spleen, the most important step is change of climate, the judicious use of preparations of iron and quinine (sulphate is best), and attention to the state of the portal system. I do not mean excessive purgation, but gentle action by salines combined with quinine and vegetable bitters. Carefully regulated and nourishing diet, and protection from all vicissitudes of climate must be enjoined. In such cases benefit may be derived from the saline and ferruginous waters of Germany, and from measures that tend to improve the general health. I may add that a prolonged absence from the country in which the mischief originated is necessary. In conclusion, I would remark that though mercury is especially to be deprecated in the treatment of disease connected with malariously enlarged spleen, local application of the ointment of red iodide of mercury, applied as it is done in India for goître, is often successful in reducing the spleen; and that it does not appear to incur much if any risk of mercurialism being induced. Professor Maclean speaks favourably of it, and I can endorse the opinion he has expressed. One word in regard to a matter I have omitted. In advanced splenic cachexia the patient should be very careful not to make any exertion; the result may be rapid dissolution with all the symptoms of pulmonary obstruction. The last instance in which this was impressed on my attention was in the case of a young Englishman of eighteen or twenty who had returned from India in a profound state of cachexia—the spleen descending nearly to the ilium, and with all the symptoms of anæmia in the most advanced condition. Under the influence of quinine, iron, and nourishment, he was improving, and there was hope of further progress. One day, in spite of warnings, he rose, walked to the window, and tried to raise it. He went back to bed exhausted and breathless, and died in a few hours.

In my next lecture, I hope to describe some forms of continued fever in India.

THE GULSTONIAN LECTURES
ON
PULMONARY CAVITIES: THEIR ORIGIN, GROWTH, AND REPAIR.

By WILLIAM EWART, M.D.Cantab., F.R.C.P.,
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Lecture III. Part III.—*Concluded.*

Of the alterations in shape suffered by cavities, I have already spoken at sufficient length. The relations of cavities to surrounding parts are also subject to variations. When superficial, and when at the same time closely adherent to the chest-wall, cavities are only susceptible of very limited alterations in their position; but the intervention between them and the pleura of a moderate thickness of spongy tissue enables them to undergo a gradual but decided displacement. This shifting of cavities, as the result of age, takes place in a determinate direction. In all cavities the natural tendency is to a recession towards the root of the lung; and the compensatory development of the healthy portions of the lung usually assists by substitution the normal retraction. Thus, I have sometimes found in the mid-dorsal region, connected with a thickened and shortened bronchus, the remains of a cavity which had obviously retreated from the surface, under the influence of the superinflation of the lung-tissue which had grown up, as it were, around it. The retraction upwards of cavities at the base is often very striking, but greater practical interest belongs to the history of cavities at the apex.

The direction of the *shifting* of the apex-cavities is remarkably constant. Unless rigidly fixed by adhesions, they invariably tend to retreat from the front of the chest towards the back, and from the subclavicular into the axillary region. Consequently, the chronic cavities, frequently detected after death at the outer apex, should not be taken to have necessarily originated there. The remarkable shifting to which I have alluded was pointed out by Dr. C. T. Williams, in his lectures on the Various Modes of Contraction of Cavities in Phthisis Pulmonalis (*Lancet*, 1873, vol. i, pp. 298 and 369). I fully agree with the view which he expresses concerning the special mechanism at work. It cannot be doubted that, on the right side, the retraction is mainly favoured by the great expansion of which the middle lobe is capable. I would not, however, restrict this action to the right middle lobe. Every portion of spongy tissue in the sternal region is possessed of similar capabilities for expansion; and, on the left side, the ultimate results are not far behind those observed on the right.

The recognition of the changes to which I have alluded has a direct bearing, not only upon our diagnosis, but upon the prognosis which we may form in individual cases. Unless we have carefully examined the upper axillary region, we cannot pronounce a chest to be free from excavation. The signs of disease have sometimes entirely disappeared from the anterior aspect of the chest, when cavernous sounds are still plainly perceptible in the axilla. The discovery of a vomica in this situation frequently throws upon the history of the case a clearer light than is derivable from the patient's own statements. On the other hand, in the early stages of subclavicular disease, the rapidity with which the signs are observed to recede may be accepted as a measure of the favourable chances. From this rapid shifting, we derive an

assurance that the vomica has ceased to extend, that its contraction is active, and that the lung is sufficiently free from adhesions to acquire the compensatory development which is the first essential towards recovery.

The changes in the position of cavities which I have indicated are usually bound up with very definite alterations in the configuration of the lungs. Upon this third result of the contraction of cavities, I would dwell at some length, finding that hitherto the changes in question have received but little attention, although hinted at by Laënnec, and pointed out by my colleague, Dr. Douglas Powell. The retraction which has been shown to take place in the line of the bronchus continued, leads, unless rigid fixation have resulted from adhesion, to a dragging inwards of the surface of the lung at a corresponding point. Thus a deep puckering found at the surface of the lung after death, is often an indication of a subjacent cavity. Similar puckerings may, however, result from a variety of circumstances. The fibrin of an infarct, syphilitic fibrosis, or the common fibro-tubercular masses, will all induce a retraction of the surface; and it may be here noted that those cavities which are formed at the expense of hæmorrhagic deposits occur, as pointed out by Dr. R. E. Thompson, subsequently to the original retraction. This does not, in my estimation, preclude a subsequent contraction of the cavity and a secondary retraction; and, in accordance with this view, it is customary to find the highest degree of retraction over those cavities which can be traced to hæmorrhage.

Minor differences can be pointed out between the retraction due to cavities and the puckering from other causes. The puckering due to tubercle or to hæmorrhagic nodules (exemplified in the specimens under your inspection) consists in a shallow depression of the surface over which the pleural membrane is roughened by irregular and rigid wrinkles. These puckers are determined by the peripheral position of the consolidation, and by the concentric mechanism of its contraction. Cavities, on the other hand, being drawn in towards the root of the lung, give rise to a slit-like infolding of the surface, invariably deeper than the hæmorrhagic pucker. As an extreme instance of this condition, I submit to you a photograph, and the specimen from which the photograph was taken. The lungs were removed from the body of a young man who died of chronic phthisis, under Dr. C. T. Williams, at the Brompton Hospital. When first admitted, in November 1874, he was puny and delicate for his age (then fourteen years). He had suffered from cough for twelve months, but inherited no predisposition to phthisis; neither was there any history of hæmorrhage, nor of any important disease. Diffused crepitations were the only signs audible in the chest. In January 1875, however, a marked cavernous gurgle was heard in the right subclavicular and subscapular regions. When discharged, in April of the same year, he had much improved in weight and in general appearance. The phthisical sounds, however, still indicated the presence of excavation at the right apex, coupled with creaking sounds in the right scapular region; and, at the left apex, bronchophony was noted in addition to crepitation. He appears to have enjoyed comparatively good health until six months prior to his second admission, in February 1881. On this occasion, dulness and humid crepitations were present at both apices externally; and, at the back, cavernous sounds were found between the spine and the right scapula. Anteriorly, dulness and humid crepitations occupied the upper half of the left lung and the upper third of the right. The patient died with symptoms of dyspnœa, soon after his admission. The specimen presents more points of interest than I can venture to enumerate. I would call your attention incidentally to the remnants of the old apex excavations remarkably fibrosed and contracted, and to the presence at the left outer apex of a cavity of emphysematous origin, such as I have described to you in my first lecture. The most remarkable feature, however, is the puckering of the lung-surface over the contracting cavity, especially the deep antero-posterior involution of the base of the left lung (Fig. 9). The visceral pleura can be clearly followed along both sides of this V-shaped incisure (measuring two inches and three-quarters in length), the summit of which is continuous with a thick fibrous scar two inches and a quarter in length, and one-third of an inch in thickness, which it is difficult not to consider as resulting, partly at least, from the cicatrisation of a cavity. This scar terminates above in a thick-walled fibrous cavity. I believe this cavity to have originally extended to within a short distance of the middle of the base, and by its gradual healing to have caused the extreme retraction you witness, whilst the healthy tissue on either side became expanded in a proportion nearly equal to the loss incurred by involution. The elongation of the left lung in consequence of the flattening from side to side should also be noticed.

Involutions of such large extent are extremely uncommon; they are most frequently due to the retraction of cavities. This, however, is far from being the only source of a recession of the pulmonary surface. The scars very commonly found at the apex in old age, are often independent of any deposit, and due to a simple infolding of the lung-surface, which may be considered as a senile change. I look upon this variety of involution simply as an indication of distributed proportion between chest space and bulk of lung.

Fig. 9.—Involution directly induced by Retracting Cavity. The Involution at Base roughly corresponds to description given in text.

Whenever the thorax is too small for a lung, or the lung abnormally large for the size of the thorax, the superfluous surface must be reduced by involution; and a "reef taken", as it were, in the visceral pleura. In emphysema, involution is never absent. We find in this disease some of the most extreme instances of the latter. The large-lunged emphysema, sometimes observed in old age, leads to essentially similar conditions. The thorax shrinks relatively earlier than the lung; and the unsubstantial pulmonary expansion, kept up under the influence of chronic bronchitis, necessitates an adjustment by means of involution. Similar changes are apt to occur in youth, and even in childhood; they are here almost invariably due to alveolar collapse, with subsequent collateral emphysema. But I have more specially referred to the senile conditions, because in them we possess the simplest illustration of the changes which so commonly result from excavation.

The flattening of the upper part of the chest, induced by excavation and fibrosis of the upper lobe, can seldom take place without some degree of flattening of the lower thorax. The base of the lung, which is usually the seat of compensatory distension, becomes, relatively to the thorax, hypertrophied; and involution follows after the simple mechanism which I have described.

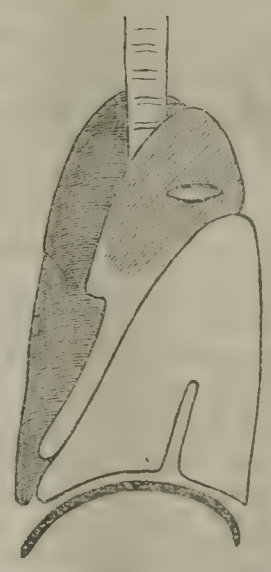

Fig. 10.—Flat Chest. Contraction of Cavity, with Fibrosis at Left Upper Lobe. Transverse Involution at Left Base from Compensatory Hypertrophy of Lower Lobe.

The shape of this involution is governed by the shape of the thorax. If the latter be flattened from front to back, the lung will become affected with *transverse involution;* if from side to side, the sulcus of involution will follow an *antero-posterior* direction. In both these instances, the horizontal section of the base is lessened in diameter; and, the divergence of the opposite sides of the lung being diminished, the lung tends to elongate.

Occasionally, the folding at the base occurs in several diameters; and the lower surface of the lung, which is usually, under these circumstances, adherent to the diaphragm, is hollowed out into a *dome-like involution.* (This condition is imperfectly depicted in Fig. 12.)

The chief importance of the secondary changes which I have described lies in the loss of breathing surface which they occasion. Involution of the pulmonary surface, and the loss of respiratory tissue incidental to it, are capable of being promoted by artificial interference, especially where pleurisy co-exists. Respiration is influenced by pleurisy in a very definite manner. The natural excursions of the ribs are reduced; the lessened amplitude and power of the diaphragmatic contractions shorten the range of vertical displacement of the lung; and the thorax, as a whole, for the avoidance of pain, assumes a position almost of expiration. Adhesions being favoured by comparative rest, and completed at this stage of imperfect expansion, the base of the lung, in a slightly collapsed and infolded state, becomes connected with a restricted surface of the convexity of the diaphragm. I consider it probable that this tendency may be materially encouraged by the mechanical appliances so often used in the treatment of pleurisy; and that the respiratory excursions may become shortened even beyond natural and instinctive limits. The ultimate results on the outline of the lung are readily perceived. The contraction and the descent of the diaphragm cannot take place without inducing a folding or involution of the basic surfaces. On the other hand, the adherent fringe of the lung is not at liberty to glide into its accustomed groove; but, whilst it becomes curved inwards, its place is supplied by a lateral expansion of the side of the lung. Pleurisy at the base is an extremely common event in phthisis; and it often intensifies in the manner which I have described the involution arising from the contraction of cavities, and from compensatory hypertrophy.

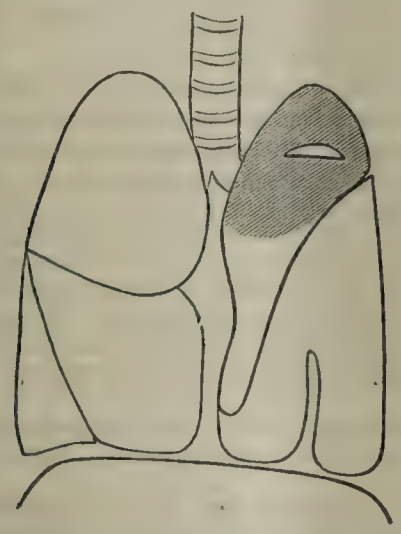

Fig. 11.—Narrow Chest. Fibrous Shrinking of Upper Lobe around a Contracting Cavity. Antero-Posterior Involution at Base from Compensatory Hypertrophy of Lower Lobe.

The rough outline which I have given of this subject, would not be complete without a brief allusion to a form of involution indirectly due to excavation. Great shortening cannot take place in one lung, as a result of the contraction of a cavity, without occasioning some degree of shortening in the other lung. Especially striking is this rise in the

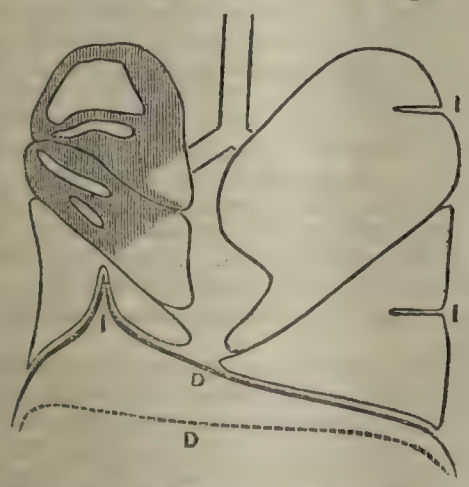

Fig. 12.—Short Chest. Extensive Contraction of Right Lung: Basic Involution, with Invagination of Diaphragm. Secondary Shortening and Involution affecting the Hypertrophied Left Lung.

main level of the diaphragm, whenever the latter, as depicted in the diagram, has become invaginated into the lung—an occurrence of which I have seen a few instances, and which would naturally result where basic involution had been preceded by intimate adhesion between the lung and the diaphragm. In cases of this kind, the sound lung, whilst it expands in breadth under the influence of compensatory hypertrophy, is restricted as to vertical space. This leads to the formation of a transverse involution, which often occupies the middle third of the axillary surface, and which, as it were, accommodates the sound organ to the curtailed dimensions of its fellow. The interest of the change which I have just described lies in the fact, that the results of excavation are here visited upon the healthy lung. *Cæteris paribus*, the shortening of the hypertrophied lung will favour its encroachment into the diseased side of the chest.

From what has been stated in this lecture, concerning the ascent of the diaphragm in cases of vertical contraction of cavities, and concerning its depression, where the contraction, being horizontal, tends to narrow and elongate the lung, it is easy to divine the direction and extent of the secondary displacements of the abdominal organ. Upon this part of my subject, I need not further dwell; but I would direct your attention to the more important alterations which occur in the position and in the shape of the thoracic organs, and especially of the heart and large vessels.

The aorta, doubtless, owes to the strength of its walls, and to its close connection with the vertebral column, its immunity from the effects of pressure to which other vessels are subjected. The superficial position of the pulmonary artery, and its comparative thinness, render it especially liable to suffer. The shrinking of cavities at the left apex is almost inevitably followed by exposure of the pulmonary artery, and not infrequently by some degree of pressure upon its walls: the clinical signs of these conditions, when present, supply valuable testimony in favour of the diagnosis of contracting vomica. The large veins accommodate themselves with wonderful ease to the great shifting which they occasionally undergo under the influence of excavation, and we seldom notice any serious complications arising in this direction.

Of much greater interest to the practical physician are the alterations in the position, and in the relations of the heart. An attention to these changes is often rewarded with valuable diagnostic results; and I confidently assert that, in some cases of phthisis, the examination of the heart supplies us with evidence more conclusive than is obtainable from an auscultation of the lung.

As a guide to the existing level of the diaphragm, a determination of the position of the heart-beat is of the greatest assistance. The heart's apex, I need scarcely state, does not always coincide with the strongest impulse, perceptible to the hand; nor does it necessarily occupy, as in health, the lowest position. But, should we succeed in ascertaining, by a combination of the methods of palpation and of auscultation, the exact position of this lowest point, we derive absolute information concerning the height of the diaphragm—a subject of the greatest practical importance.

Again, the extent of the exposed cardiac area sometimes throws much light upon the degree of expansion or of retraction of the lungs. Excavation occurring at the left upper lobe, especially in its anterior segment, is apt to be followed by retraction of the spongy substance which normally covers the greater part of the heart's surface. Excavation, in a similar position, on the right side, although it may lead to exposure of the right side of the heart, is usually accompanied by the encroachment of the left sternal fringe over the normal cardiac space, and the presenting cardiac surface is not as a whole increased.

Where the excavation, instead of being anterior and superficial, extends into the depth of the lung, and involves some of the bronchi which are distributed towards the shoulder, and where, moreover, the pericardial surface is adherent to the lung, considerable displacement of the heart outwards takes place on the side affected.

It is obvious that the same contraction will lead, on the left side, to a lateral position, much more extreme than is possible on the right; and that it will also raise the heart to a higher level than follows from right-sided disease. This was long ago pointed out by Dr. C. T. Williams, in his lectures on the contraction of cavities. The specimens and the photographs before you carry their own explanation; you will find in them illustrations of extreme dislocation of the heart towards the left.

The displacement of the heart towards the right is less frequently described, not owing to a less frequency of the apex excavation, but rather owing to the fact that compensatory hypertrophy of the right middle lobe usually supplies in the right half of the chest the place of the tissue destroyed; and also, from the circumstance that adhesions of the right lung to the pericardium are less common than happens on the left. I have frequently met with this displacement; it is well shown in the photographs submitted to you, where I have roughly mapped out the area of the displaced heart and the position of the cavities which have induced dislocation.

Time forbids that I should attempt a detailed description of the rotation which accompanies lateral displacement of the heart, and of the mechanism to which the rotation is due. For a full treatment of the subject I would refer you to Dr. Sibson's article on the Position and Form of the Heart and Great Vessels in Dr. Russell Reynolds's *System of Medicine*. From the special standpoint of the healing of cavities I would, however, introduce slight modifications in the account there given of the mode of production of this change. A purely secondary influence is to be ascribed, in my opinion, to the aorta, to the pulmonary artery, and to the superior vena cava, in determining a rotation to the left in left lateral displacement of the heart, and to the right in right lateral displacement. The relative length of these vessels enables them rather to suffer than to exercise the influence in question. Within the pericardium, which limits its movement in a very definite manner, the position of the heart is controlled by three attachments closer than all others. I refer to the pulmonary veins on either side, and to the intrapericardial portion of the inferior vena cava. The shortness of these trunks occasions at the base of the heart the same movements which the vessels themselves undergo. The influence exercised upon the heart by a retraction of one or of the other lung is comparable, in direction, to the movement imparted to a heavy upturned sack in emptying its contents by a tilting of its corners. At the corners are the right and the left pulmonary veins, which, as they recede with the lung, tilt the heart towards the one or the other side; but the resulting movement is modified by the other cardiac attachments in a manner which cannot be understood without referring to a special case. Let us take the contraction of a cavity in the left upper lobe; owing to the retraction of the right lung upwards, outwards, and backwards, the left pulmonary vein raises and draws backward the left auricle, whilst the relatively forward position of the root of the right lung, and the high level of the diaphragm and of the orifice of the inferior vena cava, loosen the reins for the right auricle, which readily, with its ventricle, rotates towards the left. Similarly, if the right auricle be raised, the rotation towards the right will be favoured by the looseness of the attachment of the left auricle; for it should not be forgotten that retraction of the root of one lung is almost invariably accompanied by an advance of the sound lung towards the middle line. In this movement of lateral displacement the "hinge" of the heart appears to me to coincide, not with the line drawn between the upper and the lower venæ cavæ, as suggested by Dr. Sibson, but rather with the lines passing through the inferior vena cava and the right and left pulmonary veins respectively.

These remarks must conclude the subject of the anatomical results of the contraction of cavities, which, in common with the other parts of these lectures, I can only pretend to have roughly sketched. The small measure of what has been achieved would have been yet smaller but for the helpful friendship of many. For the loan of specimens and of drawings my thanks are due to Dr. Andrew Clark, to Professor Marshall, and to the authorities of St. George's Hospital; for the elaboration of diagrams, to my friend, Mr. A. H. Hallam Murray, to Mr. Francis Compton, to Mr. Arthur Grayling, and to my predecessor as Pathologist at the Brompton Hospital, Dr. Reginald E. Thompson; for much encouragement to all my colleagues, and specially to our senior physician, Dr. Symes Thompson, and to Dr. Pollock, by whose recent elevation to the consulting staff we lose more than it befits me to say; and, lastly, for untiring aid, to my brother, Mr. Charles Ewart.

In bringing these lectures to a conclusion, I feel that they have contained little information which can be recapitulated in the shape of propositions. The difficult study of cavities has repaid me rather in suggestions than in facts. These suggestions I have attempted to lay before you. The origin of cavities and their progress, for better and for worse, and the influences which they exercise and which they suffer, have supplied the humble material for my demonstrations. Of "treatment and of cure," which are the aim of all our labours, I have refrained from speaking, remembering that, before we attempt to guide the forces of nature, we should clearly understand the ways in which they are put forth. But I venture to express a confident hope that the treatment of pulmonary cavities may look forward to a better future if it seeks its foundation in a sound pathology.

The method which I have adopted in my endeavour to gain a clearer insight into phthisis, has been based upon a study of functional relations. I am conscious of the meagre results which I have obtained, and of the great amount of work which remains unachieved. But if I have in any way contributed to the adoption of a plan of investigation which may become productive in other hands, these lectures, and the indulgent attention with which you have received them, will not have been in vain.

ABSTRACT OF LECTURES
ON THE
MORPHOLOGY OF THE MAMMALIAN SKULL.

Delivered at the Royal College of Surgeons of England.

By W. K. PARKER, F.R.S.,
Hunterian Professor of Anatomy in the College.

Lecture VIII.—The Visceral Arches in the Amphibia and Abranchiata: their Modifications in Relation to the Sense-Capsules.

In Fishes, there is no secondary opening of the infero-lateral face of the auditory capsule to form a fenestra ovalis; consequently, there is no part that can be called a *stapes* or auditory operculum. This specialisation begins in the Urodeles, in the majority of which there is only a small cartilaginous nucleus, which fits into the fenestra. Proteus retains the most archaic condition; the stapes becomes an oblong bone like the bowl of a spoon, and it is connected with the hyoid arch by a thick mass of ligamentous fibres. Below, this ligament is attached to a thick epihyal, which remains soft; but the cerato-hyal ossifies as a phalangiform bone, and has no separate hypohyal. The stapes itself is a rudiment of the pharyngo-hyal.

In Menobranchus, Siredon, and most of the Caducibranchs also, there is no epihyal, and only one nucleus answering to the pharyngo-hyal; but in Cryptobranchus, Menopoma, Spelerpes, and Desmognathus, there is a second anterior nucleus related to the auditory capsule; and in the large types there is a separate epihyal, which coalesces with the suspensorium. The epihyal also exists in Siren. The second pharyngo-hyal nucleus is generally ossified at its proximal narrow end by the ectosteal growth of the first or stapedial plate; but in *Desmognathus fuscus* the two are separately ossified. The stapes is formed some weeks before the other piece, which is the *incus;* together these form a columella, which is an anticipation of that seen in the Sauropsida.

In most kinds, the distal end of the basi-branchial remains after metamorphosis as a median thyro-hyal, as in birds, supporting the larynx.

The Urodeles early close their first cleft. Thus they have no tympanic cavity; only the hyoid arch assists in forming the ear-chain. They have no *annulus*. In such forms as Cryptobranchus and Menopoma, the segmentation of the hyoid arch is almost exactly like that of the two first branchials of Acipenser; viz., two pharyngo-branchials, one epibranchial, and one cerato-branchial; but in these Urodeles the hypohyal is broken up into three pieces, and there is no basi-hyal.

In some Anura—viz., Bombinator, Pseudophryne, and some kinds of Phryniscus—there is only one upper segment of the hyoid arch—a pharyngo-hyal or stapes; and the cleft is nearly suppressed, even inside. The annulus tympanicus is generally absent or quite rudimentary in these forms. In the most typical and perfect species of Rana, there are a large tympanic cavity, and an annulus, the horns of which are confluent above to form a perfect ring. The stapedial chain is composed of four segments—stapes, interstapedial, medio-stapedial, and extra-stapedial; the latter having an ascending process—the suprastapedial—which is generally confluent with the skull inside the emerging seventh nerve, as is also the epi-cerato-hyal band. In some cases, however—viz., in Phyllomedusa and Acris—the latter coalesces with the short pedicle of the suspensorium. A little bony deposit appears on the stapes, but none on the interstapedial. The medio-stapedial becomes quite bony, and sometimes the extrastapedial (*e.g.*, in *Rana pipiens*) ossifies also.

The short primary hyoid elongates into an epi-cerato-hyal band; the basi-hyal and basi-branchial are confluent in the adult, and the narrow hypobranchials become the thyro-hyals. The other arches, outer and inner, are absorbed. The stapes of the common frog appears when the tadpole is a little more than half grown; the rest of the auditory chain arises as a single rod at about midsummer; by autumn, the other segments are formed. Here, again, the posterior pharyngo-hyal nucleus is the first to appear, being the most important. In Pipa, everything is finished before they emerge from the maternal pouches; and in Pseudis the shaft of the columella appears before transformation is finished. In no Amphibian is there a fenestra rotunda.

In Snakes, there is a small fenestra rotunda left open in the capsule. In front of this, the fenestra ovalis appears; and the rudimentary hyoid arch grows towards it, and, dilating above, gives off an epihyal; it then becomes arrested, and ossifies to form the columella. There is no tympanic cavity or annulus; and the rest of the hyoid arch is for the most part suppressed.

In such aberrant Lizards, as Hatteria and the Chameleons, there is no tympanic cavity nor annulus; and in the latter there is no fenestra rotunda. Moreover, in these types, the columella remains inside the quadrate, like the hyomandibular of a fish. The rest of the hyoid is developed in its lower part in the Chameleon; but in Hatteria there is a continuous hyo-stapedial chain from the fenestra ovalis to the floor of the face. In Chameleons, the basi-hyal is immense.

In the typical Lacerta and many other high types, the columella is long and continuous, having a proximal plate, a rod, a double ascending, and a tongue-shaped extrastapedial process. Ossification stops at the end of the rounded rod; and here an infrastapedial is given off, which corresponds to the interhyal of Ganoids and Teleostei. The stapedius muscle is now distinct from the digastric, and is inserted into the outer fork of the suprastapedial. The cerato-hyal and basi-hyal are continuous, the latter being a long-style. There is a rudiment of a second branchial arch, and there are also two long hypobranchials supporting the larynx. In most types, at any rate, there is no annulus tympanicus. The tympanic cavity is well developed, but the bones surrounding it are not pneumatic. The epi-cerato-hyal does not unite with the infrastapedial, as in Hatteria.

In the Chelonia, the pharyngo-hyal exists as a cartilaginous rod dilating proximally to fill the fenestra ovalis, and a second joint dilated distally to form the extrastapedial, which becomes circular. There is a cartilaginous annulus tympanicus. The cerato-hyal is aborted; but there is a small hypohyal rudiment attached to the buccal plate. The first cerato-branchial is large; the second is not developed; but there are two hypobranchials forming the thro-hyals. There is a large tympanic cavity; and this is made so much the larger by the quadrate, squamosal, and even the opisthotic, becoming pneumatic. In the smaller kinds of Emys, the tympanic cavity is almost entirely in these bones. There is no siphonium carrying air to the mandible; but Meckel's cartilages unite in front, and nearly differentiate a broad basi-mandibular. The basi-hyobranchial is a continuous plate, apiculate in front.

In the Crocodile, the columella is formed in the same manner as in the Turtle; but the distal segment, instead of being circular, is formed of two fan-shaped flaps—a supra- and an extra-stapedial. In a very early stage, the cartilage of the mandible and cerato-hyal is continuous. Above the cerato-hyal, there is both an inter- and an epi-hyal segment; the epihyal unites for a time with the suprastapedial; and the interhyal with the inferior angle of the extrastapedial above, and with the top of the cerato-hyal below. This hyo-stapedial chain, much like that of Hatteria, continues intact until after the middle of incubation; then, during the last month, the segments all separate again, and the cerato-hyal detaches itself from the articular region of the mandible. At the time of hatching, these parts, which have separated again from the columella, exist as small nuclei. There are a cartilaginous annulus tympanicus, a huge tympanic cavity formed mainly inside the large quadrate, and a median Eustachian tube between the two lateral ones, which last are forked above. These tympano-Eustachian canals open into the basis cranii, which is pneumatic both in the sphenoidal and in the occipital regions; the alisphenoid part of the bony auditory capsule, and the whole occipital arch, are burrowed by air-cavities. From the tympanic cavity, a membranous tube passes to the articular region of the jaw behind the hinge; this siphonium carries air to the pneumatic cavity in the proximal part of the lower jaw.

In Birds, the columella, at an early stage, is very similar to that of Hatteria; but only the epihyal is developed in connection with it. This connection remains; but the whole cerato-hyal region is membranous. The hypohyals meet each other at a sharp angle in front of the first basi-branchial; the second basi-branchial supports the larynx. There is one branchial arch, the upper cornua of which embrace the skull, and sometimes, as in woodpeckers and humming-birds, run forwards to the nasal region. The quadrate is pneumatic, and communicates by a foramen with the tympanic cavity, which lies principally in the hollow wing of the exoccipital. There are two Eustachian tubes, which meet in the middle line under the sella Turcica. The whole skull is pneumatic, and the tympanic cavity communicates with all the surrounding bones. In the Passerine birds especially, the siphonium is ringed with small bones, there being seven of these small tympanics on each side in *Corvus corone*. There is no cartilaginous annulus, and the meatus externus is becoming deeper. The concha, though imperfect in most birds, is large, but membranous in owls.

NITRO-GLYCERINE IN PUERPERAL CONVULSIONS.*

By W. E. GREEN, M.R.C.S.&L.S.A., Sandown.
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On August 21st, 1881, I was summoned to attend Mrs. M.; but, as I was absent, my partner, Dr. Barker, saw the patient for me. He found that she was primipara, and that a midwife had been in attendance; and, in consequence of the labour being unduly prolonged, it was causing considerable anxiety to the friends. As the head was presenting, and all seemed to be going on well, Dr. Barker left, leaving instructions to be sent for again in case of necessity. On returning from my morning round, a messenger met me with an urgent request to go immediately, as the patient was in convulsions. On my arrival, I found her lying on the floor in convulsions, which, however, were less violent than they had been. On their first appearance, the midwife had, with considerable presence of mind, applied sinapisms to the calves of the legs and to the nape of the neck; the patient had been convulsed an hour. I had her placed in bed, and, finding the head of the child well down upon the perinæum, I requested Dr. Barker (then present) to apply the forceps and deliver at once. The removal of the placenta was followed by a short rush of blood, which soon stopped. The convulsions had ceased before the application of the forceps, but the unconsciousness remained. The pulse was quick and of high tension; the face and eyelids puffy; the legs œdematous, and pitting deeply upon pressure, whilst the feet were cold. Leaving the case in charge of my partner, I ordered a mixture containing eight minims of a solution of nitro-glycerine (1 per cent.) in an ounce of water, with instructions to give a teaspoonful every hour until the evening. The first dose was given to the patient about two and a half hours after the commencement of the attack, the coma being then as profound as at any time; within ten minutes of taking it, the patient regained perfect consciousness, and asked questions about her confinement and child, of which, till then, she had been oblivious. Four or five doses of the mixture were given, and, when seen again during the evening, she had a soft quiet pulse, and was quite comfortable in other respects. The first urine we were able to obtain showed, upon examination, at least two-thirds of albumen; and, upon inquiry, we found that this secretion had been scanty for some months, and that there had been also considerable anasarca of the lower extremities. The patient made a tedious recovery, and it was fully six weeks before all trace of albuminuria disappeared. The pulse-rate and temperature remained abnormally high for some time, and at length it was necessary to wean the baby; after which the patient's progress was more rapid, and at the present time she is in better health than she has been for years.

Having given the history of this case, it will be well to relate by what train of reasoning I was led to select nitro-glycerine as an appropriate remedy. It was my first experience, during a period of more than twenty years, of a case of puerperal eclampsia; and, whilst watching it, I noticed how all the symptoms pointed to it as belonging to that class of convulsions which are identical with uræmic convulsions. There were the pulse of high tension, the œdematous and cold extremities, and the puffy condition of face and eyelids, which combined to show that an albuminous condition of the urine was present. In uræmic convulsions, I had seen benefit accrue from two remedies: first, from the inhalation of nitrite of amyl (such benefit being transitory, and lasting but a short time after withdrawing the remedy); and secondly from bleeding, the relief from which was permanent until a future attack.

Since the introduction of nitro-glycerine into practice as a remedy for angina pectoris, chiefly through the investigations of Drs. Brunton and Murrell, I have had considerable experience of its value as a means of reducing arterial tension, and of its power of keeping up this effect for a variable time. I therefore determined to use it when I should next meet with a case of uræmic eclampsia, and, as it were, bleed the patient into his own blood-vessels by dilating them. I believed my theory to be perfectly rational, and that it was so is, I think, fully exemplified by the success of the remedy in this particular instance; for the patient not only quickly regained perfect consciousness, but this was maintained without the least approach to a relapse.

There are several causes of puerperal convulsions, but the largest number of cases are the result of a high tension of the arteries, caused by their containing blood which has been imperfectly depurated, probably owing to pressure upon the renal arteries by the gravid uterus.

* Read at a meeting of the Isle of Wight District of the Southern Branch.

The next most frequent cause is sudden or exhaustive hæmorrhage. In both these cases, the convulsion is probably the result of an anæmic condition of the brain.

In looking through the literature of uræmic eclampsia, we find most observers agreeing that an anæmic condition of the brain is the cause of the symptom, and that with this we have œdema of the brain-tissues; but they differ as to the manner in which this state of things is produced. Dr. Hughlings Jackson suggests "spasm of the cerebral arteries" as a cause of this anæmia; whilst Dr. George Johnson, supported by the ophthalmoscopic observations of Dr. Gowers, advances the theory of a "stopcock action of the arterioles."

Traube, some years since, said that the nervous symptoms of Bright's disease (convulsions amongst the rest) were caused indirectly by cerebral anæmia. His idea was that the impoverished state of the blood, and the coincident cardiac hypertrophy, led to the exudation of serum through the coats of the minute vessels; that the capillaries and veins were pressed upon by this effusion; and that this pressure diminished the circulation of blood through the vessels. In some interesting papers on this subject, written by Dr. Mahomed, he adopted an entirely new theory to account for the production of the convulsions, viz., "the rupture of minute blood-vessels within the substance of the brain." My own impression is that both anæmia and œdema exist, nor is it difficult to see how this combination may be produced. The lessened calibre of the arterioles, owing to their conveying improperly depurated blood, will account for the starved condition of the brain; while serous exudation into, and between the membranes of the brain, is simply an extension of that same condition of things which we find in other parts of the body, as exemplified by the œdematous condition of the extremities and of the face and eyelids. If an anæmic state of the brain is sufficient to account for the convulsion, may not this serous effusion be the cause of the profound coma which usually accompanies this condition? The rapid and favourable action of nitro-glycerine in this case appears to me to favour the above theory, and rather to militate against the hypothesis propounded by Dr. Mahomed; for, if the cause of the convulsion were rupture of minute blood-vessels into the substance of the brain, the removal of the tension of the blood-vessels would not be likely to cause an immediate return to the normal condition.

In reviewing the results of treatment both of puerperal and of uræmic eclampsia during the past few years, the fact immediately strikes one that the successful cases have been treated with such remedies as have the property of dilating the blood-vessels, and thus freeing the circulation through the brain. The principal of these have been chloral in large doses, chloroform, opium, occasionally but not often successful; vapour-baths or wet packs; Simpson's baths; sinapisms and warmth to the lower extremities, combined with cold applications to the head; free purgation, and also bleeding. Of these remedies, the first and last have, in all probability, been more successful than all the others together.

Ergotine, also, was mentioned by more than one speaker in a discussion upon puerperal convulsions; but it is difficult to see how this could have been of benefit, and when its use was called in question by other members, all that they claimed for it was that it was serviceable in rapidly expelling the contents of the uterus.

In the treatment of one class of this affection, viz., the convulsions produced by excessive hæmorrhage, I might be induced to use this remedy; first, as a means of checking such hæmorrhage; and, secondly, in the hope that, by contracting the arterioles, a larger supply of blood might, perhaps, reach the brain, though I do not feel sure that so happy a result would be effected. I believe more would be done for such a case by warm affusions to the head, and by placing the upper portion of the body in the dependent position, which has often proved serviceable in the anæmia of brain produced by an over-dose of chloroform.

It may be long before I have a second opportunity of testing the value of this remedy in another similar case; therefore I have thought it advisable to place this one on record, not because I think a single case which has proved successful sufficient to establish the value of a remedy, but in order that others may, if they think proper, adopt what appears a rational, reliable, and safe treatment which is not open to the objections and dangers of chloral, chloroform, etc.

Since writing the foregoing paper, the following case has occurred in my practice, and as it has a distinct bearing on my other case, I think it advisable briefly to record it.

On January 2nd, I was called to see Mrs. J. W., aged 63. Her friends gave me the following account of this patient. For some months previously she had seemed in better health than usual, but had complained of shortness of breath when walking, and of occasional attacks of giddiness. The day before I was sent for, not feeling well, she had taken an aperient dose, which had freely operated. The patient lived alone, and was an early riser. On the morning of my visit her son had gone as usual, to call her; but, after knocking at the front door, he could hear no movement within. Later on, he heard a fumbling at the bolts, and on pushing open the door, found his mother insensible on the floor. She was carried to bed, and was in the same condition when seen by me about 10 a.m. She could be roused, but not sufficiently to reply to questions. She was able to put out her tongue, and pointed to her head as being in pain. The pupils of her eyes were contracted irregularly. The extremities were warm, and there was no paralysis, though the symptoms were those of compression, but from what cause I was unable to judge. The pulse was quick, small, irregular, and hardly countable, being over 180 per minute. Digitaline was given, which reduced the pulse to 160, but did not improve its regularity.

January 3rd. The patient was worse. Pulse still 160. The temperature was normal. She could not be roused. The bowels had not acted since the 1st instant. During the day I was able to procure some urine for examination; it was scanty, and contained two-thirds of albumen. I, therefore, considered the case was one of uræmic coma, and gave a very unfavourable prognosis. One-minim doses of solution of nitro-glycerine were administered every four hours, and nothing but skimmed milk given as food. Her friends wishing to have Dr. Coghill's opinion, he saw her with me the following morning, and confirmed my diagnosis. The heart being weak and irregular (though stronger than on the previous day), he recommended ten minims of tincture of belladonna and ten grains of iodide of potassium to be given every four hours, and the nitro-glycerine with every alternate dose. The bowels had acted twice since commencing the nitro-glycerine, but a powder of calomel was to be given at night if required. At my night visit I found it necessary to stop the mixture, on account of its having produced unpleasant physiological results. The powder was not given, as several free actions of the bowels had taken place. The nitro-glycerine was ordered to be given every six hours.

On January 5th, the patient was improved; more conscious; she took milk freely. Pulse 120, stronger and more regular. The bowels were freely open. On January 6th, she was better in every respect. On January 7th, she was improved; pulse 108, stronger. She was ordered to take digitaline and arseniate of strychnine three times a day, in addition to the nitro-glycerine. The bowels acted several times a day freely, without medicine. On January 10th the patient had steadily improved, was quite conscious, and able to converse. The bowels not acting well, a dose of sulphate of soda was ordered to be taken every morning. The nitro-glycerine was given less frequently. Milk was freely taken. The secretion of urine was much greater, and the albumen was reduced to one-sixteenth. On January 13th, she had improved steadily, but was becoming tired of milk; she was allowed to have some fish. The nitro-glycerine was ordered to be taken every twelve hours only. The pulse was reduced to 84, steady and full. In the evening, whilst drinking a cup of milk, she suddenly fell backwards unconscious, and with complete paralysis of the right side. Neither medicines nor food could be taken, and the patient gradually sank, and died on the morning of the 16th, fourteen days after the first symptoms had appeared. The friends not permitting a *post mortem* examination, I was unable to find out if the second attack was but an extension of the first mischief, or the rupture of a blood-vessel. I rather incline to the latter view of the case.

One further remark I wish to make with regard to the power of nitro-glycerine in causing free evacuations of the bowels. I believe it to have been useful in the case I have mentioned, on this account, as well as in dilating the blood-vessels. That it has an aperient action in certain cases, I have verified in several instances.

CASE OF STRYCHNINE-POISONING: RECOVERY.

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THE article by Dr. Robert Barnes, in the BRITISH MEDICAL JOURNAL for April 1st, on "The Antidotes for Strychnine," reminds me of a case of accidental poisoning by strychnine, which came under my care several years ago, while I was Civil Surgeon of Benares in the Bengal Presidency; and the publication of the following notes of the case may prove interesting, affording, as they do, additional proof to that supplied by Dr. Barnes' case, of the possibility of recovering from a poisonous dose of the drug, if treated on the lines indicated by him. Knowing of no antidote that would "destroy or neutralise the poison in the stomach, or in the system," I adopted the only means, which occurred to me at the time, for counteracting the effects of the poison (these being in accordance with the first and third indications for treatment

now laid down by Dr. Barnes), and, as will be seen, with the fortunate result of recovery of the patient.

On August 26th, 1873, at 11 a.m., a strong, healthy Mahomedan, aged 25, was brought to me, said to be suffering from the effects of a dose of medicine which he had taken about 8 a.m. for fever, supposing it to be quinine. Soon after taking it he began to feel a severe burning pain in his stomach, and this gradually increasing, he begged his friends to bring him over to me. On his arrival his friends showed me the bottle from which he had taken the supposed quinine, and in it I found about a drachm of strychnine tolerably pure, only a little discoloured. Of this he stated that he had poured into his hand and taken, without weighing, a quantity which he thought to be a proper dose of quinine. He was complaining of a severe burning pain in the epigastrium, and spasms of the muscles of the back and legs had set in, opisthotonos being well marked. Having no sulphate of zinc at hand just then, I gave him half a drachm of ipecacuanha power, followed by copious draughts of warm water; these he took pretty readily, but with some effort; in about ten minutes vomiting occurred, but not freely, so I repeated the dose of ipecacuanha, after which vomiting was very free, the contents of the stomach being ejected with great force. After this, the tetanic spasms continuing to increase, at 3 p.m. I commenced the inhalation of chloroform, which soon relieved the spasms and put him into a good sleep for about an hour; on awaking, the spasms returned, and chloroform was again administered with the same good effects. At 7 p.m. the spasms had much decreased in frequency and force. Chloroform inhalation was continued at intervals, as required, till about midnight, by which time the spasms had nearly ceased, and by morning completely so, his only complaint then being of pain and soreness in the muscles of the back. The man was perfectly conscious throughout, and after the emetics had freely acted, he showed me how much of the drug he had taken, which, on being weighed, was fully two grains. He stated that he had taken no food that morning, either before or after taking the medicine, and this was confirmed by the character of the vomit, which was quite free of any food. This, of course, made me less hopeful of his recovery. The way the man accounted for the possession of the drug was, that one day, about a month previously, he had picked up on the road a paper containing it, and, on showing it to some friends and being told it was quinine, he had put it carefully away in a bottle for future use, and having, the night before taking the dose, had an attack of fever, he thought he would make use of it, and did so with the consequences above described.

PELIOSIS RHEUMATICA.

By J. McNAUGHT, M.D., M.R.C.S., Newchurch-in-Rossendale.

The two following cases, extracted from my note-book, may be of interest, if read in connection with those brought before the Harveian Society by Dr. Stephen Mackenzie, and reported in the JOURNAL of March 18th.

On April 10th, 1881, I saw a female child, aged six years, whose mother stated that for the last fortnight small red spots had come over the legs and thighs, and gradually died away in two or three days, to be succeeded by fresh crops. The child had complained of pain and stiffness in the legs, and had been feverish and out of sorts. I found her in bed, unable to walk, complaining of stiffness in the legs and pain in the knee-joints, which were slightly swollen. The skin was hot, the tongue foul, and the bowels constipated. Scattered over the legs, thighs, and buttocks, were numerous purple spots, varying in size from a pin's-head to a sixpence. They were unaltered by pressure. The gums were normal, and there were no spots higher than the hips. These discolorations gradually faded away, passing through the varying tints usual to a bruise in about four days. They were succeeded by a fresh eruption of spots of a brighter red colour, rather more raised and unaffected by pressure, and they were now freely scattered over the arms as well as the legs. There was considerable fever and loss of appetite. She was pale and anæmic, and at the apex of the heart a systolic murmur was heard. On the 25th she was better, the spots having faded to a dirty green colour. In a day or two a fresh eruption occurred, and there was a return of the feverishness and of the pain in the joints. The case pursued a similar course for some weeks, the spots fading in about four days, to be succeeded by a fresh crop, which came out usually during the night. There was once or twice slight epistaxis. The treatment at first consisted of liquid extract of ergot, wine, and nutritious food; but as this seemed to do little good, she was put on iron, and then quinine; but seemingly with little benefit, for the disease appeared to gradually disappear independently of treatment at the end of three months. This case corresponds closely to the description given by Dr. Mackenzie of peliosis rheumatica. I was struck by its peculiar features at the time, and noted it accordingly.

The second case presents very different features. In March 1881, I saw a male child, aged 18 months, which had recently been suffering from teething, irritation, and bronchitis, and was left in a weak condition. The mother said she saw nothing peculiar about it when put to bed at night, but in the morning noticed the pillow much stained with blood, evidently from the nose and the face, as it was when I saw it. One side of the face and eyelid were found of a deep black colour and enormously swollen, as if from a very severe bruise. The other eyelid was discoloured, but to a less extent. On the tip of the tongue were three punctiform ecchymoses, and scattered over the scalp and lower extremities were a few others, not by any means numerous nor of large size. They were unaffected by pressure. The gums were slightly but decidedly spongy below the front teeth. The child was feverish and extremely restless. The treatment was liquid extract of ergot, and for a day or two some improvement took place. Free epistaxis occurred on the third day, and on the fourth night death took place suddenly, probably from extravasation into the lungs, so far as I could gather from the statements of the parents. This is an undoubted case of purpura hæmorrhagica, and presents a marked contrast to the first one. The points of special interest are the early age of the patient, the spongy state of the gums, usually said to be absent in purpura, and thus distinguishing it from scurvy, and the sudden death.

CLINICAL MEMORANDA.

ON THE PRESENCE OF OIL-GLOBULES IN THE URINE.

The presence of free oil in the urine is a sufficiently rare occurrence, I believe, to deserve a brief record. On referring to Dr. Bristowe's *Treatise on Medicine*, I find that "the presence of fluid fat in the form of globules is said to have "occasionally been observed," so that it, as a symptom, is by no means common.

I am at present attending a young man, aged 19, the subject of advanced phthisis, who is taking small doses of cod-liver oil twice a day, and his mother about a week ago remarked that she did not think the oil was doing her son any good, as he was daily passing it just as he took it, meaning that the oil was to be seen unchanged floating on the surface of the urine. I was naturally struck with his account of such an unusual symptom, and at first thought that the oil, if it were oil, had gained access to the urine from without in some way or another. I, therefore, directed her to wash the vessel carefully with soap and water, and then to dry it with a clean cloth before her son micturated again, and then to send me some in a clean bottle for microscopical examination. This the mother has done twice, and the result in each case has been the same. I may say that I personally superintended the procuring of the urine on the second occasion. With the naked eye oil-globules were distinctly to be seen floating on the surface, and, on placing a drop under the microscope, the characteristic appearance of the globules could be readily observed. The nitric acid test showed no albumen.

This last day or two the patient has been unable to continue taking his oil, and, as a result, the unusual symptom has disappeared.

O. Bowen, M.R.C.S.Eng., etc.

Liverpool, April 8, 1882.

GALL-STONES IN AN INFANT THREE MONTHS OLD.

At what period of life the formation of gall-stones may be expected is not accurately stated by medical writers, but I think it is tacitly understood that they are surely to be found before puberty.

The following case will be interesting as demonstrating that, at a very early age, gall-stones may be formed and voided, and instructive as an aid in diagnosing the causes of persistent crying in infants, which cannot readily be accounted for by the usual diseases common to childhood.

Recently, I saw a male child, aged three months, who had been entirely brought up at the breast, and who, with the exception of an icteric turn during the first month of its existence, had been very healthy. At six o'clock in the evening, after having been nursed, it commenced to cry, and continued almost uninterruptedly to do so for six hours, when a sedative mixture was administered, which procured disturbed sleep for the little sufferer during the remainder of the night. In the early morning a dose of castor-oil was given, which soon produced an evacuation. On examination of the diaper that was removed, the motion appeared healthy, but the eye was arrested by three small

substances, differing in colour and consistence from the rest of the fæces. On inspecting these more closely, they were found to be as hard as wax, ovoid in shape, dark grass-green in colour. The largest one weighed two grains; the other two were much smaller. These substances seemed to consist of cholesterine; minute particles of the colouring matter of bile might be detected here and there.

A. DUNBAR WALKER, 56, Ladbroke Grove Road, W.

BLOOD-DISCS IN A CASE OF HÆMORRHAGIC DIATHESIS.

A MAN was under my observation for some years as a sufferer of prolonged bleeding, from the slightest cut or scratch. In the end he became subject to frequent and very obstinate bleeding from the nose. In spite of treatment, the dribbling of blood from the nostrils would continue for days; and the constant attacks at length utterly exhausted him and he died. On placing some of his blood under the microscope, I noticed that the blood-discs were very thin, although they were of the normal diameter. Indeed, the discs were not more than half the thickness of the normal ones, and the central depression of the ordinary disc was hardly to be seen. The thinning was evidently at the circumference of the blood-corpuscle. Whether this condition of the blood be a cause or an effect of the hæmorrhagic diathesis, is left for future observers to determine. I do not know that it has ever been noticed before.

FRED. W. P. JAGO, M.B. Lond., Plymouth.

TOXICOLOGICAL MEMORANDA.

POISONING BY MUSSELS.

UNDER the above heading Mr. Charles Anderton narrates, in the JOURNAL of April 8th, an interesting case, which reminds me of a somewhat similar one that occurred under my notice a few years ago. I was called one evening to see a man who was suffering from considerable collapse, quite unable to speak but sensible, and repeatedly indicating, by gesture, the epigastric region as the seat of his trouble. I was fortunately able to learn from his friends the real origin of his condition, which was the whole of a full-sized cucumber that he had consumed at one sitting. The indication for treatment I promptly followed up by the administration of a considerable emetic of sulphate of zinc, which quickly relieved him of the cucumber and the aphonia. I think it not improbable that Mr. Anderton's patient might have derived benefit from an early emetic. The semi-gelatinous substance, the expectoration of which is reported, I should be inclined to view as the remains of the mussels coming from the stomach. The cause of the aphonia is, I should apprehend, reflex, and is not, I think, difficult to understand.

A. R. BARNES, M.B.ED., Boreham Street, near Hastings.

THERAPEUTIC MEMORANDA.

PUERPERAL ECLAMPSIA: HYPERPYREXIA: DEATH IN FORTY-EIGHT HOURS.

MRS. T., primipara, aged 22, was first seen by me at 9 A.M. August 27th, being then in labour. She was free from all premonitory symptoms of eclampsia, and well advanced in the first stage of labour. At 11 a.m., a message came to say "she was dying." I found her semi-comatose, and being lifted on to bed, whence the violence of her first fit had thrown her, I ordered bromide of potassium, forty grains; syrup of chloral, ℥j; fluid extract of ergot, ℥ij; and chloroform water, ℥j; to be repeated in half an hour. I ordered also an ice-cap, a sinapism to the back of the neck, and a drop of croton-oil on the tongue. I drew off about an ounce of bloody urine, containing about three-fourths of albumen. My father, Dr. Routh, here met me in consultation, and chloroform was administered during the fit, which now recurred every half hour; but this treatment had no effect upon the violence of the fits, and it was discontinued, the patient now being quite comatose.

During the fifth fit (1.30 P.M.) the child and placenta were born. Despite the ice-cap, the temperature rose steadily, being 103° at 5 P.M., 104° at 6, and 105.°5 at 9 P.M. Packing and ice-sponging were then resorted to; but at 11 P.M. the temperature was 107°, pulse 150, and respirations 44. An iced bath reduced these figures to temperature 102.5°, pulse 120, and respirations 32; the patient was still comatose. The convulsions, fifteen in all, now ceased, and the recurrence of the fit was marked only by a change of colour, and twitching of the fingers. Two drachm doses of tincture of digitalis caused the secretion of a pint of albuminous urine in about three hours, none having been secreted in the previous twelve hours.

During the morning of the 28th, the temperature, kept at 102° by cold sponging, rose suddenly to 105°, and was reduced to 101.8° by another cold bath. Venesection failed, owing to the semi-solid state of the venous blood; and, a third time, the temperature rose to 104.5°, and was reduced by a cold bath. During the night of the 28th the temperature was more under control, varying from 102° to 103°; but suddenly, at 11 a.m. on 29th, signs of a clot in the right side of the heart appeared, and, in spite of prompt stimulation, the patient died in about twenty minutes after the fresh complication showed itself. No *post mortem* examination could be obtained. Mrs. T.'s previous history was good. Her urine was normal one month before labour. Her father has Bright's disease, and had fits when a boy. Her baby is quite healthy.

This case, according to Dr. Barnes, would have been benefited by inhalations of amyl-nitrite, especially after chloroform failed. Dr. Barnes has stated that "amyl-nitrite is endowed with the opposite effect of ergot, controlling and suppressing uterine action, and is the antidote to ergot". Would it be wise, therefore, to give amyl in those cases of puerperal eclampsia, where the child is still unborn? and would the administration of ergot cease to be effectual as an ecbolic, during the inhalation of amyl-nitrite?

AMAND J. MC C. ROUTH, M.B., B.S.Lond.,
Upper Montagu Street, W.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

HARTLEPOOLS HOSPITAL.

CASE OF AXILLARY ANEURYSM: LIGATURE OF THIRD PART OF SUBCLAVIAN ARTERY WITH CHROMICISED CATGUT: CURE.

(Under the care of Mr. J. RUTHERFORD MORISON.)

J. H., aged 62, a thin wiry man, was admitted on November 22nd, 1881, having been told by a doctor that he was suffering from axillary aneurysm. He stated that he had been in the army for thirteen years, had drunk hard, and had lived a rough life; he gave no history of syphilis, nor of any accident. On examination, an aneurysm of the left axillary artery was readily recognised. It was of the size of a large lemon; it extended to immediately below the clavicle, pushed forward the anterior wall, and distended the floor of the axilla. Pain and swelling of the hand had occurred three months before; and ten days after that, he noticed the pulsating swelling now present. There were no signs of disease of any internal organ. The arteries generally were harder than natural.

He remained in bed a fortnight under observation before operation; and, until the last three days, no *bruit* could be heard in the tumour. After a night of severe pain, a loud systolic murmur was then discovered in the morning. Coincidently, a marked increase in size of the aneurysm occurred.

On December 6th, 1881, the patient having been brought under the influence of chloroform, the usual incision for ligature of the subclavian artery in its third part was made; the external jugular and transverse cervical veins were ligatured and divided, and some of the external fibres of the sterno-mastoid muscle were separated from the clavicle to allow the passing of the ligature round the artery, which lay deeper than normal, on account of the upward displacement of the clavicle. The artery was ligatured with medium-sized chromicised catgut. The ligature was drawn tight enough to arrest pulsation in the tumour, then a little tighter, and its ends were cut off short, after being tied in a reef-knot. Carbolised catgut was used as sutures, and several strands of catgut (the catgut-drain of Mr. J. Chiene of Edinburgh) as a drain. Antiseptic precautions were observed, and the wound was dressed with protective and gauze.

December 7th. He had had an easier night than he had passed for some time. The temperature was normal. There was no pulsation in the radial artery on the side of operation. On account of sanguineous oozing, the dressings were changed. The aneurysm felt slightly resistant, and pulsated feebly.

December 14th. The wound was dressed on this day, as the arm felt painful from having been confined so long in one position. Towards the upper part, the aneurysm was quite hard, but over the greater

portion of it there was strong pulsation. His temperature had not exceeded 99°, and in every respect he had felt well. The wound had healed by first intention. There was no pulsation in the radial artery.

On December 21st, the pulsation had disappeared, and the aneurysm was hard except at the lower and internal parts, over an area about the size of a half-crown, where there was still strong pulsation.

It is unnecessary to relate the progress of the case, further than to say that this area of pulsation gradually disappeared until, at the end of a month, the whole contents of the aneurysm were firmly consolidated.

GLASGOW ROYAL INFIRMARY.

THREE CASES OF ANTISEPTIC OSTEOTOMY.

(Under the care of Dr. JAMES WHITSON, Extra Dispensary Surgeon.)

THE operations were performed according to the method recommended by Professor Macewen, and the results in all of them were successful.

CASE I.—Peter G., aged 7, was admitted in August 1880, suffering from double knock-knees. On the last day of that month, the patient was put under chloroform, and the legs, having been elevated, were carefully bandaged by means of Esmarch's elastic bandage, from the toes to the middle of the thigh, in order to empty the limbs of blood. A sand-pillow was then placed under the right limb, and an incision made down to the bone with a scalpel, on the inner aspect of the femur, at a point corresponding to a finger's breadth above the external condyle, and half an inch in front of the tendon of the adductor magnus. Before withdrawing the knife, an osteotome was slipped in, and the division of the femur was accomplished without difficulty. The limb was easily straightened, and, the elastic bandage having been removed, a temporary dressing was put on over the incision, till the other limb was operated on. This was done in exactly the same way, and the wounds were dressed with the usual antiseptic dressings, and put up in osteotomy-splints specially made for the patient.

At the end of a fortnight, the dressings were taken down, when both wounds were found to be perfectly healed. The legs were again put up in splints, care being taken to pad the limbs well, in order to prevent any undue pressure.

Within six weeks of the operation, the splints were removed, and sand-pillows placed between, and on each side of the legs.

The patient was dismissed with straight limbs on November 11th; and, for some time before leaving, he was able to walk up and down the ward.

CASE II.—Joseph K., aged 12, was admitted in the beginning of October 1880, suffering from double bow-legs. On the 12th of that month, the patient was put under chloroform, and the limbs, being elevated, were carefully bandaged with Esmarch's elastic bandage, from the toes to above the knees. A sand-pillow was placed under the right limb, and an incision of three-quarters of an inch in length was made over the tibia, about two inches and a half below the knee. The tibia was divided at this point with the chisel. A second incision, about two inches above the internal malleolus, was then made, and the bone was divided with the osteotome. The fibula was not divided, as it yielded to pressure, a green-stick fracture being produced. A temporary dressing was put on, and the elastic bandage removed. The left limb was then operated on, and dressed in the same way. After this, the right leg and then the left were dressed in the usual antiseptic fashion, and put up in osteotomy-splints specially made for the patient, care being taken to pad both limbs well, in order to make them as straight as possible.

At the end of a fortnight, the dressings were taken down, and the four wounds were found to have united perfectly. The splints were reapplied, and kept on for four weeks longer, at the end of which time they were removed, and sand-pillows placed between and on each side of the legs.

The patient went home about the end of November, with straight limbs, having gained at least two inches in height.

CASE III.—Jessie A., aged 4, was admitted during April 1881, suffering from double knock-knees. On May 13th, the patient was put under chloroform, and the legs, being elevated, were carefully bandaged from the toes to the middle of the thighs. A sand-pillow was then put under the right limb, and, an incision being made in the situation recommended by Dr. Macewen, as in the first case, the osteotome was slipped in before the withdrawal of the knife, and the division of the femur was accomplished. A temporary dressing was put on over the wound, and the elastic bandage removed. The left limb was operated on, and dressed in the same way. The usual antiseptic dressings were now put on the right limb, and an osteotomy-splint (for which the patient had been carefully measured) fixed the whole in excellent position. The same process was gone through with the opposite limb.

The girl made a good recovery, and, at the end of a fortnight, the wounds were found to have united. She left the infirmary towards the end of June, with her legs straight and much improved.

REMARKS BY DR. WHITSON.—The temperature in each of these cases was taken twice daily, and was always observed to be about normal. Rectal temperatures are the most reliable; and in osteotomies, where the temperature exceeds 101° Fahr., the dressings should at once be taken down, and the wounds examined, as it is probable that suppuration is imminent. Young patients generally fret a good deal during the first twenty-four hours; more, it appears to me, from intolerance of the position, than any actual pain. The osteotomy-splints act admirably, either in osteotomies, or in fractures of the leg. They keep the limbs in excellent position, the foot being retained at a proper angle by means of the foot-piece; and, from the way in which the knee is fixed, any movement of the parts is rendered next to impossible. The circulation in the extremities should be completely restored before putting on the splints, and afterwards patients should occasionally be asked to move their toes. In the performance of the operation, the limb should be firmly held by two assistants; a sand-pillow gives a firm support during the division of the bone, having no spring, and, from its solid consistency, no tendency to shift its position. It should be covered with jaconet, in order that no blood or other fluid capable of undergoing decomposition may be absorbed by the sand. The density of the bone varies considerably, but in most instances no very great difficulty is experienced in dividing the femur, the tibia, however, is much harder and denser, and requires a good deal of force to divide it. Before performing these operations, I was advised by Dr. Macewen to practise osteotomy as much as possible on a dead body. I did so frequently, and found great benefit from it, particularly as the division of bone is more easily accomplished in the living subject than in the dead.

STRANORLAR UNION WORKHOUSE AND FEVER HOSPITAL.

LIGATURE OF THE COMMON FEMORAL ARTERY FOR WOUND: CURE.

(Under the care of Dr. H. M. JOHNSTON.)

J. W. B., a carpenter, aged about 40, was admitted on May 16th, 1881. He had been paring a wheel-spoke with a very sharp chisel, resting one end of the spoke against his bench, and the other end against his abdomen, and was striking the chisel towards him, when the chisel slipped, and inflicted a deep gash in his groin. Had it not been for the immediate attendance of a retired naval surgeon, who lived quite close to where the accident occurred, the unfortunate man must have perished from hæmorrhage. Compression having been applied, bleeding was temporarily arrested, so as to allow the man to be removed to the Union Hospital, close at hand.

On admission, the patient was pale, almost pulseless, and the surface was covered with a cold, clammy perspiration. Having procured the assistance of Dr. Fenwick, it was decided to at once take up and tie the bleeding vessel. The wound was a transverse one, two inches in length, about two inches below Poupart's ligament, and parallel with it. The patient being placed in the recumbent position, with the limb flexed and abducted, he was brought under the influence of chloroform by Dr. Fenwick. The compress and the fibrinous clots, which for the time arrested the hæmorrhage, having been removed, there occurred a free spouting of arterial blood, from underneath and at the side of the femoral, apparently from the profunda femoris. To clean out all the clots and obtain a good view, it was necessary to prolong the incision to four or five inches in length, an assistant all the time making firm compression with his fingers over the external iliac. After careful dissection through the superficial and deep fasciæ, owing to the free hæmorrhage and the exhausted state of the patient, it was evidently unadvisable to persevere longer in trying to secure the bleeding vessel. The best course appeared to be to secure the common femoral. A little cautious dissection upwards laid bare the vessel, and pressure on it was sufficient to control the hæmorrhage. The artery was secured with a silk ligature, one end of which was left hanging from the wound. Hæmorrhage now altogether ceased; the wound was brought together with a few sutures and bands of adhesive plaster. The limb was laid on its outer side, with the knee slightly bent, and a pillow was placed to support the knee. Hot jars were also applied along the limb.

The wound for the first ten days was daily dressed with carbolic acid dressing, and an occasional linseed-meal poultice applied for a few hours. During this time, the patient had but little fever or constitutional disturbance. The limb had some aching, tingling, pain, which gradually ceased; and the natural heat was restored in a few days. After ten days, the union of the wound was nearly complete,

and the only discharge was that produced by the irritation of the ligature. The patient was discharged from the hospital on June 28th, 1881, and in a short time afterwards he resumed his ordinary occupation, being perfectly well; the only slight annoyance being from the ligature, which did not come away till February 22nd, 1882. This delay Dr. Johnston is inclined to attribute to a combination of circumstances: firstly, the operation was undertaken under the greatest possible difficulties, and possibly some muscular tissue was included in the ligature; secondly, the vessel was tied with a piece of silk doubled, and thus forming a broader band than a single ligature; and, thirdly, the constricting force of the ligature, though quite enough to effectually stop the circulation through the vessel, was probably not sufficient to completely destroy the vitality of the coats of the vessel.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, APRIL 18TH, 1882.

SAMUEL WILKS, M.D., F.R.S., President, in the Chair.

"Cancer" originating in the Membranes of the Brain.—Mr. EVE, who showed this specimen, said that it was taken from a man, aged 30 years, who suffered from symptoms of brain disease for about three months before his death. The specimen showed a medullary tumour, occupying the superior and anterior portion of the cerebellum, and projecting forward into the transverse fissure; the aqueduct of Sylvius was obliterated. On microscopical examination, the tumour was found to be composed, to a large extent, of rounded papillæ of connective tissue, covered by a single layer of round germinating endothelial cells. These cells formed in places a continuous lining to the alveoli, or were grouped within irregular spaces in the connective tissue. In order to illustrate further this form of morbid growth, he had brought from the museum of St. Bartholomew's Hospital a portion of the brain of an elderly woman, containing many small round tumours in different parts of its cortex. These tumours were also composed of large endothelial cells, enclosed within well-defined alveoli, formed by a tissue resembling neuroglia. He believed that, in both cases, the tumours originated in the endothelium lining the inner surface of the pia mater, or, from its prolongations around the vessels, passing into the brain. These specimens resembled the tumours described by Billroth as villous, or plexiform sarcomata of serous membranes, and by Wagner as endothelial cancers. In the character and arrangement of the cells composing them, they resembled the cancers; but, since the membranes of the brain were developed from mesoblast, the tumours were, theoretically speaking, sarcomata. Hence the discrepancy in nomenclature. There were, however, so many flaws in the theory that all cancers originate in tissues developed from epiblast or hypoblast, that he preferred, with Wagner, to name these tumours by their anatomical characters, and to call them cancers.—The PRESIDENT observed that formerly there was much doubt whether there could be any primary cancer of the brain.—Mr. BUTLIN was inclined to differ from Mr. Eve, and to class these tumours as endotheliomata. Hitherto he had classed them with the sarcomata; but there were now a sufficient number of cases of tumours, with these microscopical appearances growing from serous membranes, to justify the formation of a separate class to contain them.

Calcareous Tumour of Brain.—Mr. EVE said that the tumour was found in the brain of a young man, who died of apoplexy. It was of about the size of a walnut, spiculated on the surface, and lay partly in the posterior extremity of the third ventricle, and partly in a cavity in the left optic thalams. It was quite free, except below, where it was bound down by fibrous tissue, within the brain-substance, that could be traced to the pia mater. This tumour he considered to be a psammana, originating in the pia mater at the base of the brain, or one of its prolongations around a blood-vessel. According to Billroth and others the characteristic elements of these tumours were calcified globes, composed of endothelium, and probably derived from the prolongations of the endothelium of the pia mater around the blood-vessels. The globes resembled concretions normally found in the pineal gland, and known as brain-sand. The apoplexy from which the patient died was probably due to some vegetations in the mitral valve, giving rise to embolism; and was in no way connected with the tumour.

Camel's Lung with Filariæ Sanguinis.—Mr. EVE also exhibited this specimen, which showed adult filariæ sanguinis in the lung of a camel. The animal had suffered from a wasting disease for a year, and every drop of blood was found to contain ten or twelve embryo filariæ. The camel was killed by decapitation, and, on examination, adult filariæ were found in tangled masses within the aorta and the pulmonary artery and branches. Dr. Lewis, to whom the specimens had been sent, said that, though the embryo was like that of the filaria sanguinis hominis, the adult was much larger, and specifically different.

Malignant Lymphoma.—Dr. HOBSON said that he made use of the term "malignant" to express the clinical characteristics of the growth. The case during life was regarded as one of cancer; the patient was a child, who was admitted in an emaciated condition, jaundiced, with enlargement of the liver and spleen, and tumours in the groin, pelvis, and about the hip. At the *post mortem* examination, the liver and kidneys were found to contain many rounded nodules. On microscopic examination, the growth was seen to extend along the arteries, so that sections of the liver showed a new growth surrounding the portal vessels, and of the kidney about the artery. The case seemed to be an instance of a sudden springing into prominence of a tissue normally present everywhere. The relation of the numerous small centres of growth, in this case, to tuberculosis was very remarkable, and seemed to point to a nearer connection between these lymphadenomata and the former disease than was usually recognised.—Dr. PAYNE inquired whether the small miliary growths described differed essentially from tubercle; for, after chronic lymphomatous tumour, tubercle had frequently been encountered widely distributed throughout the organs.—Mr. BUTLIN had also encountered great difficulty in determining, from microscopical examination, whether a change in a gland were of the nature of hypertrophy, or of inflammation, or of a distinct new growth. The characters of round-celled sarcoma did not in any case differ very widely from those of lymphatic glands; and there was no difficulty in understanding how a sarcoma, when occurring in a lymphatic gland, should take on an appearance still more resembling that of the tissue in which it occurred.—The PRESIDENT observed that, in the discussion on this subject which took place before this Society some years ago, the opinion was very generally expressed, that it was impossible to distinguish with certainty, by the microscopical characters, between tubercle and this form of new growth.—Dr. HOBSON, in reply, said that, in the sections he had made, he had seen nothing which distinctly suggested tubercle. In its clinical characters, the growth was distinctly malignant.

Calculus formed on a Shell.—Mr. ROGER WILLIAMS said that the patient from whom this specimen was obtained was a boy, who had had difficult micturition for eighteen months before admission to the Wigan Infirmary. He was admitted after having suffered from retention for two days; he was then in a state of collapse; urine was extensively extravasated, and a foreign body was detected in the bladder or urethra; perineal section was performed, but the boy died of suppression of urine. At the *post mortem* examination, the left kidney was found to be converted into a sac containing pus. A shell was expelled from the bladder before death, and had formed the nucleus of a small calculus.—The PRESIDENT inquired how the shell got into the bladder.—Mr. WILLIAMS supposed the boy had himself introduced it into the urethra.

Intrathoracic Tumour.—Dr. BEDFORD FENWICK brought forward this specimen. The patient was a young man, who had suffered from cough and dyspnœa for about eight months before admission into the London Hospital. Emaciation was rather marked at that time, and the right side of the chest was absolutely dull below the level of the second rib, and vocal resonance and fremitus were almost absent on that side. During the first few weeks after admission, the temperature varied from 99° to 101°, and the area of dulness increased; later, the veins on the back of the chest began to enlarge, enlarged glands were found about the clavicle, and the dulness began to extend towards the other side of the chest. At the *post mortem* examination, the whole of the right lung was found to be of a very firm consistence, apparently infiltrated, and the glands in the mediastinum were enlarged. The growth which infiltrated the lung consisted of a fibrous stroma, including large epithelioid cells. He believed it to be an instance of primary cancer of the lung; partly because he found that, in 87 per cent., the glands were slightly affected, and partly because, in such cases, the cancer was confined to one lung.—Mr. EVE inquired whether the growth bore any relation to the bronchi. In one case of primary cancer of the lung, which he had examined, the growth had evidently arisen from the glands of the bronchial mucous membrane.—Mr. R. W. PARKER said that he had brought before the Royal Medical and Chirurgical Society a case of primary cancer of the lung.—The PRESIDENT said that, some years ago, when he investigated the subject, there was no good instance of a primary cancer originating in the alveoli; it was then supposed to originate in the peribronchial tissue.—Mr. BUTLIN said that he was not prepared to accept this case as an instance of primary cancer of the lung; for the microscopical examination was admittedly imperfect. He believed that whether, in secondary cancer, one or both lungs were affected, depended very much on the situation in which this growth originated. In the majority of instances of cancer of the lung, secondary

to epithelioma of the œsophagus, to take one instance, the right lung was entirely or chiefly affected; this seemed to be due to the growth having first involved the trachea, portions then found their way most easily into the right bronchus.—Mr. LONGHURST inquired whether the fluid in the pleura contained any cancer-elements.—Dr. SAMUEL WEST was inclined, with Mr. Butlin, to feel grave doubts as to whether this case was one of primary cancer of the lung; he thought that the growth was probably primary in the mediastinal glands, and spread from them along the peribronchial connective tissue. In a great many cases of malignant disease of the lung, the clinical characters, as in this case, pointed rather to fluid in the pleura.—Mr. ROGER WILLIAMS thought that the theory of the origin of certain tumours only from certain germinal layers was, as yet, in too imperfect a state to be used in any argument.—Mr. STANLEY BOYD referred to a case which he had seen in Jersey last summer. The patient was a middle-aged woman, and the growth appeared to be primary in the lung; for the mediastinal glands were very slightly, if at all, enlarged. The new growth had pierced the diaphragm from above, depressed the liver, and invaded the structure of that organ at certain points. The microscopical appearences were difficult to understand, and he had not yet been able to complete his examination.—Dr. FENWICK, in reply, said that he had not examined the bronchi with special care, but they seemed to be pressed upon by the new growth. If the growth had started from the mediastinal glands, he failed to understand why it had extended into the right lung only.—In reply to Dr. WILBERFORCE SMITH, Dr. Fenwick said that the measurement of the chest on the affected side was increased, and that the movements were limited.

Acne Keloid.—Mr. MORRANT BAKER said that, so far as he was aware, no example of this disease had been recorded in this country. The patient, who was in attendance, was a middle-aged man, who presented on the nape of the neck a flat patch, with an indented overhanging edge, and a smooth dark-red surface, which projected about one-eighth of an inch above the surrounding skin. A few hairs in bundles projected through the surface of the tumour from a lower level. The skin was not especially sensitive; surrounding the patch were a number of firm tubercles, each perforated by a hair, which issued from its summit. The summit had a yellow pustule-like appearance. The larger patch was evidently formed by an aggregation of many of these tubercles. These smaller tubercles closely resembled at first sight the pustules of acne vulgaris, but were entirely different in structure; for each seemed to be composed of soft unbroken red scar-tissue, its summit perforated by a hair, which was rendered especially evident by the yellow quasi-pustular appearance of the epidermis which surrounded the orifice of the follicle. The patient suffered very little inconvenience. He was a butcher, aged 47, who was in excellent health; he attributed the origin of the growth, which began about four years earlier, to a poisoned wound, but this was apparently a mere guess. Mr. Baker had only met with one other instance of the disease: the patient was an old gentleman, who attributed the disease to the irritation of the edge of the collar; he declined any cutting operation, but consented to cauterisation with nitric acid, and the growth did not recur. Professor Kaposi, in writing on Framboesia, referred to a disease in which bright red, papillary, weeping, and partially ulcerating excrescences (which bled easily) existed on the scalp, and proposed to call it *Dermatitis papillomatosa Capillitii;* but Mr. Baker would not have thought of identifying his case with this disease, but that Professor Kaposi and Dr. Hans Hebra, who saw the case during the Congress, recognised it as identical with the disease described by the former. M. Veritè informed him that it was identical with the disease called acne-keloid by M. Bazin, and Mr. Baker preferred to make use of this term, because it expressed fairly well the naked-eye features of the growth.—Mr. EVE said that, in the museum of St. Bartholomew's Hospital, there was a large fibroid mass, which had been removed from the neck of a negro. It presented the peculiar arrangement of the hairs referred to by Mr. Baker, and was probably an instance of this disease.

Two Cases of the Prurigo of Hebra.—Mr. MORRANT BAKER showed two lads, who both presented this disease in a well-marked manner; the one was aged 17, the other 12. Both had suffered from infancy, in both the papules were confined to the exterior aspects of the limbs, and in both there was at times a little eczema; this was a rather more prominent feature in the younger patient, who also presented the inguinal buboes to a marked degree. It had at one time been denied that true prurigo (of Hebra) ever occurred in this country, but Mr. Baker believed that it was by no means uncommon, and brought these cases forward now, as they had been seen by Professor Kaposi and others at the time of the Congress, and had been identified by them.—Dr. RAYNER said that recently he had had a case of what appeared to be prurigo, but the papules were found as much on the flexures as on the exterior aspects of the limb, and he had, therefore, hesitated to call it true prurigo.—Dr. RADCLIFFE CROCKER said that he agreed with Mr. Baker that the cases were not so uncommon as was supposed; for instance, he had three cases at the present time under his care.—Mr. BALMANNO SQUIRE had seen one case of acne keloid, in a young man who had suffered for about seven years from the affection; the case otherwise closely resembled that of Mr. Baker. The application of caustics seemed to cause much irritation, and a fresh outbreak of the so-called pustules, in which the disease appeared to arise, so that the patient had not been relieved.

Papillary Cysts of the Ovary.—Mr. ALBAN DORAN exhibited specimens, showing the seat of origin of these cysts, and the differences between them and the common form. The multilocular cysts, bearing glandular growths and glairy fluid contents, arise from the tissue of the parenchyma, among the Graafian follicles. They rapidly fill the free part of the ovary, altering its form at a very early stage (as shown by a small specimen), and growing into very large tumours with distinct pedicles, for they do not insinuate themselves between the layers of the broad ligament. The multilocular cysts, containing papillary growths and clear fluid, arise in the hilum of the ovaries, from relics of the tubes of the Wolffian body. Hence they resemble papillary cysts of the broad ligament, developed from some of the tubes of the Wolffian body, that lie between the uterus and the parovarium, and that, unlike the parovarium, are normally suppressed. Papillary cysts of the hilum grow to a considerable size before they invade the free part of the ovary, but force themselves between the layers of the broad ligament at a very early stage, so as to be sessile or non-pedunculated. Some specimens were exhibited, showing cysts bearing papillary growths, the part of the ovary containing the ova was still unaffected, whilst the broad ligament was already invaded.

Card Specimens.—Mr. EVE: Three specimens of perforating ulcer of the foot. Mr. STANLEY BOYD: Columnar epithelioma of lower end of colon removed by operation; secondary deposits in the liver.

CLINICAL SOCIETY OF LONDON.

FRIDAY, APRIL 14TH, 1882.

THOMAS SMITH, F.R.C.S., Vice-President, in the Chair.

Extirpation of the Kidney for Calculous Pyelitis.—Dr. BARLOW and Mr. GODLEE read notes of this case. The patient was a laundress, aged 57, of somewhat intemperate habits, who came under Dr. Barlow's care in June 1881. Her family history presented no feature of interest; and though she recollected, on being carefully questioned, that she had passed a small calculus twenty-six years previously, she maintained that the present illness dated only from three months previously. She suffered now a considerable amount of pain, which prevented her from moving about, and had at one time a good deal of œdema—of the right leg especially—which subsequently disappeared. The urine contained a large quantity of pus; it was in fair amount, but not much more than about two-thirds of the normal quantity of urea was secreted in the twenty-four hours. The kidney was easily felt, forming a large tumour in the hypochondriac region. The woman was somewhat anæmic, and had a slight cardiac murmur, but was otherwise in good health. The amount of pain, and the quantity of pus in the urine, seemed to justify the authors in suggesting the operation to the patient—though not on pressing it—notwithstanding her comparatively advanced age; and, after due consideration, she consented to its performance. The existence of calculus had been previously ascertained by puncturing the kidney with the needle of an aspirator. The operation was performed, with all antiseptic precautions, by Mr. Godlee on July 14th, that chosen being the abdominal section. It presented great difficulty from the density of the structures round the kidney, but was satisfactorily accomplished, the patient at the time suffering remarkably little from shock. A morphia suppository was at once administered, and some tincture of opium was given by the bowel later in the day. The patient appeared to be progressing favourably for the first twelve hours, and then passed into a quiet sleep. When aroused next morning it was found that the temperature was high; that little or no urine was being secreted; that the respirations were becoming very hollow; and that the patient was in a state of semi-consciousness. From this condition she did not recover, but she died about twenty-four hours after the operation. At the necropsy, the left kidney and the other viscera were found to be practically healthy. It was suggested that the amount of morphia administered had something to do with the patient's death, and that possibly the carbolic acid absorbed during the operation might have helped to this result; though, doubtless, the suppression of urine, from whatever cause it arose, was the most important factor. The parts removed, and half the kidney of the opposite side, were shown at the meeting.

A Case of Pyelitis, in which the Kidney was Explored and Partially

Removed; Death occurring in Thirty Hours from Suppression of Urine.—Mr. HOWARD MARSH read notes of this case. The patient, a blacksmith, aged 35, was admitted into St. Bartholomew's Hospital in October last. He had had severe pain in the right loin for three years, and for eighteen months the urine had been ammoniacal and had deposited a light-coloured sediment. He had never observed blood. On admission he was pale, and his countenance was worn and anxious. The urine showed pus equal to a third of its bulk on standing, and also a small amount of blood; it was highly ammoniacal and very fœtid. The patient complained of pain shooting down from the right kidney in the course of the ureter to the testis. There was some tenderness on pressure over the kidney, but nothing abnormal could be felt either in the groin or anteriorly. There was no stricture of the urethra, and no stone in the bladder. The patient was kept in bed, and in order to ascertain whether his symptoms depended on any bladder-disease complicating the mischief in the right kidney, the bladder was injected every morning, for ten days, with one grain of quinine dissolved in an ounce of slightly acidulated water, and subsequently with water gradually raised to a temperature of 120°. He was also put on a pure milk-diet. But none of these methods improved the condition of the urine. At the end of two months, as he was still passing large quantities of fœtid pus, the kidney was explored through an incision extending downwards and forwards from the last rib to the crest of the ilium. It was found greatly enlarged, sacculated, and very firmly bound down by dense inflammatory tissue. On stripping off its capsule—a matter of considerable difficulty—and puncturing its cortical substance, a large quantity of thick and strong-smelling urine escaped. As the whole kidney was evidently disorganised, an attempt was made to remove it, but it was so firmly adherent that this could not be accomplished. What had been exposed was, therefore, included in a double ligature and removed by curved scissors. No hæmorrhage of any moment occurred during the operation, but the patient died in thirty hours of complete suppression of urine. On *post mortem* examination, the right kidney was found converted into a number of large cysts. Three inches below its commencement, the ureter was so narrowed that its canal would only admit an ordinary probe. Above this point it was considerably dilated. These conditions seemed to have been produced by the healing of an ulcer in the ureter, perhaps of a tubercular character. The left kidney had the appearance of being fairly healthy; it weighed six ounces. The author remarked that he was induced to resort to an operation in this case—though, in consequence of the patient's general condition, he did so very unwillingly—in the hope of doing good either by extracting a stone, or by establishing free drainage, or of removing the kidney if it proved to be extensively diseased. It might be a warning for future cases that the condition of the kidney was much worse than there seemed reason to anticipate. Though it could not be felt during careful examination under ether, it was very large; it was so far destroyed that very little renal structure remained; and it was so firmly adherent that its removal was found to be impracticable. Seeing how limited was the space afforded by the incision in the loin, the author thought that experience was likely to show that the best method of removing large kidneys, or kidneys that were bound down by firm adhesions, was by abdominal section, the incision being made just external to the rectus muscle. He concluded by remarking that, though recent cases showed that the kidney might be safely explored by the lumbar incision, and though calculi of small size might be safely extracted from kidneys that were structurally healthy, further experience alone could teach in what cases the kidney might be safely removed. One point must be carefully borne in mind—namely, the liability to suppression of urine from the opposite kidney. He thought the removal of kidney in persons over thirty years of age was, on this account, one of the most dangerous proceedings in the whole range of legitimate operative surgery.

Mr. CLEMENT LUCAS thought he would not like to operate in such cases after the age of forty. If Mr. Marsh had cut two ways with a kind of T incision, he would have found more room. He thought Langenbeck's incision best, that was, just outside the rectus abdominis; but if the incision were to be lumbar, he would try to deal with the ureter first.—Dr. SOUTHEY thought that the first thing to determine, as regarded operation or no operation, was the condition of the urine, especially as regarded urea. No operation should be performed when the quantity of urea was too small, as this commonly showed that the other kidney was affected. But even without cutting out the kidney much good might be done by washing out its cavity by a double stream of water. In one case this was followed by contraction of the cavity; but even then it had to be opened, which was done antiseptically. The patien left well, and passing plenty of urea.—Dr. DYCE DUCKWORTH men tioned the case of a boy, aged thirteen, strong for his years, who began to complain of pain in the left loin, after which pus made its appearance in the urine, but soon disappeared. Mr. M. Baker tried exploration, when much pus came away. No calculus was found, but the boy did very well.—Mr. MORRANT BAKER considered the case to be one of pyonephrosis. There was no question of removal; the pain was relieved, and the pus and urine continued to be discharged. He thought that, on the whole, the abdominal section, with antiseptic precautions, was the best for the patient. If the incision were made in the loin he would not use carbolic acid, as there was too much risk of absorption. It was not always well to proceed to removal at once; the first operation might be purely exploratory.—Dr. MAHOMED was struck with the extreme harmlessness of nephrectomy and nephrotomy. He mentioned the case of a patient who had a large lumbar swelling, apparently due to perinephritis. The patient died of tuberculosis, and the *post mortem* examination showed that an operation would not have given rise to much danger. The kidney itself was of the ordinary size, and only adherent at one point to its surroundings. He thought it would always be better to try an exploratory operation before attempting to cut out the kidney.—Mr. A. J. BARKER said that a large number of recorded cases had proved fatal, at least up to a certain time. Some, when they came under notice, could not well be operated upon, and the kidney could not be removed. It would be a dangerous experiment to cut through the peritoneum into a suppurating kidney. It was better, therefore, to examine it through the loin, and try free drainage for a time. Some cases had done well even when the patients were fifty and sixty. In a recent case, where he had cut through the loin, he did not use the spray, and he was not greatly in favour of exploratory operations.—Mr. GODLEE and Mr. MARSH having replied, the meeting adjourned.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, APRIL 5TH, 1882.

J. MATTHEWS DUNCAN, M.D., President, in the Chair.

Exomphalos.—Dr. ROUTH showed (for Dr. OSWALD) a fœtus. There was protrusion of the intestines and of the brain through apertures in the parietes, and a membrane joined the abdominal and cranial openings. There were hare-lip and a backward curvature of the spine.—The PRESIDENT remarked on the rarity of such bending backward of the spine *in utero*.

Ovarian Tumour.—Dr. JOHN WILLIAMS showed a multilocular ovarian cyst, the pedicle of which had been twisted twice. The whole inner surface and contents of the tumour showed advanced necrobiotic change, but no putrefaction.

Fibroid Removed by Laparotomy.—Mr. MEREDITH showed an uterine fibroid, weighing six pounds, with both ovaries attached, removed by abdominal section. It had been cut away at about the level of the internal os, the uterine neck encircled with Kœberle's *serre-nœud*, transfixed by two stout pins, and secured in the lower angle of the wound. There was a fibroid change in the right ovary, enlarging it to twice its natural size.—Dr. ROUTH said that, in removing the uterus, keeping the stump outside was the important point.—Mr. KNOWSLEY THORNTON said that the uterine cavity nearly always contained septic matter; and, therefore, when it was opened, the extra-peritoneal treatment was the better; when it was not opened, the intra-peritoneal treatment answered well. In both cases, it was advisable to suture the peritoneal covering of the stump.

Microscopic Sections of Diseased Ovary.—Dr. GALABIN showed sections of the ovary removed by Dr. Braithwaite in the case to be related, and also of a healthy ovary. The texture of the former was much looser, and contained a larger number of round cells, and those of larger size, than in the latter. Both contained small cysts; Dr. Galabin thought that these were commonly found, and did not in themselves produce symptoms.

Dermoid Tumour.—Mr. KNOWSLEY THORNTON showed a dermoid cyst. It contained a solid mass, covered with skin with long hair; a projection of bone from which grew several teeth; from another part of its surface grew a small projection, like an abortive limb, with long nails. The central part of the mass was solid fat. The pedicle was twisted, the cyst had ruptured, and the peritoneum was full of liquid fat. The tumour was so adherent that its removal was very difficult. The patient recovered without a bad symptom.

Two Cases of Unilateral Vaginal Oöphorectomy.—A paper was read by Dr. BRAITHWAITE (Leeds) on the above subject. Case I. The patient, aged 30, was the wife of a workman. She suffered from attacks of dyspnœa, which were brought on by exertion, and which could only be relieved by certain very peculiar positions of the body. There was a mitral murmur; the patient was pale and in wretched general health, and the muscle of the heart probably extremely feeble. Menstruation

was normal. There was a prolapsed ovary, pressure on which did not bring on the dyspnœa, but caused much pain. The diagnosis was that the dyspnœa was cardiac, but in some way excited by a prolapsed and very tender ovary. In no other way could the relief by posture be explained. The prolapsed ovary was removed, with the result that the dyspnœa was nearly, but not completely, cured.—Case II. The wife of a miner, aged 22, a healthy-looking woman, had always been very hysterical. She suffered from constant pain in the left ovarian region, dating from the birth of her first child, three and a half years previously, since which time she had never been free from it, except during the last three months of her succeeding pregnancies, three in number. The left ovary was prolapsed behind the uterus, and exquisitely tender. It was removed, with the result of complete cure. The author believed that the vaginal method of oöphorectomy was the best and simplest for ovaries which were prolapsed or non-adherent.—Dr. ROBERT BARNES regretted that the attitude assumed by London surgeons towards those who practised obstetrics seriously obstructed the progress of this branch of surgery. All great improvements in surgery were largely due to a spirit of enterprise, it might be said of experimental research. He thought that Battey's operation had now emerged from the doubtful domain of experimental surgery, and that we should soon arrive at definite conclusions as to the scope of its application. In a case in which, six months ago, he had removed the ovaries, the fibroid tumour, which formed the immediate cause of suffering, had almost shrunk away. There was a proclivity, from anatomical reasons, to prolapsus and disease of the left ovary, rather than the right. He inquired if the Fallopian tube had been removed? This question was of physiological as well as of surgical interest.—Dr. HICKINBOTHAM thought that, in Dr. Braithwaite's first case, there was a large amount of hysteria. He attributed some of the relief obtained to the rest and other therapeutic means incident to hospital treatment. He asked what amount of small cysts indicated disease, and what symptoms they produced? They were seen in ovaries removed for widely different conditions.—Dr. HEYWOOD SMITH said that the interest of the cases would be enhanced, if the condition of the patients were reported in six or twelve months; for Dr. Battey found that, when one ovary only was removed, the pain was apt to recur. He thought the abdominal operation preferable in single women; but the incision should be three or four inches in length. The ovaries he had removed he had usually found diseased. He had no doubt that the operation, in proper cases, was destined to be of the greatest service.—Mr. KNOWSLEY THORNTON thought it still an open question whether oöphorectomy was justifiable for ovarian pain; but there was a great field for it for hæmorrhage from fibroids. Accumulated statistics showed that abdominal oöphorectomy was a very safe operation, but that vaginal oöphorectomy was not. He did not think London was behindhand in abdominal surgery.—Dr. GERVIS did not think that the decision, as to the advisability of this operation, should be influenced by the possibility of a subsequent recurence of hysteria. In the cases in which he had performed it for local suffering, the result had proved its utility.—The PRESIDENT was not opposed to oöphorectomy; but he could not adopt the theory implied in the first case read. To remove one ovary as a treatment of cardiac dyspnœa, he regarded as a wild proceeding; nor could he imagine that it would ever come within the range of rational medicine.—Dr. BRAITHWAITE had removed part of the Fallopian tube in the second case, not in the first. He had secured the pedicle with strong catgut, and united the vaginal wound with one suture only at its lower third. He did not think there was any element of hysteria in these cases. The relief to the dyspnœa in the first case, by the peculiar positions described, showed that it was not altogether cardiac. Since the paper had been sent in, he had heard that the patient was now suffering from cardiac dropsy. Had the operation been done earlier, the result might have been better.

Case of Extra-uterine Fœtation, treated by Antiseptic Abdominal Section, with Removal of Fœtus and Hypertrophied Placenta: Recovery.—A paper on this subject was read by Mr. KNOWSLEY THORNTON. The early history of the case was narrated at the March meeting of the Society. The author would divide cases of extra-uterine fœtation into three classes: 1. Those in which accurate diagnosis is possible; 2. Those in which probability, but not certainty, in diagnosis can be reached; 3. Those in which the nature of the case is not suspected until internal hæmorrhage, or other untoward accident, takes place. In classes one and three, he thought it bad practice not to operate; in class two, an exploratory operation should be performed if the symptoms were urgent. But such operations should only be performed: 1, under strict Listerian precautions; and 2, by a surgeon of special experience in abdominal section: for they were extremely difficult.—Dr. ROUTH said that, wherever there was a growing abdominal tumour, and a complete decidua was voided *per vaginam*, the diagnosis of extra-uterine fœtation might be made. The successful removal of the placenta in this case was due to its hypertrophied condition. Possibly, the placental souffle might have been heard.—Dr. ROGERS said that the souffle heard over fibroids was not so marked as that of the placenta. He thought the presence of milk in the breasts would aid diagnosis.—The PRESIDENT drew attention to the persistent life of the placenta after fœtal death, and its great hypertrophy. He did not believe the souffle was placental; he called it uterine. The discharge of an entire decidua was a valuable diagnostic aid. He remembered a case in which such a decidua was passed; rupture of the sac and internal hæmorrhage took place. After a few days, he evacuated the hæmatocele *per vaginam*, and found chorionic villi in the fluid. The patient did well. Now-a-days, he would have had laparotomy done to get the bleeding stopped.—Mr. THORNTON said the souffle was not heard; had it been, it would have strengthened, in his opinion, the diagnosis of fibroid tumour. The case narrated by the President was a very rare one. He thought that now abdominal section would have been attended with less risk than the course followed.

HARVEIAN SOCIETY.

MARCH 2ND, 1882.

WILLIAM HICKMAN, M.B., President, in the Chair.

Erythema Iris.—Mr. MALCOLM MORRIS showed a case of erythema iris.—Dr. WILLIAM SQUIRE considered, from the colour of the patches, it was erythema; and from their shape, iris.—Dr. GRIGG agreed in the diagnosis.

Menorrhagia.—Dr. EDIS read short notes of three cases of menorrhagia. The first was one of ovarian menorrhagia in a young lady aged 18. Tonics had been tried, but had aggravated the difficulty. Regulation of the bowel, attention to diet, and the administration of bromide and iodide of potassium, succeeded in overcoming the menorrhagia. The second case was one due apparently to congestion of the liver, constipation, want of exercise, and the imbibition of alcohol with a view to keeping up the strength. Abstinence from alcohol, regulation of the bowels, and the employment of bromide of potassium, soon relieved the patient. The third case depended on tight-lacing, imperfect mastication from defective teeth, too scanty clothing, and constipation. These several conditions were remedied, and the menorrhagia ceased within a very short time.—Dr. WILLIAM SQUIRE pointed out that there was a rise of temperature before menstruation, and general vascular tension during that period, which tension was diminished by bromides and iodides.

Primary and Secondary Vaccination.—Dr. CLEVELAND read a paper on this subject. In the course of a graphic description of the way in which Jenner made the discovery, he pointed out that Jenner held that only those milkers who contracted cow-pox in the early stage from the cow, when the vesicles were advancing to maturity, were rendered insusceptible to small-pox. After the vesicle had become a pustule, no such immunity could be conferred by it. Jenner also believed that cow-pox was produced by farriers communicating the virus of grease from horses' heels to the cow. Subsequent researches had proved that grease could not give rise to cow-pox. There was, however, a disease with which it was often associated, and which was really horse-pox (variola equina), which was communicable to the cow, and also to the human race, and was, moreover, protective against small-pox. The author considered that Pasteur had established beyond controversy what was always maintained by Jenner—that small-pox and cow-pox were modifications of the same disease. This was also proved by Mr. Badcock's experiments in 1840, who obtained vesicles in the human being, not distinguishable from vaccinia, by inoculating cattle with variola, and from these inoculating children. He further considered that vaccinia might be so modified by transmission as to lose its protective power, and attributed the epidemics from 1871 to 1880 in a great measure to inefficiency and neglect of vaccination; and advocated, as a remedy, careful vaccination, to be ensured by the appointment of public vaccinators for all. Dr. Cleveland quoted Dr. W. B. Carpenter, who, in reference to syphilisation by vaccination, said: "Even now, the number of known cases referred to may be counted by tens, although at least sixteen millions of vaccinations have been performed since vaccination was made compulsory." Jenner also recommended revaccination where primary vaccination had not run its course in a regular and satisfactory manner; and Dr. Seaton held that "one thoroughly good primary vaccination to start with, and one careful revaccination after puberty, so conducted as to give evidence that the lymph was absorbed, are all that is necessary for complete protection."—Dr. STEWART pointed out the frequency of small-pox marks in his earlier days, and the great mortality among the unvaccinated. He remembered a family of six children, of whom five died, the survivor being the only one who had been vaccinated; also one of ten children, of whom nine died, the survivor again being the

only vaccinated one. He advocated the use of calf-lymph, being the only kind he had used the last three years.—Dr. EDIS considered that the consequences of imperfect vaccination were the cause of opposition by antivaccinationists.—Dr. WILLIAM SQUIRE stated that medical men who were antivaccinationists had themselves been revaccinated. He held that fears of the degeneration of vaccine in from arm-to-arm vaccination were groundless. In syphilitic children, he had found the vesicles irregular and hæmorrhagic.—Mr. MALCOLM MORRIS considered the impetigo, which sometimes resulted, a local disease due to irritation.—Dr. GRIGG said calf-lymph taken on the sixth day was better than when taken later, as vaccine in the calf ripened sooner. He preferred vaccinating by a clean incision. No lymph should be taken when there was a red areola.—Mr. W. B. OWEN urged not to vaccinate infants on both arms, on account of the suffering so produced. Revaccination should be repeated until some result was obtained.—Mr. W. T. EVANS stated that, in 1,505 primary vaccinations, only 7 failed, and these were successful on revaccination; and of 361 revaccinations, only 4 failed, one of whom had been successfully vaccinated four years previously, another took on revaccination, the remaining two not being vaccinated.—Mr. SHIRLEY MURPHY considered arm-to-arm vaccination the best, and that lymph should not be stored.—The discussion was carried on to a late hour, the following members taking part: Dr. Sheldon, Dr. Macgrath, Mr. R. James, Dr. Renner, Mr. Lamb, Dr. Royston, and the President, who held calf-lymph to be more irritating and less certain than human; he had used lymph two years old with success.—Dr. CLEVELAND replied, and the meeting adjourned.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.

MONDAY, MARCH 6TH, 1882.

SAMUEL LEE RYMER, L.D.S., President, in the Chair.

Administration of Anæsthetics.—Mr. ALFRED COLEMAN related a case illustrating the danger of the not uncommon practice amongst dental practitioners of giving an anæsthetic and operating single-handed. Nitrous oxide was administered to a little girl for the purpose of removing two molar teeth. Just as he had extracted one of them, the gag slipped, and, whilst he was engaged in opening the child's mouth and attempting to grasp the second tooth, the gentleman who was giving the gas called out that the patient was not breathing. Artificial respiration was at once resorted to, and she soon came round; but at the critical moment he was himself too much occupied to notice the sudden stoppage of respiration, and he felt that had he been operating without assistance, he should almost certainly have lost his patient.

Epilepsy.—Mr. HENRY MOON related a case of epilepsy cured by the removal of dental irritation. The patient, a girl aged 21, was brought as an out-patient to Dr. Fagge at Guy's Hospital, and he, finding that her teeth were in a very bad state, sent her to Mr. Moon. She had suffered from fits since she was fourteen, and lately they had become so frequent as to reduce her almost to a condition of imbecility. On examining her mouth, Mr. Moon found an upper third molar in process of eruption; this he lanced freely. Some of the other teeth were extracted, and others stopped, at the Dental Hospital; treatment by bromide of potassium being ordered at the same time. The result was, that the fits entirely ceased from the day of her first visit to the hospital, the girl quickly regained her intellect, and, although she was kept under observation for several months, no recurrence took place.

The Use of Gutta-percha for taking Impressions in Regulation Cases.—Mr. WALTER COFFIN read a paper on this subject. Gutta-percha possessed many advantages over plaster for this purpose, not the least of which was, that it was much less disagreeable to the patient; but, partly owing to the use of inferior samples, and partly to improper methods of working, it had been generally abandoned as unreliable. The directions given in text-books and sent out by the depôts would inevitably ruin the best gutta-percha so far as its fitness for taking impressions was concerned. The proper method was as follows. A cup or tray having been chosen to fit the dental arch, gutta-percha in tolerably thin sheets was placed in boiling water, when it immediately softens. It was then taken out on a glass rod, just dipped into cold water and fitted into the cup. The filled cup was then placed in the hot water for half a minute, just dipped into the cold, then placed in the mouth, and the patient was told slowly and steadily to close the jaws upon it. It should be kept in the mouth for a minute and a half or two minutes, then carefully released from the bite, and at once placed in a basin of cold water, where it should be left until it is convenient to take a cast of it. Mr. Coffin described the tests for good gutta-percha, and mentioned some other purposes connected with dental surgery for which it would be found useful.

REVIEWS AND NOTICES.

LECTURES ON THE PATHOLOGY AND TREATMENT OF LATERAL AND OTHER FORMS OF CURVATURE OF THE SPINE. By WILLIAM ADAMS, F.R.C.S., Surgeon to the Great Northern Hospital, Consulting Surgeon to the National Orthopædic Hospital, etc. Second edition. London: Churchill. 1882.

THIS work is an elaborate treatise upon lateral curvature of the spine. It also deals with posterior and anterior curvature; but only casual reference is made to deformity of the spine, the result of caries.

Mr. ADAMS'S researches into the pathology of lateral curvature have been more extensive, perhaps, than those of any other worker in the same field of observation; and his writings upon the subject, diffused as they are through the reports of the medical societies and elsewhere, are probably well known to many of our readers. In the second edition of his work, Mr. Adams has been ably assisted by "his friend and colleague", Mr. F. A. Fisher.

In the introductory lecture, the author remarks upon the absence of any facilities, in the hospitals of this metropolis, for the clinical study of cases of spinal deformity, in consequence of such cases not being admitted as in-door patients in these institutions. "The result of this is," he remarks, "that in the general progress of medical science, during the past century, comparatively little advance has been made in our knowledge of the causes, mode of production, and pathological changes in some cases of deformity of the spine." We believe that the same opinion was expressed in the first edition of this work, which was published more than seventeen years ago. The absence of opportunity for the study not only of spinal, but of other deformities, in our general hospitals is, we consider, a matter for regret; and we trust that the time is not very distant when the medical student will be able to gain knowledge of such cases, without having to resort to the special hospitals for that purpose.

In discussing the physiology of the spine in relation to the production of lateral curvature, Mr. Adams refers to the mechanism of motion in the spinal column, and the essential difference between its flexibility and the free motion allowed in the movable articulations of the extremities. He maintains that the human spinal column is much less flexible than is generally supposed; that the absence of free motion and surface-play between the vertebræ, as well as the mechanical construction of the oblique articulating processes, by which the vertebræ are locked one within the other, and the arrangement of the resisting ligamentous structures, maintain the spine in the erect position "by the smallest possible expenditure of muscular force, as far as the spinal muscles are concerned; and that the erect position is that in which the spinal muscles are least in action." To illustrate the difference between the relative amount of muscular force required to hold the spine erect, and to hold the body erect at the movable articulations of the extremities, Mr. Adams instances the fact, that a patient, recovering from a severe illness, may be able to sit up in bed without difficulty; but that, if he get out of bed and attempt to walk, he will be unable to do so, and will probably fall to the ground.

The most remarkable, and perhaps the most important, feature of lateral curvature is the rotation of the vertebræ on their vertical axes, the bodies turning in the direction of the convexity, and the spinous processes turning in the direction of the concavity of the lateral curve. Mr. Adams states that Dr. Dods of Bath was the first writer who described the occurrence of this rotation; but that Dr. Dods's diagram showed the rotation as taking place in exactly the opposite direction to that described above. To Mr. Adams we are indebted for our intimate knowledge of the peculiarities of the distortion which results from rotation; and we believe that there is no fact connected with the pathology of lateral curvature which is of more importance than the fact, clearly pointed out by this author, that the position of the apices of the spinous processes is no indication of the degree of curvature of the bodies of the vertebræ. Various explanations have been given of the cause of this rotation of the vertebræ; and we agree with the author, that the theory recently advanced by Dr. Judson of New York is probably the correct one. According to Dr. Judson's view, when the spine bends laterally, the bodies of the vertebræ, being comparatively free from restriction, give way in the direction of the curve; but the spinous processes are more or less restrained from displacement by the parietes of the trunk to which they are attached, and therefore become turned towards the mesial line of the back.

Passing on to page 195, we find some interesting remarks upon the spontaneous arrest of lateral curvature—a result which, Mr. Adams states, "very commonly takes place in cases of slight curvature," leaving the patient permanently slightly deformed. The conditions which

are stated to be most favourable to the production of this spontaneous arrest are: 1, equality of length of the curves; 2, absence of debility; and 3, late commencement of the deformity (*i.e.*, after childhood), from mechanical causes, such as bad habits of position. Some cases are recorded, which are illustrated by woodcuts. But, notwithstanding this occasional arrest of increase of the deformity, it is urged that completion of growth does not usually exert much influence in preventing the increase of lateral curvature.

With regard to treatment, Mr. Adams has not found it necessary to modify the principles which he has for many years advocated; but, in the appendix, he describes some of the new methods of treatment. The plaster-of-Paris jacket he has found quite unsuited to the treatment of this deformity; but, in incurable cases, the plastic felt jackets have been, to a certain extent, useful.

With reference to the principles of treatment to be adopted, a new classification is given. Cases are separated into deformity from (1) physiological causes; (2) commencing structural causes; (3) confirmed structural causes. This arrangement appears to us essentially practical and useful.

With reference to the means of diagnosing the commencement of structural changes, the prominence of the angles of the ribs upon the convex side of the curve in the dorsal, and of the spinous processes in the lumbar region, observed when the patient stoops, are particularly worthy of remark, as being a more certain means of diagnosis than the displacement of the apices of the spinous processes.

The various systems of treatment are well discussed; and the author carefully points out the extent to which each system may be relied upon in the treatment of the different classes of this deformity.

SCROFULA AND ITS GLAND-DISEASES: AN INTRODUCTION TO THE GENERAL PATHOLOGY OF SCROFULA. With an Account of the Histology, Diagnosis, and Treatment of its Glandular Affections. By FREDERICK TREVES, F.R.C.S., Assistant-Surgeon to, and Senior Demonstrator of Anatomy at, the London Hospital; late Wilson Professor of Pathology at the Royal College of Surgeons. London: Smith, Elder and Co.

THIS work deserves careful reading, being written, evidently after a good deal of study and research, by a surgeon who has already shown considerable knowledge of the pathology of scrofulous glandular disease. Mr. TREVES's lecture on this subject appeared in our pages at the end of last April. In that discourse, the lecturer discussed at length the microscopical appearances observed in strumous lymphatic glands; and gave reasons for establishing the doctrine, that the giant-cells found in diseased lymphatics are simply lymph-coagula, involving in their coagulation a greater or less number of cellular elements, and are not essential, but merely indicate stages or degrees of a morbid process. This process is essentially a tendency, on the part of the individual, to inflammations of a peculiar character, the most prominent feature being the constant implication of lymphatic vessels and tissue. As to the precise relation between scrofula and tubercle, the author is of opinion that the former is commonly associated with the latter; and, in rare instances, where tubercle is not found in the morbid tissues of a scrofulous subject, changes that elsewhere are observed, as the precursors of tubercular deposit, are to be found in those tissues. The tubercle seen in purely scrofulous diseases is usually of an immature character, as compared with the tubercle of typical tubercular diseases: hence the distinction between scrofula and tuberculosis is merely a question of degree, scrofula being the milder disease.

Mr. Treves's work is founded on the principles enunciated at the above-mentioned lecture, delivered last year at the Royal College of Surgeons. He maintains his original opinions on the nature of tubercle, and is strongly opposed to classifying it among neoplasms. "The fact remains," says the author, "that, in spite of possible differences of origin, a number of pathologists regard tubercle as a new growth. I, however, would venture to urge that tubercle is merely the product of a peculiar form of inflammation; that it is no neoplasm in any other sense than that it is an inflammatory neoplasm." He further insists, that the tubercle is a direct product of inflammation. He points out how the enlargement of a cervical gland can often be traced to some simple inflammation—in the mouth, for example. Lymphatic glands reproduce morbid conditions transmitted to them from the periphery, in the present case the cervical gland inflames; but, as a secondary result, the products of the inflammatory process become altered from the simple type, and tubercle appears. The original inflammation stands to the tubercle in relation of cause to effect: "at no time, in the course of the gland-affection, could one say, here inflammatory action ends and the growth of a neoplasm begins." Inflammatory processes tend to spread far and rapidly, and to cure themselves spontaneously, and this is seen in scrofula; neoplasms that spread quickly are just those that show the least signs of even partial and local return to healthy conditions.

Mr. Treves is sceptical on the subject of inoculability of tubercle; the experiments to prove this doctrine have been meagre in good results. Eruptions of tubercle have followed inoculation; but, to maintain the theory of the infective nature of tubercle, it must be shown that no other matter or tissue can produce a like effect; that no peculiar morbid tendencies exist in the animals subjected to experiment; and that the results of inoculation are fairly constant. The micro-organism alleged by Klebs, Hueter, and others, to produce tubercle on inoculation, failed to set up that morbid change in Deutschmann's experiments; and, in Schüller's researches with tubercular matter, contusions of joints produced tubercular joint-disease in animals living amongst others that had been rendered tuberculous, but not in subjects that had been kept apart from the latter. This exposes a serious source of fallacy.

The chapter on the definition of scrofula contains much with which the readers of the lecture will be familiar. In treating of the relation of phthisis to scrofula, he denies any relationship of cause and effect; but considers that they represent, and are due, to the same morbid process. Phthisis may be termed scrofula of the lung, and a scrofulous lymphatic mass may be regarded as phthisis of a gland; the two may often exist in the same subject, but the one does not cause the other. Yet, clinical and pathological evidence does not support the belief in the frequency of scrofulous glandular disease in phthisical patients. Their simultaneous existence is rare, although their pathological nature is identical; and this is owing to a certain antagonism between scrofulous diseases of all kinds. Concurrent scrofulous affections are found to be rare in the records of the well-known institution at Margate, excepting in clear examples of cause and effect, where one affection was *always* glandular, as ophthalmia and enlarged cervical glands, or ulcers of foot with inguinal bubo. Otherwise, only one grave strumous disease existed in the same patient. This being the case, we need no longer wonder why the changes which cause scrofulous disease of the glands are rarely seen in a phthisical patient, there being an antagonism between the similar pathological condition that, in the former case, attacks the lymphatics; in the latter, develops in the lungs. Such are the author's opinions; in fact, at the end of his chapter on this subject, he complains of "absurd objections to this identity of scrofula and phthisis." In fact, he recognises only a local and a clinical distinction, and establishes that antagonism by which the two different local forms of disease come to be rarely coincident.

In the second part, Mr. Treves describes the changes in lymphatic glands in scrofula, the subject of his lecture at the College of Surgeons. This part is embellished with fourteen drawings of the microscopic appearances of sections of strumous glands, in different stages of disease, from the ordinary inflammatory changes, which take place in the centre of the gland, to the appearance of the "giant-cells"—his opinions on their nature we have already mentioned—and to the caseation and fibrilar changes observed in more chronic scrofulous conditions. With regard to the primary disease that causes the strumous enlargement of a gland, Mr. Treves adds an important qualification to his remarks quoted above from the earlier part of his work. Some simple inflammation—about the mouth, for instance—sets up this affection of a cervical gland. But similar inflammations of the integuments, etc., of the extremities are not nearly so prone to cause rapid strumous enlargement of the axillary and inguinal glands. The author's explanation is that the kind of peripheral mischief, most frequently and rapidly followed by scrofulous affection of the neighbouring glands, is that which is situated in the adenoid tissue of a mucous membrane. Hence the frequency with which the bronchial and mesenteric, as well as the cervical glands, are implicated. Since the anatomical distribution of the lymphatic glands should be well known to those who study the subject of Mr. Treves's work, a chapter is devoted to this subject, and it is based on Dr. Curnow's Gulstonian Lecture for 1879.

Space forbids us to enter at length into the questions of treatment of scrofulous glands, as enunciated by our author. Mr. Treves believes, as we have all believed for years, in healthy surroundings, cod-liver oil, iron, and sea-air. "One of the best 'mineral waters' would appear to be the Adelheid spring of Heilbronn." Suppuration should be checked by puncture as soon as possible; and poulticing is not recommended till the skin over a glandular abscess has yielded or been punctured; otherwise, increase of abscess-cavities and undermining of the integument are promoted. Iodine finds little favour with Mr. Treves, but he advises the use of the iodide of lead ointment in very chronic, indolent glandular enlargements. Excision is recommended for old, solitary, indolent, freely movable, and well-defined glands; for similar glands in groups, situated in regions where their sudden suppuration would be mischievous; and for a gland that exercises injurious

pressure on some neighbouring part. The scoop is applicable to indolent, softening adherent glands, especially when adherent to the skin. Under similar circumstances, cautery-puncture is strongly recommended; the author is much in favour of the thermo-cautery for the opening of gland-abscesses. He refers to the opinions of hospital surgeons, obtained by the Editor of the JOURNAL in 1871 (see vol. ii, 1871, page 727), concerning the treatment of gland-abscesses. Early incision and small puncture was advocated by the majority.

This valuable work concludes with a description of Mr. William Adams's ingenious operation for the improvement of adherent strumous cicatrices.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

ŒTTLI'S MILK FOOD.

THIS fairly deserves the name of "milk" food. It contains more than 9 per cent. of protein substances, rich in nitrogen, which must be classed as true flesh formers, combined with nearly 6 per cent. of ready-formed fat, mostly in the form of butter-fat; and therefore palatable and readily digestible. Nearly one-half of the sample is soluble in water. A portion of this solution is, of course, the sugar which has been used in the manufacture of the food, but other parts consist of soluble albuminoid matters and other easily digestible substances. Starchy matters are of necessity present, as they ought to be in a food of this kind; but care has been taken to cook them thoroughly beforehand, so that the solubility and digestibility have both increased. The food is a very good sample of its class. It is prepared by the Swiss Milk and Food Company; and the sole agents are Messrs. R. Lehmann and Co., 106, Fenchurch Street, London.

PURE ALPINE SWISS MILK.

WE have examined a sample of this product of the First Swiss Alpine Milk Exporting Company, and find that it consists of concentrated milk perfectly free from any admixture of cane sugar or glucose, so often used to increase the specific gravity and apparent consistence of condensed milk. As regards actual concentration, the sample is rather more concentrated than most of those which are now in the market. It contains rather more than three times the proportion of non-fatty milk solids which are found in ordinary good milk; but the most notable feature in connection with the analysis is that the proportion of fat (butter) is high. Generally speaking, unsweetened milk, when condensed, loses fat considerably, and the resulting product is similar to what would be obtained from skimmed milk, rather than from whole milk. In this, however, we find that the reverse is the case, and that the concentration has been conducted in such a way that the butter-fat is high in proportion, showing that the milk itself was originally rich, and that no fat has been lost nor destroyed during the process of condensation.

The sample is put up with special care in glass, so that all possible risk of contamination by metallic impurities is avoided.

In all cases where a pure unsweetened milk is required for dietetic purposes, this brand should be tried.

THE Duke of St. Albans has promised to preside at the dinner of the Samaritan Hospital to be held on Tuesday the 16th May.

SALFORD.—During the last quarter of 1881 there were 1,075 deaths registered in Salford. Of these, 547, or more than one-half, were less than five years old, and 318, or 30 per cent. were under twelve months. The death-rate was equal to 24.2 per 1,000, being the lowest death-rate for the December quarter recorded in Salford for the last ten years. Of the total deaths, 6 were from small-pox (16 cases of which were known of); 9 from measles, 24 from scarlet fever, 5 from diphtheria, 18 from whooping-cough, and 32 from diarrhœa. Thus to the seven more familiar zymotic diseases 172 deaths were referred, as compared with 167 in the previous quarter. The zymotic death-rate was equal to 3.9 per 1,000, against 6.4 in the corresponding quarter of 1880. The increased infantile death-rate is accounted for by the excessive fatality of whooping-cough, which accounted for the deaths of 77 children, while the average for the previous ten quarters was only 27.0. Seventy deaths, or 6.5 per cent. of the total mortality, were returned as uncertified.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1882.

SUBSCRIPTIONS to the Association for 1882 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, APRIL 22ND, 1882.

THE LAMSON CASE.

THE plea of insanity which has been set up on behalf of George Henry Lamson since his condemnation to death, and which has been earnestly pressed on the consideration of the Home Secretary by the President of the United States, must have caused surprise to all who had attentively followed the trial of this remarkable criminal. For amongst the painful impressions left by that trial upon the minds of those who were present, or who mastered the published reports of the evidence, was the conviction that here at least was a case in which no doubt could arise as to the mental soundness of the convict. No suggestion had been made by the defence that he was not, to the fullest extent, responsible for his actions; and nothing in his appearance or demeanour had given the most distant indication of eccentricity or disorder of mind. The motive of his crime was ostensible enough, and the manner of its execution betokened coolness and calculation. When, therefore, Mr. Justice Hawkins passed sentence of death upon Lamson, and characterised his crime as "cruel, base, and treacherous", it was believed that the case was practically at an end; and it was certainly not anticipated that Sir William Harcourt would be called on to decide on the sanity or insanity of the convict. But few persons sentenced to death in this country are left to their fate without some effort being made to obtain a commutation of the capital punishment; and it was, therefore, foreseen that the Home Secretary would be petitioned to spare Lamson's life, but it was thought that any petition presented would be founded on the alleged inconclusiveness of the scientific evidence adduced at the trial, and not, certainly, on the mental unsoundness of the convict.

All such anticipations, however, have been falsified; for, in the application made for the clemency of the Crown, it seems to be admitted that Percy Malcolm John died of a poisonous dose of aconitine administered to him by Lamson; while it is maintained that Lamson was, at the time of administering the aconitine, so disordered in intellect as to be unaccountable for what he did. A large mass of documentary evidence in support of this theory, collected in this country and in America, has been already submitted to the Home Secretary, and a further contribution of testimony to the same effect will be placed before him almost immediately. It is sincerely to be hoped that this new testimony will enable Sir William Harcourt to arrive at the conclusion that Lamson was not in the possession of a reasonable judgment and controlling will when he destroyed his brother-in-law; but, at the same time, it must be admitted that the evidence which has been published up to this time does not justify any such belief, nor apparently warrant an interference with the course of law. That evidence, accepting it fully and simply as it stands, establishes two facts: that Lamson is a member of a family in which there have been several instances of insanity; and that he was addicted to the use of narcotics, which he had at times taken so largely as to induce delusions, hallucinations, and delirium. But, as regards the first of these facts, it must be remembered that there are but few families in any civilised country in which instances of insanity might not be discovered; and that thousands of men, whose sanity is never called in question, are descended from ancestors much more deeply tainted with madness than were those of

Lamson. An inherited predisposition to insanity is not to be predicated of individuals, however mad their progenitors may have been, unless the individuals themselves show signs of defective mental equilibrium or disorder of the nervous system; and so, in connection with criminal responsibility, a proof of insanity in ancestors is only of value as corroborative or interpretative of existing indications of mental disease. These indications, it may be argued, were not wanting in Lamson, but may be recognised in the fantastic ideas and extravagances of conduct which several witnesses describe. The toxic influence, however, of the drugs of which he partook is in itself adequate to explain his preposterous statements and wild behaviour; for morphia, like alcohol, if taken in sufficient quantity, will disturb the action of any brain, whatever its hereditary tendencies may be; and the utmost that can be said of Lamson's supposed inherited taint is, that it perhaps disposed him to contract the morphia habit, and that it aggravated the effects of that habit.

As regards the second fact alleged in Lamson's favour, that he had, by the use of narcotics, weakened his intellect and paralysed his will, it must be observed that irresponsibility for criminal conduct cannot be admitted in anyone addicted to such drugs, unless a continuous state of mental disorder, abolishing the knowledge of right and wrong at the time of committing the act, has been set up by them. The delirious excitement which exists while they are still circulating in the blood and poisoning the nerve-centres, does not confer irresponsibility any more than drunkenness does. It is only when a mental state analogous to delirium tremens, or mania *a potu*, or chronic alcoholism, has been induced by narcotics—a state which will not at once terminate when their use is abandoned—that insanity of such a nature as to exempt from punishment can be said to exist. Now, did insanity of this kind exist in Lamson? We regret to say that there is, up to this time, no certain proof that it did. The delusions, restlessness, prostration, and oddities of conduct, of which his friends speak, seem to have occurred while he was actually under the influence of narcotics; and his friends, indeed, seem to have regarded him as a man abandoned to a bad habit, and not as one bereft of reason. No attempt seems to have been made to place him under restraint in a lunatic asylum; and immediately before the tragedy at Wimbledon he was living alone in London, and under no kind of supervision.

It is probable that popular notions as to the effects of the habitual use of narcotics on the human organism are greatly exaggerated. Sir George Birdwood maintains that opium in moderation is not only innocuous, but beneficial to East Indians; and instances might be quoted in which longevity and high intellectual activity have been shown to be compatible with an excessive consumption of this drug in Europeans. It cannot be questioned, however, that morphia, taken in the manner and amount in which Lamson took it, is pernicious and demoralising. Atropine, which he appears to have combined with the morphia, ought, to some extent, to have antagonised its effects; but it is quite possible that two such alkaloids, taken together for a long period, might be more injurious to health and mental integrity than either of them taken alone. We have not recorded facts sufficient to justify any authoritative statement as to the consequences of the protracted employment of a mixture of morphia and atropine, and far less are we in a position to say what might be the result of the habitual use of a mixture of these with aconitine. The Rev. Mr. McElroy says Lamson told him that he used atropine, but preferred aconitine, which, as far as we are aware, has never hitherto been taken by any one habitually in the manner of morphia, or in order to secure agreeable sensations. But without speculating on the possible effects of the continuous use of certain drugs or combinations of drugs, the important point seems to be to determine what was Lamson's mental condition at the time of committing the crime of which he has been convicted, as far as that is at present known to us. And in the evidence bearing on this point, we certainly do not recognise a description of the dreamy, retiring, contemplative mood of the habitual opium-eater on the verge of insanity, nor of the mental confusion, or weakness, or delusions of the lunatic. Lamson was vigorous, ingenious, and astute in attempting to raise money to meet his pressing wants immediately before the murder. Mr. John Law Tulloch, medical student, testifies that on the 3rd of December, the day of the murder, Lamson acted so strangely at the Eyre Arms, that one of his friends asked him if he had just escaped from a lunatic asylum, but Lamson's condition at this time did not evidently impress Mr. Tulloch with his incapacity to transact business, for he cashed a cheque for him; nor with his inability to take care of himself, for he permitted him to start for the Continent unaccompanied. Mr. William Tulloch, an accountant, also testifies that at this time Lamson was so strange and excitable that five friends who saw him were inclined to think him mad; but he supplies perhaps the clue to Lamson's strangeness and excitability by mentioning that he saw him use the hypodermic syringe that day. As Mr. Bedbrook has not in the witness-box, nor since, alluded to any striking peculiarity in Lamson's behaviour, we may conclude that there was nothing in it to attract his attention. Nay, we may infer that he noticed nothing suggestive of insanity in his guest, from the fact that he swallowed a capsule which he handed him and permitted his pupil to swallow another. Lamson's conversation with Mr. Bedbrook bore no trace of mental bewilderment, agitation, nor of delusions, but dexterously led up to the criminal act, for which he had come prepared, to wit, the administration of the poison-charged capsule to his afflicted brother-in-law. No one reading Mr. Bedbrook's account of what took place at his house on the 3rd of December can detect in Lamson's words or acts any symptoms of mental aberration, nor of the immediate pernicious influence of narcotics. His victim certainly did not think him insane or narcotised, for, while he remarked that he was not looking well, he said nothing that pointed to the faintest suspicion of his sanity or sobriety.

It is suggested that Lamson, having an unreasonable faith in the efficacy of aconitine, had come to use it recklessly, and, that depraved and weak-minded in consequence of his indulgence in morphia, he gave a poisonous dose to his brother-in-law with culpable heedlessness, but without homicidal intention. Dr. Volkin, who was associated with Lamson in a hospital at Bucharest for six months during the Russo-Turkish war, asserts that he administered aconitine to a reckless and unwarrantable extent, and that he, Dr. Volkin, had to remonstrate with him on the subject. It would be interesting to know what is precisely meant by administering aconitine to a reckless and unwarrantable extent, and what were the results of this kind of practice; and it is impossible to avoid the criticism that something more than remonstrance was needed on the part of Dr. Volkin when he saw such a hobby or system of practice being pursued by one, whom, he now says, he knew at the time to be of unsound mind, and irresponsible for his conduct. But the answer to the suggestion that Lamson gave the aconitine to Percy Malcolm John recklessly, is that he gave it surreptitiously. If he were administering a remedy which he believed to be beneficial, what necessity was there for concealment any more than with regard to the quinine which he had openly prescribed for his brother-in-law? No one can doubt that the aconitine was lodged in the capsule, which he filled up with sugar, and induced his brother-in-law to swallow in the presence of Mr. Bedbrook, as an innocent illustration of a way of avoiding nauseous tastes; and no medical man can doubt that the quantity of aconitine found in the body of Percy Malcolm John could have been administered with only one purpose, and that a murderous one. The most rash and ignorant tyro—and Lamson was not a tyro in the use of this drug—could not have administered such a dose as a medicine. But, again, if this dose of aconitine had been recklessly or accidentally given, why was not the truth avowed at once, why was the attempt made to conceal its administration, at the risk of such an inevitably disastrous misinterpretation of the act, in the event of its being proved and brought home to its performer?

Poisoning is by no means a common form of homicide amongst the insane, and is, indeed, almost inconceivable as a lunatic crime, except as the result of a delusion. But when poisoning was resorted to by a deluded lunatic, there would assuredly be other evidences of the exist-

ence of the delusion, either before or after the act. The poisoning would not stand alone as the expression of the delusion. Prior to it morbid suspicions would betray themselves, or after it there would come a justification of it, or unmistakable tokens of mental perversion. But in Lamson's case there has not been adduced any evidence of delusions involving Percy Malcolm John, or of permanent delusions of any kind; nor have indications been afforded of an insane attitude towards the crime since its perpetration. When found guilty, the prisoner merely protested his innocence before God, and it is not understood that he has made any further statement since. Dr. Coghill hints that he may have given way to morbid impulses; but, surely, any theory of morbid impulse is untenable, in view of the elaborate preparations made for the crime, and for flight after its commission.

We should rejoice should Sir William Harcourt, guided by the new evidence which is to be laid before him, see his way to extend the prerogative of mercy to this unhappy man, concluding that his powers of self-control, perhaps congenitally feeble, had been sapped by the exposure and privations which he underwent when serving in the East, and by the drugs to which he has addicted himself; but the plea of insanity in cases of murder requires to be jealously guarded, in order that it may be respected when righteously urged in opposition to the hasty conclusions of scientific ignorance and legal prepossession; and we have thought it our duty, therefore, to point out that, as yet, no convincing evidence of Lamson's mental unsoundness has been brought forward.

ON THE MANAGEMENT OF INHALATION OF CHLOROFORM.

In recent communications to the Academy of Medicine in Paris, M. Gosselin has asserted his opinion that chloroform, even if slightly impure, has no serious drawbacks; and that it does not cause death when it is properly administered. In his last communication, he pointed out what is, in his opinion, a proper method of administering chloroform.

There are, he said, three principal methods. The first is, to cause it to be inhaled in very small quantities at a time, but continuously. This is the plan employed especially for parturient women; sensibility is blunted without agitation, but sleep is not complete, and there is not true anæsthesia. Secondly, chloroform may be administered from the first in great abundance, and continued without interruption. When this method is tried experimentally on animals, the subject first moves about in an agitated manner, then falls asleep, and at the end of ten or twelve minutes falls inert, without pulse or respiration. This condition is often only one of apparent death; but sometimes death is real. What has happened is this; the blood of the animal has received too much chloroform at one time; the anæsthetic vapours have excited, and then paralysed, first the brain, then the spinal cord, and finally the medulla oblongata; the real or apparent death results from the suppression of the influence of the last-named organ on the movement of the heart or on respiration. Thirdly, chloroform can also be given in progressive or intermittent doses. This is the method which M. Gosselin has studied and perfected during the last twenty years. It consists in causing a certain number of inspirations of chloroform mixed with air to be taken, followed by two of pure air; and this is repeated according to the following formula :—

Chloroform with Air	6	7	8	8	8	8	10	10	10	10	10	10	4	4
Pure Air	2	2	2	2	2	2	2	2	2	2	2	2	2	2

It is generally sufficient to give 113 inhalations of chloroformed air and 28 of pure air, as above, to produce complete and safe anæsthesia. Administered in this way, the chloroform is partly eliminated by the respiratory passages. On the other hand, while alternate inspirations of anæsthetic air and pure air are taken, the nervous centres gradually become accustomed to the chloroform, and are enabled to receive a somewhat larger dose without inconvenience. There is no agitation; vomiting is very rare; and anæsthesia is produced without trouble. By proceeding in this way, and at the same time properly observing all contraindications, it may become possible to see no more deaths from chloroform.

In the discussion which followed, M. Labbé said that for nearly a year he had modified his method of giving chloroform in a manner different from that of M. Gosselin, and had obtained nearly similar results. The agitation at the outset had been diminished; vomiting and consecutive disturbance had become less frequent; and yet, instead of progressively increasing the quantity of chloroform, and causing frequent inspirations of pure air, he gave chloroform in very small doses, but continuously, so as to avoid the reduction at each moment of the quantity of chloroform mixed with the air. He poured from ten to twelve drops of choloroform at the time on to the cloth, and renewed this dose as soon as the linen dried. He never voluntarily interrupted the inhalations of chloroform, only taking away the cloth to again pour on it ten or twelve drops of the anæsthetic. He believed that he was thus able to make use of all the chloroform employed, without ever subjecting the patient to those large doses which endanger life. He had thus been enabled to perform operations lasting from twelve to fifteen minutes, only using from a drachm to a drachm and a half of chloroform. He had even succeeded in keeping the patient more than an hour in a state of complete anæsthesia during ovariotomy, by the use of only six drachms of chloroform. M. Labbé stated that he found support for this view in the researches of M. Paul Bert on the working dose of chloroform. As M. Bert has demonstrated, chloroform does not act by the quantity of it respired, but by the proportion of it in the air inspired. There is, he said, more chance of keeping up the proper dose (which is not yet determined for the human subject) by employing very small quantities continuously. Consequently, there is less danger of overstepping the boundary between the anæsthetic dose and the fatal dose.

M. Verneuil said that, at the outset of the discussion, when the impurities only of chloroform were in question, he affirmed that the chloroform obtained in Paris was generally pure; and that the defects in anæsthesia were, as a rule, not due to the chloroform, but to a bad method of administering it. M. Gosselin had but, as it were, reasserted M. Sédillot's aphorism, that chloroform, if properly administered, never causes any accidents. M. Verneuil considered M. Gosselin's opinion to be dangerous. Even the purest chloroform might cause death. M. Verneuil went on to say that he had administered chloroform for the last thirty years. During twenty-nine and a half years, he was successful with the ordinary methods; but some months since he lost a patient. He conscientiously believed that in this case the death was not to be attributed to a method which he would use on the person who was dearest in the world to him. M. Gosselin's theory on intermittences in the administration of chloroform he held to be acceptable in some points; but this theory would tend to formulate a simple algebraic equation: anæsthetic chloroformisation = 113 respirations of chloroform + 28 respirations of pure air. It was difficult, M. Verneuil thought, to introduce mathematical calculations on a matter of which so little was known as the proper dose of chloroform to be given to the human subject. M. Gosselin was of opinion that chloroform was constantly eliminated by the kidney, by respiration, and by the skin; but nothing was known of its elimination by the kidney and the skin. He was well aware that death might happen at the outset of the administration of the anæsthetic, when the blood was not yet saturated with the chloroform; and he also knew that patients might die whilst in a condition of complete chloroformisation, or ten or twelve minutes afterwards. It was impossible to make a comparison of chloroformisation according to the operation, and according to the region in which it is performed. Therefore M. Verneuil thought that chloroformisation should not be considered a simple matter, within the comprehension of everyone, and capable of being expressed in an algebraic formula. The saying of Robert was always true: Whenever any anæsthetic agent whatsoever was introduced into the animal economy, so as to rapidly decrease the motility and sensibility of the patient, the person operated on ran the greatest risks. It was true, concluded M. Verneuil, that

the manner of administration had reached perfection; but the chloroform and the patient himself must always be taken into account, and this element was left out of sight in M. Gosselin's formula.

We are desirous to invite discussion rather than to offer criticism of these views of our eminent French colleagues, and therefore for the moment abstain from any comment.

RESPONSIBILITIES OF PRISON SURGEONS.

We note, with pain and regret, that an attack—and as it appears to us on the face of the published facts, and the result of the inquiries which we have made on the subject, a most unjustifiable attack—has been made upon the medical officer of Her Majesty's prison at Chester, in respect of the death of a prisoner who had recently been confined in the gaol, under a magistrate's sentence, for a short term of imprisonment. We gather, from the evidence, that this man had been sentenced to a month's imprisonment with hard labour; on being examined, however, by the medical officer, this gentleman observed symptoms which indicated irritability of the heart, and spasmodic distressed respiration coincident with it. Knowing these symptoms, and having examined the man, the medical officer at once reported that he was not, in his opinion, a fit subject for hard labour, and recommended that this part of his sentence should, on medical grounds, not be carried out. The hard labour was therefore, in virtue of the report of the medical man, not enforced; and the fact that it was not imposed was entirely due to the diagnostic skill and the intelligent humanity of the medical officer. There was nothing in the prisoner's condition, during the remainder of his stay in the prison, to indicate any further aggravation of his symptoms, nor any condition calling for active medical treatment. Accidentally, however, it happened that it was desirable to remove one or two of the prisoners from the cells to the infirmary, in order to make room for others. Having regard to the condition of the man in question and to the fact that hard labour had not been enforced in virtue of the medical report, he was selected, with the medical officer's approval, with two others, and sent to the Infirmary; the reason being, not that there was any change in his symptoms or condition which required hospital treatment, but that, as three persons had to be removed from the cells, he was thought to be one of those who might with the least inconvenience be so removed. He had no attack of illness while in the infirmary, and his condition did not then call for any medical treatment; but he had the advantage of rest and quiet, so far as his irritable disposition allowed him to avail himself of such an opportunity. He left the prison apparently no worse than when he came in, but, on the contrary, probably rather better, but still very subject to the cardiac attacks incidental to the condition of the heart, which make any man's life under such circumstances (as it is quite unnecessary to state to our medical readers) a matter of most uncertain tenure, and liable at any moment to sudden termination. He was seen at 12 o'clock on the day of his discharge from the prison by the medical officer, who found him in his usual condition, but having a somewhat irregular pulse. He moved about very freely all the morning, and his condition was not one to inspire any special uneasiness or alarm at the time; and, on inspection, there was nothing in his state to suggest any immediate cause for anxiety, or any reason for exceptional measures. This man had the power and the habit of rapidly accelerating at will the heart's action, and inducing a condition of great cardiac irritability and excitement, with coincident faintness; and the evidence goes to the effect that he was in the habit of doing this, either to excite pity and obtain stimulants, or as a means of displaying personal irritation. These attacks of sudden faintness, which, as we have said, he seemed to have the power of bringing on at will, were no doubt extremely injurious to himself, and might obviously at any moment end in death. On leaving the infirmary, he was assisted down the steps, which were somewhat slippery; and, when being put into the conveyance to be taken to the workhouse, he brought on one of these attacks of excitement and faintness, and asked for brandy, which was given him in consequence. He arrived at the workhouse in a state of considerable exhaustion, and shortly afterwards he died.

It is not a little surprising that any sort of charge should be founded upon such circumstances; and it is certainly in the highest degree discouraging to medical officers, who perform very difficult duties under circumstances requiring the exercise of discretion tempered with humanity, and often making serious calls on the one hand on their judgment, and on the other hand, on their kindness, that in such a case as this the action of the medical officer, which was obviously dictated by a combination of sound judgment and humanity, should not only be called in question, but that it should be attacked in language which would be unfitted almost for any occasion, and has certainly no justification whatever in the circumstances stated. Medical officers of prisons have much responsibility, and important powers. In this case the responsibility was accepted, and the power was exercised in the modification of the sentence which the magistrate had imposed. The man was freed from hard labour, which, in his condition, might prove highly injurious to him, and he was allowed rest throughout the whole term of his imprisonment. This would certainly, under the circumstances, be the most judicious form of treatment. To make the medical officer responsible for the fact that in one of the attacks of angina, to which he was subject, the man died shortly after removal from the prison, would be inexcusable in a layman; but it is still more so where those who exercise judgment in the matter have preliminary medical knowledge. It is really an abuse of language of the most grave kind to refer to such a death as being "brought about by unnatural means;" and we can only conclude that those who have used such language in the case have either not investigated it at all, or have been misled by partial and incorrect statements and imperfect knowledge of the facts.

It is an odd way of supporting the medical officer in the discharge of his duties, to suggest that in such a case it is not he who is to blame, but some occult personages who may be supposed to have fettered his judgment, and who have impeded his action. This is only a thin veil for disguising an altogether undeserved censure. As a matter of fact, after carefully examining the whole of the details, we can see nothing else in this case but an ordinary death from angina pectoris, occurring in a man who had evidently, for a long time, held life by a slender thread, and had put himself several times in the way of that sudden termination to his career which always threatens a man suffering from this insidious and formidable disease.

THE WORK OF THE METROPOLITAN ASYLUMS BOARD.

A RECENT speech of Dr. Fowler, at a meeting of the City of London Union Guardians, is a valuable contribution to the discussion on the action of the Metropolitan Asylums Board. He points out what everybody appears to have forgotten, that, if the sick poor are to be more kindly treated than they were under the old *régime*, their treatment must necessarily be more costly, especially if the medical superintendents of the sick asylums are liberal in the use of iced champagne, a luxury which probably a small proportion of those who pay the rates could procure for themselves and their children. Although this, however, explains some part of the expense, that part is but a comparatively small part. The main portion of the expense complained of arises from the fact that the Asylums Board hospitals have been used, not only as hospitals for paupers, but as sanitary hospitals. The responsibility for this, moreover, does not rest with the Asylums Board, who are by law compelled to take whomsoever the boards of guardians may choose to send. The Asylums Board, having no power of refusal, are entirely at the mercy of the guardians, who, notwithstanding, complain loudly of the expenditure of which they themselves are the cause.

Let the guardians confine their orders of admission to the Asylums Board hospitals to the actual pauper, and the expenditure will diminish. Had they done this in 1871, there would have been no need for the Hampstead site as a small-pox hospital; and, consequently, all the litigation and expense which has followed would have been saved.

Had they done the same thing last year, there would have been no need for Darenth, and no need for the ships about which there has been so much foolish criticism. In the general *mêlée*, miscalled government, carried on in the metropolis by guardians, vestries, and boards of works, it was not perceived that, although there are scores of sanitary authorities within the metropolitan area, not one of them had made any provision for epidemic disease. When, therefore, in 1871, the general epidemic of small-pox appeared in the metropolis, concurrently with its existence in England and the continent, as one of the minor results of the Franco-German war, London was wholly unprepared. What was the duty of scores of sanitary authorities proved to be, as is very often the case, the duty of no one. At this time, the pauper small-pox hospitals were approaching completion, and the vestries, having made no provision for small-pox, left the work to the guardians, and the guardians unfortunately did it. Their duty was with paupers, and they might, and we think should, have refused to have anything to do with any person not receiving relief from the rates. Moved by whatever cause, they did not only their own work, but the work of the vestries; or, to put it more correctly, they took advantage of the law to compel the Asylums Board to do this work, thus practically making the Asylums Board, as regards epidemic disease, the pauper authority and the sanitary authority. Having done this, they turn round and cry out about the expense which their own action has necessitated. What sort or kind of reason is there in this? The truth of the matter s in a nutshell. Just before the completion of the Asylums Board Small-Pox Hospitals at Homerton and Stockwell, commenced the severest small-pox epidemic of the last fifty years; since that time there have been two other severe epidemics, and the Asylums Board did their best to deal with them. The consequence was, a larger bill than the public had been accustomed to, slightly increased, no doubt, by the kindly medical superintendents, who more or less freely ordered iced champagne. Hence the expenditure; *hinc illæ lachrymæ*.

The way to get rid of the small-pox expenditure is to get rid of the small-pox. To do this is the work of the sanitary authorities and the guardians, not the work of the Asylums Board. All that the latter board can do is to admit the cases sent to their hospitals. It is needless to say that, if the metropolitan population had been efficiently vaccinated, there would not have been any small-pox epidemic. The guardians, then, who are responsible for the efficiency of the vaccination, are responsible for the results of its inefficiency. From all which it appears that the cause of the much complained of expenditure of the Asylums Board lies with the persons who complain.

IT is worthy of record that, during the month of March last, only one death was registered in the whole of the township of Pontefract, which, according to the recent census, possesses a population of 6,335 persons.

DR. E. SYMES THOMPSON will deliver a course of lectures at the Gresham College, Basinghall Street, on the subject of "The Liver and its Difficulties", on April 25th, 26th, 27th, and 28th. These lectures, which are free to the public, commence at six o'clock each evening.

WE are pleased to hear that Sir Erasmus Wilson maintains the improvement of which we were able to report the commencement last week; and it may now be hoped that, in a short time, he will be able to resume his more active duties.

IN the last report on Brixton prison the medical officer states that diarrhœa, which had for many years assumed a chronic form, has now virtually disappeared, there being only 52 cases recorded during the year, the lowest number for the past twenty-seven years.

A BILL has been introduced into the New York State Assembly, ordering all persons selling poisons of any nature to put up the same in a corrugated bottle or box, with a printed label giving the antidote in English and German. In case of failure to comply, the wholesale or retail dealer is declared guilty of misdemeanour.

THE memory of a remarkable and devoted woman will be perpetuated in the manner she herself would certainly have approved, by the "Sister Dora" Convalescent Home, of which the foundation stone was laid on Saturday at Milford, near Stafford, by two of the grandchildren of the late Bishop Selwyn.

A noticeable feature in the mortality statistics of the Middlesex and Hertfordshire combined districts, recently reported on by Dr. C. E. Saunders, is the large number of deaths from cancer. During the past year no fewer than 68 fatal cases were attributed to this disease, against 44, the mean of the preceding six years.

DR. BARCLAY, Senior Physician of St. George's Hospital, retires this week, by lapse of time, from the office which he has long held. For the office of Assistant-Physician, which will thus be rendered vacant by promotion, Dr. Ewart, whose Gulstonian Lectures are now appearing in our pages, and Dr. Isambard Owen, are candidates.

AT the meeting of the Royal Medical and Chirurgical Society on the 28th ult., Mr. Bryant described a new operation for excision of a stricture of the descending colon. This operation, which Mr. Bryant had only once performed, was, we learn, repeated on the 15th instant by Mr. John Marshall at University College Hospital. The operation itself was successful, but the patient subsequently succumbed.

IN accordance with M. de Lesseps's proposition, the Paris Academy of Sciences has appointed a commission to examine the system of quarantine practised in the Suez Canal. The members of the commission are MM. Wurtz, Pasteur, Bouley, Baron Larrey, and M. de Lesseps. It is reported that M. Bouley will energetically oppose the views of M. de Lesseps, and that he will be supported by MM. Wurtz and Pasteur.

ON Tuesday, the 11th instant, the external iliac artery was ligatured at the Queen's Hospital, Birmingham, by Mr. Bennett May. The case was one of aneurysm of the common femoral, extending above Poupart's ligament; and the ligature used was a piece of common catgut, tied as tightly as possible. The operation was done antiseptically; and, within a week, the wound was well healed, and the aneurysm had become solid and much contracted.

AT the consultation at St. Bartholomew's Hospital on Thursday last, Mr. Savory showed a man, about eighty years old, who had a small epithelioma of the lower lip. A tumour had been removed from this situation twenty-six years ago, and no recurrence took place for twenty-four years. As Mr. Savory observed, though epithelioma of the lip is the least malignant form of that disease, yet it is rare to have an opportunity of seeing a case in which operation has procured so long an immunity.

M. PASTEUR has presented to the Paris Academy of Sciences an instrument invented by M. Burq, which he calls the "Vaccinator". It can be used without causing either pain or loss of blood. It collects and preserves, in a dry form, vaccine, especially human vaccine, on small metallic needles; sixty at a time receive the vaccine, which suffices to vaccinate fifty people. The Medical and Surgical Section of the Academy is commissioned to make a report on M. Burq's instrument.

THE Duke and Duchess of Edinburgh this week visited the British Hospital in Paris founded by Sir Richard Wallace. They were received by the doctors, the Honourable Alan Herbert, M.D., and Dr. Pratt, who took them through the sick and convalescent wards, the infirmary, kitchens, and a large stting-room, where patients who are not confined to bed can read books and journals. Sir Richard Wallace wishes this establishment to be known as the British, and not the English Hospital. It is one of the most charmingly and scientifically constructed hospitals in Europe, and is conducted with admirable care, kindness, and skill.

THE QUEEN AT MENTONE.

We understand that Her Majesty, on leaving Mentone, sent a sum of 4,500 francs to the local charities, and many presents were distributed by her command among those who had contributed to her comfort. Dr. Henry Bennet received, through Sir Henry Ponsonby, a valuable gold medallion signet, with the royal initials and arms, and a gracious letter, expressing Her Majesty's thanks. Since the Queen's departure, telegrams have been received at Mentone, sent from Windsor at Her Majesty's command, which signally indicate her continued interest in her late abode—inasmuch as they contain a request to be daily informed of the state of the weather at Mentone. Her Majesty's departure from Mentone has been the signal for a break up of the season. Most of the visitors not occupying houses are leaving: some to return home, and some, the more prudent ones, to explore other health-stations on the coast, or to travel in Italy. After spending the winter on the Mediterranean shores, it is imprudent to return to our climate before the middle of May.

DEATH OF CHARLES DARWIN.

The eminent biologist, Charles Robert Darwin, LL.D., F.R.S., died in the 74th year of his age, at his residence Down House, Down near Orpington, Kent, on Wednesday, April 19th. His celebrated work on Evolution was published in 1859. The deceased received many honorary titles from British and Foreign Universities and learned societies, but will be remembered for generations as the chief expositor of that most important theory which traces the origin and development of species to pre-existing forms. He was a grandson of the celebrated naturalist Dr. Erasmus Darwin.

THE SUPPOSED POISONOUS EFFECTS OF BORAX.

Mr. W. R. Gade writes to the *Times*, to warn people against the use of boracic acid as an antiseptic with articles of food, such as milk. With reference to Professor Barff's proposed boro-glyceride, Mr. Gade relates his experience in Sweden, where he applied boracic acid to milk during warm weather, and succeeded perfectly in keeping it sweet. After using this milk for a short time in hot weather, two of his young children became languid and drowsy, with a failing appetite. Although this was at first attributed to the weather, they did not improve; a doctor was therefore called in, who, on learning the circumstances, pronounced them being slowly poisoned with boracic acid, which, he stated, was "anodynous". The action of boracic acid has not been much investigated; but its effects have been stated to be diuretic, antilithic, emmenagogue, and mildly anodyne. It has hardly ever been used internally in this country; its use having been chiefly directed to external applications, especially to aphthous ulceration of the mouth in young children, in which case it acts probably as a destroyer of minute organisms. Considering how freely it has been used for such a purpose without any bad effects being noted, it cannot be a poison of much strength. At the same time, the fact of its being a germicide is undeniable, and it may therefore not be entirely inert in man; while the case above-mentioned seems to point out the advisability for caution in its use, until further inquiry shall prove it to be innocuous.

ROYAL MEDICAL BENEVOLENT COLLEGE.

The twenty-first festival dinner of the above named institution was held on Wednesday evening at the Langham Hotel; Mr. Marshall, of University College Hospital, presiding in the regretted absence, through illness, of Sir Erasmus Wilson. In proposing "Success to the Royal Medical Benevolent College", he said, since its opening by the Prince Consort, the institution had been again and again extended. A chapel had been built; and, owing to the munificent generosity of Sir Erasmus Wilson, the benefits of the charity had been greatly augmented. During its existence, fifty-six aged pensioners, most of them females, had been received into the asylum; and 1,380 boys had passed through the school. There were now twenty-four pensioners, formerly members of the medical profession, or dependent thereon; fifty foundation scholars, orphans of medical men; and 150 boys who were receiving an admirable education for a smaller sum than they would have to pay elsewhere. Examinations were held by the Oxford and Cambridge Board, and scholarships and free admissions to medical schools were offered. One of the former pupils had won the Victoria Cross. Attention had been paid to sanitary improvements and the erection of various buildings for the treatment of boys when sick, and the strain on the funds had been great. A list of subscriptions and donations was announced.

DEATHS UNDER ANÆSTHETICS.

We have to record this week the occurrence of two deaths during the use of anæsthetics, both of which occurred at Guy's Hospital. The first of the deaths occurred under chloroform. The patient was a woman aged 38, who had sustained a fracture of the leg. Some little difficulty was encountered in reducing the fracture; and, at the woman's earnest request, chloroform was administered, the heart having been examined, and no indication of disease having been found. It was given on an ordinary open flannel inhaler, a few drops at a time; and the patient had inhaled it for about two minutes, when both pulse and respiration ceased. Every effort to restore the patient was made, but without success. At the *post mortem* examination, the lungs were found healthy and free from congestion; but the heart was surrounded by a quantity of adipose tissue, which intruded into the muscular substance of the organ in places. The liver was very fatty; the kidneys slightly. The brain was remarkably wasted, so that the sulci between the convolutions were unusually wide, and the membranes were much thickened. This condition of brain resembles very closely the atrophy so commonly met with in chronic alcoholism; and, if this conjecture be correct, it may serve also in some degree to explain the sudden death, for patients who have been accustomed to large quantities of alcoholic stimulants are always bad subjects for the anæsthesis of chloroform. An inquest was held on the case, and a verdict was returned that the deceased expired under chloroform properly administered.—The other death occurred during the administration of ether. The patient was a young man, who was about to be operated on for empyema. When he had been brought under the influence of the anæsthetic, he was rolled over on to the sound side. Almost immediately, great difficulty in breathing set in, pus began to well out of the mouth, and he rapidly died—suffocated, apparently, by the accumulation of pus in the air-passages. At the *post mortem* examination, in addition to the pus in the pleura, numerous fistulous communications were found between the bronchi and the pleural cavity. This case seems to us to furnish a needed warning in relation to the use of ether during operations for empyema. Ether, as was shown by the Committee of the Royal Medical and Chirurgical Society, exerts its lethal action first on the respiration; and it also, as is well known, causes a greatly increased accumulation of mucus in the throat. Both of these conditions must operate most unfavourably on a patient already deprived of all use of one lung; and, when such a patient is turned on to the healthy side, not only is the action of the lung on that side still further embarrassed, but there is a great probability that pus will find its way, by fistulous openings, as happened in this case, from the pleural cavity into the trachea; and there, partly by its mechanical action, and partly by exciting spasm of the glottis, determine a fatal asphyxia.

SMALL-POX IN SUFFOLK.

A somewhat serious outbreak of small-pox has occurred at Barrow, a village in West Suffolk. The disease appears to have been imported from Essex by a son of the publican of the village; and, as the nature of the illness of the persons who caught the infection from this youth was not at first recognised, the disease got a firm hold before any precautions were taken to prevent its spread. Under the direction, however, of the health-officer, Dr. Scott Kilner, a system of domestic quarantine has been adopted, thorough disinfection practised, a temporary hospital fitted up for the reception of the patients, and a

special nurse sent down from London. The disease unfortunately still continues, eight fresh cases being reported last week, and two deaths. Altogether, upwards of thirty cases have occurred, and three deaths. It is hoped that the disease has now been mastered.

MILD SCARLATINA.

IN his last report on the health of Hastings, Mr. Knox Shaw mentions as a fact worthy of remark that, out of 77 cases of scarlet fever which came to his notice last year, there was not a single death. As Mr. Shaw observes, the majority of epidemics lately described have shown a mortality of from 5 to 10, or even 15 per cent.; but the mortality from scarlet fever, calculated upon the number of cases during the whole year in Hastings, would reach the extraordinary low rate of 1.93 per cent.; and as, probably, there were some cases existing, but not reported, the real rate of mortality would be lower still. A somewhat similar experience is reported by Mr. Fowler in his report on the Epping Rural District. He states that upwards of 70 cases of scarlatina occurred during 1881, but that the disease must have been of an exceptionally mild type, since no precautions whatever appear to have been taken; the children were allowed to mix together, and, in some cases, even allowed to attend school in an infectious state.

EPIDEMIC OF SCARLET FEVER AT BINGLEY.

A SPECIAL meeting of the Bingley Improvement Commissioners was recently held for the purpose of taking into consideration what steps should be taken to abate the severe epidemic of scarlet fever which has existed for some time in the neighbourhood. In his report on the outbreak, the health-officer stated that, though for the last four years there have been at times cases of scarlet fever, it was not until November last that it assumed an epidemic form. This it did quite suddenly, cases occurring in every part of the town. The reason of its rapid spread was not at first apparent; but some clue was discovered in November, when it was found that a child, in a family of which two members were suffering from scarlatina, was attending school, and that about ten days previously he had a rash covering his body. The boy had been kept at home for a day or two; but, as he seemed quite well, and the rash began to die away, he was again sent to school. This, the health-officer thinks, accounted for the rapid spread of disease throughout the district. The epidemic was of a wide-spread character, no part of the town being free from it, and scarcely a single street escaping entirely. It attacked all classes alike, and fatal cases occurred among the more wealthy as well as among the poor. The total number of cases is estimated from two to three hundred, and thirty-six deaths have been registered from January 1st to the present time. Since January, however, the epidemic has been gradually subsiding, and only three cases have come under notice during the past fortnight, so that it may now be considered to be virtually over. The propriety of closing the schools was discussed by the authority; but it was decided that, as the mischief had been done, and care was being taken to prevent children who were recovering from attending school, no good would result from their being closed. The health-officer is of opinion that, to enable the sanitary authority to cope with an epidemic of this character, there should be a system for the compulsory notification of infectious diseases, and that there should be also a hospital for the reception of such cases, together with power to remove patients to it.

INTEMPERANCE IN FEMALES.

THE Committee of the Spelthorne Sanatorium for the reformation of women who have fallen into habits of intemperance, have issued their third annual report, which shows that, during the year 1881, there were over 100 applications for admittance; of these, 20 were for men, 20 were penitentiary cases, 10 were more or less insane, 4 were clergymen's wives, 10 aged women, and the others ineligible from various causes. Of those who had passed their full time in the home, and might be spoken of as doing well, there were 14; but it must be remembered, said the report, that the inmates of Spelthorne were really dipsomaniacs, probably had been drinking for years; and it was further to be noted that one year was too short a time to effect the radical constitutional change which was the best foundation on which a more moral and religious habit of mind could be formed. The cases were generally of long standing, and deep-rooted. The report closes with an earnest appeal for help. Formerly, the proportion of the sexes in the criminal classes was seven men to one woman; now, taking all crime, it was three men to one woman; and this increase, it observes, "is chiefly due to the growth of female intemperance; for in the classification of 'drunk' and 'drunk and disorderly', the proportion is only two to one; and, in Liverpool and London, the women had sometimes exceeded the men. In 1878, 15,357 women were committed for drunkenness. One woman had paid upwards of £200 in fines; and two hundred certainly could not represent the number of times she had been admitted to Clerkenwell." "Surely these facts", says the report, "are sufficient to rouse the apathetic to do what they can for prevention and for cure." This appeal we fully endorse. This sanatorium is situated within one mile of the Feltham station of the London and South-Western Railway. The Honorary Secretary is Miss Robin, 47, St. George's Road, S.W.

THE POLLUTION OF THE THAMES BY SEWAGE.

THE medical officer of health to the Erith Local Board, in his annual report just published, complained of the "vile stench" emitted from the shores of the river at low tide during the excessive heat of last summer. He says that the sewage pumped into the river at Crossness and Barking, if poured in at ebb tide, cannot get any lower than Gravesend; whilst that pumped in later can get no further than Erith before it is met by the flood tide, and carried back to Blackwall, or even lower. The solid suspended parts of the sewage are therefore deposited on the river banks, and evolve most offensive effluvia. It does not appear from his report that fever has been rife amongst those residing near the river, or those living in ships and yachts; but the complaint was general, and disease, especially diarrhœa, was much dreaded. The evidence given by engineers and chemists at the lat inquiry was most conflicting; but all who used the river last year as a highway, know that smells in certain parts of the Thames, such as would not be tolerated on land, were constantly present, and destroyed the pleasure which would otherwise have been derived from an excursion on the river. There is no doubt that if any other river or watercourse were fouled to so great an extent by anybody except the Metropolitan Board of Words, an injunction would have speedily been asked for and granted against the offending parties. It is clear that when Parliament gave powers to the Metropolitan Board of Works to carry out the main drainage of London, it was for the purpose of removing, and not of creating, an abominable nuisance. They have removed the accumulations of filth from the land, where it might have been utilised, and cast it into the water, where it is not only useless, but noxious. The fouling of the river off Barking is so great, that instead of, say, forty grains of total solids per gallon, the total solid residue was, in one sample, no less than 831 grains per gallon, of which 260 grains consisted of chlorine, chiefly from urine, and as much as 375 grains of organic matter. The gross amount of liquid poured into the river from the Crossness outfall was about 17½ million gallons in 1868, and above 27 millions in 1878; whilst at Barking the increase was greater still, having been less than 13 millions of gallons in 1868, whilst it was more than 30 millions in 1878. If something more than an enlargement, as proposed, of the chambers at the outfall be not carried out speedily, the consequences to those using the river or living on its banks may become very serious.

CONVICTION OF A LIVERPOOL QUACK.

AT the Liverpool City Sessions held last week before the Recorder, the quack, named Ethens de Tomanzie, whose case was mentioned in the JOURNAL of April 1, p. 484, was sentenced to two months' im-

prisonment for having unlawfully and wilfully given false certificates in the case of three persons who had died under his treatment. The prosecution was instituted by the Medical Defence Association, who are to be congratulated on the result. The *Liverpool Mercury*, in commenting on the case, points out that, were it not for such organisations as the Defence Association, there would be practically no means of detecting the spurious medical practitioner where the deception is carried to such a length as in the present case. It points out, too, the danger to the health of the poorer classes, which we have often insisted on, of ignorant and unscrupulous practitioners being allowed to prey upon them; and trusts this conviction will serve to set the public on their guard against such malpractices. In these sentiments, we need hardly say, we fully agree. We regret to see that several qualified practitioners appear to have countenanced the defendant in his quackery.

SMALL-POX AT SYDNEY.

THE epidemic of small-pox at Sydney seems now to be virtually at an end. Writing under date of the 28th February last, the Sydney correspondent of the *Times* states: "We have succeeded at last, after a hard fight, in getting small-pox under, and have not now a single case in Sydney, and only two at the hospital, which is about nine miles from Sydney. Many of our recent English visitors, coming from where small-pox is chronic, have laughed at the idea of stamping it out; but we have succeeded at considerable expense and with some interference with individual liberty, and the result is considered to be worth the sacrifice."

AMBULANCE WORK IN RUSSIA.

IN Russia, as well as in Germany, "Lectures for First Aid to the Injured" have been given recently on our English model. Like Professor Esmarch of Kiel, Dr. Charles Reyher of St. Petersburg had occasion, during the International Medical Congress in London, to become acquainted with the institutions existing for such purposes under the control of the St. John's Ambulance Association. Immediately after Dr. Reyher's return, he succeeded in inducing the direction of the Russian Red Cross Society to institute similar lectures in St. Petersburg. The first course of these lectures was given in January and February last, on five Sunday evenings, partly in the apartments of the Red Cross Society, partly in the surgical wards of Dr. Reyher. The examination of pupils took place on the Sunday before Easter, in the presence of the Committee of the Red Cross Society. Care was taken to avoid all specially medical terms and details. A picture of the human organism was drawn in general outlines, and directions were given how to assist the injured before the surgeon's arrival without doing harm; and, as briefly as possible, a series of conditions was demonstrated, in which a non-medical man could help provisionally before the surgeon's arrival, such as rendering a fracture immovable; first dressing of wounds as a defence against infection from outside; compression of the principal vessels during severe bleeding; the management of Esmarch's India-rubber tube; artificial respiration, etc. It was impressed on the pupils that, for all bandages and manipulations, the simplest objects should be used, such as are to be found anywhere (for instance, splints made from newspapers, waistbelts and revolver-strings in cases of bleeding, instead of Esmarch's India-rubber tube, etc.). The pupils were practically exercised on living models. The pupils of the first course were policemen, who proved to be very skilful in the improvisation of all possible bandages. For the next courses, applications are received from all classes of society. The Society of the Red Cross desires to admit to these lectures and exercises not only policemen, but railway officers, tramway-conductors, workmen in factories, and the pupils of seminaries who serve afterwards as clergymen in the villages all over the country. So far as may be foreseen, this beneficent institution of courses will not only be adopted by all classes of the population of St. Petersburg, but will spread itself quickly over the whole country. The Society of the Red Cross is under the patronage of Her Imperial Majesty the Empress, and has district administrations in every government of the Empire. To these will be sent, for imitation and further distribution, the programme of the lectures delivered lately, the physiological diagrams and cards, the *aides-memoires*, and text-books of aid in cases of injuries or sudden illness, on the plan of that compiled by the late Surgeon-Major Shepherd, and made accessible to the Russian Red Cross Society through the kindness and courtesy of Captain Herbert C. Perrot, Chief Secretary to the St. John's Ambulance Association.

THE STRUGGLE OF RACES.

IN his annual report for the past year, the Mayor of Savannah draws attention to the great disparity in the percentage of mortality among the white and coloured races. The annual rate for one thousand whites for the year 1880 was 19.85, and for one thousand coloured 45.47, these rates being calculated on the United States census tables during the same year. In the struggle for existence carried on between the white and coloured races in many parts of the globe, it is always "colour loses".

ASEPTIC VACCINE LYMPH.

MUCH practical interest attaches to the subject treated in the *Jahrbuch für Kinderheilkunde*, Neue Folge, Band xvii, p. 172, by Dr. R. Pott, who gives the results obtained by him in experimenting with vaccine lymph modified by combination with salicylic, boracic, and carbolic acids. The mixtures employed consisted of salicylic solution (1 to 300), boracic acid solution (3.5 per cent.), and carbolic acid solution (1 to 5 per cent.), each of these being combined with an equal part of humanised lymph. All proved active except the 5 per cent. carbolic acid solution. This result corresponds with that obtained by Dr. Braidwood and Mr. Vacher in their more extensive and carefully prosecuted experiments detailed in their second and third reports to the Scientific Grants Committee of the British Medical Association. We do not learn from Dr. Pott his method of procedure, the amount of care he bestowed on testing the inoculative efficacy of the vaccine he used, his manner of mixing it with the antiseptic solution, the length of time during which the vaccine was exposed to the antiseptic influences before inoculation, the cleanliness of the instruments he used, and other such details. On the other hand, Dr. Braidwood and Mr. Vacher have insisted on the great importance of using special instruments for each set of experiments; on the necessity of testing the efficacy of the vaccine itself before drawing inferences from its action when mixed with antiseptic solutions; on the influence of lengthened contact with the antiseptic, especially in the case of carbolic acid; and on the falsity connected with the ordinary manner of conducting such experiments by inoculating a subject on the one arm with vaccine, and on the other with the experimental fluid. In their second report, they state "that a saturated solution of salicylic acid does not impair the efficacy of the vaccine contagium"; and that a saturated solution of boracic acid "impairs the vitality of vaccine contagium little if at all, even after having been kept some days in contact with the contagium-particles." On the other hand (in their first report), their conclusions in regard to the influence of carbolic acid on the vitality of vaccine were "(*a*) that the immediate inoculation of a mixture of vaccine and a moderately strong solution (1 to 20 aq.) of carbolic acid succeeds in a certain number of instances; (*b*) that such a mixture, preserved for some time, seventeen days to six weeks, fails to produce vesicles"; and that the mixture of vaccine with stronger solutions of the acid, and likewise with carbolate of glycerine, "destroys the efficacy of vaccine". They have further distinctly proven that antiseptics in the gaseous state are much more potent destroyers of the vitality of vaccine than are such in solution or in fluid form. Dr. R. Pott claims the following advantages for these aseptic lymphs: 1. The "erysipelatous poison" contained in the lymph is probably destroyed, and the early vaccinal erysipelas in this way prevented; 2. Such lymph may be kept for years without spoiling; 3. The lymph is thinner, and contains no fibrinous coagula. To us, these inferences appear strange and illogical. We are not aware that the "erysipelatous poison" has yet been demonstrated; but we know that Jenner laid down the axiom (and the every-day experi-

ence of public vaccinators in England has proven its correctness) that *no* areola should surround the vesicles on the eighth day, and that the redness which appears on the ninth to the eleventh days after vaccination should be evanescent. When postvaccinal erysipelas occurs, this is not to be ascribed to the vaccine, but to its admixture with blood, epithelium, or impurities from the skin; or to the employment of uncleansed instruments for the operation; occasionally to defective sanitary arrangements. That vaccine may, by the aid of these antiseptics, retain its vitality "for years" we very much doubt. On the other hand, Dr. W. Husband (in his essay on the subject) states that vaccine, properly secured in his capillary tubes, has been known to retain its efficacy for "seven years". Lastly, if a vaccinator desire to render his lymph thinner, and to free it from fibrinous coagula, he has merely to dilute it with glycerine, or with a mixture of glycerine and water, in order to obtain his desire. This last form of commixture, we are informed, is frequently carried out by the public vaccinator in Berlin, who considers that by this means he renders his vaccine lymph more pure.

SCOTLAND.

UNIVERSITY OF ABERDEEN.

THE professional examinations for degrees in Medicine have taken place during the last fortnight, when a comparatively large number of candidates presented themselves for examination. The summer session commences on Monday, May 1st. The Shepherd Memorial Gold Medal has been gained by Mr. C. J. Sarkies, and the Keith Gold Medal—both for surgery—by Mr. Arthur Greatorex Smith. We are glad to be able to state that Professor Pirrie's health is considerably improved.

THE CHAIR OF NATURAL HISTORY AT EDINBURGH.

MR. RAY LANKESTER, who was recently nominated by the Crown to the Chair of Natural History in the University of Edinburgh, has intimated to the Home Secretary that it is not his intention to present himself for induction by the Senatus. Mr. Lankester explains in detail, in his letter of resignation, the circumstances which have led him to decline entering on the duties of the office. Briefly, they are, that certain previously unknown contingent and existing conditions have been disclosed which would seriously impede practical teaching, materially protract his professorial duties, and imperil the permanence of the classes. Mr. Lankester finds that there is not a reasonable prospect of adequate provision of practical laboratories and teaching-rooms; that the zoological collections have been permanently severed from the control of the professor; and that it is probable that at no distant period the course of zoology, now compulsory, may cease to be so. Under the circumstances and contingencies now made clear to him, Mr. Lankester feels unable to undertake the duties of the office to which he was appointed.

THE GLASGOW PHILOSOPHICAL SOCIETY.

AT the meeting of this Society, held on the 12th instant, a paper was read by Dr. H. Muirhead, of Cambuslang, on "A Mode of Mental Intercommunication in Thought-Willing and Thought-Reading." In this communication, the author put forward the theory that the only scientific explanation of these states consisted in assuming that the molecularly-induced vibrations, which must undoubtedly accompany brain-action in the mind of one person, are communicated by it to the ether pervading its substance, are propagated to an unknown distance, doubtless to the ether pervading neighbouring brains, and then are able to set up in the brain of another person similar molecular vibrations. Just as in the case of the telephone, unbroken metallic communication is not at all necessary for the production of idea-inducing vibrations, so brain may communicate with brain by means of ethereal induction across air-occupied space. At some length, Dr. Muirhead illustrated his theory, which he regarded as at least a probable explanation of the phenomena of mind-reading; and, though his views were vigorously called in question by some members, he received a very cordial vote of thanks from the Society for his paper. A communication was also made at this meeting by Dr. John Dougall on the Salmon Disease, which has of late been so fatal to the fish of Scotch rivers; while Professor McKendrick furnished several interesting experiments, with tuning-forks and other materials, illustrating both optically and audibly, the action of the drum of the ear in the transmission of musical sounds.

THE NOTIFICATION OF INFECTIOUS DISEASES.

AT a meeting of the Public Health Committee of the Edinburgh Town Council, special attention was given to the outbreak of measles in Edinburgh which commenced in February, soon attained considerable dimensions, and as yet shows no tendency to abatement. No fewer than 2,065 cases have been notified to the medical officer of health. A much greater number has probably occurred, as many parents do not send for a medical man in mild cases. Of the 2,065 cases notified, 713 were in the district of the New Town, 1,002 in the Old Town, and 350 in the southern suburbs. A very small percentage of the cases has proved fatal, only 18 deaths being registered as due to measles since the commencement of the outbreak. For the first two months, the average daily number of notifications was 34; during the last two weeks, it has been 43. Sixteen cases are at present under treatment in public institutions; 11 being in the Infirmary, and 5 in the Sick Children's Hospital. In Shotts, the outbreak of measles still prevails, there being about 150 cases. Twenty-eight new cases occurred in two days. No fatal cases have occurred.

ROYAL MATERNITY AND SIMPSON MEMORIAL HOSPITAL.

DURING the last three months, owing to the regretted absence of Dr. Angus Macdonald, Professor Simpson has continued on duty in the Royal Maternity Hospital. He will be succeeded next month by Dr. Keiller for duty during the summer session. Messrs. George M. Johnston, M.B., and Mr. Bernard Langley Mills, M.B., have been appointed resident physicians for the same period. The directors of the hospital have received a legacy of £50 from the trustees of the late Mr. William Fraser, of Kinross-shire.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending April 8th, it appears that the death-rate in the eight principal towns was 22.1 per 1,000 of estimated population. This rate is 1.4 below that for the corresponding week of last year, but 0.1 above that for the previous week of the present year. The lowest mortality was recorded in Greenock, viz., 14.8 per 1,000; and the highest in Paisley, viz., 31.2 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 4.0 per 1,000, or 0.9 above the rate for last week. Whooping-cough was the most fatal epidemic, and the mortality from it was greatest in Glasgow. There was a slight increase in the number of deaths from bowel-complaints. Acute diseases of the chest caused 116 deaths, or 1 more than the number registered last week. The mean temperature was 44.1, being 0.3 below that of the week immediately preceding, but 7.1 above that of the corresponding week of last year.

SANITARY PROTECTION ASSOCIATIONS.

AT the recently held meeting of the Edinburgh Sanitary Protection Association, reports concerning the work done by the Society and its officials were submitted. Professor Douglas Maclagan was unanimously elected President of the Association, in place of Sir Robert Christison, Bart., deceased. The first public steps towards the formation of a Sanitary Protection Association for Glasgow were taken on the 13th instant, when a meeting was held to consider the question. There was a very good attendance of both the general public and the medical profession; and it was decided to proceed forthwith to the formation of the Association, its leading objects being: 1. To provide

members with advice and supervision, so as to secure the sanitary conditions of their dwellings; 2. To enable members to procure practical advice on moderate terms as to the best means of remedying defects in houses of the poorer classes; 3. To aid in improving the sanitary condition of the city by the use of such means as may, in the opinion of the Council, be calculated to promote that object. It will thus be seen that the Association is to be on the same lines as the Edinburgh one, which has worked so well. Dr. Russell, Medical Officer of Health for Glasgow, was present, and stated that the officials of the city viewed the movement with cordial sympathy.

IRELAND.

THE proposed new scheme of education and examination adopted by the Council of the Royal College of Surgeons in Ireland, and which has been referred to on several occasions in the JOURNAL, has now received the approval of the Home Secretary.

THE annual fancy dress ball, in aid of the funds of the North and South Charitable Infirmaries, Cork, will be held in the Assembly Rooms on the 21st inst.; and from the influential committee who are organising it, a very substantial addition to the funds of those institutions may be confidently expected.

IN the Castlebar District Lunatic Asylum, last year, 351 patients were under treatment, 61 having been admitted during the year. The percentage of recoveries on admissions was 50.81, and on total number in asylum, 8.85. There was no death recorded during 1881.

MERCY HOSPITAL, CORK.

THE twenty-fifth annual meeting of the friends and supporters of this hospital was held last week, and although its financial condition is not so satisfactory at the commencement of this year as in 1881, yet there is a balance to credit of £150. On the motion of the High Sheriff, a vote of condolence was passed to the family of the late Dr. Holmes on their bereavement.

AN ABATTOIR FOR DUBLIN.

A PUBLIC abattoir, the first building of the kind in Ireland, was formally opened in Dublin last week by the Right Hon. the Lord Mayor of the City and the civic authorities. In no other large city, perhaps, was there greater need for such an establishment, as owing to the large number of ninety-seven of the licensed slaughter-houses in existence, it is almost impossible for the sanitary authorities to put a stop to the notorious trade in diseased and unsound meat. Not less than a quarter of million of pounds of diseased meat was seized and confiscated in Dublin last year; but this probably represents only a portion of that consumed by the public. To Dr. Cameron, Superintendent Medical Officer of Health, and to Mr. E. Dwyer Gray, M.P., High Sheriff of the City and late chairman of the Public Health Committee of the Corporation, belong the credit of carrying out this important work. The abattoir is a model one. It is in the immediate vicinity of the cattle market, with which it is connected by a subway. The buildings include thirteen rooms for slaughtering animals; a like number of lairs; a hall 133½ feet long by 49 feet wide, for the reception of dead meat, triperies, and rooms for the storage of blood and offal until they are removed. Great attention has been paid to the paving, lighting, and sewering of all the departments of the abattoir. The buildings are well ventilated, and its walls tiled wherever animal matter is likely to come into contact with them. The advantages which may fairly be expected to result from the use of the abattoir are, that animals will be slaughtered therein in the most humane way that can be devised; their carcasses will be dressed in a cleanly manner; due precautions will be taken to prevent any diseased carcases from being used as food for man; the flesh and offal, incidental to a slaughter-house, will be disposed of in a manner least likely to be prejudicial to health; lastly, and most important of all, the use of the abattoir will gradually, it is hoped, lead to the disuse of those of the slaughter-houses which, being situated in the oldest and most crowded parts of the city, are not capable of improvement. The works cost £16,000.

THE ROYAL UNIVERSITY.

A MEETING of the senate of this university was held on Tuesday last for the election of its first fellows and examiners. The senate resolved to allocate for the present twenty-four of the thirty-two fellowships they are empowered to create, and they elected twenty-one of them. They allocated six fellowships to classics; four to mental and moral philosophy; four to natural philosophy; and two to chemistry. They also decided to postpone until the return of his Eminence Cardinal M'Cabe from Rome the appointment to one of the fellowships allocated to English, mental and moral philosophy, and natural philosophy respectively. They further resolved to postpone the election of Fellows in the natural and medical sciences. Of the twenty-one gentlemen elected Fellows, two, viz., those fellowships allocated to chemistry, are members of the profession. They are Professor John Campbell, M.B. of the Catholic University, and Professor Maxwell Simpson, LL.D., M.D. of Queen's College, Cork. The following examiners were appointed;—*In Surgery:* A. H. Corley, M.D.; P. J. Hayes, F.R.C.S.E. *In Medicine:* B. G. M'Dowell, M.D.; S. M. MacSwiney, M.D. *In Midwifery*: John A. Byrne, M.B.; H. Macnaughton Jones, B.A., M.D. *In Materia Medica:* F. J. B. Quinlan, M.D.; J. S. Reid, M.D. *In Medical Jurisprudence:* E. W. Davy, M.A., M.D.; M. O'Keefe, M.A., M.D. *In Anatomy:* C. J. Nixon, M.B., LL.D.; J. P. Pye, M.D.; Peter Redfern, M.D. *In Physiology:* J. J. Charles, M.A., M.D.; C. Coppinger, F.R.C.S.I. *In Botany and Zoology:* A. G. Melville, M.D.; G. Sigerson, M.D. The fellowships are tenable for seven years. The emolument of the office is £400 per annum; but, in the case of Fellows holding other professorial appointments, only an annual sum sufficient to make their total emolument from all such sources equivalent to £400.

BELFAST ROYAL HOSPITAL.

A SPECIAL meeting of the General Committee was held, on the 17th instant, in order to appoint a house-surgeon, in the vacancy caused by the retirement of Dr. James Smyth, from ill-health. The Committee of Management unanimously recommended Dr. James Barrow, a former student of the hospital, and, there being no opposition, he was elected. The hospital has usually been in a chronic condition of impecuniosity; but latterly, its prospects appear to be improving, as we learn that all the accounts have been paid to the 1st of the month, and the committee have a balance in hand of £600 to defray the necessary expenses for April. The desirability of establishing a Saturday hospital collection among the working classes has long been under consideration; and, if sufficient encouragement is obtained from the leading manufacturing firms in Belfast, it is probable that a trial of the scheme may be made during next winter.

IT is stated that Dr. Duncan Mackay, Medical Officer of Health for Inverness, though not officially employed to analyse the materials of which the "hot cross buns" were made which occasioned so much sickness on Good Friday, has examined the buns, and discovered a salt which exhibits all the appearance of arsenic.

CONVALESCENT HOME AT FOLKESTONE.—The foundation stone of the new St. Andrew's Convalescent Home, Folkestone, was laid by the Duchess of Edinburgh on Wednesday, the 18th instant. The work of the home has hitherto been carried on in two rented houses imperfectly adapted to the purpose. During this period, the institution has been enabled to admit 2,717 patients, but the demands made upon it have been continually increasing. By the kind consideration of the lord of the manor, the Earl of Radnor, who is one of the patrons of the charity, an excellent site in a healthy situation on high ground overlooking the sea, has been secured on easy terms, with sufficient land around it to serve as a pleasant garden for the use of the patients. The sum required to complete the building is about £9,000, in addition to £7,000 already given.

THE TREATMENT OF INEBRIATES IN ENGLAND UNDER THE HABITUAL DRUNKARDS ACT, 1879.

Report of the Habitual Drunkards Committee on the Dalrymple Home Association.

The British Medical Association, through its committee for promoting legislation for the control and cure of habitual drunkards, has made several attempts to carry out the provisions of the Act of 1879, but hitherto, in a great measure, without practical success. The provisions of that Act, whilst admitting the principle that the habitual drunkard may be cured by restraint, so fence the ability to place a person under restraint, that the establishment of "Maisons de Santé" by private individuals has been made so unlikely to succeed financially, that persons having capital have not ventured to provide such institutions. A considerable number of houses have been licensed under the Act in different parts of the country, but the expenses which the Act compels, and the small number of persons who have availed themselves of the provisions of the Act, have caused several of them to be closed within a year or so of their opening. The Act is framed in such a way that the voluntary entry of patients is made as difficult as possible, and inducements are held out to cause them to change their minds before they finally commit themselves to confinement; so that it is found in practice impossible to continue a person who is an inebriate long enough in the same mind to ensure his detention. Capital has not been freely invested, therefore, in the formation of fitting houses, under the management of responsible and satisfactory managers.

A considerable number of houses are advertised in the medical and other journals as (according to their owners) adapted for the purpose; but, with some exceptions in the case of females, whose managers are assisted by committees, they are unsatisfactory. Patients admitted to some of these places obtain liquor with the connivance of the attendants, and the benefit expected from the principle of seclusion does not arise.

The committee appointed at the annual meeting of the British Medical Association have been aware of the difficulties and the results. They have proceeded on the principle that institutions established for the purpose of treating inebriates should not be promoted for individual gain; that the managers should have no pecuniary interest in the detention of any individual case. To effect this object, capital is required before a house can be opened. The Committee therefore, with the assistance of the Social Science Association and the Habitual Drunkards Legislation Society organised a public meeting at the Mansion House, which was held in May last under the presidency of the then Lord Mayor. At that meeting, a society was inaugurated for the special purpose of obtaining funds and providing such a house by means of voluntary contributions in the first instance, but with the ultimate intention of making the establishment self-supporting. A committee of management was appointed, who were instructed to draw up the requisite regulations, and were empowered to do all such acts as might give effect to the resolutions. This committee have had many anxious meetings, and the result of their deliberations has been that, being a trading corporation, they have thought it best to avail themselves of the provisions of the Limited Liability Act, and have become incorporated under that Act. With the consent of the Board of Trade they are enabled to omit the word (limited) from their prospectus, because the Directors of the Company declare that they have no pecuniary interest in anything they may undertake in connection with the management. There are neither shares nor dividends, and no person, except the paid officers, can profit pecuniarily by the work which is proposed to be done. It was only on March 7th that the authority of the Board of Trade was obtained, to enable them to take this step. The Association is called the Association of the Dalrymple Home for Inebriates. The name is given as recognising the association with the late Mr. Dalrymple, who, when Member of Parliament for Bath, was instrumental in obtaining Parliamentary inquiry upon the subject of habitual drinking, and introduced a Bill into the House of Commons, the passing of which was ultimately frustrated by his death; but upon that Bill were framed some of the provisions contained in the Habitual Drunkards' Act of 1879.

The object is stated in the memorandum of the Association—viz., the establishment of retreats under the Act. The income and property of the Association are to be applied solely towards the objects set forth in the memorandum. The first directors consist, among others, of Dr. Cameron, M.P., who was instrumental in obtaining the Act, Dr. Norman Kerr, who acts as Honorary Secretary, and Dr. Alfred Carpenter, who is Chairman of the Committee appointed by the British Medical Association. Canon Duckworth, one of the Queen's chaplains, has been appointed Chairman of the Committee of Management; and they have already advertised for sites upon which a proper home may be erected, or for a house which is capable of being adapted to become such a home.

The steps which have been taken are decided, but the business is not satisfactory, by reason of the impediments which are placed on the working of the Act, and which requires that the machinery shall be expensive, and yet so determines that there shall be but little chance of any return upon capital invested in the scheme. The majority of inebriates who would place themselves under restraint are those who have dissipated their fortune, who have destroyed their annual income and all their prospects for future advancement and restoration to wealth, and are dependent upon their friends for maintenance. It is not from such a class that capital can be recouped for the venture. It is to be hoped that the action of the Committee of Management for the Dalrymple Home may be more successful than some others have been; and your Committee recommend the Dalrymple Home to the favourable consideration of the British Medical Association, and to the benevolent public for countenance and support.

COLLECTIVE INVESTIGATION COMMITTEE.

[*It is particularly requested that all communications relating to the investigations conducted by this Committee may be sent to the Secretary*, Dr. F. A. Mahomed, *12, St. Thomas's Street, London, S.E.*]

MEMORANDUM ON ACUTE RHEUMATISM.

By J. F. Goodhart, M.D., and Thomas Barlow, M.D.

On behalf of the Committee.

The common diseases are those which repay study the best; and, in a general survey of systematic medicine, it is wonderful to note how many of what are regarded as fundamental facts in such diseases rest on an insecure basis of observation and experience. There is no country in Europe which affords better opportunities for studying acute rheumatism than Great Britain; but we are still ignorant as to its etiology. We have no accurate data in regard to the influence of food; and, beyond the curious but well established observation of Dr. Balthazar Foster, on the appearance of a quasi-rheumatic affection of joints, etc., under the administration of large doses of lactic acid, physiological chemistry has, as yet, given us no help. Apart altogether from chemical questions and speculative views as to its bacterial origin, how little we know about the immediate antecedents or determining causes of acute rheumatism! We are in the habit of accepting the conventional lay explanation, that the patient was exposed to cold whilst he was sweating, that thereupon he developed rheumatism; and over and above this we have nothing to say, except that "certain people are more liable to such illnesses than others." But we are bound to take note of cases occurring occasionally in hospital, where patients in bed, suffering or convalescing from some other complaint, develop undoubted rheumatic fever, and where it seems difficult to suppose that the factor of exposure has played any part. The subject of the relation of chorea to rheumatism is to be separately discussed in another inquiry; but, by way of illustration, we may here refer to cases which first come under notice as typical chorea, and then develop unquestionable acute rheumatism. And this leads us to remark that severe nervous shock, induced by accident and other causes, appears now and then to be an immediate antecedent of acute rheumatism. Without attempting any explanation of the connection, it is most important to "keep our minds open" to the nervous relationships or antecedents of the disease, because some of the clinical features of the hyperpyrexial attacks point strongly towards a nervous origin; and, further, the association of some forms of joint-affection with certain diseases of the spinal cord is also suggestive. Amongst other antecedents of rheumatism concerning which careful records are needed, is scarlatina. It is a common enough fallacy to call every affection of a joint which suppurates either strumous or pyæmic, and one which does not suppurate rheumatic; and again and again we are baffled by being unable to give a true definition of rheumatism. But with regard to the joint-affection of scarlatina, it is clear that at least three views may be taken. 1. We may hold that it is one of the manifestations proper to the disease itself—a scarlatinal arthritis. For want of better terms, we may say that the scarlatinal poison affects the joints just as it may affect other parts. According to this view, it would be a mistake to identify the scarlatinal joint-affection with acute rheumatism, although in many respects running parallel to it—notably, in the frequent contemporaneous affection of heart and serous membranes. 2. We may consider it an epiphenomenon, depending on some auto-infection, and therefore septicæmic in character. Although it by no means conclusively proves the septicæmic nature of the affection, it is

important to bear in mind that occasionally in these cases suppuration in a joint occurs. 3. We may consider the arthritis in question as that of true acute rheumatism superadded to the attack of scarlatina, and quite as independent of what may be called the scarlatinal poison as an intercurrent varicella might be.

There is much to be said for each of these views, and it is possible that they may be respectively true in different cases. Even those who claim that the affection is true acute rheumatism, are willing to concede that it often occurs as a complication rather than as a sequela; and there would be something gained by observations on a number of cases as to the exact period after scarlet fever at which joint-symptoms arise. The rash being generally a definite thing, it would be advisable to reckon from the day of its appearance.

Much attention has of late been directed to tonsillitis in regard to acute rheumatism. It would appear in some cases to be an initial symptom of the attack, and in others an antecedent with a distinct interval. More details are needed, and ought not to be very difficult to obtain.

With regard to the ordinary features of a primary acute attack when fully established, there is but little information needed; but the slight later attacks will well repay study, and this is especially the case when the disease is uncomplicated by heart-affection, the results special to which need elimination. The rheumatic attacks of children need special study; the sweating may be very slight, the fever of short duration, the joint-trouble insignificant, whilst, as is well known, the heart-affection is considerable.

In regard to the arthritis of acute rheumatism, it is generally postulated that the subsidence is complete, although there is proneness to relapse. But there are some alleged cases of suppuration having occurred as a sequel of rheumatic fever, where scarlatina was out of the question. Of such very rare occurrences it would be valuable to get some further well recorded examples, in which the early part of the attack is perfectly typical. The same may be said in regard to cases of fibrous thickening around and ankyloses of joints, after acute rheumatic attacks, where gonorrhœa can be excluded.

In children who are the subjects of heart-disease presumably rheumatic, and sometimes in adults also, subcutaneous nodules are to be found in the neighbourhood of both large and small joints, and on the hairy scalp and the forehead, varying in size from a pin's head to an almond. They often appear in crops, and, as they are generally painless and the skin over them most commonly unaffected, they need to be searched for; and information is particularly required concerning their relation to active disease of either heart or joints.

There is ample scope for observation in regard to the skin-eruptions associated with acute rheumatism. It is now well recognised that polymorphous erythema is often an intercurrent phenomenon in rheumatic fever, though the cases in which it occurs are sometimes ill-defined in regard to arthritis. Records of cases are needed in which urticaria and purpura have been observed during the course of, before, or after an undoubted acute attack. A case often referred to by Sir William Jenner may be here quoted in illustration. A patient was brought to hospital with signs of acute pericarditis, but no joint-trouble. Urticaria appeared, which convinced Sir William Jenner that the case was truly rheumatic, and this was soon confirmed by subsequent characteristic appearances about the joints, and the further progress of the case.

The number of questions which gather around the subject of rheumatic heart-disease is legion; but there is at least one which is eminently practical, and the solution of which can only come from the records of family practice—viz., in what proportion of cases in which there is an unquestionable murmur present during the attack does the murmur entirely pass away, the heart remaining sound so far as physical examination can establish? It has been too lightly assumed that such transitory murmurs are hæmic, so called; but it would be better for clinical purposes to eliminate the term altogether, and simply record auscultatory observations and notes on cardiac dulness and impulse in regard to the question of dilatation.

Leaving now the history of the attack, we come to some simple questions in regard to the patient which, if answered on a sufficiently large scale, may assist in building up a definition of what is meant by the rheumatic diathesis. These relate to the common ailments to which the patient is specially subject, and the previous illnesses for which he has needed the doctor's care.

On the subject of the treatment of acute rheumatism, it may be truly said that in no disease are more careful notes necessary as to the entire duration of the illness. Furthermore, it is of the greatest practical importance to get definite statements as to the length of time in the convalescent period during which special drugs are administered, with a view to obtaining collective experience as to the avoidance of relapse.

Appended is a copy of the form which has been adopted for the collective investigation of this subject. And it may here be emphatically stated that the Committee desire to give the fullest recognition to individual observations bearing not only on the questions here indicated, but on others cognate to them.

Form of Card about to be Issued.

Observer's name.
Address.
Date of last observation.
Initials of patient. M. or F. Age.
Married. Single. Widowed.
Occupation.
Temperate. Intemperate. Total abstainer.
Food—sufficient, insufficient.
Place of residence.
Locality—high, low, dry, damp, exposed, confined.

Atmospheric condition—dry, damp, wet, cold, hot, mild, changeable, sun, clouds.

Prevailing wind at onset of attack.

Recent Antecedents,
Scarlet fever. date
Tonsillitis. date
Pharyngitis. date
Other diseases. date
Exposure to wet, to cold. date
Over-fatigue, sudden, prolonged. date
Shock, date

Date of onset.
Attack severe, moderate, mild.
Duration of fever days, of pain days.
Whole duration of attack.
Sweating—slight, considerable.

Extent of Joint-Affection.
Many joints. Few joints.
Migratory. Fixed.
Result—recovery complete, partial, death.
Persistence of disease in one or joints.
Suppuration in one or joints.
Ankylosis of one or joints.

Heart-Affection.	Peri-carditis.	Mur-mur.
Before present attack		
During		
After		

Position of apex-beat

Skin-Eruptions.	Nature.	Date.
Before present attack		
During		
After		

Subcutaneous nodules—present, absent.
How many previous attacks.
Age at first attack.
To what common ailments is patient specially subject?
For what other diseases has observer attended patient?
Remarks on any special feature of case.
Sequelæ.
Plan of Treatment.
How long has patient been under care of observer?

THE COLLECTIVE INVESTIGATION COMMITTEE'S MEMORANDUM ON CHOREA.

SIR,—I am anxious, with your permission, to add a word to what has already been said on this subject by Dr. Donkin and Dr. Mahomed. Dr. Donkin, as I understand, is of opinion that the expression in the schedule "vague pains" would stand best by itself; and that a sentence in the memorandum, stating that with children such pains, with or without pyrexia, often signify rheumatism, would be better away, inasmuch as it prejudges the point at issue. Whilst bearing testimony to the careful preparation and revision of both schedule and memorandum, I cannot but think that the justice of this criticism will appear when the actual working of the inquiry is considered. All observers are agreed that limb and joint pains are commoner with choreic children than with others. The question turns upon the character of these pains. But this point is here determined beforehand: first, by their being included under the heading "rheumatism"; and, secondly, by the statement of the memorandum that in childhood such pains, with or without fever, are characteristic of rheumatism. There is, in fact, no recognition whatever of *any* pain except the rheumatic. Dr. Mahomed observes that the Committee will not judge so narrowly, but will take each case upon its own merits. But, if this be so, it is obvious that the Committee will exercise a liberty which they do not allow to the original observers. By the form of their questions, they compel these to conclusions which they may themselves reject.

But, although Dr. Mackenzie has in this one place allowed his own predilection to peep out (as which of us would not?), I have no fear but that, in the result, we shall obtain valuable and trustworthy returns as to the relationship of chorea to rheumatism. The schedules, it must be remembered, are issued to experienced men, who may be trusted to assert themselves with sufficient plainness, and to keep clear of pitfalls on one side or the other. They will know how to make erasures and additions accordingly. Everyone of us has already his own convictions upon the point which it is now proposed to bring to the test of figures. The question which Dr. Donkin has raised will serve as an useful reminder as to the necessity, as well as the difficulty, of entering upon such an inquiry cautiously and with an open mind.—Your obedient servant,

OCTAVIUS STURGES.

Wimpole Street, April 17th, 1882.

A LECTURE on "Modern Dress and Fashionable Deformities" will be given, on behalf of the National Health Society, by Mr. E. Noble Smith, on Saturday, April 22nd, at four o'clock, at the Hampstead Vestry Hall, Haverstock Hill, when Mr. Spencer Wells is announced to take the chair.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE PASS EXAMINATION FOR THE DIPLOMA OF MEMBER.

AT a meeting of the Council of the Royal College of Surgeons of England, a committee consisting of Mr. Birkett (Chairman), the President and Vice-Presidents of the College, Mr. Savory, Mr. Holmes, Mr. Wood, Mr. Bryant, Mr. T. Smith, and Mr. Heath, was appointed to consider and report on the following proposal:—

"That on and after the 1st of October 1882, no candidate be admitted to the Final or Pass Examination for the diploma of Member until after the expiration of two years from the date of his passing the Primary or Anatomical and Physiological Examination, unless he shall, before presenting himself for such Primary Examination, have completed the curriculum of professional study for the diploma, or shall possess a degree or diploma in Medicine or Surgery, or shall show reasons for exemption from this rule which shall be satisfactory to the Court of Examiners."

The Report of the Committee was printed on April 13. In this Report the Committee recommended to the Council the adoption of the principle advocated in the foregoing proposal, that two years should elapse between the date of passing the Primary or Anatomical and Physiological Examination and the Pass or Final Examination for the diploma of Member; and with a view to giving effect to that principle, further recommended for approval by the Council the following regulation:

Candidates commencing their professional education on or after the 1st of October 1882, will not be admitted to the Pass or Final Examination for the diploma of Member until after the expiration of two years from the date of their passing the Primary or Anatomical and Physiological Examination for such diploma, except in the following cases:

1. When a candidate, before presenting himself for the Primary Examination, shall possess a recognised degree or diploma in Medicine or Surgery, or shall have completed the curriculum of professional education for the diploma. 2. In the case of a candidate who, being desirous of obtaining the Fellowship, shall fail to present himself for the Primary Examination for the Membership at the end of his second year of professional study, but who shall pass at the end of his third Winter Session the Primary Examination for the Fellowship, it being required in such case that not less than one year of attendance on the surgical practice of a recognised hospital shall intervene between the date of his passing the Primary Examination for the Fellowship and the date of his presenting himself for the Pass or Final Examination for the diploma of Member. 3. In the case of a candidate who, having commenced his professional studies by attendance on the practice of a recognised Provincial or Colonial hospital, and having completed a year of such attendance, shall fail to pass the Primary Examination at the end of his second Winter Session of attendance at a recognised medical school, provided that in his case not less than one year shall elapse between the date of his passing the Primary Examination and the date of his presenting himself for the Pass or Final Examination for the diploma of Member. 4. When a candidate, owing to illness, duly certified by one or more of the teachers of his medical school, shall be prevented from presenting himself for the Primary Examination on the completion of his second year of professional study. 5. And in the case of a candidate who, from some unforseen circumstances, shall fail to present himself for the Primary Examination on the completion of his second year of professional study, it being left to the Court of Examiners to determine whether in such case the candidate shall or shall not be required to comply with the regulation.

ASSOCIATION INTELLIGENCE.

BRANCH MEETINGS TO BE HELD.

THAMES VALLEY BRANCH.—The next meeting of this Branch will be held on Thursday, May 4th, at the Griffin Hotel, Kingston-on-Thames, at 6 P.M. Members desirous of bringing any communication forward are requested to give due notice to the Honorary Secretary.—EDWARD L. FENN, M.D., Honorary Secretary, Richmond.—April 10th, 1882.

METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.—The next meeting will be held, by permission of the Lords Commissioners of the Admiralty, at the Royal Naval School, Greenwich Hospital, on Friday, April 28th, at 8 P.M.; Dr. Alfred Carpenter in the chair, when the following papers will be read. 1. On the Treatment of Angular Curvature of the Spine. By W. Johnson Smith, F.R.C.S. 2. On Two Unusual Cases of Midwifery. By Robert J. W. Oswald, L.R.C.P.—H. NELSON HARDY, Honorary Secretary, The Grove, Dulwich, S.E.—April 19th, 1882.

METROPOLITAN COUNTIES BRANCH: NORTHERN DISTRICT.—The next meeting of the District will be held at the house of Dr. T. Morton, 1, Greville Road, Kilburn Priory, N.W., on Thursday, April 27th, at 8.30 P.M. Dr. Stretch Dowse will read a paper on the Inhalation-Treatment of Bronchial and Lung Affections. Dr. Morton will preside.—G. W. POTTER, M.D., Honorary Secretary, 12, Grosvenor Road, N.—April 5th, 1882.

NORTH OF ENGLAND BRANCH.—The spring meeting will be held at the Hospital, Stockton-on-Tees, on Friday, April 28th, at 3 P.M. The first business will be the election of a President-elect, in the place of the late Dr. Robert Wilson of Alnwick. The following papers and cases have been promised. 1. Dr. Philipson: On Fixed Abdominal Pain. 2. Dr. Foss: Case of Fractured Patella treated by Aspiration of the Knee-Joint. 3. Dr. Foss: Case of Double Amputation. 4. Dr. Drummond: On some Points in the Diagnosis of Chronic Pulmonary Phthisis. The following subjects will be brought forward for discussion. *a.* Communication from Dr. J. M. Fothergill regarding the Editorship of the BRITISH MEDICAL JOURNAL. *b.* Communication from the South Western Branch regarding Homœopathic Practitioners. Members and their friends will dine together at the Stockton Club at 5.30 P.M.; charge (exclusive of wine), 6s. 6d.—T. W. BARRON, M.B., Durham, DAVID DRUMMOND, M.D., Newcastle, Honorary Secretaries.—April 12th, 1882.

LANCASHIRE AND CHESHIRE BRANCH.—The Honorary Secretary invites members to give early notice of papers to be read at the intermediate meeting, which will be held at Blackpool early in May, and at the annual meeting, which will take place at Chester in June.—A. DAVIDSON, M.D., Honorary Secretary, 2, Gambier Terrace, Liverpool.—April 19th, 1882.

SOUTHAMPTON DISTRICT: SOUTHERN BRANCH.—The next meeting of the District will be held at 6, Anglesea Place, Southampton, on Monday, April 24th, at 8 P.M. Paper by Surgeon-Major Blair-Brown on Resection of the Elbow. Paper by R. Cæsar, Esq., on Four Cases of Cerebral Tumour.—THEOPH. W. TREND, M.D., Honorary Secretary.—April 17th, 1882.

SOUTHERN BRANCH: ISLE OF WIGHT DISTRICT.—The annual meeting will be held at the Royal Pier Hotel, Sandown, on Thursday, April 27th, at 4 P.M.; J. G. Sinclair Coghill, M.D., President, in the chair. Agenda: Election of Officers for the ensuing year. Statement of Accounts for the past year. Report of the Proceedings of the District for the past year. An Address by the President-elect, A. G. Davey, M.D. A Case of Puerperal Fever: by Mr. J. Jones. The Duties of Medical Officers of Health: by Mr. A. Woodward. Gentlemen who are desirous of introducing patients, exhibiting pathological specimens, or making communications, are requested to signify their intention at once to the Honorary Secretary. Dinner will be provided at 6 P.M.; charge 6s. (exclusive of wine).—W. E. GREEN, Honorary Secretary, Sandown, Isle of Wight.

NORTH WALES BRANCH.—The next intermediate meeting will be held on Thursday, the 27th instant, at the Sportsman Hotel, Portmadoc, under the presidency of Dr. Samuel Griffith, immediately on the arrival of the morning or midday trains. After the meeting, the members will dine together, at an hour suitable to the times of the departure trains. Notices of the following communications have been given: 1. On Adenoma of the Breast. 2. On Naso-pharyngeal Polypus. By Mr. T. E. Jones.—J. LLOYD-ROBERTS, Honorary Secretary, Denbigh.—April 19th, 1882.

PROCEEDINGS OF THE COMMITTEE OF COUNCIL.

AT a meeting of the Committee of Council, held at the Council Room of Exeter Hall, Strand, London, on Wednesday, April 12th, 1882: Present, Mr. C. G. WHEELHOUSE, President of the Council, in the Chair; Dr. W. Strange, President-elect; Dr. W. F. Wade, Treasurer; Dr. Clifford Allbutt, Mr. Alfred Baker, Mr. T. H. Bartleet, Dr. M. de Bartolomé, Surgeon-Major Boileau, Dr. L. Borchardt, Dr. Alfred Carpenter, Dr. C. Chadwick, Dr. Ward Cousins, Dr. A. Davidson, Dr. Charles Drage, Dr. E. Long Fox, Dr. B. Foster, Dr. J. H. Gibson, Dr. W. C. Grigg, Mr. A. J. Harrison, Dr. C. Holman, Mr. W. D. Husband, Mr. Vincent Jackson, Dr. Leslie H. Jones, Dr. D. J. Leech, Mr. C. Macnamara, Mr. F. E. Manby, Mr. F. Mason, Mr. R. H. B. Nicholson, Dr. C. Parsons, Dr. S. Rees-Phillipps, Dr. Alfred Sheen, Mr. Septimus W. Sibley, Dr. A. P. Stewart, Mr. Henry Stear, Dr. E. Markham Skerritt, Dr. Edward Waters,

The minutes of the last meeting were read and found correct.

Read letters of apology for non-attendance from Mr. Barrow, President of the Association, Dr. Duffey, Dr. Eyton Jones, and Dr. R. Shettle.

The President of Council reported that, having received an invitation to attend a preliminary meeting of an Association for the Advancement of Medicine by Research, he had attended on behalf of the British Medical Association.

Resolved: That the best thanks of the Committee of Council be given to the President of Council for attending the meeting at the Royal College of Physicians on behalf of the British Medical Association, for the purpose of forming an Association for the Advancement of Medicine by Research.

Read Report of the Committee on the Study of Aural Surgery, of which the following is a copy.

Report of the Committee on the Study of Aural Surgery to the Committee of the British Medical Association.

Your Committee, appointed to consider the best means for promoting the study of Aural Surgery, especially in regard to compulsory examination in this subject by the various examining bodies, has held three meetings, and has been much gratified by the universal interest evinced in this matter by the teachers and practitioners of otology throughout the United Kingdom.

The Committee is deeply impressed with the importance of the subject, and considers that the evident want of knowledge among practitioners in matters concerning ear-diseases stands greatly in the way of their being able to deal promptly and effectually with cases of an acute character, and accounts for the very large number of neglected chronic cases which are met with in daily practice.

After carefully considering all the suggestions received, and discussing the various means for promoting the study of Aural Surgery, your Committee has arrived at the conclusion that all candidates for admission into the profession should have a practical knowledge of at least the essentials of otology, and that as *compulsory* attendance on lectures and hospital practice might be deemed undesirable, the object in view can be best attained by the licensing bodies including otology among the subjects for examination.

The Committee, therefore, earnestly recommends that you will request all the examining bodies to include Aural Surgery in their examinations, placing it on the same footing as *ophthalmic* surgery, and that you will further draw their attention to the especial importance of a practical examination in this subject.

(Signed) URBAN PRITCHARD, Chairman.
E. CRESSWELL BABER, Honorary Secretary.

Other Members of the Committee:—Messrs. George Abbott (London), John Appleyard (Bradford), T. Gelston Atkins (Cork), Thomas Barr (Glasgow), Arthur H. Benson (Dublin), A. Gardiner Brown (London, since deceased), Edgar A. Browne (Liverpool), John Walton Browne (Belfast), Lennox Browne London), James Patterson Cassells (Glasgow), John Chiene (Edinburgh), Andrew Clark (London), Henry Hugh Clutton (London), Alphonso Elkin Cumberbatch (London), William Bartlett Dalby (London), T. Curtis Denby (Bradford), John Henry Drew (London), J. J. Kirk Duncanson (Edinburgh), Richard Ellis (Newcastle), H. L. Ferguson (Dublin), George P. Field (London), Charles Edward Fitzgerald (Dublin), Thomas C. Floyd (Birkenhead), Francis George Hamilton (London), Arthur Hensman (London), George Frederick Hodgson (Brighton), Lucius Holland (Newcastle), W. Gordon Holmes (London), Archibald Hamilton Jacob (Dublin), William Powell Keall (Bristol), Charles George Lee (Liverpool), Samuel Macauley (Newcastle), Peter McBride (Edinburgh), Johnstone Macfie (Glasgow), Angus Macmillan (Hull), Farquhar Matheson (London), Joseph Seymour Metford (Bristol), Dawson Nesbitt (London), John A. Nunneley (Leeds), Arthur Wigelsworth Orwin (London), Jacob Pickett (London), Frederick Morrish Pierce (Manchester), William Laidlaw Purves (London), J. M. Elborough Scatliff (Brighton), Robert Sinclair (Dundee), John B. Story (Dublin), Henry Rosborough Swanzy (Dublin), Llewelyn Thomas (London), William James Tivy (Clifton), Robert Torrance (Newcastle), George Edward Walker (Liverpool), Charles Warden (Birmingham), William Cairns Wicks (Newcastle), John St. Swithin Wilders (Birmingham), William Wright Wilson (Birmingham), Edward Woakes (London).

It was moved and seconded,

That a copy of the Report of the Committee on Aural Surgery be sent to the various examining bodies for their information.

Whereupon an amendment was moved and seconded,

That the Committee on Medical Education be reappointed, and the Report of the Committee on Otology be referred to it.

The amendment having been put from the chair, the same was declared to be carried.

The amendment was then put from the chair as a substantive motion, and was declared to be lost.

The original motion was then put from the chair, and the same was declared to be carried.

The Committee then considered resolutions on Homœopathy forwarded from three Branches—viz., the South-Western, the Staffordshire, and the East York and North Lincoln—of which the following are copies.

1. Resolution of South-Western Branch:

"That this meeting desires to direct the attention of the Committee of Council of the Association to the resolutions, in regard to homœopathic practitioners, passed at the annual meeting of the Association in 1852, and reaffirmed at the annual meetings of 1858 and 1861; and now calls upon the Committee of Council to put in force, as speedily as possible, By-law 3, against homœopaths and all members of the profession who assume designations implying the adoption of special modes of treatment."

2. Resolutions of East York and North Lincolnshire Branch:

1. "That this meeting desires to express its entire disapproval of the views in relation to consultation with homœopathic practitioners expressed by the readers of addresses in medicine and surgery at the annual meeting of the Association at Ryde in 1881."

2. "That this meeting desires to direct the attention of the Committee of Council of the Association to the resolutions in regard to homœopathic practitioners, passed at the annual meeting of the Association in 1852, and reaffirmed at the annual meetings of 1858 and 1861; and now calls upon the Committee of Council to put in force, as speedily as possible, By-law 3, against homœopaths and all members of the profession who assume designations implying the adoption of special modes of treatment."

3. Resolution of Staffordshire Branch:

"That it is the opinion of the Staffordshire Branch of the Association that By-law 3 of the Association be enforced with regard to those who practice homœopathy, whether such persons have been admitted members of the Association prior to or subsequent to their profession and practice of homœopathy."

Dr. Rees Philipps then placed before the Committee of Council the views of the South-Western Branch on homœopathy.

It was moved and seconded:

"That, as it has been resolved by the Annual Meeting of 1852, and reaffirmed by the annual meetings of 1858 and 1861, that there are three classes of practitioners who ought not to be members of the Association, viz: (1) real homœopathic practitioners; (2) those who practise homœopathy in combination with other systems of treatment; (3) those who, under various pretences, meet in consultation or hold professional intercourse with those who practise homœopathy; it be an instruction to the Committee of Council to request [a member stated to be practising homœopathy at Plymouth] to withdraw his name from the list of members of the Association."

Whereupon an amendment was moved and seconded:

"That the South-Western, East York and North Lincoln, and Staffordshire Branches, be informed, that the Committee of Council does not see sufficient reason for reversing the opinion expressed by it on October 12th, 1881."

"That the President of Council be requested to convey this intimation to the Branches."

The amendment having been put from the chair, the same was declared to be carried.

The amendment was then put as a substantive motion, and declared to be carried.

Read letter from Dr. Milner Fothergill, respecting his proposed motion of alteration of By-law 12 at the annual meeting in August next.

Resolved: That the motion of Dr. Fothergill be placed on the Agenda of the first general meeting of members, to be held on Tuesday, August 8th, at 8 o'clock in the evening.

The proposals of 152 candidates for membership were then considered.

Read letter, stating that one of the nominees was a homœopath, that his proposers proposed him knowing this.

Resolved: That 151 of the candidates, omitting the candidate practising homœopathy, be and they are hereby elected members of the Association.

Resolved: That the minutes of the JOURNAL and Finance Committee of to-day's date be approved and adopted, and the recommendations carried into effect.

The minutes of the Journal and Finance Committee contain the examination of the quarter's accounts ending on the 31st March, amounting to £3,007 19s. 4d.; the auditors' report for the quarter, certifying office payments £834 11s. 4d., and receipts for quarter £4,343 1s. 8d.; also recommendation to invest a further sum of £1,000.

The Treasurer then placed before the meeting the financial statement for the year ending 31st December 1881.

Resolved: That the financial statement for the year ending 31st December 1881, be received, approved, and, in accordance with By-law 33, published in the JOURNAL.

Resolved: That the minutes of the Habitual Drunkards Committee of to-day's date, together with the report on the Dalrymple Home Association, be approved, and the recommendation carried into effect. See report, page 594.

Resolved: That the minutes of the Collective Investigation Committee of the 31st January last, be approved.

The minutes of the Collective Investigation Committee contain the appointment of Dr. Mahomed as honorary secretary.

Moved by Dr. Ward Cousins, seconded by Dr. Grigg, of which notice had been given,

That the following alterations in By-law 35 are desirable:

1. The President of the Association to be an *ex officio* member of the JOURNAL and Finance Committee.

2. The annual retirement of four of the elected members, who shall remain ineligible for re-election for two years.

The motion having been put from the Chair, the same was declared to be lost.

Dr. Ward Cousins then handed in notice of motion of alteration of By-laws at the Annual Meeting in August next, of which the following is a copy:

Dr. Ward Cousins gives notice that he will move, and that Dr. Grigg will second,

That the following alterations in By-law 35 are desirable:

1. The President of the Association to be an *ex officio* member of the Journal and Finance Committee.

2. The annual retirement of four of the elected members, who shall remain ineligible for re-election for two years.

Resolved: That the President of Council, the Treasurer, Dr. Chadwick, and Mr. Husband, be appointed a subcommittee to draw up the annual report.

Resolved: That the minutes of the Scientific Grants Committee of to-day's date be approved, and the recommendations carried into effect.

The minutes of the Scientific Grants Committee contain the particulars of the examination of three applications for grants, one of which, for £25, was granted; the other two were deferred.

GUY'S HOSPITAL.—The biennial dinner of past and present students of Guy's Hospital will take place at Willis's Rooms on Thursday, May 18th. Mr. Edward Cock, Consulting Surgeon to the Hospital, has consented to preside. Mr. H. G. Howse is the honorary secretary.

FINANCIAL STATEMENT FOR THE YEAR ENDING DECEMBER 31ST, 1881.

Balance Sheet, 31st December, 1881.

Revenue Account, or Profit and Loss for the Year ending December 31st, 1881.

Dr.]	£ s. d.	£ s. d.
Editor		500 0 0
Sub-Editor		200 0 0
Assistant Sub-Editor		150 0 0
Contributors		1,458 10 7
Journal:—		
Printing	2,805 19 6	
Paper	3,100 14 4	
Postage	1,173 17 5	
Address Bands	131 10 6	
		7,212 1 9
Wood Engraving		58 17 4
Reporting		92 0 6
Journal Expenses:—		
Editor's Postage	24 10 6	
Postage of Journal Slips	16 19 6	
	41 10 0	
Boy's Wages	33 3 0	
Newspapers	11 16 3	
Parliamentary Papers	2 10 0	
Telegrams, etc.	3 13 0	
Sub-Editor's Expenses	3 3 7	
		95 15 10
Editor's Clerk		100 0 0
Scientific Grants, 1881-82		300 0 0
Committees:		
Printing Report on Medical Education and postage	131 0 0	
Printing Address on Vivisection and postage	50 10 8	
Parliamentary Bills Committee—fees for Reports	28 7 0	
		209 17 8
Auditors' Fee		63 0 0
General Secretary		575 0 0
Rent		312 10 0
Taxes, Parochial, Gas, and Water Rates	126 2 6	
Fire Insurance	6 8 0	
		132 10 6
Miscellaneous Printing:—		
Printing in connection with Committees, Advertisements, Association Printing, Journal and Editor's Printing, and Reprints	238 18 11	
Printing at Annual Meeting, Ryde, Daily Journal, and Members' Cards, 1881	46 5 6	
		285 4 5
Reprints		92 14 10
Salaries and Wages		642 18 4
Postage		279 8 2
Sundry Office Expenses:—		
Travelling Expenses	21 15 2	
Commission and Advertising	3 11 11	
Journals bought in	3 6 9	
Travelling Expenses of Clerks	5 17 1	
Expenses of Sections	9 18 11	
Copying and Assistance	244 8 0	
Cleaning Offices	48 10 0	
Sundries and Petty Cash	85 18 0	
		423 5 10
Stationery:		
Account Books, Ledgers, Pens, Ink, Paper, etc.		201 18 3
Coals		6 8 0
Repairs and Alterations		25 6 2
Bank and Branch Charges		13 5 5
Legal Charges:		
Cork Libel Case	1,085 0 5	
General Charges, 1880-81	50 16 4	
		1,135 16 9
Plant Redemption Fund		250 0 0
Premises Redemption Fund		100 0 0
Furniture and Fittings		89 18 6
		15,006 8 10
Subscriptions, losses from death, etc.		301 2 5
Advertisements, Discounts, Allowances, etc.		896 18 3
Profit for the year carried to Balance Sheet		2,139 16 11
		£18,344 6 5

Cr.]	£ s. d.	£ s. d.
Subscriptions		9,516 0 6
Ditto former years		105 2 9
Advertisements		7,094 3 3
Sundry sales of Journal		875 15 7
Ditto Reprints		118 12 6
Sundries		38 0 3
One year's Dividends on £5,132 os. 6d. Consols	150 15 2	
Ditto on London and North-Western Railway 4 per cent. Debenture Stock, £2,000	78 6 1	
Ditto Midland Railway, £1,780	69 14 4	
		298 15 7
Balance of Scientific Grants unused and returned		43 11 9
Discount on Printing and Paper Account		248 2 3
Sale of Waste		6 2 0
		£18,344 6 5

Liabilities.

Dr.]	£ s. d.	£ s. d.
General Secretary		18 2 11
Subscriptions paid in advance		473 0 11
Advertisements ditto		106 12 10
Wood Fund		25 0 0
Hastings Fund		27 18 0
Scientific Grants		155 0 0
Contributions		494 16 3
Reporting		7 7 0
Engraving		3 5 10
Printing Journal		143 16 0
Paper for Journal		365 10 7
Postage for Journal		3 18 8
Miscellaneous Printing		26 17 3
Stationery		41 5
Copying and Assistance		3 15 0
Repairs		10 8 0
Legal Charges		50 16 4
Coals and Gas		5 8 0
Plant Depreciation Fund	400 0 0	
Added for 1881	250 0 0	
		650 0 0
Premises Redemption Fund	225 0 0	
Added for 1881	100 0 0	
		325 0 0
		2,938 2 0
Balance on 1st January, 1881	11,748 0 8	
Profit carried from Revenue Account	2,139 16 11	
Balance, being total of excess of Assets over Liabilities		13,887 17 7
		£16,825 19 7

Assets.

Cr.]	£ s. d.	£ s. d.
Subscriptions: amount due		693 16 9
Advertisements: amount due		1,843 2 4
Sundry Sales: amount due		118 1 2
Amount due from Branches		0 7 6
Reserve Fund:		
Interest due on £1,280 4 per cent. Midland Railway	34 17 2	
Ditto ditto on £5,132 os. 6d. Consols	75 7 7	
Ditto ditto on £2,000 London and North-Western Railway	48 10 1	
		158 14 10
Alteration of Premises, at cost		1,157 11 11
Furniture and Fittings		401 16 4
Plant and Type, at cost		1,114 1 10
Consols (£5,132 os. 6d.), at cost	4,967 10 0	
London and North-Western Railway £2,000 4 per cent. at cost	2,231 7 0	
Midland Railway £1,780 4 per cent. Debenture Stock at cost	2,013 1 6	
		9,211 18 6
		14,699 11 2
Cash in hand:—		
At London and Westminster Bank		2,126 8 5
		£16,825 19 7

Stewart Fund.

£400 invested in 4 per Cent. Caledonian Railway Debenture Stock, in the name of the British Medical Association.

Dr.]—1881.	£ s. d.	£ s. d.
To Balance brought forward, viz.:		
At Bank	£43 10 8	
Less due to the Association for Legal Charges	9 0 0	
		34 10 8
Interest, one year, on £400		15 12 8
		£50 3 4

Cr.]—1881.	£ s. d.
By Balance carried forward	50 3 4
	£50 3 4

Middlemore Fund.

£500 invested in 4 per Cent. North British Railway Debenture Stock, in the name of the British Medical Association.

Dr.]—1881.	£ s. d.	£ s. d.
To Balance brought forward, viz.:		
At Bank	£42 15 11	
Less due to Association for Legal Charges	8 18 6	
		33 17 5
Interest, one year, on £500		19 10 10
		£53 8 3

Cr.]—1881.	£ s. d.
By Balance carried down	53 8 3
	£53 8 3

HASTINGS FUND.

£477 invested in 4 per Cent. London and North-Western Railway Debenture Stock, in the name of the British Medical Association.

DR.]—1881.	£	s.	d.
To Balance brought forward	9	6	0
Interest, one year, on £477	18	12	0
	£27	18	0

CR.]—1881.	£	s.	d.
By Balance due from Balance-Sheet	27	18	0
	£27	18	0

We have examined the foregoing accounts with the books and vouchers of the Association, and find the same to be correct.

April 6th, 1882. PRICE, WATERHOUSE, & CO.

CORRESPONDENCE.

THE ASSOCIATION FOR THE ADVANCEMENT OF MEDICINE BY RESEARCH.

SIR,—Your correspondents are perhaps premature in criticising the constitution of the above Association; and certainly are in error, if they suppose that there is any exclusive feeling on the part of those who are endeavouring to form a society of such far-seeking aim, and of such paramount importance to the profession, as this is. When Dr. Ferrier's prosecution was exciting attention, it was obvious that the question at issue was not a personal one, but one in which every man of science was interested. It was competent for any one, or for the whole body of the profession, to take action at once; but those who did so considered that the best method was, not only to obtain the co-operation of the bulk of the profession, but of its great leaders and representatives; and they, therefore, framed the present scheme as best constituted for the purpose. It was obviously necessary to gain the co-operation of the universities, colleges, and learned societies, as having not only weight with the profession, but with the public. Their assistance was at once obtained; and it was then thought most desirable to place the movement in the hands of the Presidents of the two London Colleges, who should head and inaugurate it. The Presidents at once and most heartily promised their aid; and the first meeting was held, as reported in your columns. Every one has hitherto expressed his great satisfaction at the results. It was quite impossible, at this preliminary meeting, that even all the Fellows of the College could have been invited; they would at once have choked the library.

It is true that the first council will be composed of the presidents of the learned societies, and of others who will be nominated by the two presidents. They must necessarily select men who will do the work of the council in committee; and they will seek further throughout the country—at least I have been informed that, at the next meeting, the names proposed will be some of the most distingished men of the provinces. I am sure that it has been the aim of all engaged in promoting the Association to gain the co-operation of all in the profession. The question which has given the impetus to it is one between the profession and the public; and it only requires a perusal of some recent writings to discern the animus of our opponents, and to secure the sympathy of the entire profession. Any disagreement among us will be readily seized on by them. The Association is scarcely yet formed, and no doubt changes will be introduced when experience has proved them to be useful.—I am, your obedient servant,

SAMUEL WILKS, *Treasurer (pro. tem.)*.

Grosvenor Street, April 1882.

SIR,—The criticisms of Dr. Barnes upon the constitution of the Council of this Association are conceived in so friendly a spirit, that we cannot doubt the improvements he suggests would be cordially accepted if they would make its working more efficient. But would this be the case?

Dr. Barnes agrees as to the wisdom of making the Council consist of representatives of the Colleges of Physicians and Surgeons, of the medical faculties, and of the medical societies; but he prefers direct election to representation by the several presidents and their nominees. It appeared, however, to those who drew up the regulations, that election would involve waste of time and energy, without really securing more efficient representation, while no one can doubt that a body composed of those who have been chosen to fill the highest offices in their several societies on account of their general eminence, will speak with greater authority to the Government and to the public than one composed of delegates selected for a special purpose. That the presidents of the two colleges should have considerable influence on the council is nothing more than fair, seeing that they are responsible for its action.

To have secured the co-operation of the Universities of the British Medical Association, the Royal Society, and the other scientific and professional bodies enumerated, is surely a great point gained. If Dr. Barnes fear that in the Council discretion will be more apparent than zeal, he must remember that the object of the Association is not popular agitation; it is not primarily controversial. The working physiologists of the three kingdoms have expressly stated that they do not desire (at least, for the present) to attempt to abolish the Act, of which we are all ashamed, but to secure its being harmlessly administered. To speak with authority to public opinion, and to bring effectual pressure upon officials, needs other means than those which are suited to the arena of controversy: controversy with opponents who will correct Sir William Jenner upon points of medicine, Professor Huxley on science, and Dr. Barnes on gynæcology. Another object of the Association is to educate public opinion; and the series of articles lately published by Paget and Wilks, Gull and Carpenter, Brunton and Yeo, prove that this has not been neglected.

With regard to the valuable letters of Dr. Thin and Mr. Hallowes, on the importance of interesting the profession in local centres on behalf of the cultivation of medical science by way of research; one of the rules of the new Association provides that corresponding Members of Council shall be appointed throughout the country, who will form centres of intelligence and help to those who have so well defended "the workers in medical science against the attacks of ignorant, but persistent, opponents."

Although the eminent men of Scotland, Ireland, and the provinces, will be well represented on the Council, the main burden of business will almost of necessity fall upon the members resident in London. But there will be room for all, and welcome.

Only experience can show what future modifications may be desirable. At present a good beginning has been made, and with united action, and a wise mixture of zeal with discretion, we are certain of a good continuance.—I am, etc.,

A MEMBER OF THE PROVISIONAL COMMITTEE.

April 12th, 1882.

THE RAISON D'ETRE OF LYING-IN HOSPITALS.

SIR,—In your comment on my letter in the BRITISH MEDICAL JOURNAL of to-day, you say that I do "not know the real question at issue." The letter was not meant to do so, but was merely intended as a reply to certain strictures on page 400 of your JOURNAL. There you say "the new committee will set energetically to work *to bring the hospital up to the level* of the obstetric knowledge of the day." This sentence, as I read it, means that the hospital has hitherto been *below* this level, in the opinion of the writer of the article, and is an assumption of superiority that is charming to contemplate. If you will take the trouble to read my letter again in this light, you will see that I merely endeavoured to show that, up to that date, our staff had shown as good results as those of any hospital, and that, consequently, they were not behind the time, and did not deserve censure. From this point of view, the lying-in wards of the workhouse were mentioned, and it was shown that a comparison between the results obtained in these, with those of intern maternity charities, was unfair to the latter.

The saying that "any woman, at the time of labour, may be in danger," leaving out the word "special," and arguing that all women may, therefore, fitly go into hospital to be confined, and that the manifesto alluded to concedes all this, I shall leave, and pass on to another part of your comment. You say "nothing is now more clearly demonstrated than that, by the strict application of improved hygienic and antiseptic measures, the mortality of lying-in hospitals may be kept down to a point that will bear comparison with domiciliary midwifery." Now, sir, I deny that this has been proved; at any rate before accepting the statement, you must show your proof. You surely do not expect this to be believed on your mere assertion. Moreover, the statistics of one, or even two years, will not be satisfactory proof. I ask for at least five years' statistics. In the year 1880, in the British Lying-in Hospital, there were 139 cases, and three deaths; in 1879, 169 cases, and one death; in 1877, 158 cases, and eight deaths; total, 466 cases, and twelve deaths, or one death in about thirty-nine cases. In 1881, I see there were 160 cases, and one death. This brings the total figures up to 626 cases, and thirteen deaths, or one in forty-eight. This is the kind of proof that is forthcoming from all sides, and I sub-

mit that, in face of it, the high-sounding declaration quoted above should rather be taken as the expression of a fond hope, than as a statement, in exact accordance with what is.—I am, sir, yours obediently, J. E. BURTON.

64, Rodney Street, Liverpool, April 15th, 1882.

*** The "real issue" is whether an existing hospital, subscribed for, and dedicated to the purposes of a lying-in hospital, can, with advantage, be diverted to some different purpose. The question which our correspondent raises, as to the comparative safety of hospital, workhouse, and domiciliary obstetric practice, is a side issue. As to the supposed imputation against the medical arrangement of the Liverpool Lying-in Hospital, drawn from our article, there was none made or intended. Very few lying-in hospitals have yet been fully brought up to the level of the most advanced obstetric knowledge of the day. We would, however, point to the Maternité at Paris to show what has been, and can be, done in this direction.

HOSPITAL AND DISPENSARY MANAGEMENT.

TWICKENHAM PROVIDENT DISPENSARY.

IT appears, from the annual report, that the dispensary made a very slight advance last year, the number of members being 680 in 1880, and 685 in 1881. The amount contributed by members, year by year, during the five years that the institution has been in existence, shows a very satisfactory increase. At this dispensary the patients are seen by the medical officers—Mr. Alfred Clark and Dr. Martindale—at their own surgeries. At the close of the year the sum of £171 was divided between the medical officers. This included the supply of medicines. The committee are evidently fully alive to the advantages of the provident principle; and there can be no doubt that this dispensary will become a much more important institution than it now is. The report alludes to the numbers of members who have fallen into arrears during the year, and says that the subject is engaging the serious attention of the committee. The same complaint reaches us from many dispensaries, and we believe that some system of collection will be found necessary, either by the appointment of a single collector, whose business it shall be to call upon the members who are in arrears, and obtain their subscriptions; or by the appointment of a working-man collector in each district, in the manner that is so extensively practised by some of the life assurance offices.

GLASGOW AURAL HOSPITAL AND DISPENSARY.

THE first annual meeting of the supporters of what may be regarded as the youngest of the Glasgow charities, was held on March 29th. Judging from the report of the directors, the medical report, and the financial statement, submitted to the meeting, the institution has done good work since its establishment. During the year 1032, patients had come under treatment, of whom 778 were cured, 138 improved, 40 were incurable, 45 were not subjected to any treatment, and 31 were still under treatment. Great advantage was derived from the use of the fifteen beds which the charity possesses, as they allowed of the admission of serious cases which could not have been treated as out-patients. From this it will be seen that the institution has conferred benefit on a large number of sufferers from ear disease, and the directors are to be congratulated on the present condition and prospects of the charity; but it is to be regretted that the tone of the speeches at the meeting, and of the report, was such as to give the impression that no attention was given to aural diseases in Glasgow, save at this hospital and dispensary, whereas both our infirmaries possess departments fully equipped, and in every way suitable for the special treatment of these affections.

THE PAISLEY INFIRMARY.

AT the annual meeting of the supporters of the above institution, held on March 27th, a very satisfactory report for the past year was read and approved. From this report it appears that there were 549 patients admitted to the Infirmary, making, with 41 remaining at the beginning of the year, a total of 590 treated in the course of the year 1881. There were 44 deaths, 37 of which were medical and surgical patients, while the remaining 7 were fever cases. Of the remaining 546 patients, 498 were dismissed cured or improved, leaving 48 in the institution at the beginning of the year. 4,613 patients were prescribed for at the dispensary, being an increase of 173 on the preceding year. During the past year the number of in-patients was the smallest that has been admitted for a quarter of a century, and the improved health of the community is shown by there only being 54 fever cases, while in 1871 these numbered 692. The financial statement was most satisfactory, there being a considerable balance over after paying all expenses. Of the legacies received during the year, there was the very handsome one of £5,000 from the late Mr. James Clark, "to be applied to and for the benefit of out-door patients suffering from consumption."

CORK HOSPITAL FOR WOMEN AND CHILDREN.

LAST year 1,508 patients were treated, of whom four died. Of the 182 intern patients, 110 were received free of charge, and 72 paid sums, varying from two shillings to half-a-guinea per week. The special appeal made on behalf of the hospital resulted in a sum of £219 13s. 4d. having been obtained, a concert realised £35, and the bazaar, held in November, resulted in a net gain of £707 7s. 3d. The Lord Bishop of Cork was of opinion that the South Charitable Infirmary should be able to take up the work of the Children's Hospital, in consequence of the endowments it possessed, and the large sums it received from the public revenue; but Dr. Cummins, one of the medical staff, believed that if this arrangement were to take place, it would be simply putting an end to the existence of the charity. The South Infirmary was a splendid institution, but could never do the work of the hospital for women and children. In consequence of these observations, the medical officers of the infirmary have published the following statement in reference to that institution:—That every affection from which a woman can suffer is treated in the female wards of the county hospital, and special operations are there constantly performed from the most serious known to obstetricians to the simplest; that the wards are never without a large number of special gynæcological cases under treatment; that special precautions are taken to respect the privacy of the patients: and that a very large number of children suffering from the diseases incidental to infant life, are annually received into the female wards, where, as a rule, they are kept separate.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

BARNSLEY RURAL DISTRICT.—Dr. Sadler embodies in a very able and practical report a short *résumé* of the sanitary work done during the year, and while showing that many improvements have been effected, points out the necessity for renewed activity on the part of the sanitary authority. Thus, the main sewerage scheme progresses somewhat slowly, and its extension to many parts of the district is urgently needed. The water-supply has been improved in some places, but is still imperfect in that part of the district which depends for its supply from shallow wells. During the year 870 births and 346 deaths were recorded (exclusive of 10 which happened in the workhouse), being equal to rates of 42.12 and 16.78 per 1,000 respectively, the latter rate being the lowest recorded since the district was formed. The seven principal zymotics caused 47 deaths, or at the rate of 13.58 per cent. of the whole mortality. Of these 11 were from scarlet fever, 8 from whooping cough, 6 from typhoid fever, and 22 from diarrhœa. There were also 3 deaths from croup, and 1 from erysipelas. Only 12 of the deaths from diarrhœa could in any way be classed as due to the usual autumn epidemic, whereas in 1880 there were 40 deaths in that time of the year. The health-officer is inclined to attribute this to the prevalance of wet, and consequent comparatively cool and equable weather in August and September of last year. Inflammatory affections of the lungs and consumption caused more deaths than any other group of disease; 69, or nearly 20 per cent. of the whole being due to the first, and 36 or more than 10 per cent. to consumption in different forms. Alluding to the appointment of the school-attendance officer as assistant sanitary inspector for chief part of the district, Dr. Sadler states that it has been of the greatest service in increasing the efficiency of the action taken for the prevention of the spread of infectious disease.

BURY ST. EDMUND'S.—The mortality returns of this town for the past year are highly satisfactory. Amongst a population of 16,211 souls, the total number of deaths registered was 308, being 32 less than the number returned in 1880, 24 less than the average of deaths for the five years from 1876 to 1880 inclusive, and equal to a death-rate of 19.0 per 1,000. This rate, however, includes the deaths of 24 persons not belonging to the town, deducting whom, the death-rate becomes 17.5 only, the lowest recorded since 1876. The absence of any fatal epidemic was conducive to this favourable result, since only 24 deaths of the zymotic class were registered, against 38 in the pre-

vious year. Diphtheria was an important factor in the zymotic group, causing 5 deaths, against 1 in 1880. Of these 5 deaths, 2 were due to impure water, and the remaining cases were associated with sanitary defects. Five cases of small-pox occurred during the year, but happily none were fatal—a result which must be attributed to the energetic action of the health-officer in securing immediate isolation of the person attacked, together with the speedy disinfection of the premises where the disease first appeared. In this connection, Mr. Winter Clarke draws attention to the advantage which Bury possesses, in having a building set apart for the reception and isolation of infectious cases. In view of certain emergencies which may at any time arise, he suggests that a separate building should be constructed for small-pox patients alone, since the present hospital has no adequate means for completely separating such cases from those of an infectious but less objectionable character. As regards the sanitary condition of his district, Mr. Clarke reports that the water-supply has been recently extended, and that the town is now abundantly supplied with this great necessity of life and health. The drainage-arrangements, however, seem capable of improvement; for, while the streets are well paved, well drained, and clean, there are many courts and yards which lack these important conditions. There are, moreover, many objectionable cesspools in the older parts of the town, though progress is being made in this respect. Middens, etc., are gradually being abolished; and more houses are becoming connected with the sewers, 114 such connections having been made during the past year.

RICHMOND (SURREY) RURAL DISTRICT.—Many portions of this important district seem in a very unsatisfactory condition. A large part, Dr. Adams states, "is dependent on cesspools, which, in the crowded condition of portions of the district, are an abomination : the small back yards of the cottages being completely honeycombed, and the soil reeking with foul vapours. The water-supply also is far from satisfactory, since it is intermittent, and inspection has shown that many of the cisterns are in a very foul condition. Notwithstanding that there is much likely to be prejudicial to health in the district, a remarkably low death-rate is reported, the rate for the past year being equal to 13.59 per 1,000. Of the total deaths, 13 were attributed to measles, 10 to diarrhœa, 5 to scarlatina, and 3 to whooping cough; the total zymotic mortality (31) being equal to a rate of 2.12 per 1,000. During 1880 the total deaths from these causes were only 22, the increase being due to the fatality of measles which, while entirely absent in that year, were generally prevalent during 1881. Thirteen cases of small-pox came under the notice of the health-officer, three of which were unvaccinated, two were doubtful, and one had only one mark. Seven of the cases were treated in public institutions, and the remainder at their own homes. None of these latter cases terminated fatally, but Dr. Adams does not, unfortunately, state the result of those treated at the hospital at Highgate. In alluding to the prevalence of this disease, attention is properly drawn to the want of hospital accommodation for the treatment of cases of infectious disease. The nearest accommodation of this kind is either at Highgate or the Liverpool Road, the journey to either of which is far too great for people prostrate with dangerous illness.

CARMARTHEN URBAN DISTRICT.—The death-rate of this district for 1881 was only 18.9 per 1,000, against 21.16 for 1880, and an average rate for the preceding nine years of 22.7. From zymotic complaints, three deaths only happened, against thirty-seven in the previous year. Bronchitis and pneumonia were also less fatal than usual, but there were thirty deaths from scrofula. The infantile mortality was somewhat high, forty deaths being those of children who had not completed their first year. Infantile convulsions accounted for twelve of these deaths, chest-diseases for nine, scrofula for four, and croup for two. The condition of the district under Mr. Hughes' charge seems to have been thoroughly and systematically inspected, and little seems needed but the improvement of some of the foot-paths. Neither the infectious hospital or the disinfecting oven was used during the year.

TYNE PORT.—This important port has now come under the sanitary supervision of Mr. Armstrong, the energetic health-officer for Newcastle. Mr. Armstrong finds that the most common defects in the vessels which he inspected were insufficient ventilation, darkness or dirtiness of forecastles, and insufficient ventilation or filthiness of closets. During the year there were 3,309 vessels inspected by the inspector, 1,164 of which were found in a good condition, 1,887 were passable, and 258 were in a bad state. With the exception of six vessels, which had left before they could be revisited, the defects appear to have been remedied in accordance with the inspector's requirements. Thirteen cases of infectious disease were admitted into the floating hospital from vessels arriving in the port, as compared with a total of eleven in the previous year. The admissions for 1881 included five of small-pox (two hæmorrhagic), four of enteric fever, one of febricula, one of German measles, one of diphtheria, and one of tonsillitis. Mr. Armstrong explains that these admissions, although few in number, were widely distributed over the year, and caused the wards to be kept in frequent use. The hæmorrhagic cases of small-pox bore no traces of vaccination, and both died. Of the remaining eleven cases, ten recovered and were discharged, while the last patient was, at the date of the report, convalescent, and would be able to leave the hospital in a few days.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in Anatomy and Physiology, at a meeting of the Board of Examiners, on the 13th instant, and when eligible will be admitted to the pass examination.

Messrs. Arthur F. Stace, James S. Robertson, and Charles L. Hudson, students of the Middlesex Hospital; Hugh Armstrong, William A. B. McCabe, and Niell MacGillycuddy, of University College; Albert R. Jolliffe, Edward Felix, and Arthur D. Jolly, of the Charing Cross Hospital; Ernest W. Phillips, Alfred H. Tubby, and Reginald M. H. Randell, of Guy's Hospital; Herbert W. A. Branson and Cornelius C. Caleb, of King's College; H. Grattan Guinness, of the London Hospital; William J. Maurice, of St. Thomas's Hospital; Richard Pinhoon, of St. George's Hospital; and William A. Wills, of the Westminster Hospital.

Four candidates were rejected, including one for six instead of three months.

The following gentlemen passed on the 14th instant.

Messrs. J. D. Johnstone Harris, John C. Smith, and John McK. Ackland, of the Charing Cross Hospital; Charles Chambers, Franke C. H. Smith, and Lawrence Barnett, of University College; Percy D. Bray and Ernest H. Freeland, of the Middlesex Hospital; Robert N. A. Wallinger and John P. W. Gray, of King's College; George E. C. Anderson and William H. Bowes, of Guy's Hospital; Ralph T. Cann, of St. Thomas's Hospital; George C. Macdonald, of the Westminster Hospital; George W. H. French, of St. Mary's Hospital; Robert Trevor, of St. George's Hospital; and Thomas W. Heywood, of the Manchester School.

Eleven candidates were rejected, making a total of 45 out of the 232 candidates examined, who, having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their anatomical and physiological studies for three months, including two who had an additional three months.

The following gentlemen, having undergone the necessary examinations, were admitted Members of the College at a meeting of the Court of Examiners on the 18th instant.

Messrs. Clare A. Everest, L.R.C.P.Ed., Gipsey Hill; R. Broughton Knowles, L.R.C.P.Ed., Sussex Street, S.W.; R. Bissell Mole, L.R.C.P.Ed., Redditch; Michael H. Feeny, L.R.C.P.Ed., Castlebar; Robert Beswick, L.S.A., Cheshunt; Francis J. Lea, L.S.A., Downside, Bath; Robert W. Jalland, L.S.A., Horncastle, Lincolnshire; W. Carrington Hearnden, Sutton, Surrey; Thomas W. L. Beales, Holland Road, Kensington; George H. Vos, B.A.Cantab., West Dulwich; Arthur F. G. Codd, Clarendon Road, W.; William H. Evans, Seaton, Devon; Arthur Bowe, Shipley, Yorkshire; John J. Y. Baber, Thurloe Square, S.W.; Bertram H. L. Stivens, Chester; Alfred H. Willoughby, Aberdeen Place, W.; Frederick W. Hewitt, B.A.Cantab, Grove Place, S.W.; Hinton E. Bateman, Canterbury; Thomas Sinclair, M.D.Queen's Univ. Irel., Belfast; and Simpson Powell, L.S.A., Southborough, Kent.

Nine candidates were rejected.

The following gentlemen passed on the 19th instant.

Messrs. George H. How, M.D.Phil., Hayling Island; Bassett C. E. F. Gunn, L.R.C.P.Ed., Rochester; Cecil J. Muriel, L.R.C.P.Lond., Norwich; William C. Bull, B.A.Cantab., Bromborough, Cheshire; William B. Paterson, Fleet Street; Herbert E. Rowell, Lewisham; William H. Linney, Haverstock Hill; Harry Swift, B.A.Cantab., Ely, Cambs.; Gilbert E. Butler, Hobart Town; George H. Phillips, Newcastle, New South Wales; John C. Jackson, Wellington Road, N.W.; Thomas Horsfall, L.S.A., Masham, Yorkshire; William A. Payne, Oswestry; Horace H. C. Murray, Wray Crescent, Tollington Park; Arthur Orton, L.S.A., Foleshill; Frank L. Phillips, L.S.A., Moseley, Warwickshire; Arthur C. N. Goldney, L.S.A., Hammersmith; Adolphus J. Richardson, M.A.Cantab., L.S.A., Sidney Square, E.; Robert Black, L.S.A., Brighton; and J. Best Trapp, L.S.A., Bedford.

Five candidates were rejected.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, April 6th, 1882.

Berry, John Bourne, Eagle Lodge, near Galway.
Bush, James Paul, Bristol Royal Infirmary.
Benison, William Bedell, Holly Bank, King's Heath.
Horsfall, Thomas, Marsham, Yorkshire.
Jalland, Robert Wallace, Horncastle, Lincolnshire.

The following gentlemen also on the same day passed their Primary Professional Examination.

Bernard, Alfred George F., St. Barthomew's Hospital.
Dean, Francis, St. Bartholomew's Hospital.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the usual monthly examinations for the Licences of the College, held

on Monday, Tuesday, Wednesday, and Thursday, April 10th, 11th, 12th, and 13th, the following candidates were successful.

For the Licences to practise Medicine and Midwifery.—James Henry Daly, Thomas Daly, Charles Ernest Denning, Michael Leo Hearn, John Oldershaw, Thomas Joseph Stafford.

For the Licence to practise Medicine alone.—Ephraim MacDowel Cosgrave, Robert Charles Garde Durdin, John McIlroy.

For the Licence to practise Midwifery alone.—John Edward Snow Barnes, Wahab McMurray, William Christopher Thompson.

The following Licentiates in Medicine of the College, having complied with the by-laws relating to Membership, have been duly admitted Members of the College under the provisions of the Supplemental Charter of 1878.

John Tyndall, 1868, Surgeon R.N.; William Josiah Smyly, 1872, Dublin; Henry Grier, 1873, Surgeon A.M.D.; William Michael MacGrath, 1875, London; Leslie Maturin, 1875, Kilmainham; Standish Thomas O'Grady, 1876, Surgeon R.N.; Michael Francis Cox, 1877, Dublin; Robert Leonard Rutherford, 1878, Exminster.

(The numerals indicate the year in which the Licence in Medicine of the College was obtained.)

MEDICAL VACANCIES.

The following vacancies are announced :—

ALNWICK INFIRMARY—House-Surgeon. Salary, £100 per annum. Applications by May 6th.

BRISTOL GENERAL HOSPITAL—Assistant House-Surgeon. Salary, £50 per annum. Applications by May 4th.

BRITISH HOSPITAL, Buenos Ayres, South America.—Resident Medical Officer. Salary, £200 per annum. Applications by May 1st.

CHESTER GENERAL INFIRMARY—Visiting Surgeon. Salary, £80 per annum. Applications by 22nd instant.

CITY DISPENSARY, 46, Watling Street.—Surgeon. Applications by May 5th.

CLINICAL HOSPITAL AND DISPENSARY FOR WOMEN AND CHILDREN, Park Place, Manchester.—House-Surgeon. Salary, £80 per annum. Applications to Mr. Edwin Marshall, Secretary, 38, Barton Arcade, Manchester, by 29th instant.

CORK DISTRICT LUNATIC ASYLUM—Assistant Resident Medical Superintendent. Applications by May 1st.

COTTAGE HOSPITAL, Scotland.—House-Surgeon. Salary, £30 per annum. Applications to No. 161A, BRITISH MEDICAL JOURNAL Office, 161A, Strand.

ENNIS UNION—Second Medical Officer and Apothecary to the Workhouse, at a salary of £75 per annum.

GUEST HOSPITAL, Dudley.—Member for the Honorary Medical Staff. Applications by the 24th instant.

HARTLEPOOL UNION—Medical Officer for the District. Salary, £50 per annum. Applications to the Clerk by May 17th.

HARTLEPOOL UNION—Medical Officer for the Workhouse. Salary, £65 per annum. Applications to the Clerk by May 17th.

MEDICAL MISSION TO CENTRAL AFRICA—Fully qualified Practitioner. Salary, £200 per annum. Applications to M. Smale, Esq., Secretary, G. S. L., 89, Seymour Street, Connaught Square, W.

METROPOLITAN ASYLUMS BOARD—A Second Assistant Medical Officer. Salary, £120 per annum. Applications, by 27th instant, to 37, Norfolk Street, Strand.

NATIONAL DENTAL HOSPITAL, 149, Great Portland Street, W.—House-Surgeon. Salary, £50 per annum. Applications by April 26th.

ROYAL HANTS COUNTY HOSPITAL—House-Surgeon. Salary, £100 per annum. Applications by May 6th.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Clinical Assistant. Applications by 28th instant.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Assistant House-Surgeon. Applications by 28th instant.

SCHOOL OF DENTAL SURGERY—Teacher of Dental Metallurgy. Applications to the Dean of the Medical School, Dover Street, Liverpool, by April 25th.

SUNDERLAND INFIRMARY—Junior House-Surgeon. Salary, £60 per annum. Applications to Chairman of the Medical Board by the 27th instant.

SURREY COUNTY LUNATIC ASYLUM, Brookwood.—Junior Assistant Medical Officer. Applications by May 1st.

TORBAY HOSPITAL AND PROVIDENT DISPENSARY, Torquay.—Junior House-Surgeon and Dispenser. Salary, £90 per annum. Applications by May 22nd.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Surgeon. Salary, £80 per annum. Applications by May 6th.

WEST RIDING LUNATIC ASYLUM, Wakefield.—Resident Clinical Assistant. Applications to Dr. Herbert Major, Medical Superintendent.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Physician. Honorarium of £100 a year. Applications by April 24th.

MEDICAL APPOINTMENTS.

BROWN, M. L., M.B., appointed Assistant Medical Officer to the Middlesex County Lunatic Asylum, *vice* W. J. Seward, M.B., promoted.

CRANE, C., M.R.C.S., appointed House-Surgeon to the Kent and Canterbury Hospital, *vice* G. C. Bull, L.R.C.P., resigned.

HOLDSWORTH, Arthur T., M.R.C.S., appointed Assistant Medical Officer to the Leicestershire and Rutland Asylum.

LOVERIDGE, A. W., M.R.C.S.E., appointed Second Junior House-Surgeon to the Huddersfield Infirmary, *vice* Z. Prentice, M.R.C.S., promoted.

MACEWEN, F. A., M.B., appointed Medical Officer to the Parish of Gairloch, Rossshire, *vice* D. Black, L.F.P.S., resigned.

MACLEAN, A., L.R.C.S., appointed Medical Officer and Public Vaccinator to the Epsom Union *vice* L. Potts, M.R.C.S., resigned.

PENNY, E., M.B., appointed Resident House-Physician to the Seamen's Hospital, Greenwich, *vice* H. Le Cronier, L.R.C.P., resigned.

SANDERS, C., M.B., appointed Resident Surgeon to the Queen's Hospital, Birmingham.

STANGER, C. E., L.R.C.P., appointed Resident Surgeon to the Nottingham Dispensary, *vice* E. Hey, L.R.C.P., deceased.

TWEED, J. M., L.R.C.P., appointed Assistant Resident Surgeon to the Nottingham Dispensary, *vice* C. E. Stanger, L.R.C.P., promoted.

WARREN, Thomas, M.R.C.S., appointed Medical Officer of Health to the Aylesbury Union, *vice* F. Keene, L.R.C.P., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., *which should be forwarded in stamps with the announcements.*

MARRIAGES.

CULLINGWORTH—FREEMAN.—On Saturday, April 15th, at Christ Church, Moss Side, by the Ven. Archdeacon Anson, assisted by the Rev. John G. Stowell, B.A., rector of St. Peter's, Oldham Road, Manchester, Charles James Cullingworth, M.D., M.R.C.P., to Emily Mary Freeman, of Southsea, Hants.

FIRTH—MARRIOTT.—On the 13th instant, at the parish church, Swaffham, Norfolk, by the Rev. G. R. Winter, Vicar, Eustace Firth, M.B., C.M., of Debenham, Suffolk, youngest son of the late G. W. W. Firth of Norwich, to Ellen Maria, eldest daughter of Robert Buchanan Marriott, surgeon, Swaffham.

MOWLL—STEDMAN.—At Great Bookham, April 13th, by the Rev. E. Malleson, assisted by the Rev. W. R. Mowll, brother of the bridegroom, C. Havelock Mowll, Esq., third son of W. R. Mowll, Esq., J.P., of Chaldercott, Dover, to Theodosia Mary Savignac (Vigny) Stedman, only daughter of Arthur Stedman, M.R.C.S., of Great Bookham.

WHITBY—ALLDRIDGE.—On the 19th instant, at the Parish Church, Edgbaston Edward Vickers Whitby, M.R.C.S., Summerfield, Birmingham, to Mary Lane, daughter of the late Edwin Alldridge, Edgbaston.

YOUNG—CLAMPETT.—On April 12th, at the Cathedral, Waterford, by the Very Revd. the Dean, John Morgan, D.D., assisted by the Revd. F. W. Clampett, brother of the bride, Alex. Geo. Young, A.B., M.B., Bch.T.C.D., of Mountnorris, Co. Armagh, to Louisa Anna (Louie), third daughter of Robert Clampett, Esq., Waterford.

EAST LONDON HOSPITAL FOR CHILDREN.—Dr. Andrew Clark has consented to preside at the next anniversary dinner of this hospital, which is to be held at Willis's Rooms in June.

WESTERN INFIRMARY, GLASGOW.—The following have been appointed resident assistants to this hospital for the six months beginning, 1st May :—*Medicine* : J. Macpherson Laurie, M.B., J. W. Grange, M.B., Robert Beith, and R. S. Thompson, B.Sc. *Surgical*: Edgar Haydon, M.B., N. Macleod Clarke, William Pattullo, and John N. Marshall.

M. LECORCHE, well-known by his works on Diabetes, asserts, in a communication made to the Academy of Sciences, that to the hitherto observed complications of that disease must be added endocarditis. The immediate cause of the cardiac affection is the constant passing of blood containing sugar through the right auriculo-ventricular orifice.

BEQUESTS.—Mr. Charles Lord, of Russell Square, has bequeathed £1,000 to the Royal Medical Benevolent College, Epsom ; £500 each to the Middlesex Hospital, the Hospital for Consumption and Diseases of the Chest, West Brompton, the Cancer Hospital, King's College Hospital, University College Hospital, Queen Charlotte's Lying-in Hospital, and the Royal Free Hospital.

FUNGI IN EGGS.—M. Dareste has recently made a communication to the Academy of Sciences on the development of cryptogamic vegetation on the exterior and interior of fowl's eggs. He made a series of researches on the evolution of the embryo of fowls in confined air. On the sixth day the egg was covered with green spots of germinating fungus. White filaments or mycelium quickly appeared on the shell, and these also developed fungi.

PUBLIC HEALTH.—An exceptionally low death-rate is reported at Ipswich during the past year, the total deaths (808) representing a rate of 17.6 per 1,000 of population, being the lowest recorded in any of the ten years 1871 to 1880. The lowness of the rate is apparent chiefly in the number of infantile deaths registered, the deaths of children amounting to 317, or 132 less than in the previous year. Of these total deaths 35.8 per cent. were those of children under five years of age.

INTEMPERANCE AND DISEASE.—In the course of a recent lecture at Exeter Hall, Dr. Norman Kerr stated that probably there were 34,000,000 cases of disease every year in the United Kingdom, and of these a large proportion arose from indulgence in intoxicants. He described some seventy diseases as arising directly from alcohol, besides a large number indirectly, and some of these came from drinking only. Dr. Kerr estimated the annual mortality caused directly and indirectly from drinking at 120,000.

A WOMAN and her four children, at Ketley, near Wellington, in Shropshire, have narrowly escaped death through partaking of some jam purchased at a shop in the district. They were taken ill, with all the symptoms of irritant poisoning. Some of the jam was sent to the county analyst, who found the stuff to consist of "gooseberry tops", apple, rhubarb, etc., the mixture of which produced an injurious ferment.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—The usual Quarterly Court of Directors of the above Society was held on Wednesday, April 12th, at 5 P.M.; Mr. Charles Hawkins, V.P., in the chair. A letter was read from the President, Sir George Burrows, Bart., expressing his regret at not being able to attend the meeting. Dr. Pitman, V.P., proposed a resolution expressing the sympathy of the Court with their President on his recent severe domestic affliction, which was carried unanimously. Four new members were elected; the deaths of three were reported, as well as the resignation of another. Applications for grants were read from fifty-six widows, seven orphans, and three recipients of relief from the Copeland Fund; and it was resolved that a sum of £1,126 should be distributed among them. Three fresh applications for relief from widows were were read, and grants to them were made amounting to £55. The death of one widow was announced, and the marriage of another. The directors recommended that Dr. Bissett Hawkins should be elected, at the annual general meeting, a Vice-President, in the place of Dr. Billing, deceased; and that Dr. F. Weber, Dr. Burdon Sanderson, John Sebastian Wilkinson, Esq., Walter Rivington, Esq., G. Carrick Steet, Esq., and Arthur Evershed, M.R.C.P., should be elected in the place of the six senior directors who retire. The annual general meeting was fixed to take place on May 17th, at 5 P.M.

THE PARKES MUSEUM.—A general meeting of the subscribers to the Parkes Museum of Hygiene was held on Tuesday, April 18th, in the Museum of University College. In the absence of Sir William Jenner, Mr. Berkeley Hill (treasurer) was voted to the chair. The meeting was held to consider the advisability of making application to the Board of Trade for a license to incorporate the museum. The treasurer presented a statement of accounts from the commencement of the undertaking, in 1876, to the end of March this year, from which it appsared that the income, including the profits of the International Medical and Sanitary Exhibition, had in round figures amounted to £2,506, while the total expenditure for the six years had been £962, leaving a balance of £1,544. Dr. Poore read the report of the Executive Committee, which, after giving an account of the work the committee had been able to accomplish since its formaton, stated that the committee had unanimously resolved to recommend to the subscribers that the museum be formed into an association, under a licence of the Board of Trade. Under such a licence the museum would enjoy all the advantages of being a corporate body. Among other reasons which made the incorporation of the museum a matter of necessity, was the fact that it was about to enter on a new place of existence. The room at present used as a museum was full; and intimation had been received from the Council of University College that the room would be required for other purposes at the end of the present session. Since the opening of the museum it had been visited by over 5,000 persons interested in sanitary progress, exclusive of those who attended the lectures and demonstrations which were given gratuitously during the winters of 1880 and 1881 by members of the Executive Committee, and those who attended the inaugural meeting of 1879, and the first annual meeting at the Mansion House in 1880. During the past winter, owing to the crowded state of the museum, the lectures and demonstrations had had to be discontinued. Dr. Russell Reynolds proposed, and Dr. Steele seconded, the adoption of the report, which was agreed to unanimously. The draft memorandum and articles of association, under which it was proposed that the museum should be incorporated, were unanimously approved, on the motion of Professor Corfield, seconded by Mr. Rogers Field. On the proposal of Dr. Sieveking, seconded by Dr. Gowers, it was agreed that the Executive Committee should be dissolved as soon as the incorporation of the museum was completed. A vote of thanks to the chairman concluded the meeting.

HEALTH OF FOREIGN CITIES.—The following facts and figures, derived from a table in the Registrar-General's last weekly return, afford trustworthy indications of the recent health and sanitary condition of various foreign and colonial cities. According to the most recently received official weekly returns, the annual death-rate was equal to 24 0 in Calcutta, and to 32.8 in Bombay; cholera caused 18 deaths in Calcutta, and measles 69 in Bombay, while "fever" fatality showed the general excess in both these cities. The annual return from Alexandria does not appear in the table. In twenty-one European cities, the death-rate averaged no less than 31.0, and exceeded by 6.6 the average rate prevailing last week in the twenty-eight large English towns. The death-rate in St. Petersburg was so high as 57.7, and corresponded with the rate in the previous week; the 740 deaths included 48 fatal cases of typhus and typhoid fevers, and 35 of scarlet fever. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate, however, averaged only 24.6; measles caused 15 more deaths in Copenhagen, and 3 fatal cases of diphtheria were reported in Stockholm. In Paris the death-rate declined to 28.2, although the 1208 deaths included 53 fatal cases of diphtheria, 51 of diphtheria and croup, and 25 of small-pox. In Brussels the rate was equal to 24.9, and the deaths included 4 from "fevers" and 7 from whooping-cough. The rate in Geneva declined to 27.1 from still higher rates in previous weeks. In the three principal Dutch cities the death-rate averaged 28.8; the highest rates being 28.9 in Amsterdam and 30.1 in Rotterdam. The Registrar-General's table includes returns from nine German and Austrian cities, in which the death-rate averaged 30.1, and ranged from 20.8 in Dresden and 22.6 in Berlin, to 38.8 in Buda-Pesth and 40.8 in Munich. Small-pox caused 25 more deaths in Vienna and 11 in Buda-Pesth; diphtheria again showed fatal prevalence in Berlin, Dresden, Munich, and Trieste. In two of the principal Italian cities, the death-rate was equal to 28.9 in Venice and 28.8 in Turin; typhoid fever caused 6 deaths in Turin and 2 in Venice, and 7 fatal cases of measles occurred in Turin. The annual death-rate in four of the largest American cities averaged 26.8, and ranged from 22.3 in Philadelphia to 32.4 in New York. Small-pox caused 12 deaths in New York and 11 in Philadelphia. Scarlet fever showed fatal prevalence in New York and Brooklyn; and 13 fatal cases of typhoid fever were recorded in Philadelphia.

A SANITARY convention was held at Greenville, Michigan, on the 11th and 12th of April, under the auspices of the State Board of Health. Addresses on subjects relating to public health were delivered at the session of the convention, followed by general discussion on the subjects treated. Among the subjects discussed were the following :—The prevention and restriction of small-pox, diphtheria, and scarlet fever, the disposal of decomposing organic matter, a school of hygiene, the relation of the newspaper press to sanitary reform, and the importance and means of securing pure air. An exhibition of sanitary apparatus was also provided for.

MEASUREMENT IN THE MEDICAL APPLICATION OF ELECTRICITY.—A paper on Measurement in the Medical Application of Electricity, the joint production of Dr. W. H. Stone and Mr. W. J. Kilner, was wread by Dr. Stone at a recent meeting of the members of the Society of Telegraph Engineers and Electricians. Dr. Stone first spoke of the erroneous ideas existing with regard to the power of electricity as a healing agent. That electricity was, however, an excellent aid in curing disease he had conclusively proved, but what he desired to speak of was the power of measurement of electricity in medical application. He described the three chief forms of electric current, and the resisting power of the body in different forms of disease. In health the resistance was naturally the greatest, but even in juvenile patients it was very great. Such resistance was, however, very much reduced when the part to which the electricity was applied was wetted with salt-water. To be able to accurately measure the current was highly necessary, and although the current could be passed through the body with impunity, yet the shock could be great enough to cause death. That this was so they had proof in the two deaths that had occurred of late (one at a Music Hall, and the other at Hatfield), of men through taking hold of the conductor to the electric light. In the first case, the man lived for sixty minutes after the occurrence, but in the second, death was almost instantaneous. In the discussion which ensued, Mr. Priest spoke of the rapid advance made in electricity, and said that, while it was a matter for congratulation that it was found to be beneficial in curing disease, it was much to be regretted that persons should endeavour to make the public believe that it could be applied to hair and tooth brushes, and other similar things, and used to cure all manner of disorders. At the conclusion, a vote of thanks was accorded to the authors of the paper.

WELLINGTON (SOMERSET) URBAN DISTRICT.—Dr. Meredith draws the attention of the sanitary authority to the imperative need of improvement in the ventilation of sewers, and of care in the construction of house-drains. The old privy system is being gradually abolished, all new houses communicating with the sewer. Of fifty-four samples of well-water analysed, only four were found fairly good, and nine good, while of the remaining samples the bulk were very bad. Measles were prevalent in the district during short intervals, but the disease was of a mild type, except in the workhouse, where it proved very severe. Five of the children of the master and matron caught the disease, together with forty-eight of the pauper children—in all fifty-three cases, of which seven terminated fatally. With the exception of some cases of scarlet fever, typhoid fever, and whooping-cough, the district experienced no other form of epidemic disease. The death-rate for the year was equal to 18.23 per 1,000.

OPERATION DAYS AT THE HOSPITALS.

MONDAY..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p. Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M.Th., 1.30; Ear, M.Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Mr. B. Squire will show a Patient whom he has treated for Lupus. Mr. Henry Morris: Ichthyosis and Cancer of the Tongue. Dr. Richard Schmitz (of Neuenahr) will give experiences of Six Hundred Cases of Diabetes Mellitus.

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Mr. T. Holmes: On Wounds of the Theca Vertebralis with Discharge of Cerebrospinal Fluid. Mr. R. W. Parker: Suggestions for the Treatment of Special Cases of Empyema by Thoracentesis, and the simultaneous Injection of Purified Air.

THURSDAY.—Harveian Society of London, 8 P.M. Mr. Malcolm Morris: The Treatment of severe Acne Rosacea by Scarification. Mr. Cripps Lawrence: On Rötheln.

FRIDAY.—Clinical Society of London, 8.30 P.M. Mr. Pearce Gould: 1. Case of Spina Bifida cured by Injection with Iodine; 2. Case of Congenital Intestinal Obstruction. Dr. de Havilland Hall: Case of Primary Perichondritis of Larynx. Dr. Hector Cameron (Glasgow): Cases of Antiseptic Ligature of Arterial Trunks in their Continuity. Dr. Stowers will exhibit a case of Acne Varioliformis.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CONVALESCENT HOMES FOR SCARLET FEVER.

SIR,—In reference to the establishment of convalescent homes for scarlet fever patients, may I be allowed to suggest some practical considerations, which, if these institutions are to be what their name implies, are likely to limit, if not to destroy their utility. Their application is, I presume, intended to be mainly to the wants of the poorer classes, but I think that the most important of those wants will not find their remedy in the provision of convalescent homes.

An instance taken from my recent experience will serve to illustrate the nature of the want, and the inadequate character of the suggested remedy. A child of a working-man is seized with scarlet fever; the parents refuse to allow the patient to be removed from home, although there are four other children in the house, and although the mother—on whom the nursing, for which she is wholly unfitted, principally devolves—is actually suckling an infant of a few weeks old. Complete isolation of the patient is impossible; the disease spreads, and three out of the five children are attacked; they remain in one room until desquamation has ceased, and then, being declared no longer infectious, return to their ordinary habits. The fact that they have had scarlet fever at home, and have recovered, encourages various other parents in the neighbourhood to adopt a similar course when their own children are attacked; and thus the constant presence of scarlet fever amongst us is insured.

The important want here is obviously a means of checking the spread of the disease, and of supplying to the patient such nursing as may give him a fair chance of recovery. How far will the convalescent home meet either of these requirements? If it be proposed to transfer the patient to the home at a point in his case between the subsidence of the acute stage of the disease and the commencement of desquamation, I would answer that such an interval does not generally exist; that removal of the patient at such a time would be dangerous or impossible; and that the fact of the infection of the locality whence he is taken, and possibly of its inhabitants, would by that time have been already accomplished. The same objections—the latter, of course, still more strongly—apply to the removal of the patient during the period of desquamation; and if the proposal be to remove him after that period has terminated, it may be argued that there is then no need of a special hospital at all; while it may be taken for granted that, in a very large number of cases, the parents would decline to allow their children to then any further prolong their absence from school or from work. But, at whichever of these stages of possibly so-called convalescence the patient is removed from his home, neither of the objects for which the highest importance is to be claimed will be attained. The spread of disease can only be checked by the prompt isolation of the person attacked; the patient's recovery must be assisted by the employment, during the acute stage of his illness, at least as much as during any other, of appropriate curative measures. A convalescent home concerns itself neither with the isolation of infectious cases, nor with the treatment of acute disease. From this the inference evidently flows, that some means other than those now suggested must be devised if the prevalence and the fatality of scarlet fever are to be controlled; and this control might, I think, be effected, if the energy and the benevolence which have been enlisted in favour of the institution of convalescent homes could be directed to the promotion of a scheme for the establishment of hospitals for the reception of scarlet fever patients in the earliest stage of their disease. It is true that the working-classes may generally object to sending their infectiously diseased children away from home, and are little inclined to avail themselves of the fever hospitals that already exist; but I imagine that, if hospitals for scarlet fever were established in the various districts of this and possibly other large towns, the comparative ease with which these hospitals could be reached, the familiarity even with their appearance and position, and very soon the evidence of their usefulness, would destroy the objection now rooted in the minds of the poor to the removal from home of their children when attacked by infectious disease.

Were there in existence a system of prompt isolation and disinfection, we might very reasonably hope that, in the interval that must elapse before the discovery of a protection against scarlet fever analogous to that which we already possess against small-pox, both the frequency of occurrence and the extent of the fatality, even of a disease so highly infectious and so dangerous as scarlet fever, would be enormously reduced. But this, I would urge, can be attained, not by a system whose highest success must be limited to the amelioration of certain conditions of disease, but only by one which has for its aim the extirpation of the disease itself.—I remain, sir, yours faithfully,

F. N. HUME.

Kensington, March 27th, 1882.

DR. TUTE (Richmond) and DR. EAMES.—These communications should have been addressed to the Manager, to whom, and not to the Editor all communications respecting advertisements, changes of address, and other business matters, should be sent.

SPHYGMOGRAPHY.

SIR,—Can you recommend me a small inexpensive book (in your Answers to Correspondents) on the use of the sphygmograph, suitable for a busy practitioner.—I am, etc.,

H. L. S.

*** Dr. Dudgeon has just published a book on the subject, and there is a very useful pamphlet by Dr. Byrom Bramwell.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

MORTALITY IN INDIAN PRISONS.

SIR,—With reference to your leading article in the JOURNAL of March 11th, 1882, on the "Mortality in Indian Prisons", permit me to make a few remarks in explanation of the high rate shown to exist in the gaols throughout that country. No doubt, a few years ago much required to be done to improve the sanitary condition of Indian prisons, but much has been done, with little benefit, as shown by the figures quoted by you; and truly all that can be said of the result is, that there is "some cause for congratulation".

In 1856, I published in the *Indian Annals of Medical Science* a paper on Jail Diarrhœa as it occurred in an Indian prison under my medical charge. This disease constituted 27 per cent. of the total number of admissions into hospital during five years, and 57 per cent. of the total number of deaths during that time. There were sanitary defects in the prison, but the conclusion at which I arrived was that these were not sufficient to account for the high rate of mortality. On examining the hospital records for thirteen years, from 1843 to 1855 inclusive, I found that the disease had been most prevalent among prisoners who had been less than two months incarcerated. A table drawn up at that time shows 441 admissions from diarrhœa. Of these, 109 had been under two months in gaol; while, among prisoners who had been confined for ten, eleven, and twelve years, the numbers were 2, 4, and 3 respectively.

The prejudices of natives, as a rule, do not admit of *post mortem* examinations, but these prejudices are less respected in the case of inmates of prisons; and, in my experience, the examinations made showed, in the majority of cases, the existence of disease of long standing.

You ask why the mortality to strength among prisoners should be so much greater, from the diseases mentioned, than among sepoys in Bengal and Bombay. The cause is, I think, very evident. Sepoys are picked men; they are medically examined, and not admitted into the ranks of the army unless pronounced to be in good health, and in every respect physically fit; as a general rule, they belong to a class holding comparatively a good social position. On the other hand, native prisoners are commonly miserable specimens of humanity, unhealthy and impoverished when incarcerated, their whole system in many cases poisoned from exposure to malaria; added to which, on first admission, they suffer from the depressing influence of confinement and a life different from that to which they have been accustomed. To these and like causes are, I think, to be attributed the high rate of mortality in Indian prisons, not to any backwardness on the part of the officers in charge in detecting and pointing out sanitary defects, nor (in my experience) on the part of the authorities in carrying out their recommendations.

It is true that the death-rates among the inmates of Indian prisons are appalling when compared with those among the native troops or others in Government employment, but we have no means of making an accurate comparison between the mortality in gaols, and that among the class of the native population to which, as a general rule, prisoners belong. If the means were available, it would probably be found that the results are not so unfavourable to the inmates of prisons.—I am, sir, yours truly, GEO. MACKAY, M.D., L.R.C.P., Deputy Surgeon-General,
Inverness, March 16th, 1882. Indian Army (retired).

CLUB PAYMENT FOR FRACTURES.

QUERIST (Sittingbourne).—We believe the general rule is, that club payments do not include fractures or surgical operations.

HAS THE DURATION OF HUMAN LIFE IN ENGLAND INCREASED DURING THE LAST THIRTY YEARS

SIR,—Dr. Rabagliati has failed to show that an increased death-rate at the higher ages is other than the necessary consequence of diminished mortality at the lower ages. His article, taken broadly, might be regarded as a warning to insurance companies to beware how they maintain any longer their old basis of calculation in regard to the value of human life. But a careful examination of the statistics which he has adduced will assure even the most reckless life-office, not to mention the most prudent, that it has little cause to fear any general failure of human longevity, so far as England is concerned.

In Letter II, Dr. Rabagliati says: "The deaths from old age have been continuously diminishing for the last thirty years. 'Old age' does not technically commence till sixty-five. If life were becoming longer, if conditions were becoming more favourable to long life, we should expect to see more people living to the longer ages." What can be the meaning of such extraordinary language from the pen of one who, in his previous letter, had acknowledged that, comparing the deaths occurring in the year 1879 with the average for the twenty-eight years immediately preceding, the deaths in 1879 were, as regards males, "at 65 to 75, 7.8 per cent. more; at 75 to 85, 11 per cent. more; and at 85 and upwards, 7 per cent. more;" and, as regards females, "from 65 to 75, 11.6 per cent. more; from 75 to 85, 9.5 per cent. more; and above 85 years of age, 4.8 per cent. more." Could any better proof be given that more people live to old age, than the fact that more people die at old age? Even the census returns are scarcely so trustworthy; for the age of the living is frequently falsified, the age of the dead rarely so. But, in order to show that Dr. Rabagliati is in error in supposing that the influences which have been brought to bear, with a view to lengthening human life in England, have had a beneficial effect on infants only, it needs only to point out that all the persons above referred to as dying at 65 years and upwards in the year 1879, were more than 35 years of age before the thirty years began, upon the death-rates of which the comparison is founded.

If Dr. Rabagliati had confined his remarks to what he says in Letter III, about the change of cause of death in adults, little exception could have been taken to them; but the proofs which in reality support his statements in that letter are quite distinct from the statistics brought forward in Letters I and II. Worry, and the high pressure under which we now exist, are the destroyers of many who, in the olden days, would have succumbed to some more prosaic "cause". Competition, and its congener, anxiety, are, however, less under the control of the medical profession than other causes, so that the admitted change of cause of death speaks loudly in praise of professional skill and enterprise, particularly in the education of the public mind in regard to sanitary matters. Moreover, competition and worry seem to be less certain and rapid in their fatal effects than the causes which they are said to have supplanted; for the fact still remains, that more people die old now than was the case thirty years ago.—I have the honour to be, sir, your obedient servant, D. BIDDLE.

Kingston-on-Thames, March 18th, 1882.

MEDICAL CORONERS.

SIR,—Allow me briefly to comment on the observations of "Incog." in your issue of April 15th. I endorse fully his views as to the appointment of coroners; although my London experience is at variance with his as regards the calling of medical evidence and making a *post mortem* examination. For many years, I was engaged in an extensive London partnership. In addition to the ordinary inquests which fall to the general practitioner in his own practice, the late respected Mr. Wakley and his successor frequently honoured me with casual *post mortem* examinations in my district. It was customary with these gentlemen, especially the former, in almost all cases, to order a *post mortem* examination. Since retiring to the country, I notice the contrary practice, and will cite two cases.

An elderly man was in his chair when the wife retired to her bedroom. After ten minutes' absence, she found him dead on the floor. There was no other person in the house. He had not been under any medical attendance for some months. I was summoned immediately after death. There was no inquest, no death-certificate demanded, nor any explanation required of me.

A shepherd went to his early morning duty, apparently well. About two hours afterwards, he returned, and was found by his son, a lad about thirteen, hanging in a shed adjoining his own house, not dead. I cut him down immediately on my arrival, but life was extinct. My presence at the inquest was not required. The wife of the deceased was seen at a dancing saloon the day after the funeral.

This is the usual custom in this medical coroner's district.—I am, etc.,
SURGEON-MAJOR.

"EVA" asks "whether it is legally correct to address a M.D. as 'esquire'". We are not aware that the question of legal correctness has ever been raised with regard to the designation. In the tables of social precedence, however, doctors (that is to say, those who have taken the degree of doctor in an university) rank next above esquires; and therefore the addition of "esquire" is, strictly speaking, superfluous. It is, however, very common; and neither our fair correspondent nor any of her friends, using it, need fear the interference of the law.

FEES TO MEDICAL WITNESSES.

SIR,—*Apropos* of your article in the JOURNAL of March 25th on this subject, let me give you a recent experience in one of our inferior courts here in Scotland. Late in the afternoon of Wednesday, I was served with a summons to attend the next day at the Sheriff's Small Debt Court to give evidence in regard to a woman who was raising an action against her landlord, and whom I had only seen once about ten months ago. As I had previously been called to attend this court in a similar capacity, without being paid for it, I determined to raise the question the very first opportunity that offered. I made application to the agent in the case for the fee; and as it was not forthcoming, when I was placed in the witness-box, I explained the matter to the sheriff, and asked him to ordain that my fee be paid before my evidence was taken. After considering the matter for a few moments, his lordship—who, I should say, treated me with the most perfect courtesy—decided that as I was present in the witness-box, I was bound to give evidence. My evidence was accordingly taken; and now I suppose I may ask in vain for my fee, as I have had to do on previous occasions.

Perhaps some of your readers may be able to inform me on this point, whether I would have been justified in still refusing to give evidence, in spite of the decision of the sheriff.—I am, etc., F.R.C.S.E.

*** After referring to the Scotch Law of Evidence, and to the last edition of Mr. Glashan's text-book upon the Sheriff's Courts of Scotland, we do not think that our correspondent could legally refuse to give evidence in the court which he was summoned to attend for this purpose, without the payment of his fee, when requested to give his testimony by the sheriff. It appears that this officer has a discretionary power vested in him, but is not compelled by the Act of Sederunt of the 10th of July, 1839, to fix the sum to be paid to a witness, and to order its payment by the party adducing him or his procurator or agent. Medical men giving professional evidence are allowed higher rates of remuneration than they would be for giving other testimony. We have not been informed on what ground the sheriff has refused to order payment of our correspondent's fee; and if he does not know, it may be advisable to again apply to this subordinate judge for the same, and to ask him to state his reason for refusing to direct payment of such if he persists in this objection.

DR. O. W. WIGHT, the health officer of Detroit, has published a paper which he read before the State Sanitary Convocation at Ann Arbor, Michigan, on February 28th last, on "How to Combat Small-pox". Dr. Wight has no new arguments to adduce on the subject, but he draws attention to the fact that "slovenly vaccination with imperfect or worthless virus brings the great and beneficent discovery of Jenner into disrepute;" and he suggests that, "with the view of preventing accidents", the blade used by the operator should be held in flame after each vaccination."

MEDICAL ATTENDANCE UPON THE ARTISAN CLASS.

SIR,—Mr. F. H. Worswick's uncontradicted letter in the BRITISH MEDICAL JOURNAL of April 1st leads one to the following serious deductions.

1. Medical men are not properly paid by the working classes, because that class is not induced to be thrifty, but instead, to spend all they get, and to rely on the workhouse, or some more useless provision for old age.

2. Clubs and insurance societies, workmen are taught to look upon with at least some suspicion: see the Government inspector's reports, and the cases of insolvency which in practice have occurred, in spite of checks on frauds.

3. For other reasons, no very general confidence is placed in Government savings' banks and postal insurance, though of course a certain number will doubtless avail themselves of these facilities in time.

Hence, not only is the working man in an entirely false position as regards the product of his labour as a means of refuge in disease or old age, but the general ratepayer has to suffer, because no efficient system is established for the due self-protection of workmen. Hence, also, the medical profession have to get from him what they can, and also admit that, as a class, they are unable to inaugurate a system for at least their own protection which would secure payment for services rendered.—Yours, etc., J. H. W.

CRAMP.

SIR,—In reply to "Spasm", I have lately had a very troublesome case of cramp in an old gentleman. It attacked him usually at night, and on stooping. I raised the end of his bed two inches by placing blocks under each leg, and found that the following mixture was most beneficial: Magnesiæ carbonatis ʒj; ætheris ʒss; tincturæ cardamomi comp. ℥xxx, as a draught, to be taken three times a day. I am glad to say he now has quite recovered.—I am, etc., E. H. H.

Medical Etiquette.

Sir,—You would oblige by giving your opinion on the following case. For two or three years I have been medical attendant to Mr. M. and family. On March 19th, I was asked to see a child of his; I did so, and prescribed for him. At six o'clock next morning, Mr. M. called, and wanted to know if I would go and see the child again, and added that Dr. B. was in his house (Mr. M.'s) at that moment, and would wait for me. As I had not had previous intimation of this movement, and as the case was not one which required a second opinion, I declined to go. Dr. B. continued in attendance since, but did not communicate with me. As I never wish to treat a brother practitioner with discourtesy or unfairness, would you kindly give your opinion on the following points?

1. As I was not informed either by Mr. M. or by Dr. B. that the latter would be called in, until after he had seen the patient, and as the case did not require a second opinion, was I right in refusing to go? I had no objection to meet Dr. B., but I had every objection to see Mr. M.'s child after his discourteous treatment of me.

2. Did Dr. B. treat me fairly in going to see the child under the circumstances, and in continuing in attendance when he knew the manner in which I was treated? Were I called to see a case of his under similar circumstances, I would not go if I knew that he was in attendance; or, if I did not know of his attendance until after I reached the patient's house, I certainly would leave immediately, and would not call again without his sanction. I may add that the houses of Dr. B., Mr. M., and myself, are within five minutes' walk of each other.

3. Should not Dr. B. have given me some explanation of his conduct ere this?

I ask your opinion merely for the object of guiding my future conduct correctly under similar circumstances, and for the reasons given immediately before my questions.—I am, etc.,

Co. Cork.

*** Without a knowledge of all the attendant circumstances, it is ever a matter of difficulty to arrive at a just conclusion in cases of presumed ethical delinquency; and, in the present instance, much necessarily depends on Dr. B.'s cognisance or ignorance of the fact that C. C. was in attendance upon the child. Assuming, however, that Dr. B. was not informed of it until after he had seen the patient, it would, on the fact transpiring, then be his duty to decline all interference in the case, unless a pressing emergency had arisen; having provided for which, he should, either in person or by note, have at once communicated the circumstances to C. C., and requested a consultation. The early hour (6 A.M.) at which C. C.'s advice was again sought, would seem to indicate that some presumed unfavourable symptoms had excited the parents' anxiety. In such case, Mr. M. should have waited upon, or written to, C. C., and expressed his wish for a "second opinion", before calling in Dr. B. That Mr. M. has treated C. C. with great discourtesy, there cannot, we think, be a doubt; and, in regard to Dr. B., it is to be regretted that, contrary to the courteous and recognised duty of the profession, he should have failed to offer an explanation, personally or by letter. C. C. will find rules laid down for the guidance of practitioners in such cases, in chapter ii, section 5, of the *Code of Medical Ethics*, published by Messrs. Churchill.

L.K.Q.C.P.I.—Neale's *Medical Digest* is published by Ledger, Smith, and Co., St. Mary Axe.

Irritable Bladder.

Sir,—In reply to "Member British Medic. Assoc.", in your Journal of April 8th, I beg to say that, in some cases of irritable bladder in women, perchloride of iron seems to cure. I have only used it in cases in which it could not be traced to excessively acid urine, nor local disease, nor disease of adjacent viscera. In one case, the addition of minute doses of tincture of cantharides appeared beneficial. Marked anæmia does not appear to be a necessary indication for its use.—Yours faithfully,

L.K.Q.C.P.I.

Sir,—In response to your correspondent in Iowa, let me say that his interesting case of irritable bladder might perhaps indicate oxaluria, with, possibly, an undetected calculus in the bladder. I need not dwell on the latter as a cause of irritable bladder. Oxaluria we know to be irritating to the whole genito-urinary system, and, I apprehend, conducive to barrenness. If our brother in the West should succeed in curing the irritable bladder, his patient ("several years married, but never pregnant") may yet become the happy mother of children. Meantime, it can, at least, do no harm if he satisfy himself as to the possibility of the existence in the bladder of a calculus, and lay down a wholesome regimen for his patient. If she live, for the most part, on corn-cakes, dough-nuts, pies—all undue supply of these, and of all foods consisting mainly of hydro-carbons, should be cut off. If she live an inactive life indoors, she should be made to take active exercise, so as to throw off, through lungs and skin, as carbonic acid, the hydro-carbons, some of which, imperfectly oxygenated, must else remain to be eliminated painfully through the kidneys, causing oxaluria. If the drinking-water she uses be hard, from salts of lime, that may be remedied best by putting her on a milk-diet. If she do not use the daily sponge-bath, she should be induced to begin; taking care that the temperature of the bath-room, as well as of the water, is equable throughout the year, as far as possible, so as to give a good reaction. Occasionally, where exposure and sponging of the entire body at one time is found not to be followed by this good reaction, the patient might sponge from the waist upwards in the morning, and from the waist downwards at night; or, should the latter interfere with the night's rest, the next morning.

Irritable bladder is commonly relieved by the use of the decoctions of linseed and pearl-barley, acting mechanically as a gelatinous coating of the bladder against the irritating urine. In such a case as this, flavour and perhaps superior efficacy may be added to these rather insipid demulcents by means of a little nitro-chloric ether, the formula for which is, one part of chloroform to nineteen parts of spirit of nitrous ether; and the dose the same as the old chloric ether or spirit of chloroform. The bladder relieved, I should try the good effects of nitro-hydrochloric acid in infusion of chiretta or other agreeable bitter tonic.—I am, sir, yours faithfully,

E. O. R.

Tricycles.

Sir,—Two or three years ago, some correspondence took place in these columns respecting the utility of tricycles in country practice. No doubt many members were induced thereby to try them. Sufficient time has now elapsed to test their value, and many like myself, who grumble at having to keep two horses, would like to learn what their verdict is.—Believe me, sir, your obedient servant,

Country Doctor.

Sir,—I shall be much obliged if some of your subscribers will, either privately or through your columns, help me to find a suitable place (not an asylum) for a lady patient, who, though not insane, is not quite of sound mind. Terms must be moderate. I shall be glad to give further particulars to anyone wishing them.—I am, sir, yours truly,

George W. Malins.

Drake Street, Rochdale, April 12th, 1882.

Endometritis.

Sir,—I should advise your correspondent, "A Young Member", to give a fair trial to the local application of iodised phenol for the cure of this troublesome complaint. I have just succeeded in curing by its means two very obstinate cases. I make the iodised phenol by melting together three drachms of crystallised carbolic acid with two of resublimed iodine, and adding one drachm of glycerine. I take a Playfair's probe, wrapped with cotton-wool, and well dipped in the phenol, and apply it to the internal surface of the uterus once a week or ten days; and I have certainly found it by far the most efficacious thing I have used. I have had success with the zinc points, propelled into the uterus by an ingenious little instrument sold by Maw, but I do not think this treatment nearly equal to the phenol, especially where the endometritis has had a gonorrhœal origin. Of course, tonic treatment, and the daily use of the uterine douche, should be persisted with.—Yours faithfully,

Edward Berdoe, M.R.C.S., L.R.C.P.Ed.

Tynemouth House, Victoria Park Gate, London, E.

The *Medical Student's Register*, as well as other publications of the Medical Council, may be obtained from Messrs. Spottiswoode and Co., 30, Parliament Street, S.W.

Home for an Epileptic Patient.

Sir,—Will any member of the British Medical Association kindly inform me if there is an institution where a patient who suffers from epilepsy, and whose attacks at times are so aggravated that he becomes insane and beyond control, could be taken care of while this condition lasts? The patient is twenty-seven years of age, and has never been able to follow any employment. He is dependent upon his father, who is only in moderate circumstances, and unable to pay much for such convenience.—Yours faithfully,

H. B. Noble, M.B., M.A.

62, Tasman Road, Clapham, S.W., April 12th, 1882.

Dentist.—Tomes's *Dental Surgery* (Churchill); Coleman's *Dental Surgery* (Smith, Elder, and Co.); Coles's *Dental Mechanics* (Churchill).

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. A. J. H. Crespi, Wimborne; Dr. W. E. Buck, Leicester; Dr. T. W. Hime, Sheffield; Dr. Fairlie Clarke, Southborough; Mr. R. W. Greenish, Vienna; Dr. S. Wilks, London; Mr. H. D. Noble, Clapham; Mr. G. Jerrard, London; Mr. T. Dalton, Sidleham; E. O. R.; Dr. W. J. Mackie, Turvey; Mr. J. B. Baldwin, Rotherham; Mr. H. Eales, Birmingham; Mr. W. H. Lamb, London; Messrs. Jones and Barber, London; Dr. Sawyer, Birmingham; Dr. Creighton, London; Dr. Herman, London; Dr. D. N. Knox, Glasgow; Mr. R. S. Fowler, Bath; Messrs. Maguire and Son, Dublin; Mr. A. Leveson, London; Mr. Arthur H. Benson, Dublin: Our Glasgow Correspondent; Mr. Mark H. Judge, London; Our Dublin Correspondent; Mr. J. E. Ingpen, London; Our Birmingham Correspondent; Dr. R. L. Batterbury, Berkhampstead; Mr. R. Beadles, London; Dr. D. H. Cullimore, London; Mr. Creswell Rich, Liverpool; Dr. Stevenson, London; Mr. J. Lloyd Roberts, Denbigh; Mr. Eustace Firth, Debenham; Mr. Cresswell Baber, Brighton; Mr. Litton Forbes, London; Mr. G. W. Dickson, Dunkeld; Dr. J. Jones, Louisiana; Dr. W. S. Paget, Great Crosby; Dr. J. Johnson Bailey, Marple; Mr. Herbert Collier, London; Mr. F. E. Manby, Wolverhampton; Dr. A. Ogston, Aberdeen; Dr. Maclean, Netley; Mr. W. J. Laud, Tunbridge; Mr. T. W. C. Jones, London; Dr. G. W. Potter, London; Dr. E. J. Tilt, London; Dr. Octavius Sturges, London; The Right Honourable H. C. E. Childers, London; Mr. A. McKendrick, Warrington; Mr. Balmanno Squire, London; Dr. Braidwood, Birkenhead; Mr. W. K. Parker, London; Dr. Stephen Mackenzie, London; Mr. George R. Jesse, Henbury, Macclesfield; Mr. Chute, Port Elizabeth, Cape Colony; Mr. H. G. Armstrong, Reading; Dr. E. S. Thompson, London; Dr. Wm. Gayton, Homerton; Dr. Hime, Sheffield; Mr. Robert Cuffe, Horncastle; Mr. B. G. Morison, London; Mr. G. C. Rowland, Richmond; Dr. Thomas, Glasgow: Dr. Saundby, Birmingham; Dr. Charles Orton, Newcastle-under-Lyme; Dr. T. Laffan, Cashel; Dr. Cullingworth, Manchester: Dr. F. J. Allan, London; Dr. T. W. Treud, Southampton; Mr. A. Holdsworth, Leicester; Dr. J. W. Moore, Dublin; Mr. G. G. Sharp, Walsall; Mr. A. Hallowes, Maidstone; Mr. Reginald Harrison, Liverpool; Dr. Greenhill, Hastings; Mr. Lycett, Wolverhampton; etc.

BOOKS, ETC., RECEIVED.

The Medical Adviser in Life-Assurance. By E. H. Sieveking, M.D. London: J. and A. Churchill. 1882.

The Diseases of the Spinal Cord. By B. Bramwell, M.D. Edinburgh: Maclachlan and Stewart. 1882.

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CROONIAN LECTURES
ON THE
CLIMATE AND FEVERS OF INDIA.

Delivered before the Royal College of Physicians of London.

BY SIR JOSEPH FAYRER, K.C.S.I., M.D., F.R.S.,
Physician to the Secretary of State for India in Council.

LECTURE III.—PART I.

IN my last lecture, I described fevers of malarial origin, and also certain morbid conditions depending on the same causes. I now proceed to consider fevers which are due to ordinary causes, such as produce febrile disturbance anywhere; also others which are so closely assimilated to the malarial remittents and specific fevers, that it is difficult to differentiate, and obviously impossible to consider them under such designations as febricula or ephemeral fever.

As to the precise nature of their cause, we know no more than we do of that of malaria itself; nor are we assured that there is an essential difference, unless it be that a predominance of animal organic decomposition and effluvia gives a distinctive character; but the importance and frequent severity of the fevers, and their etiological affinity to the remittent forms, render it expedient to recognise the existence of a type of fever of a continuous or subcontinuous nature, which by some authorities is ascribed to the combined operation of a double agency; by others to malaria alone, or to changes that result in transformation of type.

I would propose the addition of endemic enteric or continued fever, but would not insist on the term "endemic", if another would more appropriately indicate the type of fever to which I refer. The arrangement should be as follows.

Continued Fevers in India and Tropics.

(*a*) Ephemeral or febricula.
(*b*) Ardent or thermic fever.
(*c*) Endemic enteric or continued fever.
(*d*) Specific enteric fever.

This would give greater precision to registration, and lead to more definite conclusions as to disease about which it cannot be denied there is some confusion in reference to its true nature and causation, it being regarded as either remittent, continued, or specific enteric, according to the views of respective observers.

Without presuming to question the diagnosis, I venture to think that there may be a too rigid application in India of views of disease as it occurs in this country, and that sufficient allowance is not always made for the influence of conditions whereby disease may be modified and made to assume features strange to it in temperate climates. Some medical officers modify their views of disease after experience in India; and it is fortunate that they do so, as exclusive application of theories, which are strictly appropriate here, will not always be so in India and in the tropics. The late Dr. Babington, in an address to the Epidemiological Society, made the following remarks: "We require, therefore, in a study of disease, as of geology, a wide field, in order that we may found theories on a sufficiently broad basis to avoid the risk of coming to partial and erroneous conclusions." Or, as Dr. Morehead says: "Disease in India is not disease in England; and a catholic science of medicine can only be created by the harmonious action of labourers in varied climates and conditions of people."

Ephemeral Fever or Febricula.—A mild form of simple fever is frequent in India, which is due to ordinary causes, such as changes of temperature, excesses in eating or drinking, fatigue, excitement, disordered secretion, or functional derangement of abdominal viscera. It is most frequent in the hot season, but may occur at any time. When it happens in persons newly arrived in the country, it is probably free from any malarial taint, though the onset may resemble ordinary ague. In natives and old residents, these simple attacks of ephemeral fever or febricula *are* probably of a malarial nature, and, if not checked, may assume the character of an ordinary intermittent. The symptoms are, *malaise;* headache; foul tongue, which is white, with red edges; disordered bowels; nausea, or sickness; high temperature, 104°-106°; preceded by chills, rigors, *malaise*, muscular pains, followed by diaphoresis. In plethoric or intemperate people, the reaction may be severe, with high fever and delirium; to which may be added congestion of liver or gastro-intestinal mucous membrane; but generally the characters are simple, and, in otherwise healthy people, readily yield to treatment, which consists in free relief of the bowels, in some cases an emetic, diaphoretic medicine, tepid sponging, a restricted diet, and rest. With this, the patient is generally restored to health in a few days. Most people, soon after arrival in India, have fever; and, as a general rule, soon recover. Few escape, and to Europeans it is an acclimatising process.

Ardent or Thermic Fever.—This is a more serious disease, and varies in intensity from simple to intense fever, or, reaching its maximum, to sunstroke—the exciting cause being solar or artificial heat.

Dr. Wood, in his recent monograph on fever, gives the results of experiments which show that a certain degree of heat, by inducing vaso-motor paralysis, causes intense pyrexia, which, if not mitigated, rapidly destroys life by causing failure of the respiratory centre, and confirms the fact that high temperature is capable of causing fatal nutritive disturbances, and that thermic fever does the same. The peculiar odour and offensive perspiration, the altered or suppressed urine, the frequent watery, offensive, involuntary evacuations, the condition of the blood found after death, are all indications of the profound influence excited by excessive temperature.*

Heat may cause simple fever; but, if aggravated, the symptoms become more urgent; the temperature may rise to 106°-108°, or higher, and life is in the greatest peril. The predisposing causes are previous illness, debility, intemperance, constipation, bilious derangement, imperfect breathing in crowded rooms and barracks, ill-ventilation, defective perspiration. The vitiated and over-heated blood paralyses the heat-controlling centre; there is great rise in temperature, and death, if the patient be not relieved.

Exhaustion and syncope may occur during fatigue, or when there is depression from any cause during exposure to a high temperature, as in the case of engine-room men in the tropics, when the temperature in the vicinity of the furnaces rises to 120° and upwards; or in the case of men who are exposed to the sun's rays, which, taking effect on the head, neck, and body, produce a condition like shock. The skin is pale, cold, and moist; the pulse feeble. Death may occur from failure of the heart; or asphyxia and apnœa may supervene after premonitory symptoms of depression and weakness, during exposure of the head and spine to the direct rays of a powerful sun, when the atmosphere is much heated, and the nervous energy is depressed by fatigue, illness, or dissipation. The respiratory centres are overwhelmed by the sudden rise of temperature, and respiration and circulation fail. The heart's action having been brought to a close by heat, in the manner shown by Claude Bernard and Lauder Brunton, that the effect of a very high temperature on animals is first to accelerate, and finally to stop the heart, in a state of tetanic contraction. In other cases, there is ardent fever. The body being intensely heated, this may occur independently of the direct sun's rays, at night, in the shade, in a house or tent, especially in persons who are depressed by fatigue, bad air, overfeeding, alcoholic stimulants, want of rest, and notably when the air is impure from overcrowding or from insufficiency of cubic space.

The body-temperature may rise to 108°, or even higher; there are dyspnœa, hurried respiration, restlessness, and pungently hot skin. The pulse in some is full and labouring, in others quick and jerking; the face and neck are livid and congested; the carotid pulsation very perceptible; the pupils, at first contracted, dilate widely before death. Coma, stertor, delirium, convulsions, frequently epileptiform in character, with relaxation of sphincters and suppression of urine, are the precursors of death; and there may be cerebral hæmorrhage.

Many fatal cases among Europeans are so caused. The premonitory symptoms appear some hours or even days before the dangerous conditions supervene. There are *malaise*, disordered secretions, profuse and frequent micturition, restlessness, insomnia, apprehension of impending evil, hurried and shallow breathing, præcordial anxiety, giddiness, headache, occasionally nausea or vomiting, thirst, anorexia, and fever, which soon becomes fervent heat of skin. The pulse varies. These conditions frequently are worst at night, and the patient may pass into a state of unconsciousness and die.

Ardent fever may supervene on ordinary ephemeral fever, especially when the atmosphere is loaded with moisture so as to prevent evaporation from the person.

The dry atmosphere of Upper India is better tolerated than the damp atmosphere of Lower Bengal or parts of Southern India, though the temperature is lower. Hot *dry* air favours evaporation, and thus keeps the body cool; whilst in damp air, as evaporation decreases, the natural cooling power is greatly diminished. Vigorous, healthy per-

* "External heat applied to the body of a normal animal (or man) so as to elevate the temperature produces derangement of the functions of innervation, of circulation, of nutrition and secretion, similar to those seen in natural fever, the intensity of the disturbances being directly proportionate to the rise of temperature."—Wood, "Fever".

sons, of moderately spare frame, with sound viscera and temperate habits. can sustain great heat, if the atmosphere be pure and moderately dry. Fresh arrivals in India are more prone to suffer than those who have become accustomed to the climate and have learned how to protect themselves. A native can bear an amount of sun on his bare head and naked body with indifference that would prostrate an European; but, when the temperature rises above a certain point, all succumb, and natives suffer and die like others.

Toleration of heat depends much on the vigour of constitution and actual state of health. The refrigerating powers of the body in health enable it to support a temperature considerably above that of the blood. In the hot winds, little inconvenience is felt so long as perspiration is free; but, when that fails, suffering ensues, and the danger is great.*

Of those who recover, or rather who do not die, many remain invalids for life, which is frequently shortened by obscure cerebral or meningeal changes, which affect the sufferer in various degrees of intensity. Irritability, impaired memory, epilepsy or epileptiform attacks, headache, mania, partial or complete paraplegia, or blindness, and extreme intolerance of heat, especially of the sun's rays, rendering the person incapable of serving in hot climates or of enduring any exposure to the sun; or it may lead to gradually complete fatuity, dementia, or epilepsy; chronic meningitis, with thickening of calvaria, which may account for the intense cephalalgia; or, in a lesser degree, in disordered innervation and general functional derangement, which seriously compromise health.

In cases where death has occurred suddenly from exhaustion, there is no very remarkable morbid change. The heart may be contracted, but often flaccid. The lungs, brain, and membranes may be congested, but they are sometimes the reverse. The venous trunks, especially those of the abdomen, and the right side of the heart, may be filled with blood, which is dark, grumous, imperfectly coagulated, and effused in patches of ecchymosis, rendering the body rapidly livid. Coagulability is impaired, and it is deficient in oxygen.

In death from thermic fever, the lungs are often (not always) deeply congested; the heart is contracted by coagulation of myosin, and the whole venous system is engorged. The body, even before death, may be marked by petechial patches and extensive livid ecchymosis. The blood is generally more fluid than natural, and acid in reaction. The globules are sometimes crenated, and have a diminished tendency to form into rouleaux. The body for some time after death retains a high temperature. When opened, the viscera feel pungently hot. Rigor mortis comes on very rapidly. The brain and membranes may be congested; in some cases, there are evidences of cerebral hæmorrhage and serous effusions in the ventricles.

Treatment.—In cases of simple exhaustion, remove the person to a cooler place. Give a douche, but not too prolonged, or it may depress; remove tight and oppressive clothing, apply ammonia to the nostrils, etc. Enjoin rest, and avoid exposure to over-fatigue or to great heat. When the person is struck down suddenly by the sun, remove him into the shade, and let a douche of cold water fall on his head and body. At the capture of Rangoon, in 1853, numbers of men struck down by the fierce April sun were so treated, and only two, who had been bled, died.

When I say such cases recover, I refer to the reaction at the time. In some, there are consecutive symptoms of fever, headache, etc.; could we trace their subsequent history, it is probable we should find that complete recovery never occurred.

Future exposure to the sun should be carefully guarded against; the sufferer should be removed to a cooler climate, and protected from excitement; whilst the greatest care is taken to avoid errors or excesses of diet and stimulants.

In thermic fever, the object is to reduce temperature as speedily as possible before tissue changes take place. The use of quinine by hypodermic injection has been thought to produce good results by reducing temperature. It was first used, I believe, by Dr. Waller in Calcutta.

Bleeding has been abandoned, except in rare cases. There are cases in which it may be necessary to avert suffocation, but they are exceptional. Where it has appeared to give relief, the improvement has generally been transient, and followed by relapse into a more dangerous and fatal condition.

The application of cold by affusion, or by ice, taking care not to reduce the temperature too low, is beneficial, a thermometer being placed as a guide in the axilla or rectum. The bowels should be relieved, and cooling drinks given. The most severe symptoms having subsided, the febrile condition is to be treated on ordinary principles; the diet must be carefully regulated. As improvement progresses, and symptoms of intra-cranial mischief supervene, iodide of potash and counter-irritation may be of service; removal to a cooler climate is essential. As a general rule, it is desirable that the sufferer should not return to a hot climate, and he should be guarded against all exposure to heat, overwork, and anxiety.

In simple cases of sun fever (which are not to be confused, as they often are, with insolation), where the reaction is not excessive, the treatment is that of ordinary ephemeral fever.

Continued Fever.—Writers on Indian and tropical disease have described a form of continued fever liable to be modified by visceral complications, and to terminate fatally,—*post mortem* examination revealing pathological changes of various degrees of importance. It is attributed to circumstances attending life in tropical or subtropical regions—such as heat, atmospheric vicissitudes, terrestrial emanations, personal habits, no very distinct characters differentiate it from remittent, which has assumed a continued form. Twining, Annesley, Martin, and others, regarded it as a variety of malarial fever, in which perhaps there is little difference of opinion. But perhaps it is necessary to distingish it from specific continued fevers, with which it may be confounded. In typical cases of remittent, the diagnosis is clear enough; but in many it is difficult, if not impossible: for the characters of the temperature curve vary so little that it is not a sure guide. Other fevers in India may assume this condition, especially if not dealt with properly at first; and visceral complications are generally, if not always, the precursors and concomitant of the change of type.

[*To be continued.*]

* In the Fourteenth Annual Report of the Sanitary Commissioner with the Government of India, 1877, it is stated that 235 cases of heat-apoplexy and sunstroke occurred in the army in India, of which 70 were fatal. The admission rate (4.1) is almost the same as in 1876, and exactly the same as in 1865. The death-rate (1.22) is below the average of the last six years. Of the 235 cases, 189 occurred during the four months of May to August. The disease was widely spread. It gives rise to a fatality of 12.2 per cent. in the first and second years of the European soldier's service in India. The deaths per 1,000 strength:—Service: 1 to 4 years, 1.48; 5 to 7 years, 1.05; above 7 years, 1.50. Age: Under 25, .65; 25 to 29, .99; 30 and upwards, 2.33.

THE LUMLEIAN LECTURES
ON
INFLAMMATION.

Delivered before the Royal College of Physicians.

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Lecture III. Part II.—Etiology of Inflammation.

We have now, I think, clearly before us the phenomena of the inflammatory afflux. It so resembles a reflex action, in the way in which the vessels of an irritated part respond to the stimulus, that the view which must naturally suggest itself is that of its reflex nature. To come to a conclusion as to whether it is so or not, let us first look at the question from the purely physiological side. There are vascular reactions which resemble the inflammatory very strikingly in their character, about which we know that they are reflex. To what extent does that similarity indicate identity of mechanism? One of the best known of these instances is that of the submaxillary gland. In 1851, it was discovered by Claude Bernard (*Leçons sur la Physiologie et la Pathologie du Système Nerveux*. Paris, 1858, vol. ii, page 144), that the influence of the lingual nerve on the secretion of that gland, which Ludwig had made known by his experiments in 1851, is really due to the chorda tympani; and that this remarkable nerve has two distinct afferent functions: that, on the one hand, it presides over the secretion of the gland; on the other, over the circulation of blood through its vessels—in such a way that, when the chorda tympani is excited electrically, the gland reddens; vessels, before invisible even with a lens, become easily distinguishable; the veins fill with blood (which, instead of being crimson, is scarlet), pulsate like arteries, and, if cut, spirt also like arteries.

Now it is quite clear what John Hunter would have thought of this experimental fact, if he had seen it. He would have at once recognised its analogy to the inflammatory flush, and would have explained it by reference to what he called a "common principle in the animal machine"—namely, that vessels become large in proportion to the necessity of supply. In the sixty years that had passed since his death, that idea of Hunter had developed into the doctrine of what was called vital attraction—the doctrine that the distribution of the blood to different parts of the body, or to different organs, is determined

by the attraction for the blood which the tissues were supposed to exercise. This doctrine was present to all physiologists at that time, and led Bernard to make various experiments, for the purpose of determining the physiological relation between the two effects observed—namely, increased secretion, and the flush which accompanied it. From the fact that these effects were not really simultaneous, the vascular effects being seen earlier than the increased secretion, he inferred that they were independent; but this was not proved until Heidenhain ("Ueber die Wirkung einiger Gifte auf die Nerven der Glandula Submaxillaris," Pflüger's *Archiv*, vol. v, page 309), profiting by the remarkable property of the alkaloid atropine, in annulling the function of secreting nerves, showed that in an atropinised animal (that is, an animal in which atropine enough had been injected into the circulation to paralyse the secreting mechanism), vascular congestion of the submaxillary gland could be excited, either reflexly or directly, without stimulating it to increased secretion.

Here, then, was a case which might be strictly compared with the inflammatory blush, for it was unmixed with any other physiological effect. To this first example of determination of blood to a part, directly dependent on central influence, many others might now be added from the records of experimental physiology. I will mention only one of them, and that chiefly on the ground that it seemed to offer a rather plausible explanation of the phenomenon which now engages our attention. I refer to the experiments ("Ueber die Erweiterung von Arterien in Folge einer Nervenerregung," Ludwig's *Arbeiten*, 1866, pp. 1-29), of Professor Christian Lovén of Stockholm, with whose charming personal qualities we had many of us an opportunity of becoming acquainted last August. What Lovén discovered was that, under certain easily realised conditions, an active congestion of the rabbit's ear, as intense as the paralytic hyperæmia of Bernard and Brown-Séquard, observed after section of the vascular nerves of that organ, could be determined reflexly—that is, by stimulation of its sensory nerves; and that, in other parts of the surface of the body, similarly localised hyperæmia could be produced by localised stimulation.

I have referred to these instances of reflex dilatation of the blood-vessels in the most cursory way, because, in reality, their bearing on the question immediately before us is only indirect. The really important fact that we learn from them is, that some mechanism exists in the blood-vessels of such a kind as to suggest active dilatation; for, in all of them, we see that a few seconds after a stimulus, of which the influence is received, whether reflexly or directly through a cranial or spinal nerve, the vessels dilate. Now, at a period not very remote from the present, such an action appeared to a great many physiologists impossible—it seemed impossible, I mean, that a blood-vessel could be acted upon by stimulating its nerves otherwise than to produce contraction of its calibre; for the simple and obvious reason that, in arteries, neither the ring fibres nor the longitudinal fibres could, by their contraction, produce such an effect, and because no other mode of action of a muscular structure, excepting contraction, could be recognised. The difficulty was regarded as so serious that the experimental proof, given long ago by Schiff (*Untersuch. über Physiol. des Nerven-Systems*, 1855, page 140), that there were such things as dilating nerves, was accepted with the utmost unwillingness. Now, we are convinced of the fact, that the nerves of muscles of the external parts of our bodies generally dilate, under the same conditions that the vessels of our viscera contract; and we recognise, in this antagonism* between outside and inside, a factor of great importance in the adaptation of the circulation of blood to the needs of the organism. But, as I have already hinted, for reasons which are easily stated, we must not allow ourselves to be misled by the apparent analogy of such effects as, *e. g.*, that of the reflex congestion of the ear of the rabbit produced by stimulation of its sensory nerves, into supposing that they have the same meaning as inflammatory congestion.

One reason is that of time. I have more than once spoken of the inflammatory blush as transitory. The meaning of such a word as transitory is relative. As compared with inflammatory congestion, it is transitory; but, compared with a reflex response (such as occurs in the rabbit's ear, or in the submaxillary gland), it is lasting. The one is a question of minutes, the other of seconds. But the really conclusive reason why we are absolutely certain that the Hunterian effect is not dependent on, though it is influenced by, the brain or spinal cord, is, that it occurs in all perfection in paralysed parts. It is a very long time since Mr. Simon (*Lectures on General Pathology*, 1850, page 76) observed, in a patient whose eye was anæsthetic in consequence of disease affecting the fifth nerve, that, when a grain of irritant substance was introduced underneath the upper eyelid, the conjunctiva became at once hyperæmic, although the patient felt absolutely nothing. This observation of Mr. Simon's was perhaps the earliest of the kind. However that may be, the truth of its teaching has been abundantly confirmed since. In the frog, it is a matter of no great difficulty to ligature the root of the tongue in such a way as to exclude the blood-vessels. If this be done, the circulation, of course, goes on naturally, and you may observe it on the smooth surface, under the microscope, as Waller did. If, while you are doing so, the surface be touched with a hot wire, it responds with a blush, just as the normal tongue does.

Side by side with these facts, may be placed those which show that paralysed arteries respond to stimuli which act on them through the blood which circulates through them. The organ best adapted for showing this is the kidney. Half-a-dozen years ago, Dr. Mosso (Von einigen neuen Eigenschaften der Gefässwand, Ludwig's *Arbeiten*, 1874, p. 156) discovered that, when artificial circulation is maintained through an excised kidney, under constant conditions as regards the pressure and temperature of the blood, the rate of flow through the organ undergoes variations which manifest themselves in changes of volume, and are due to the independent action of its arteries. Starting from these facts, Dr. Roy of the Brown Institution (*Transactions of the Cambridge Philosophical Society*, July 1881) has carried our knowledge of kidney-innervation much further. He has investigated with the utmost minuteness the mode in which the arteries of the living kidney respond to a variety of conditions affecting them through the blood with which they are supplied; and has proved, among other important facts, that the effect of certain diuretic remedies, which is due to the direct dilating influence on the renal arteries, is as well marked after all the renal nerves have been divided as in the normal kidney. It is clear, therefore, that the arteries possess physiological endowments of a remarkable kind independently of the nervous system. The next question is, How do they act? And, to get at this, we must briefly consider what the normal state of the arteries is; and, inasmuch as our object is to eliminate the influence of the central nervous system, we must confine our inquiries to arteries from which the channels of cerebro-spinal influence have been cut off. When, by the nearly simultaneous discoveries of Bernard, Brown-Séquard, and Augustus Waller, the fact first became known that the arteries of organs of which the vaso-motor nerves were divided became enlarged, it was supposed that the state of paralysis was permanent. In short, as Brown-Séquard said in 1851, motor nerve is to muscle what vaso-motor nerve is to artery. Not many years later, Schiff discovered what everyone is now familiar with, that the paralysed artery recovers, and sometimes even recovers its normal state of contraction, or, as we call it, its tonus. Tonus, therefore (by which I mean simply that the artery, when subjected to the internal pressure to which it is accustomed, is of its natural size), is one of the independent endowments of arteries. Another endowment is that of rhythmical contraction. Everyone has watched the rhythmical contraction of the arteries of the rabbit's ear. A few have, perhaps, seen the corresponding phenomenon first observed by Mr. Wharton Jones in 1852*—the slow pulsation of the veins in the wing of the bat. At that time, vaso-motor nerves were not known. When they were discovered, the influence of section was tried, and it was thought that these pulsations ceased. It is, indeed, only by experiments made during last year (Luchsinger, von den Venenherzen in der Flughaut der Fledermaüse, Pflüger's *Archiv*, vol. xxvi, p. 445) that we know that these rhythmical movements are absolutely independent; for, if the circulation be maintained artificially, the rhythmical motions continue for many hours after the death of the animal. The evidence we thus derive from the manifestation in paralysed vessels of these two physiological endowments—namely, tonus and rhythmical action—that such vessels are in a functionally active state, naturally leads us back to the notion entertained by some of the older physiologists, that the relation of the arteries to the central nervous system is similar to that of the heart. Of this similarity there can be no question. Of the blood-vessels it can be stated as truly as of the heart, that their tonus is capable of being influenced by the cerebro-spinal nervous system in

* The first step towards the discovery of this antagonism was made in 1870 by Heidenhain ("Ueber bisher unbeachtete Einwirkungen des Nerven-Systems", etc.; Pflüger's *Archiv*, vol. iii, p. 504), who found that increased action of the vasomotor centre, however produced, led to increased vigour of the circulation and to increased temperature of superficial parts, notwithstanding the arterial constriction which, until then, had been regarded as the sole effect of such action. This observation had results comparable in importance to the first discovery of the vasomotor nervous system; for, by suggesting that the regulatory influence of the brain and spinal cord on the blood-vessels was more complicated and more perfect than had before been imagined, it led to those later investigations too numerous to mention (Goltz, Gaskell, Heidenhain, Vulpian, Stricker, etc.), by which it has been learnt that vascular nerves differ in function not only according to the vessels to which they are distributed, but according to the physiological states of those vessels. Vast as is the work which has been accomplished in this line of investigation since 1870, it is but the introduction to what has still to be done.

* Discovery that the veins of the bat's wing are endowed with rhythmical contractility. *Philosophical Transactions*, 1852.

opposite directions, according to the channels through which the influence is conducted; and, secondly, that they perform their functions in an orderly and natural manner after complete severance of the nervous system. For the same reasons, therefore, and in the same sense that we familiarly regard the action of the heart as automatic, notwithstanding that its motions are at every moment influenced and regulated by the central nervous system, we are justified in saying that the blood-vessels also act automatically and *proprio motû*. If we had to do with a single artery, we might reason from one to the other, and venture on the analogy so far as to anticipate that, whenever the key shall be discovered to the wonderful controlling influence exercised by the central nervous system on the heart through the vagus, the same key will be found to serve for the solution of the equally difficult problem of the influence of these centres on the blood-vessels. But, if we resort to the phenomenon on which we are now endeavouring to throw light—that of the inflammatory *affluxus sanguinis*—we are at once reminded that, as regards the vessels, there is something else to be considered, of which the physiology of the heart affords us no counterpart. When one puts a little bit of nitrate of silver on the nerveless tongue of a frog, or when a bit of dust is introduced under a feelingless eyelid, the effect starts from the irritant, and rapidly spreads over the surface from vessel to vessel with considerable rapidity. How do we account for this co-ordinated action where the controlling influence of the nervous system is cut off? You know the answer that Lister made to this question in 1858. He met it by the hypothesis of a peripheral nervous system, or, as he called it, "a local co-ordinating apparatus.....capable of being independently influenced by irritation," though normally "in subordination to the nervous system." These notions of Lister's, neglected and forgotten for fifteen years, have now become familiar; for, by elaborate researches made chiefly during the years 1874-78, of which Goltz was the initiator, the independent action of the arteries of the external parts of the body has been established, and it has since become the habit of physiologists to talk of "peripheral local centres" for these vessels as if such things really existed. I need not say that there is no more anatomical evidence now that such things exist, than there was when Lister first called them into being in order to vest in them the local management of the vascular system. The question whether such machinery is necessary or not, is one which we need not at present determine; nor does it in the slightest degree affect the pathological application of the firmly established and universally accepted conclusion that, centres or no centres, the peripheral arteries are able to act in concert with each other, even when they are deprived of the regulatory influence of the brain and spinal cord.

And thus we find ourselves once more coming back to the notions, which at one time were thought obsolete, of the great father and founder of physiological pathology, JOHN HUNTER—accounting for the inflammatory blush, which he was the first to describe, by attributing it, as he did, to the "action of the vessels".

ABSTRACT OF LECTURES
ON THE
MORPHOLOGY OF THE MAMMALIAN SKULL.

Delivered at the Royal College of Surgeons of England.

BY W. K. PARKER, F.R.S.,
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LECTURE IX.—CONTINUATION OF SUBJECT OF LECTURE VIII, AND CONCLUSION.

TURTLES, Crocodiles, and Birds all bring the cranial architecture almost to the level of that of the lower Mammalia; but this is best seen in Crocodiles. The intense solidity of the face and cranium in the latter, the thick bones fitting by clear sutures, and especially the extensive desmognathism of the palatal region—which is in excess of that seen in most mammals, only existing again in some Edentata and Cetacea—all show this. But the Crocodile's skull is essentially sauropsidan, and is distinguished from that of the lowest known mammal by the distinctness of the quadrate between the mandible and the head, by the full development of the movable lower jaw, by the absence of a proper malleus in the ear-chain, and by the arrest of the cochlea, and the rudimentary condition of the turbinal growths of the nasal capsule.

The characters of the Mammalian skull are as follows.

1. There are no superficial prefrontal or postorbital bones.
2. The jugal arch is not finished by a quadrato-jugal.
3. The occipital condyles are double.
4. The periotic bones unite with each other early, and join very little with the surrounding bones.
5. The inferior turbinals are well developed, and the hinder and upper nasal (or true olfactory) region is full of turbinal outgrowths.
6. The lower jaw of the adult is composed of only one piece on each side, and each ramus articulates directly with the skull by means of the squamosal.
7. The auditory chain is composed of three main segments, instead of two, as in the Sauropsida; for the hinder part of the lower jaw is arrested very early to form the malleus, the new and foremost bone of that chain.
8. The permanent functional lower jaw is formed of both a superficial cartilage and a superficial bone; so that it does not correspond simply to the fore-half of the mandible of the sauropsidan.
9. The epihyal end of the functional hyoid early coalesces with the opisthotic (mastoid), the stylo-mastoid foramen opening just over and behind that junction; the chorda tympani, or anterior branch of the seventh nerve, escapes from the bony tunnel in which the main nerve runs, and passes over the incus.
10. Besides the stapedius muscle, there is a tensor tympani, which only exists as an adductor of the mandible in the Sauropsida.
11. The ear-drum is finished externally by both a superficial cartilage (*bulla*) and a superficial bone (*tympanic*) of the opercular category; both these lie internal to the concha.

These are some of the most evident specialisations seen in the adult mammalian skull, which sharply distinguish it from that of an adult sauropsidan. But that which strikes the eye most is that, whilst in the Sauropsida, as also in Lepidosteus, there are six bony pieces in each ramus of the mandible, there is only one in that of the mammal, and this articulates directly with the skull-wall; and also that there is a new element in the ear-chain.

No gradational study of adult skulls is of any service here; and the palæontological record sheds no light upon the subject. The only known fossil mammals from the lower secondary strata are marsupials, and are of a far higher type than the existing Australian monotremes; and yet these latter are truly mammalian in their skulls.

Embryology is our only resource at present; and it reveals the secret of this divergence, seen in the adult condition of the Sauropsida on the one hand, and the Mammalia on the other. In the early development of the skull and face, there is an essential conformity between these two; and in those parts which undergo most modification afterwards, the only primary difference in the newly chondrified bars is, that in the Mammalia—even in the lowest orders—the quadrate segment or pier of the mandible is only partially marked off from the rest of the arch.

We have, therefore, in the early cartilaginous state of the mammalian visceral arches, a mandibular bar which has an upper knob answering to the distinct quadrate of the reptile or bird, which has a larger internal, and a lesser posterior angular process—quite sauropsidan in character.

In the next arch, the pharyngo-hyal again is in two pieces: one, the stapes, fits into the fenestra ovalis; and the other, the incus, is articulated to the stapes behind and to the knobbed head of the mandibular bar—which will give rise to the malleus—in front.

Passing from the distal part of the stapes, there is, in many cases, a small segment of cartilage which answers to the interhyal of the crocodile, and to the infrastapedial bar of the lizard and bird. This remains distinct for a time, and is bound up with the tendon of the stapedius, which muscle passes inside the top of the main hyoid bar, to be inserted fleshy in the hinder tympanic recess. The rest of the hyoid bar is subdivided much as in a normal branchial arch, as in the crocodile; but it does not attach itself, as in that type, to the mandible.

Now, in the Sauropsida generally, the pier of the lower jaw has the squamosal as its proper investing bone; whilst the articulo-meckelian bar, or free lower jaw, has six membrane bones on each ramus, the last of which, the articulare, unites early with the ossifying articular end of the mandible. This state of the ramus is quite like what is seen as low down as in Lepidosteus. The splints that remain distinct are the dentary, the splenial, and coronoid in front, and the supra-angular and angular behind. The rod-like distal end of Meckel's cartilage is mostly absorbed, and does not take any active part in forming the fore part of the ramus; for a time, in Chelonia and Crocodilia, the two are united distally by a non-segmented basi-mandibular plate of cartilage.

In the lower types of Mammalia, especially in Ornithorhynchus and

the common Mole, a complete study of the earlier stages of the mandibular arch yields the following results. In the Mole (*Talpa europæa*), which has, in the adult, extremely small ossicula auditûs, the embryonic mandible is as large as in the Sauropsida; the top of the bar forms a very distinct quadrate lobe, and there is below a short posterior and a long internal process. The rod then runs on, thick and solid, inside the thickening tissues which form the ramus, together with the internal branch of the third division of the fifth nerve and the chorda tympani from the seventh on its inner side, and the outer branch of the third division of the fifth on its outer side. The two Meckel's cartilages meet, unite, and form a basi-mandibular rod, which, however, does not become segmented off.

The tissue outside Meckel's cartilage becomes differentiated into a large superficial plate of cartilage, and outside this, a thin bone, the dentary. The latter rapidly ossifies all the cartilage, except the posterior angle, and the ascending articular process: part of this cartilage lines the glenoid cavity of the squamosal, part forms the meniscus, and the rest remains as the articular condyle. The angular process soon becomes ossified.

Subdistally, Meckel's cartilage ossifies for a considerable extent as a hyo-mandibular, and then coalesces with the dentary. There is also a bony tract inside Meckel's cartilage, which is only partially distinct, and represents the splenial and coronoid of the Sauropsida. Proximally, the thick knob and the broad part giving off the two processes become ossified endosteally, a separate centre being formed in the internal angular process of the cartilage.

A splint of bone, the mandibular *ectosteal* articulare, appears at the same time, and then all the three centres coalesce. Also, in the tract close to the articular head of the ramus, there is another bony splint, which partly gives off from its edge (behind) another smaller piece; these two subdistinct rudiments have all the characters and relations of the supra-angular and the angular of the Sauropsida.

In Ornithorhynchus, the splenial is much more distinct than in the Mole, and it has a well formed thick crest, half-separate, answering to the coronoid of the Sauropsida. In other mammals, including Man, the ectosteal articulare is the only posterior splint, and it is early fused with the ossifying cartilage.

In half-grown Moles, the hinder splints—supra-angulare, angulare, and articulare externum—form a very remarkable crested, ridged, and laminated structure; but, in the adult, all this has been absorbed, and the small processus gracilis is all that is left of these growths. On the outside of the membrana tympani, which is stretched by the internal angular process of the mandible—the manubrium mallei—a superficial crescent of cartilage, and a still more superficial crescent of bone, appear. In many kinds, these fuse early; in Carnivora, the bone unites with the cartilage after it has ossified; it does not in the lesser Bats.

The ridge inside the permanent malleus is for the tensor tympani, and answers to such projections inside the articulare of Sauropsida as are for muscular attachment of its adductor.

In the Monotremes, the malleus remains large, and the incus is very rudimentary; in these and in several other kinds of low Mammals, the hole in the stapes is either absent, or very small; and thus the latter more nearly resembles the shaft of the columella of Sauropsida. The tympanic bone is nearly straight, having only a spike behind, and it thus does not form a ring. This bone is evidently the counterpart of the interopercular of fishes, as the cartilage is a low-placed opercular ray of the mandible.

In conclusion, it may be remarked that in this part of the organism, as in every other, embryology fails to give the slightest hint of the chasm which ultimately exists between Man and the most anthropoid of the remainder of the Mammalia.

THE FARRINGDON GENERAL DISPENSARY.—The presidency of this old-established institution, which became vacant by the death of Lord Hatherley, has just been accepted by Lord Coleridge. At the annual meeting, held last month, it was stated that 32,000 patients had attended the institution during the year, and the medical staff reported that these patients appeared to be of a deserving class, and that they did not believe that the charity was in any way imposed upon. On the 30th of last month an amateur dramatic performance, in aid of the funds, took place at St. George's Hall. A full audience witnessed an exceptionally good representation of "Masks and Faces," and the funds of the institution will receive about £50 profit after the expenses incidental to the performance have been paid.

PRESENTATION.—Mr. A. E. Chesshire, one of the surgeons to the Wolverhampon Eye Infirmary, has been presented by about seventy of his patients with a testimonial, consisting of a silver-mounted spirit-flask, a surgical basket, and a silver sandwich-case.

ANTISEPTIC INCISION AND DRAINAGE IN EMPYEMA.

BY F. RICHARDSON CROSS, M.B., F.R.C.S.,
Surgeon to the Bristol Royal Infirmary.

AN effusion into the pleura, which by its amount and by the rapidity of its increase is threatening the life of the patient, should be at once tapped. The displacement of organs, to which the serious symptoms are due, must be relieved by removal of the displacing fluid. Even hydrothorax dependent on cardiac or renal disease demands interference, although the dropsy of the pleura is almost certain to reaccumulate. Goltdammer, of the Bethany Hospital, Berlin, has by puncture given relief in fifteen cases of secondary effusion without ill result; and even hæmothorax must not be always left alone.

A rapidly increasing pleurisy may cause fatal syncope by interference with the circulation. Bartels has found, in cases of left-side exudation, the inferior cava, where it passes through the quadrate hole of the diaphragm into the thorax, bent at right angles by displacement of the heart. This would be followed by stasis of blood in the lower half of the body, and consequent anæmia of the heart or brain. Fraentzel adds that he has never seen fatal syncope with right-side effusion. Leichtenstern, analysing fifty-two cases of sudden death with pleurisy, finds thirty-one to be in right-side exudations. He attributes death to pressure on the right heart, with thrombus here or in the superior cava, and embolism of the pulmonary artery.

Other pleural effusions, which do not *per se* threaten the life of the patient, should be treated medicinally; but, if absorption through the natural channels do not follow within a reasonable time, the chest should be tapped to relieve the bruised and compressed lung, and to allow its early and complete re-expansion. In pleuritis, the withdrawal of only a few ounces of fluid lessens the intrapleural pressure, reopens the blocked lymph-channels, and is rapidly followed by absorption of the remaining excessive secretion. Besides, removal of irritation from the pleura lessens the tendency to chronic inflammation and hyperplasia in the tissues of the membrane itself, or its consequent hypertrophy, and the formation of adhesions, which bind down the compressed lung, and render it liable to phthisical degeneration and fibroid change. Every day that the effusion continues, the full re-expansion of the lung—without which, no case can be looked upon as cured—is rendered less probable, and its permanent incarceration by the thickened pleura more certain. If the fluid is to be removed by puncture through the chest-wall, the diagnosis may be rendered more certain, and the character of the fluid be demonstrated, by the use of the hypodermic syringe.

Although no harm seems to follow the admission of air to an acute or dropsical serous effusion, suppuration would thus be induced in the subinflammatory exudation of strumous individuals; whilst, if the fluid be pus, its contact will cause fœtid decomposition. Most of the methods for paracentesis thoracis, therefore, prevent any entrance of air into the chest; and, whilst excluding it and other putrefactive agents from the more or less putrescible pleural effusion, they encourage expansion of the lung by tending to reduce the intrapleural pressure below that of the atmosphere within the air-cells of the lung. A trocar and cannula with air-tight valves, or subaqueous drainage, effect the purpose; and the aspirator is still more powerful as exerting considerable suction. Whatever instrument is used must be *surgically clean*, especially where it lies within the chest; and it must be *air-tight* here, as well as in its own valves. Its reliability is most tested towards the end of the operation, as the expansion of the lung and the compression of the structures bounding the thoracic cavity reach their limit.

In *rapid tapping* for sero-fibrinous exudation and dropsy, no attempt need be made to empty the pleura of fluid; nor could this often be effected; for, besides the fear of wounding the lung, cough and pain usually occur before its full re-expansion; and partial removal of fluid is thoroughly effective. If the fluid be pus, clinical experience abundantly proves that no method of rapid tapping will effect a cure, and that the pleura must be continuously and thoroughly drained. Exception to this statement must be made in the case of children; here, an abnormal pleural effusion is usually pus; often it is small in quantity; very rarely it may be absorbed; and not unfrequently it will disappear under one or more rapid tappings. If not so, the child as well as the adult must be treated by *continuous drainage*, at an opening of the chest made with every consideration to conveniently and effectively empty the pleura. For, whether an empyema be repeatedly treated by rapid air-tight tapping or left entirely to nature, in process of time—during which the lung is being permanently compressed, the pleura irritated by its contents, and the patient worn out by dyspnœa and

fever—the pus will make its escape by the lung, or more probably through the thorax in front, close to the sternum, where the absence of the external intercostal muscle leaves the chest-wall thin. The relief thus given to the symptoms of retention of pus is soon replaced by suppurative fever or hectic; for the pleural contents, exposed to the action of the atmosphere, undergo fœtid decomposition, which spreads into the serous membrane itself. Many such cases, however, recover with the lung permanently injured, with contraction of the chest-wall and lateral spinal curve, to which is usually added a constantly discharging sac of putrefying pus.

It is important here to remember that an empyema may be localised or even sacculated. Such cases usually result from caries of a rib or ulceration of the thoracic wall, or from a similar morbid process in the remains of a pleuropneumonia. Dr. Wilks has said: "If, under any circumstances whatever of an inflammatory attack in the chest, under whatever name that attack may be called, there result localised dulness with absence of breath-sounds, and perhaps distant tubular breathing, an empyema may be safely suspected." He has seen five cases of such localised empyema in one year fatal by bursting into the lung, and recommends that, if a single tapping do not cure them, they should be treated by free incision.

In all cases of local or general empyema, free incision, without any special precautions, should give better results than those left to natural processes, because the cases are earlier relieved, and the opening is made convenient for effective drainage. Dr. Fuller, in 1872, had seen no fatal cases treated under him by this method since he had been connected with St. George's Hospital. But a free incision soon heals, until it is merely a narrow sinus through the chest-wall, not large enough to allow free escape from the pleura. The pus collects, and, by reflex irritation of the pleura, is soon largely increased in amount. This tendency can be perfectly met by the use of Chassaignac's drainage-tube. No counter-opening is necessary, the original incision being always at the best available site for drainage. The end of the tube should reach any pocket of pus that may exist.

In cases of fistula remaining after escape of empyema, a properly arranged system of drainage through the fistula, or by a more advantageous counter-opening if necessary, will often effect its closure. Syringing is useful in these cases, not by rendering the sinus antiseptic, but by helping to dislodge the offending matters which escape, whilst the comparatively innocuous injection dilutes or replaces them in the pleura. In recent acute cases, syringing does harm; it irritates the pleura, causes increased continuance of the effusion, and may even produce a fatal result from shock. One of my cases, treated by good drainage under Listerian precautions, and which was perfectly cured, after the removal of the drainage-tube on the fifteenth day, had to be re-dressed each day for the first nine, as I now think by reason of the syringing that I (officiously) used causing excessive secretion. With properly arranged drainage, syringing should not be necessary; but if the discharge continue for a long time purulent, and bagging be suspected, it should, I think, be carefully used to flush out the pleura, and the necessity or otherwise of its further employment will be indicated by the character of the fluid that escapes after its injection.

Some cases of old-standing fistula may be prevented from filling up by rigidity of the thorax, or fixation of the viscera, preventing apposition of the pleural surfaces. I believe that, with proper drainage, assisted, if necessary, by syringing, this will rarely occur; but if it do, resection of a piece of one or more ribs will permit falling in of the chest-wall, and tend to closure of the sinus. Such a proceeding is quite uncalled-for at an early period.

Good drainage is the essential consideration in the treatment of empyema, but there is another side to the question scarcely less important—the prevention of putrefaction or of fœtid decomposition in the pleural contents. So long as pus is contained within its abscess-sac, it does not putrefy; but putrefaction is immediately brought about by contact of putrefactive agencies abundant in the outer world, or in the mucous tracts of the body immediately in communication with it. Pasteur's experiments show that the putrefactive elements are not the gases of the atmosphere, but solid particles floating in it, as well as abundantly present on the surface of the planet. Air itself would harm the pleura by physical or chemical contact, but its exclusion is a matter of very small importance, provided the vital putrefactive agents in it be excluded.

I should prefer to treat an empyema by absolute exclusion of air, if this could be satisfactorily combined with continuous drainage; but I do not think it practicable; for the granulation-tissue which must develop around a tube passed through the intercostal tissues secretes pus, and thus provides a putrescible channel between the pleural contents and the atmosphere; and if ulceration occur instead of granulation, the tube-tract in the chest-wall is no longer even air-tight. The difficulties in the way of emptying the pleura without admitting anything to replace the discharging pus, and the doubtful usefulness of any form of traction to encourage the expansion of the lung, militate still further against prolonged aspiration or any form of continuous suction. On the other hand, atmospheric pressure in the pleura directly upon the lung does not seem to interfere with the ultimate expansion, and, provided the putrefactive agents be destroyed, the presence of air is scarcely prejudicial. I, therefore, submit that the most satisfactory way at present of treating empyema is by a free dependent opening into the pleura, with good drainage, under full Listerian precautions, which allows free and full escape of the pus, and admission into the pleura of an aseptic atmosphere until such time as the visceral and parietal pleuræ come into contact.

As to the site for drainage, the most dependent part of the pleura, when the body is supine, is the tenth rib at its angle. An incision made along its upper border, just outside the angle, is as low in the chest as it is usually safe to go. The lower intercostal spaces are widest, and posteriorly more so than at the axilla, admitting a full-sized drainage-tube. The lower angle of the scapula rests on the eighth rib, I should incise just outside the angle of the rib, never above the eighth space; and if the effusion be very large, should prefer the tenth.

The drainage-tube requires careful management. If it be left in too long, the sinus cannot close; and, even if the empyema be practically cured, the granulation tissue along the tube secretes a good deal of pus. On the other hand, it should not be withdrawn too soon. In one of my cases I thought it produced dyspnœa, and unwisely withdrew it the second day after the operation, but reintroduced it two days afterwards, with relief of a great deal of pus. On the seventh day after the operation, the empyema was replaced by a serous discharge, and I again discontinued the drain; the wound did not heal until seven weeks after the operation. Had I drained for a fortnight, I believe it would then have been cured in a third of the time.

One of my cases, a girl aged 17, despite syringing, had recovered from an empyema of one month's standing a fortnight after treatment. The second, 2¾ years old, who was relieved of three pints of pus about a month after the commencement of her illness, and the wound healed in seven weeks, despite imperfect drainage. (Both these occurred in the practice of my friend, Dr. Shingleton Smith.) The younger patient I saw two months after the operation. She was absolutely well in every respect, and the assumption is that the other case, which was only under treatment a fortnight, is also perfectly well.

A female, aged 18, with stiff contracted joints, cardiac mitral disease, and old strumous sinuses over the sternum, on the shoulder, and in the armpit, which had resisted all attempts at treatment, showed, early in 1881, symptoms of left-side pleurisy. In course of time, it seemed evident that she was suffering from empyema. Dr. Fyffe considered with me the advisability of operating. I was afraid to open the pleura, on account of the contiguity of the septic sinuses on the chest. I did not care to aspirate, for I thought that would only hasten the necessity for free incision. The general condition of the patient seemed to promise no hope of recovery, and she was in no immediate danger. By-and-by abscesses appeared at the cardiac apex in front, and one in the lumbar region behind. It was like a psoas abscess, threatening to burst. Antiseptic treatment gave the only chance, and I decided to pass a drainage-tube through the abscesses and through the chest. Before doing so, I carefully scraped and swabbed, with De Morgan's solution of zinc chloride, all the sinuses, padded each separately with carbolic gauze, and took every precaution to prevent the ends of the drain being inoculated from them. On the evening of the day following the operation the patient seemed sinking, but after two days of sharp reaction she continuously did well. On the seventh day I got rid of the anterior part of the drain, and allowed the chest here to close. On the fourteenth day the advantage of free drainage was well exemplified, a plug of fibrin blocked the tube, and as withdrawn by the change of dressing, allowed a free outflow of perfectly clear serum. At the end of four weeks I kept the posterior drain only under the special antiseptic dressing. The axillary sinus throughout was fœtid, the others were perfectly free of smell. The drain was removed entirely early in the sixth week, and the wound had healed at the next dressing. The discharge was serum, not pus, after the first few days. Syringing was used only on one or two occasions. I may add that all my cases of empyema have got well in a way analogous to ordinary primary abscess.

M. GAUTIER presented to the *Académie de Médecine*, at a recent sitting, a ptomaïne in a perfectly pure condition. It was a very caustic, oily liquid, and extremely venomous, almost as much so as the venom of the cobra. A milligramme and a half inserted under the skin of a bird killed it in less than an hour with paralysis and tetanic convulsions.

LABOUR IN A PRIMIPARA COMPLICATED BY A LARGE URETHRAL CYST AND BY PROLAPSUS UTERI:

DELIVERY BY CEPHALOTRIPSY: SUBSEQUENT OPERATION AND RECOVERY.

By J. HICKINBOTHAM, M.D., M.R.C.P., F.R.C.S.Ed.,
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On November 12th, 1880, in consultation with Dr. Young of Erdington, I saw Mrs. S., aged 21, who was daily expecting her first confinement. An examination revealed a huge mass protruding from the vulva, which consisted of a greatly hypertrophied cervix; and in front of it a large soft tumour, which I took for a cystocele. Behind the prolapsed mass, and lying in a flaccid condition against the posterior vaginal wall, was a perfect hymen of the typical sickle shape. The pelvis seemed of average size, and there was nothing in the general state of the patient to cause anxiety. The os uteri easily admitted a finger; and with some trouble (from the extreme length of the cervix) I was able to recognise the head presenting. The membranes were entire. After consideration, it was determined to wait and watch until labour should come on, in the hope that gradual dilatation would occur, and the delivery end naturally. Labour began on the evening of the 21st, and, although the pains were strong and regular, no advance was made; therefore Dr. Young asked me to see her again at 11 a.m. the next day.

At this time the os was but little larger than above described, and presented a very peculiar appearance, being perfectly annular, and surrounded by a ring of white, shining, gristly-looking fibres. Immediately above this, the cervix was encircled by large veins, with dilatations almost hæmorrhoidal in their character. The membranes had ruptured some hours previously, and the head could be felt at the brim, but was not affected by the pains, which were of moderate length and force.

As the patient showed signs of exhaustion, it was decided to attempt delivery without further delay; she was, therefore, chloroformed, the bladder emptied, and with great caution I endeavoured to overcome the rigidly contracted os. After considerable effort, I was able to get in three fingers, when a smart gush of blood warned us that the vascularity of the cervix had not been over-estimated.

Two courses were now open to us: the first and easiest was to make two or three small incisions, and then deliver by forceps; the second was to treat the constriction as being insusceptible of dilatation, and to deliver by lessening the volume of the fœtal head. After earnest consideration, we decided upon the latter alternative; because, although in ordinary cases the incisions through the os contract so much as to be unimportant, and the risk from hæmorrhage is, therefore, small, yet in the present instance, from the altered condition of the tissues, and especially on account of the great vascular turgescence, we felt that the danger would be very considerable. The cranium was, therefore, perforated and crushed by a small cephalotribe, after which there was no difficulty. She went on well; but the tumour anterior to the cervix began to increase, and there was some pain. On the tenth day it ruptured, and there was a free discharge of puriform fluid, after which convalescence was uninterrupted. Neither during pregnancy nor after labour was there any incontinence of urine, or other trouble connected with the bladder.

The prolapse of the uterus had occurred quite gradually, so gradually, indeed, as to push aside the hymen without rupturing it, and so entirely without inconvenience that the poor woman did not know until her marriage that "she was different from other women." Her menstruation was always regular, and her health had always been robust. The cause of the procidentia was, no doubt, lifting and carrying heavy weights whilst very young. Six weeks after her confinement she called upon me, at Dr. Young's request. I found the womb still prolapsed, but the condition of the os and cervix was nearly natural. The tumour which I have described lay in a flaccid state upon the anterior vaginal wall, or rather hung from it, and a large hole, admitting my finger, still remained. A sound passed into the bladder showed nothing abnormal, and she could hold her urine from morning to night.

When the cyst was itself examined, by the finger or sound, I could merely make out a large empty cavity between the bladder and uterus, and apparently communicating with nothing.

She was afterwards admitted into the Women's Hospital, under my colleague, Mr. Lawson Tait, who has kindly given me the following report of her then condition, and the treatment adopted.

"On examining the patient, there appeared, protruding from the vulva, what looked exactly like a cystocele, but which had the singularity of having a hole, about the size of a shilling, punched (as it were) into its most prominent part. The finger was admitted into a large pear-shaped cavity, having its apex directed up towards the urethra; and it was ascertained that it opened into this canal by a small aperture, not larger than a hemp-seed. When the bladder was injected full of milk, and the external meatus forcibly closed, some of the milk found its way into the sac. The cyst ran backwards as far as the cervix uteri, and seemed to double up on each side of this structure into small pockets. I laid the whole cavity open from the urethra to the cervix, dissected out the mucous membrane over the whole surface, and shortened the remaining flaps of the vaginal surface, so that they met correctly in the middle line, when united by suture.

"The removal of the cyst-wall from the cervix was difficult, and the hæmorrhage was profuse and troublesome. The patient made a perfectly uninterrupted recovery, and all traces of the abnormal cyst have disappeared, and the protrusion is cured.

"I have no doubt this case is an illustration of the rare form of congenital malformation, which, I believe, I was the first to describe in the *Lancet* of January 9th, 1875. I have seen three such cases, and in two of them the distress of the patients was very great, on account of the decomposition of the urine escaping into the sac, and there becoming ammoniacal and purulent. In the present instance, this was obviated by the hole in the depending part of the cyst; but it is perfectly certain that urine in considerable quantity must have passed through the cyst.

"The size of the sac in this case was probably as great as that of the bladder, and it was probably five times as large as in either of the other cases upon which I have operated. In all three cases I dissected the cyst out, and found the aperture into the urethra to be very small, being, as I have said, about the size of a hemp-seed.

"I think the relations of the cyst, in Dr. Hickinbotham's case, prove its origin to have been congenital, as it is perfectly impossible to imagine that a cyst could develop itself from any structure lying between the urethra and the cervix uteri, so as to have relations so intimate with both, as existed in this case. In all three cases the cure by operation has been complete."

I may just remark, upon this note of Mr. Lawson Tait, that his hypothesis that the absence of symptoms was due to the hole in the cyst, could only be correct after the labour, since before that there was no hole. I think a more likely explanation is, that the opening into the urethra was protected in some way by a valvular fold of the mucous membrane, which was sufficient, until there was obstruction in front, and more pressure than usual from the bladder. These conditions no doubt obtained during the labour, and then for the first time urine found its way into the cyst, whose contents had previously been unirritating and harmless.

Since the above was written, the patient presented herself at the hospital, complaining of a "lump in her stomach which gave her great pain." Her temperature was 102°, and pulse quick. She was therefore admitted, and examination showed a tender tumour above and to the right of the umbilicus, which I believed to be a movable kidney. A day or two of entire rest in bed seemed to set matters right; the tenderness and fever disappeared, and she was again sent home.

A CASE OF LABIO-GLOSSO-LARYNGEAL PARALYSIS.

By J. M. HOBSON, M.D., Croydon.

In the Journal for December 3rd, 1881, a case of "Brain-Disease simulating Bulbar Paralysis" is reported as brought before the Manchester Medical Society by Dr. Ross of that city. The primary disease does not appear to have been in the medulla oblongata, but in the central ganglia, and on the left side, "a streak of secondary degeneration" was traced from the diseased corpus striatum (the right was also affected), "through the crus, pons, and anterior pyramid of the medulla oblongata." Moreover, "these degenerated fibres occupied the internal margin of the anterior pyramid of the medulla, and appeared to bend back in the median raphé to reach the bulbar nuclei of the opposite side." It is to be noted that this man had an attack of hemiplegia and aphasia eighteen months previously.

This striking and, as far as I know, unique case, set me thinking whether one which came under my observation in the early part of last year, and which till now I have associated in my mind with those cases described by Dr. Wilks (*Diseases of the Nervous System*), some of which had hæmorrhage into the medulla oblongata, ought, perhaps, after all,

to be classed with Dr. Ross's case. I therefore bring my case before the readers of the JOURNAL for comparison with this other one, although, in one sense, they cannot be compared, as my case is still living, and, unless she gets another "stroke", is likely to live for years to come.

Mrs. ——, aged about 40, travelled, on February 6th, a distance of over 130 miles to stay with a relative in my neighbourhood. In the middle of that night, I was called to see her, and found her in the following condition: quite speechless, though fully conscious; no marked hemiplegia; lower jaw clenched; no cardiac symptoms; radial artery thickened. Next day, the jaw was more opened, and it was then discovered that the tongue was almost powerless, and that deglutition was difficult. She could scrawl her name with her right hand, but she held the pencil badly. There was indication of slight facial palsy on the left side of the mouth. The optic discs were normal. On inquiry from her friends, and on writing to her medical man at home, I ascertained the following history.

She had good health up to a year before, then had slight and transient loss of speech. Her next attack was on one night in January 1881, when she lost her speech for a very short time. Again, a third time, on January 16th, she had partial aphasia, accompanied now with partial left hemiplegia and impaired deglutition; these all coming on gradually in the course of the day. In about a week, she got better of this, and when she arrived here was very nearly recovered. She could talk and walk quite well, and could use her arms, only the left was a little impaired in its movements.

On the third day, February 8th, she could swallow better, and could speak a little. Albumen was found in the urine. On the 9th, she was not so well. On February 11th, Dr. Hilton Fagge saw the patient with me in consultation. At this time, *complete* facial paralysis was noted. This paralysis remained, as far as voluntary movements were concerned, during the remainder of the time the patient was under my care. On the other hand, *blinking* occurred; and, when amused, the face would be drawn up into an expression of laughter, but never into a smile. When an effort was made to close the eyes, a wide staring only was produced. I noted on this day that the *right* hand had been weaker for a day or two. It was the *left* which had been affected before. On the 19th, she had remained about the same for the last week. On the 24th, she had some power in the right arm, and swallowed better. She had been complaining for some time past of pain in the masseters—probably spasm. When tested with carved letters, she could use them well to form words. On March 21st, the right hand had gained considerable power. She was now able to dress herself. Swallowing had improved, the jaw could be more widely opened, and the pain in the masseters was gone; but there was no marked improvement in the movements of the tongue, and the voice was still absent, as it had been throughout, except on February 8th. There was, as far as I remember, one inarticulate sound for everything, and a slight sound, not sustained, on laughing. It was not clear that speech by letters was quite perfect, for, on trying to spell "cannot" on the letters (before several persons), she spelt "connot". Cutaneous sensibility had been found perfect in the face, but diminished in the right fingers.

Mrs. —— now returned to her home, fortunately without any mishap this time, and passed at once under the care of her usual medical attendant, by whose courtesy I am enabled to publish these notes. This gentleman has kindly informed me of the progress of the case. On September 19th, he wrote to me: "Her general health has much improved, and she is able to engage in some of the lighter duties of her home, but she cannot utter a word;" also, "she is able to put the tongue out, which she could not move at will before, and she swallows with less difficulty." I have learned still later that swallowing is now quite easy; there is no power of speech, but some voice.

Now, the symptoms of this case much resemble those of Dr. Ross's; only his had less pronounced symptoms at the time—"loss of facial expression, imperfect articulation, and slight difficulty of deglutition"—while the previous attacks in my case were lighter. Dr. Wilks mentions a case in his book (*op. cit.*) which I well remember in the wards of Guy's Hospital, and which now reminds me of Mrs. ——'s case. This woman could not utter a word; but when, apparently, pleased at something said to her, her mouth opened, her face was opened out too into a broad laugh, while one slow inspiratory noise was made. I think this woman eventually went home, and I do not know what became of her. Her case was "cerebral" for a long time before she settled into this state.

Till I saw Dr. Ross's case, I had thought of my own as one of hæmorrhage into the neighbourhood of the medulla. Nevertheless, I was at a loss how to explain the remarkable facts of the facial muscles being quite cut off from the direction of the will, but responding to the stimulus of a humorous idea, and of the blinking. Now, however, I think I have a clue to the solution of that difficulty. If the lesion were of the central ganglia, the facial nuclei would certainly be cut off from the ordinary motor impulses descending from the hemispheres, but would be free to respond to impulses reaching them through the optic nerves and corpora quadrigemina. Thus the blinking would be accounted for; but how about the laughing? Though this is a respiratory act, and is probably directly regulated by the medulla, a stimulus originating above must reach the medulla first. How is this to be accomplished, if the motor tracts be interrupted? Meynert's notion (Stricker's *Histology*, vol. ii) is of a double motor tract, represented by the crusta, formed of fibres from the corpora striata, on the one hand, and by the tegmentum (or rather a portion of it), formed of fibres from the optic thalami, etc., on the other hand. Now, according to the same writer, the corpora striata receive fibres mainly from the anterior part of the brain, while the optic thalami, corpora quadrigemina, and corpora geniculata receive a portion of their fibres at least from the occipital and temporal lobes. Thus, a humorous idea,* taking its origin in the occipital convolutions as the seat of the emotions, may be reflected into this latter group of ganglia, and thence again into the various nuclei of the medulla oblongata, including those of the seventh pair, concerned in the act of laughing. It seems that the central connections of these nuclei are through both the crusta and tegmentum; those connecting the common nucleus of the sixth and seventh passing through the crusta, while those connecting the inferior nucleus of the seventh, as well as some direct central roots of the nerve, pass through the tegmentum.

One has been accustomed to think of deglutition as so perfectly reflex an act, that surprise is, at first sight, felt at having to associate its impairment with cerebral lesion; but we must remember that, in neither Dr. Ross's case nor my own, was the act deeply involved; and it was probably affected only through paralysis of the tongue, which would hamper only the first or voluntary stage of deglutition. In Dr. Ross's case, the streak of degenerated fibres was traced into the inner border of the pyramid, and then "appeared to bend back in the median raphé to reach the bulbar nuclei of the opposite side". This is the course taken by the central fibres of the hypoglossal nerve. Then the paralysis of the spinal accessory nerve, causing the aphonia in my case, could just as well be accounted for by an unusual central lesion—and we are now contemplating unusual lesions—as the paralysis of the hypoglossal nerve. Lastly, the previous attacks which I have described would receive a more probable explanation—more in accordance with experience—from the idea of central lesions than from that of repeated accidents in the medullary region.

On the other hand, if one tried to associate the symptoms in Mrs. ——'s case with a lesion, or rather a series of lesions, in the neighbourhood of the medulla oblongata, the amount of disorganisation in that all-important part of the nervous fabric would be so great as to be incompatible, one would think, with the maintenance of life.

Thus, to my mind, at present, the balance of evidence is in favour of central lesions in this remarkable case. But the subject stands in need of elucidation.

ON AN "EPILEPTIC" CONDITION OF THE CENTRES WHICH CONTROL THE NUTRITION OF THE BODY.

BY W. MUSSEN YOUNG, M.D.,
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A GREAT extension has been made of late of the class of cases which are recognised as entitled to a place under the generic heading "epilepsy". Formerly this designation was applied only to those cases in which there had existed a train of symptoms so marked and severe in character as to justify the popular appellation of "falling sickness". In order to constitute an epileptic fit, it was deemed necessary that there should be observed distinct loss of consciousness, foaming at the mouth, tonic, followed by clonic, spasms of the entire voluntary muscular system; in fact, all the symptoms which, taken collectively, are now known as *haut mal*. But it has been for some time generally admitted that in epilepsy, as in everything else, there are degrees of severity, and that it could no more be expected that every attack should be of this severe character, than that all cases of small-pox should be of the confluent form. Accordingly, attention has been directed to a class which had previously attracted little notice, owing to the slight disturbance which they cause when compared with the struggle for life which is witnessed in a seizure of the more severe type. In this class—*petit mal*—would be included cases in which the symptoms are so slight as

* One should, perhaps, rather say, the cerebral process of a humorous idea.

to pass unnoticed by a casual observer, and in which the patient himself would be conscious of only a momentary feeling of giddiness. But, although the manifestations of these two different classes are so widely divergent, clinical observation establishes their close affinity beyond doubt. Very frequently the milder variety is merely the preliminary stage of what may ultimately prove to be the most severe and intractable form of the disease; in which case the one is simply the gradual and natural development of the other. This points to the conclusion, that the same specific pathological condition underlies both, the only difference being one of degree.

But the widening of the meaning of the term epilepsy has lately proceeded in another direction than that of degree. If it be taken for granted, as it undoubtedly must, that there is some pathological condition, be it circulatory or otherwise, affecting the cerebral motor area in such a manner as to produce the phenomena observed in sensorimotor epilepsy, it will not be a stretch of the imagination to suppose that the other cerebral centres are liable to become deranged in a precisely similar fashion. The manifestations of these perversions of function of different areas would, of course, vary according to that part of the system over which the area affected might preside. It would be as illogical to suppose that similar pathological conditions of different areas should be manifested by the same effects, as it would be to expect that irritation of the optic nerve should affect the sense of sound. Dr. Maudsley and other recent authorities insist that, in cases of "masked epilepsy", a transitory attack of furious mania may take the place of muscular convulsions. It is fair to attribute these convulsive seizures of ungovernable impulse to a condition of the highest centres, analogous to that which obtains in the motor area during an attack of ordinary epilepsy, so that this variety might rightly be designated epilepsy of volition. If, then, both the motor and volitional centres are liable to become affected in this way, it may be assumed that the centres presiding over the nutrition of the body are subject, wholly or in part, to similar pathological changes.

The following notes of cases are recorded with the object of attempting to show that clinical observation tends to corroborate this theorising from analogy, and that there exists a morbid state which may be described as epilepsy of the centres which govern the nutrition of the body.

A. is now twenty-seven years of age, and has been an inmate of this asylum for nine years. In order to understand her condition, it will be better to begin by describing her as she appears under the most favourable circumstances, when her general *physique* is very good, and her appearance somewhat prepossessing, with a florid complexion, but rather "epileptic" expression. Her mental condition is at all times weak, but when in the state just described she is not inclined to be violent, understands most of what is said to her, and gives fairly rational answers when questioned. This comparatively satisfactory state lasts for some time, when suddenly a marked change, more especially physically, takes place, and within twenty-four hours a decided deterioration is observable. This degeneration progresses very rapidly, but not uniformly, as, during the course of the attack, she frequently exhibits apparent signs of improvement, or at least of arrest of the attack. Any hopes, however, of a permanent change for the better are soon dissipated by a relapse into a worse state than formerly; and at the end of a fortnight her general appearance has so much altered that she would not be recognised as the same person, unless special attention with that object were directed towards her. Although she may be thus reduced to a kind of living skeleton, and may appear to be literally dying from starvation, her appetite remains unimpaired, and she takes her food well, and with no abatement of relish. Concurrently with this alteration in her physical condition, her mental state gradually becomes more unsatisfactory, until at last she is restless and troublesome, incapable of understanding any conversation, or of herself speaking otherwise than in the most incoherent manner. This condition continues until she seems to approach a state of collapse, when an improvement as rapid as the original degeneration sets in, and in a very short time she regains her former satisfactory state. This, however, again proves to be of only temporary duration, and the same sequence of events follows. The quiescent period which elapses between any two seizures is very variable, and does not bear any relation to the menstrual function.

REMARKS.—The periodicity of the attacks in this case, together with the course they run, presents many points of analogy to those cases of epilepsy in which there are considerable intervals of entire immunity from fits, followed by periods during which the seizures are so frequent and severe as to leave the subject of them quite prostrate for a time, until they gradually pass off and another interval of repose ensues. The resemblance is still more marked by considering what might be called the convulsive character of the physical degeneration, as shown by the temporary intervals of improvement or arrest in severity of the attacks. The intense degree of malnutrition cannot be owing to a defective supply of nutritious matter, because the appetite is, as stated above, always very good, and there are never any signs of gastric or intestinal disturbance. The entire course of events may fairly be accounted for by supposing that the cerebral centres which govern the nutrition of the body may be acted upon by the same conditions as those which affect the motor centres, occasioning ordinary epilepsy.

B. is a congenital imbecile, twenty-four years of age. About a year ago, a patch of alopecia areata, about three inches long by about two inches broad, appeared just above the left temple; but the baldness disappeared in a short time, and a good crop of hair again covered the affected spot. Both the falling off and the subsequent growth of the hair seemed to take place in an irregular and spasmodic manner. Shortly after this, a patch of about the same size appeared immediately posterior to, and joining, that which had been first affected, ran a similar course, and was followed by a like spot immediately posteriorly. The same succession of occurrences has taken place on several occasions, until now a tract of the scalp extending from the temple to the occiput has been affected from time to time.

REMARKS.—If the maintenance of the general well-being of the body be liable to interference by an "epileptic" condition of the centres governing general nutrition, it may be inferred that a part may be affected in a manner similar to the whole, and consequently that these periodic attacks of alopecia may be due to a like pathological condition of that small part of the nervous system which is concerned in the nutrition of the affected spot. This case might also be looked upon as favouring the view, that alopecia areata is of neurotic origin in most instances.

Cases are frequently observed in asylums in which patients who have never been subject to epilepsy, though presenting the peculiar physiognomy incidental to that disease, often complain at frequent and irregular intervals of a general feeling of being ill, without any cause to assign for it, as they may still have an excellent appetite, and may show no signs whatever of a disordered state of any portion of the digestive tract. In such cases, all medicines may be tried without affording any relief; but, if left to themselves, they completely recover. After an uncertain interval, the same symptoms again present themselves; and it is a noteworthy fact that, during these slight indispositions, the mental state always becomes more unsatisfactory.

REMARKS.—These cases might be considered as a mild variety of the class which would include Case A., towards which they stand in the same relation as *petit mal* to *haut mal*.

It is not proposed now to enter upon any discussion as to what may be the exact nature of the morbid change which produces these effects, and which may be either circulatory or nervous in character. In favour of the idea that the blood-supply of the nervous centres is at fault, it may be urged that, considering the extreme vascularity of nervous tissue everywhere, a slight derangement either of the supply or of the quality of the blood would be likely to seriously interfere with the proper fulfilment of the functions of any part of the nervous system. On the other hand, when it is remembered what an important part the vasa vasorum play in the nourishment of the larger blood-vessels, and that these vasa vasorum are ultimately in great measure controlled by branches of the sympathetic, it is open to supposition that the small nervi nervorum have a considerable share in the regulation of the nutrition of the nervous centres, and that the morbid phenomena described above may be due to their nervous force periodically acquiring, as it were, a state of unstable equilibrium. Why such a condition of things should occur, and be manifested in such a manner, is as inexplicable as why miasma should affect the body in the periodic manner witnessed in ague.

SURGICAL MEMORANDA.

INJURY PECULIAR TO CHILDREN.

The "injury peculiar to children," which Dr. Sneddon describes in the BRITISH MEDICAL JOURNAL, April 8th, though so trifling as to escape insertion in many of the standard text-books on surgery, is yet sufficiently great to cause the young practitioner considerable perplexity, and possibly annoyance, when first brought under his notice.

I have had seven cases in less than four years, to all of which Dr. Sneddon's description applies accurately, with the exception that, in my cases, the arm was considerably less than semi-flexed. I did not recognise the nature of the injury in my first case until, in the course of a very protracted examination, a slight click occurred at the elbow, with complete restoration of use of the forearm and cessation of pain.

In my case the injury was at the elbow, and, I believe, consisted of slight anterior displacement of the head of the radius.

I reduce it by supinating and extending the forearm ; and in my last two cases, the latter of which occurred very recently, and in which the injury had existed for two days, and slight swelling had occurred, I employed some manipulation at the head of the radius, in addition to my usual method, with the object of directing the bone backwards.

Like Dr. Sneddon, I have only succeeded in finding a description of it in Heath's *Minor Surgery*. WILLIAM J. MACKIE.

The two short articles on this subject which have recently appeared in the JOURNAL (March 18th and April 8th) very completely describe an injury which a considerable experience of hospital casualty work leads me to regard as by no means rare. It is quite a common occurrence to have a child brought us with its arm "out," as the result of pulling or lifting by the hand. The forearm hangs powerless, with the hand pronated, and the child, which is rarely over three or four years of age, cannot be induced to lift it, even if tempted by some attractive object, which it eagerly clutches at with the other hand. An examination is made, and during the manipulation, which includes the movements of flexion and supination described by Dr. Sneddon, and which, to judge by the child's resistance and cries, is very painful, the limb seems suddenly restored to its normal state, or within a few minutes the child is seen using it with ease and freedom.

I have often speculated on the exact nature of this injury. I was aware of its occurrence twelve or fifteen years ago, and remember, about that time, having heard it spoken of by a surgeon of eminence as a possible separation of the upper epiphysis of the radius ; but this is clearly a mistake. I have by no means uniformly found a click on reduction, or any alteration in the position of the bony prominences about the joint ; but when present, the latter has always appeared to be a forward displacement of the head of the radius. I can hardly regard it, however, as a complete dislocation of this bone. Were the orbicular ligament torn, the restoration on reduction would not be permanent, as it is, or at least as it is till similar violence is again inflicted ; for the injury readily recurs. In a child of the age and loose texture common to the injury, the orbicular ligament, along with the ligaments generally, must be lax and yielding, and this state, together with the small, shallow sigmoid notch of the ulna, may easily permit the tiny head of the radius to slip too far forwards.

In default of a better descriptive term, when asked by dressers and others what diagnosis they should enter in their records, I coined that of "pulled arm or pulled elbow," and found this convenient for the purpose. BENNETT MAY, F.R.C.S.,

Surgeon to the Queen's Hospital, Birmingham.

IRON RING ROUND EXTERNAL GENITALS.

ON the evening of March 10th I was summoned to see an old man, aged 66, whose penis and scrotum were enormously swollen and œdematous; and on my inquiring the cause, he pointed out to me that he had an iron ring round the root of the penis, behind the scrotum. He was in a good deal of pain, but had no difficulty in micturition, and he had been attempting to remove the ring by filing. With the aid of my assistant I succeeded, after an hour's hard work, in filing through the ring and removing it. To accomplish this we held the ring firmly by means of two strong pairs of forceps, and prevented the file from doing injury to the soft parts by inserting a thin iron chisel between the ring and the skin. The ring was a quarter of an inch thick, and an inch and a half in internal diameter. The account the patient gave was that when gardening on March 4th (six days previously) he had dug up the ring, and out of curiosity had tried it on. Finding that he could not remove it, owing to the swelling of the parts, he had unwillingly sent to me. The ring had ulcerated through the skin, causing a deep wound, and imbedding itself partly in the soft tissues. Under the use of hot fomentations and lead lotion, the œdema soon disappeared, and the wound healed.

I may add that there were no signs of insanity in the man.

R. L. BATTERBURY, M.D.

THERAPEUTIC MEMORANDA.

ACONITE *v.* SALICYLIC ACID IN THE TREATMENT OF RHEUMATISM.

ACONITE has been very highly recommended in the treatment of rheumatism. I have given it in this disease with great advantage; and Dr. Murrell in his exhaustive letter on aconitine, or aconitia, in the JOURNAL of April 15th, states that Gubler commends it highly for the relief of the pain of acute rheumatism and gout. I will briefly detail a case, at present under my care, where aconite had a fair trial and failed, and in which the value of salicylic acid was immediate, pronounced, and general. A woman, aged 26, was admitted under my care at the North West London Hospital, suffering from rheumatism of three weeks' duration ; the temperature was 101° to 102°. The disease was complicated with nausea and symptoms of pericarditis, as well as with pains in the shafts of the long bones and erythematous eruption on the legs. On admission she was treated by the house physician with a mixture, the main ingredient of which was potassium iodide. This she took for several days, without any perceptible effect, till I put her on a mixture containing 2 minims of tincture of aconite, in combination with a little digitalis and 15 grains of bicarbonate of potash, to be taken every three hours for twelve doses. It slightly lowered the temperature after the first day only, caused a copious perspiration, but was attended with no beneficial effect, either as regards the pains, the palpitation, or the fever. This mixture with one minim of the tincture of aconite was continued for nine days, but with no other effect. I then gave 15 grains of the salicylate of soda, in water, with the result that in three days the temperature was normal, the pain had disappeared, and the heart-symptoms greatly relieved. This confirms to some extent the statement of Dr. Maclagan that salicylic acid is not injurious to the integrity of that organ ; and that, in cases when it appears to be so, the damage to the heart occurs in the natural and erratic course of the disease, often even before its manifestations in the joints become apparent. D. H. CULLIMORE.

54, Welbeck Street, Cavendish Square, W.

TOXICOLOGICAL MEMORANDA.

POISONING BY BROMIDE OF POTASSIUM.

ABOUT 7 a.m. I was called to see a little boy, aged 3 years, who was stated to be suffering from convulsions. On arriving, I found him lying quietly, without any more definite signs of an attack than some slight want of consciousness and a little rigidity of the hands. The skin was of the natural colour; the pupils were normal, breathing regular, pulse 112, somewhat full; temperature 99°. His mother informed me that he had a convulsion lasting almost half an hour, which affected all his limbs and face. He looked a strong little fellow, and there was no history of any severe illness. A brother had died of convulsions when an infant. There was a distinct indication of the probable cause of the attack in the food which he had taken the previous evening.

After an enema and a dose of 5 grains of bromide of potassium, the child was so much better that he sat up and played in bed. Unfortunately his mother left his medicine-bottle within his reach; and while she was absent for a moment, he drank it off, taking sixteen doses at once—80 grains of bromide in four ounces of camphor-water. Seeing the empty bottle in his hand his mother accused him of drinking it, which he at first denied. Being alarmed, she sent at once for me; but before I arrived, in about half an hour after taking the contents of the bottle, and one hour from the time I saw him, he was dead.

His parents said that about ten minutes after the accident, he looked pale and his lips blue. In a few minutes he lay down, then asked to be placed on the night-stool. His father lifted him up, but his head dropped to one side and he was dead. Rigor mortis set in very early.

The circumstances being detailed to the coroner, he did not consider an inquest necessary. The parents would not permit an examination of the body. P. T. DUNCAN, M.D. (Lond.), Putney.

OBSTETRIC MEMORANDA.

AN UNUSUAL AGE FOR A PRIMIPARA.

I THINK the following case may be of interest to the readers of the JOURNAL; and I should be glad to know if any members have met with many similar cases.

Mrs. W., aged between 46 and 47 years (appearing quite 50), married about two years, was taken in labour with her first child on April 10th. I saw her at 4 a.m., but the os was only very slightly dilated. I saw her again in the afternoon of the same day. The os then was fully dilated, and the pains strong and regular, but the head made no progress, and seemed tightly fixed in the pelvis. After some difficulty I applied the forceps, and commenced traction. It was fully half an hour before the head was born—powerful traction being exerted meanwhile. The child was a large, well-developed male, and soon began to cry lustily. Beyond some slight hæmorrhage, the mother did well; and up to the present both she and the infant are progressing satisfactorily. The points of interest are, I think, the age of the mother, and the satisfactory termination of the case.

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Kennington Road, S.E.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

LONDON HOSPITAL.

(Under the care of Dr. STEPHEN MACKENZIE).

LEUCOCYTHÆMIA.

DURING a recent visit to Dr. Mackenzie's wards in the above hospital, we had an opportunity of seeing many highly interesting cases, and we propose to give accounts of a few which seemed of special importance. Our readers may recall a case of leucocythæmia, in which the propriety of excising the spleen was seriously entertained by Dr. Stephen Mackenzie and Mr. Reeves. The case was referred to in a recent discussion on splenectomy at the Clinical Society. This patient, a Jew named Isaac C., aged 25, a cigar maker, was admitted on January 21st, complaining of a swelling of the abdomen and of some pain in the left flank and back. He had noticed the swelling for about twelve months, but had attributed it to increasing "stoutness". With the exception of a "fever" when eight months old, he had previously enjoyed very good health, and had been a steady, regular man. There was, on admission, no very extreme degree of anæmia; the spleen was very much enlarged; it reached from the sixth rib (in the mammary line) to the groin on the left side, and from about three inches behind the axillary line to a point two inches to the right of the umbilicus; the surface was hard and smooth; in the epigastric region it was overlapped by the liver, and a little below this point a notch could be distinctly felt in its anterior border. The abdomen then measured thirty-three inches in circumference. The ophthalmoscope revealed no changes; nothing else of importance was noticed beyond some œdema of both feet; and this disappeared after resting in bed. On January 25th, he had a slight attack of peritonitis over the enlarged spleen, but this passed off in a few days; and, on January 31st, Dr. Mackenzie observed that there was nothing in his appearance which would lead to the opinion that he had any important blood-disease; he was wasted, his complexion was somewhat dark, but there was no perceptible anæmia. On February 1st, he had an attack of epistaxis. On February 5th, the circumference of the abdomen had increased by two inches and a half; on February 7th, Dr. Mackenzie observed a few small hæmorrhages in the fundus oculi on both sides; and, on February 18th, these had somewhat increased in number. From this date, they gradually disappeared; and, on March 20th, it was noted that there were no obvious hæmorrhages in the fundi. The general symptoms at first improved under treatment, and this was accompanied by an alteration for the better in the blood, as shown by the table. The enlargement of

Date.	Red Corpuscular Richness.	White Corpuscular Richness.	Proportion of Red to White.	Temperature.
Feb. 3	73·5 per cent.	8 per cent.	9·1 to 1	98.4 99
,, 11	Uncertain	Uncertain	8.2 ,,	100 99
,, 12	66.2 per cent.	9.5 per cent.	7.04 ,,	99 99
,, 16	67 ,,	9.8 ,,	—	99 100
,, 18	68.5 ,,	—	7.8 ,,	101 100
,, 20	70 ,,	—	8.1 ,,	99 99
,, 22	71 ,,	—	8.1 ,,	101 100
,, 23	73 ,,	8.62 ,,	8.5 ,,	99 99
,, 27	73·75 ,,	8.25 ,,	8.9 ,,	101.4 100
,, 28	73·5 ,,	8.2 ,,	9 ,,	100 101
March 3	75·5 ,,	4·6 ,,	16.5 ,,	100 100
,, 4	76 ,,	4·33 ,,	17.48 ,,	101 100
,, 7	70.4 ,,	4·1 ,,	17.3 ,,	101 102
,, 8	72.8 ,,	3.8 ,,	18.8 ,,	100 101
,, 10	71.15 ,,	4.4 ,,	16.7 ,,	99 102
,, 11	70 ,,	4.2 ,,	16.5 ,,	100 100
,, 13	66 ,,	4 ,,	16.3 ,,	102 102
,, 14	66.56 ,,	3·56 ,,	18.4 ,,	101 102
,, 16	71.4 ,,	3.8 ,,	19.2 ,,	101 100
,, 20	65.4 ,,	3.18 ,,	20.3 ,,	102 102
,, 21	63.8 ,,	3·3 ,,	19.4 ,,	101 103
,, 27	57.8 ,,	2.9 ,,	19.8 ,,	100 101
,, 28	54 ,,	2.85 ,,	19.2 ,,	100.8 102
,, 29	52.7 ,,	2.8 ,,	18.8 ,,	99.8 .... —

the abdomen, however, steadily continued. On March 7th, the circumference of the abdomen was five inches greater than on admission, and the measurement from the extreme right limit of the spleen to the mid-spine was 20.5 inches; and, on March 25th, this had increased to 22.75 inches. The distension of the abdomen was, on March 29th, when we saw him, extremely marked; he then presented an emaciated but not extremely anæmic appearance; he was perspiring freely, and there was some œdema of the feet.

The reasons at first for entertaining and for subsequently abandoning the operation of splenectomy were so fully given in the discussion at the Clinical Society, reported in our columns on April 1st, 1882, p. 462, that it is unnecessary to repeat them here.

DOUBLE NEURO-RETINITIS: TOTAL LOSS OF VISION.

THOMAS S., aged 24, an agricultural labourer residing in Hampshire, was sent to Dr. S. Mackenzie by Mr. Stanford Morton. The history he gave was that he had never suffered from any illness, so far as he could recollect, until September 7th, 1878. On that day, while he was mowing barley, a rabbit jumped up; he pursued the rabbit, caught it, but a few minutes after resuming his work he fell. He did not recover consciousness for about thirty-six hours; at first he kicked and struggled violently, so that the bystanders told him that he had twenty fits. He suffered severely from headache for some time, especially on exertion, but was able to go back to his work in ten weeks. He still suffered from headache at times. In the early part of the spring of 1879, while loading a cart with pea-sticks, he had another "fit", after which he was unconscious for four or five hours; after this "fit" he was laid up for a fortnight. About three months later he had another fit of a much slighter kind. Since this period he had had fits at more frequent intervals; every four, five, or six weeks. The last fit occurred six weeks ago, while he was in Winchester Hospital. In November 1881 he found that he could not see with the right eye, and experienced severe darting pain in the head, chiefly towards the back; this pain was severe enough to prevent his going to work for a fortnight. The sight of the left eye began to get worse, and about Christmas 1881 he had to give up work, and on January 24th, 1882, he was admitted into Winchester Hospital; at this time he had quite lost vision in the right eye and from that time the left eye grew rapidly worse, until, about three weeks before he was admitted to the London Hospital, all perception of light was, he says, quite lost. No history of syphilis could be obtained, and he stated that he had given up all alcoholic drinks about a year before the first fit occurred. He generally vomited when he had the fits, and occasionally independently of the fits, and this for some years. The only symptom of which he complained, when we saw him, was the total loss of vision, which amounted to absolute loss, even of perception of light; in other respects he appeared perfectly strong and well. The excursions of both globes were normal; there was no strabismus. The pupils were equal, dilated, but acting to light (atropine had been used at another hospital). The media were transparent. Ophthalmoscopic examination showed a similar condition of both discs. The margins of the discs were blurred and indistinct, their surfaces faintly striated; exudation was present to a large extent, the arteries were very small, the veins dark and prominent. These changes were not quite so marked in the left eye; no hæmorrhage was seen.

Dr. Mackenzie pointed out the difficulty of making a diagnosis in this case. The symptoms, taken along with the marked changes in the optic discs, rendered the existence of a tumour not improbable, but there was no direct evidence; neither was there anything which definitely pointed to syphilis; the man gave no history in the remotest degree suggesting that disease, and there was no paralysis of any cranial nerve. As to the practical point of the best means of treating such a case, he had no hesitation in recommending mercurials and iodide of potassium. A mixture, containing 10 grains of iodide of potassium, and an inunction of mercurial ointment, had therefore been prescribed. This line of treatment he adopted, not merely because—in the oft-heard phrase—it gave the patient "the benefit of the doubt"; that is, he did not prescribe this merely because the neuritis might be due in some way to syphilis, but because he believed that the treatment was also the best at our disposal, if the man were suffering from some cerebral new growth. The paralysis and other familiar symptoms of tumour of the brain were, he pointed out, due not to the direct pressure or action of the new growth, but to the changes (of an inflammatory kind) which it set up in the cerebral tissue adjacent to it. It could not be hoped to affect the tumour itself by any remedies which could be administered, but there was some probability that the secondary changes in the cerebral substance might be held in check. Mercury was an old-fashioned antiphlogistic remedy, and its efficacy was probably increased by giving iodide of potassium at the same time. He had been much impressed by the usefulness of this line of treatment in cerebral tumour, by a case reported recently by Dr. Hughlings Jackson and himself, of a man who had, under its use, survived for twelve years after the first onset of symptoms. Dr. Mac-

kenzie also commented on the total loss of vision in this case, which was an unusual symptom in neuro-retinitis; he attributed it to the great amount of exudation present, due to the late stage of the disease.

ENTERIC FEVER: COLD SPONGING: EXTENSIVE THROMBOSIS IN BOTH LOWER LIMBS: LARYNGITIS.

ROBERT C., a bricklayer, aged 23, was admitted on February 18th, 1882, suffering from typhoid fever; the symptoms were well marked, and the temperature ranged so high that Dr. Mackenzie found it desirable to make use of cold sponging. On each occasion the sponging was followed by a remission of pyrexia.

Date.	Hour.	Before.	After.
Feb. 22 ..	2 A.M. ..	103 ..	99
,, ..	6 ,, ..	103 ..	100
,, ..	10 ,, ..	104.5 ..	102
,, ..	2 P.M. ..	105.5 ..	101.5
,, ..	6 ,, ..	105.5 ..	103
,, ..	10 ,, ..	105 ..	100
Feb. 23 ..	2 A.M. ..	104 ..	99
,, ..	6 ,, ..	103 ..	100
,, ..	10 ,, ..	104.4 ..	101.8
,, ..	2 P.M. ..	104.5 ..	99.8
,, ..	6 ,, ..	104 ..	100
,, ..	10 ,, ..	103.5 ..	101
Feb. 24 ..	2 A.M. ..	102.6 ..	99
,, ..	6 ,, ..	102 ..	no sponging.
,, ..	10 ,, ..	103.6 ..	103
,, ..	2 P.M. ..	103 ..	102.5
,, ..	6 ,, ..	105 ..	102.6
,, ..	10 ,, ..	104.6 ..	101.8
Feb. 25 ..	2 A.M. ..	103 ..	98.2
,, ..	6 ,, ..	103.2 ..	100
,, ..	10 ,, ..	103 ..	101
,, ..	2 P.M. ..	104 ..	102
,, ..	6 ,, ..	104.6 ..	103
,, ..	10 ,, ..	102 ..	no sponging.

This table, which might be extended for three days more, sufficiently illustrates the control the cold sponging held over the severe pyrexia in this case. Dr. Mackenzie makes use of both cold sponging and cold bathing in enteric fever, wherever the temperature seems distinctly to demand treatment. Cold sponging has the great advantage that it causes less disturbance to the patient; is, indeed, frequently even grateful to him; and, as is shown by the above table, is, if persevered in, able to reduce temperature.

Another point of interest in the case was the occurrence of thrombosis in the right femoral vein. The severity of the general symptoms had somewhat abated, when, on March 7th, considerable œdema of the right leg was observed, together with a good deal of pain, tenderness, and some swelling in the popliteal space. The circumference of the right calf was 13½ inches; that of the left, 10½ inches. During the night of March 8-9th, the patient had a severe rigor; and on the following morning the external saphena vein could be felt as a hard tender cord. The œdema had, however, decreased. On March 13th, the left femoral vein could be felt hard and cord-like as high up as Poupart's ligament, and was excessively tender. There was also some œdema of the right foot; and on March 15th the femoral and popliteal veins on this side had become hard and tender. On March 21st, he had a rigor and accession of pain in the legs, but after this he gradually improved.

A third point of interest in the case was the occurrence of laryngitis. This, Dr. Mackenzie observed, had been a complication which had occurred with unusual frequency during the present epidemic of typhoid fever. The patient was not hoarse when admitted; but this symptom was noticed three or four days later; and on March 13th, when an examination of the larynx was first possible, the vocal cords were seen to be swollen.

MÉNIÈRE'S DISEASE.

PIETRO A., aged 51, an Italian harpist, dated his illness from about the beginning of November 1881. He then began to be troubled with noises in the ear, at first throbbing, but later hissing like the sound of escaping steam. Since then he had complained of giddiness, reeling gait, occasional vomiting and headache, and mental depression. The giddiness was worst when he was in bed. Objects appeared to move from left to right. At certain times, the giddiness had become very severe, the hissing in the ears intense, and he had vomited. He had not been sick since admission (about six weeks); but he was deaf on the right side (the tuning-fork could be heard very imperfectly through bone, and not at all through air). When seen, he did not present any appearance of disease, could walk without reeling, had a fair appetite, and could understand words addressed to him in an ordinary voice. He inclined slightly towards the right in walking, and said that he had a strong inclination to turn in that direction. Objects, he said, appeared to move towards the right, illustrating his statement by sweeping his hand from left to right.

On March 16th, the aural surgeon examined the patient, and reported that the right membrana tympani was indrawn and very much thickened. The right Eustachian tube was not fully open. A temporary improvement in the tinnitus followed inflation with the Eustachian catheter.

The case seemed to be a fairly typical instance of the disease first described by M. Ménière in 1861. The experiments of Flourens and others go to show that vertigo having the characters above described can be produced by injury of one horizontal canal. The apparent rotation of objects occurs towards the affected side, where the canal is damaged only on one side. In a certain number of cases, *post mortem* examination has revealed lesions confined to the semicircular canals; but in others the phenomena seem to have been due to disease of the middle ear, which had set up pressure on the labyrinth and semicircular canals. In this case, it will be noted that examination of the ear showed that the tympanic cavity was not in a healthy condition.

REPORTS OF SOCIETIES.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.

HECTOR C. CAMERON, M.D., President, in the Chair.

Cerebral Lesions in Syphilis.—Dr. MCCALL ANDERSON showed a man aged 49. Twenty-four years ago, the patient had syphilis. About fourteen years ago, after an attack of rheumatic fever, the patient had an attack of paralysis on both sides of the body—less severe, however, on the right than the left. His recovery was speedy, but never complete, slight rigidity remaining on the right side and some numbness on the left. These symptoms were aggravated after a second paralytic seizure about two years ago, and only began to disappear when the patient was put on antisyphilitic treatment. At the commencement of the first attack, there was temporary unconsciousness. For the last three years, there had also been a marked tendency to sweating on the left side of the face. Dr. Anderson's diagnosis was a lesion of the motor tract of the brain of the left side, and of the sensory tract of the right side, the degeneration descending to the lateral columns of the cord. The only treatment employed was the inunction of mercurial ointment, which rapidly produced such an amelioration of symptoms that the patient left the hospital.

Pseudo-hypertrophic Paralysis.—Dr. W. T. GAIRDNER showed a boy aged 10, with the most advanced symptoms of this disease he had seen. They were so advanced as to have lost many of their characteristic points. The disease began two years ago, and had advanced with great rapidity. At first, as is usual, the boy walked with a waddling gait, was easily knocked over, and had great difficulty in rising again. The calves were enlarged, and the spine incurved. Within a year, the boy became unable to stand or walk; the calves began to diminish, and the arms became involved in the paralysis. The progress of the disease was painless; but, on stretching the back or legs, slight pain was sometimes felt. Sensibility was perfect; tendon-reflex was absent; general nutrition was fairly good; but there was considerable relative atrophy of the muscles of the arms. The boy's mother was twice married, and a son by her previous husband died of a similar disease. Dr. Gairdner further remarked that, since 1874, he had had, in the Western Infirmary, four other perfectly unequivocal and typical cases of this disease, all in boys from nine to twelve years of age, and one rather questionable case in a female aged twenty-four.

Aortic Aneurysm.—Dr. MACKELLAR showed an aneurysm of the abdominal aorta, near the cœliac axis, which had undergone spontaneous cure. During life, only forward pulsation could be felt, but not lateral, and the tumour was supposed to be omental. The patient died from dysentery, and an aneurysm was found full of stratified clot, and with the bowel adherent to its anterior wall and slightly gangrenous.

Enchondroma of Orbit.—Dr. THOMAS REID showed a tumour, removed from the outer part of the orbit of a male aged 19. After a blow on the right eye, followed by slight inflammation, a fluctuating cystic tumour formed outside of, and behind the globe, causing it to protrude, but without pain. Some fluid was evacuated, with relief to the symptoms; but, as the solid part of the tumour grew larger, it was also removed. It was found adherent to the periosteum of the upper and outer walls of the orbit, as far back nearly as the optic foramen, and completely involved the lachrymal gland. Five months later, the tumour recurred in the same place, and was again removed. On microscopic section, it presented the appearance of a fibrous enchondroma.

Melanotic Sarcoma of Choroid.—Dr. THOMAS REID also showed sections of a tumour, removed from a woman aged 48. This patient, six years ago, complained of dimness of vision, due to separation of the retina in the lower half of the fundus oculi. Very soon thereafter, vision was entirely abolished. Two years later, she suffered severely from pain in the eyeball, extending to the head. On being seen in the beginning of this year, a tumour of the size of a filbert was found to occupy the lower half of the eyeball; the lens was cataractous, and the iris thinned and arched forwards. Enucleation was performed, and, on making a vertical section of the eyeball, a pigmented sarcoma was found, springing from the choroid and penetrating the sclerotic: it formed a considerable swelling on the outside of the globe.

Cast of Child's Head.—Dr. W. L. REID showed a cast from a child's head, taken after delivery with turning and forceps, and which was moulded by a contracted pelvis. After three confinements of extreme difficulty, Dr. Reid resorted in the fourth to the induction of premature labour at the eighth month. The head never engaged at the brim, but an arm and funis presented. Turning was employed, and, to complete the labour, the head had to be delivered by forceps. The child was dead. The pelvis was universally contracted, with a conjugate diameter of 3½ inches. The following were the chief measurements of the moulded head: occipito-frontal, 4½ inches; biparietal, 3½ inches; occipito-mental, 5¼ inches; suboccipito-vertical, 3⅝ inches; suboccipito-bregmatic, 4 inches; suboccipito-frontal, 4⅜ inches.

Abdominal Tumour.—Dr. NEWMAN showed a tumour from a female, admitted to the Royal Infirmary in a dying state, and whose symptoms were those of ascites. The tumour was very large, and adherent to the abdominal wall. It contained about 350 ounces of milky fluid, and two large solid masses like diseased ovaries. No ovaries could be found elsewhere. The bladder and uterus were both adherent to the cyst. The fluid contained albumen, cholesterine, and large granular corpuscles; while the solid masses consisted of large round cells, with a slight fibrous stroma. The cyst appeared to have been formed by the union of two originally separate ovarian cysts.

Hepatic Abscess.—Dr. NEWMAN also showed the liver from a case of jaundice, which had lasted some months. There was a large abscess in the right lobe of the liver, containing 20 ounces of pus and a large number of calculi. There was no gall-bladder, but a communication existed between the duodenum and the cavity of the abscess. This condition Dr. Newman believed to be due to suppuration of the gall-bladder and its rupture into the liver, the bladder-structure being afterwards obliterated. There had been a history of jaundice and ascites, but of no other symptoms bearing on the case.

SURGICAL SOCIETY OF IRELAND.

FRIDAY, MARCH 10TH, 1882.

JOHN K. BARTON, M.D., Vice-President, in the Chair.

Excision of Knee.—Mr. CROLY exhibited the end of the femur, tibia, and patella of a boy aged 7, whose knee he had resected three days previously, in the City of Dublin Hospital, for strumous disease of the joint. Tenotomy with forcible extension had, two years previously, been tried, but without permanent success. There was pulpy thickening of the head of the tibia, and of its synovial membrane. The semilunar cartilages were destroyed, as also were the soft structures about the patella.

Tumour of Side.—Mr. WHEELER exhibited a tumour, probably fibrous, which he had very recently removed from the side of a gentleman. It grew in the region of the seventh, eighth, and ninth costal cartilages; and, in excising it, part of the ribs had to be removed also. The history given was that, when hunting in 1878, he hurt himself in the side; a small tumour appeared in the place, but gave no pain. In 1880, it had grown to the size of half a small orange, but was still painless. In February 1882, it began to soften, and became red and hot. When Mr. Wheeler cut into it, about an ounce and a half of fluid escaped. The exact nature of the tumour had not yet been determined.

Thyroid Tumour.—Mr. STOKER exhibited part of a large thyroid tumour, which he had removed from a boy aged 14, partly cretinous, and badly developed, who had been goîtrous since his birth. Latterly, the tumour had been growing rapidly, and was giving laryngeal trouble. The tumour, which measured 7⅝ inches transversely, consisted of three lobes, corresponding to the isthmus and two lateral lobes of the gland. The operation was tedious and bloody, owing to the large size and number of the vessels supplying the tumour. The tumour was solid, with a central cartilaginous mass.

Diseased Ovaries.—Mr. ABRAHAM showed the diseased ovaries and distended Fallopian tubes of a woman, on whom Mr. Lawson Tait had operated. The specimens were presented by Mr. Tait to the College Museum.

Fibro-Adenoma of Anus.—Mr. SWAN showed a fibro-adenomatous tumour, of the size of a hen's egg, which he had removed from the verge of the anus of a middle-aged woman. It was similar to those not unfrequently found growing from the labia.

Spinal Caries: its most Common Results, and their Treatment.—Mr. SWAN read a paper on this subject, in which the paralysis of Pott's disease was considered. Statistics and cases, collected by the author, showed that paraplegia, as a sequence, followed almost exclusively disease of the cervical and six upper dorsal vertebræ. This might be readily estimated by considering the small size of the vertebral bodies, and their free motion in the cervical region; and, in the upper dorsal, the tendency to a rapid assumption of an acute angle from the weight of the head, while in the erect posture, being transmitted through those bones. The anterior portion of the spinal cord was held in close relation with the posterior surface of the vertebral bodies by the spinal roots, while the posterior portion was five or six lines distant from the corresponding part of the canal. The theory of the direct extension of the morbid process producing a perimeningitis, a meningitis, and subsequently a localised myelitis, seemed thus feasible, and accounted for the frequency of interference with the motorial functions. The factors of the paralyses of Pott's disease were three: 1, direct pressure of the bony angle on the cord; 2, deprivation of blood-supply, inducing a reflex paraplegia; 3, a series of changes, commencing by an extrameningeal lesion, involving secondarily the meninges, and terminating in a descending sclerosis of the cord. The author demonstrated the subject by pathological illustrations, and detailed some clinical phenomena in support of his observations. A review of the more unusual varieties of paraplegia was read. Complications with spasm, or paresis of the upper extremities, and their diagnostic value, were referred to. The value of the reflex phenomena was considered as a diagnostic agent in sclerosis. The occurrence of abscess, as a visible and internal sign, only indicated that pus was presented in a greater degree. According to the writer, it was present in every case of true vertebral caries. This he showed by specimens, which displayed cavities containing the elements of pus in a state of caseous degeneration. The periods for treatment were separated into two: 1, that in which the disease was either actively progressing or stationary; 2, when repair was being established. The value of any apparatus, extending to the axilla, was held by the writer only to apply to disease very low down—not above the third or fourth lower dorsal. He advocated the jury-masts as a preventive, and showed some elegantly finished spinal supports, made by Mr. Corcoran of Bachelor's Walk, Dublin. The general observations on the subject of the treatment of congestive abscess from spinal caries, made by the author, led him to believe that the safest treatment was allowing a spontaneous opening to occur. He had not seen good results from Lister's dressing in those cases, though holding himself a strong predilection for that method; and quoted Billroth, Pirogoff, and others, on this subject.—Mr. THORNLEY STOKER strongly protested against Mr. Swan's opinion of the uselessness of opening spinal abscesses under Lister's spray. In his practice, the use of Listerism in such cases had been attended with excellent results.—Mr. ELLIOTT advocated opening spinal abscesses by a valvular incision.—Dr. H. KENNEDY advised the use of quantities of animal food in caries of the spine, as in all other forms of struma.—Mr. CROLY obtained good results by allowing psoas abscesses to open spontaneously. The reason why the valvular incision recommended by Abernethy gave good results was, because it was the nearest approach to the natural method, the essential point being to allow a slow and gradual, and, at first, only partial evacuation of the contents of the sac; so that contraction might occur gradually.—Mr. WHEELER agreed with Mr. Swan that bad results were to be anticipated from all methods of opening psoas abscess.—Mr. SWAN, in reply to the President, thought that the common history of accident, as the starting-point of spinal caries, was unreliable. He thought that it was the blood which became effused into psoas abscesses which set up decomposition. The sac of a psoas abscess differed from that of other abscesses in being harder and less contractile, and liable to crack and bleed; and hence the danger of rapid evacuation.

FRIDAY, MARCH 24TH, 1882.

Disease of Wrist-Joint.—Mr. BAXTER exhibited the hand and part of the forearm of a female, aged 30, which he had removed by amputation for disease of the wrist-joint. The synovial membrane was thickened, and the cartilages were eroded.

Fracture of Skull.—Mr. ORMSBY showed some pieces of bone which he had removed from the skull of a man two days before. While working in a mill, the man had received an injury from a circular saw, which knocked him senseless. No depressed bone could be felt, nor were there any symptoms of compression. Being worse next day, a crucial incision was made over the seat of the injury at the inferior portion of the left parietal bone; the skull was then found to be fractured. Trephining was performed, and the depressed pieces of bone were elevated. The patient was doing well.

Stricture of the Œsophagus.—Mr. KENDAL FRANKS read a paper on organic stricture of the œsophagus. This might result from hypertrophy of one or more of the œsophageal coats, or from cicatricial contraction. In the latter form, there were two distinct stages of dysphagia, the first coming on immediately after the injury was received, and due to the inflammatory swelling of the parts. As this subsided, the patient experienced relief, to be followed sooner or later by the extreme dysphagia symptomatic of the contraction of the cicatrices.

Mr. Franks detailed the etiology, symptoms, and diagnosis of true fibrous stricture, and enumerated the various methods of treatment recommended. He related a case in which he had successfully employed rapid dilatation, subsequently keeping the œsophagus from re-contracting by the frequent passage of bougies. M. T., aged 20, an unmarried woman, was admitted to the Throat Hospital on October 27th, 1881, complaining of a difficulty of swallowing. She had never suffered from any affection of the throat until four and a half years previously; when, one morning at breakfast, a piece of hard crust stuck in her throat. She could not get it down, and her fellow-servants slapped her on the back. Retching soon came on, and the crust was ejected. There was no subsequent hæmorrhage. Afterwards she experienced pain and difficulty in swallowing, and every day this grew worse. Particles of food used often to stick in the throat, and she used often to get them up again with her finger. By degrees even fluids became difficult to swallow. There was no variability in the dysphagia, and she evinced no symptoms of a nervous habit. It made no difference in the degree of dysphagia whether her attention were fixed on the act or not. She was in one of the Dublin hospitals for a short time, but a bougie was never introduced. She was, when admitted, rather ensanguine and emaciated. She had lost between three and four stones since the throat became affected. She referred the pain and obstruction to a point about three-quarters of an inch below the cricoid cartilage, where, she said, she felt as if something were sticking. A laryngoscopic examination showed that the larynx was quite healthy; it was abnormally pale. There was no displacement or swelling. Mr. Franks tried to pass an ordinary œsophageal bougie; but at the point indicated by herself it was obstructed. She bore the attempt well. After the withdrawal of the bougie, she was able, with great difficulty, to swallow some beef-tea and milk. The next day, he tried to introduce a No. 8 (English gauge) catheter. Great difficulty was experienced, as the œsophagus seemed dilated above the stricture, and he had to probe about against the floor of this dilatation with the olivary point of the catheter before he could find the opening. The catheter was retained for an hour, during which period the patient sat on a stool, leaning over a basin, whilst stringy mucus and saliva poured from the mouth. After its withdrawal she experienced great relief; and shortly afterwards, was able to swallow beef-tea with greater ease. On the 20th, the same catheter was inserted, and retained for a few minutes; after its removal, Mr. Franks was able to introduce a No. 11 with considerable difficulty. This was retained for two and a half hours. She was able afterwards to swallow some mashed potatoes. On the 22nd, the No. 11 was again introduced, and retained for three hours. On the following day, she was able to take a small portion of well-chewed meat—the first she had been able to swallow for four years. On the 24th, the No. 11 catheter was retained for three and a half hours. She complained still of the sticking pain in her throat, but otherwise was feeling better. On the 26th, it was retained for four hours. On the 29th, Mr. Franks introduced a catgut guide through the stricture, and over it passed in a No. 12 catheter. On the 31st, the No. 12 was retained for five hours. On November 2nd, he introduced Otis's dilating urethrotome without the blade, and forcibly dilated the stricture to the full size of the open instrument. This caused a good deal of pain; and for some time afterwards, the mucous discharge was tinged with blood. Immediately after its withdrawal, he introduced an ordinary œsophageal bougie, about three-eighths of an inch in diameter. This was retained for several hours. On the 3rd, a conically pointed rectal bougie, as recommended by Mr. Tufnell for stricture of the rectum, about half an inch in diameter, was passed with comparative ease, and kept in for six hours. This was passed every second day till the 9th, when Mr. Franks succeeded in passing Mr. Tufnell's full-sized rectal bougie. The part that was held in the stricture was about five-sixths of an inch in diameter, and this was retained for one hour and a half. This large bougie was passed almost daily till the 22nd December, and retained each time for periods varying from one and a half to four and a half hours. She was then discharged, and went to a situation in the country. In March, she was able to swallow all kinds of food without difficulty or pain. She expected soon to come to Dublin, when Mr. Franks hoped to have an opportunity of again passing the bougie, and thus determining the amount, if any, of recontraction.—Mr. TUFNELL and Dr. KENNEDY spoke; and Mr. FRANKS replied.

Restoration of the Eyelid by Transportation of Skin from Distant Parts of the Body.—Mr. ARTHUR BENSON read a paper on this subject, in which, after a brief *résumé* of the various operations which had from time to time been invented, practised, lauded, and abandoned, and those which were still employed, for the cure of extreme degrees of ectropion, he read the notes of eight operations which had been performed in St. Mark's Ophthalmic Hospital by himself and his colleague Mr. Story within the past year, after the method recently described by Dr. Wolfe of Glasgow, viz., by the complete transportation of skin-flaps, without pedicles, cut to shape from any part of the patient's body, or from that of anyone else willing to make a present of a portion of his skin to supply deficiencies elsewhere. The first of the series, which was also the first operation of the kind performed in Ireland, was done in May last. Of the eight operations in which the size of the transported flap varied from $2\frac{1}{4}'' \times 1\frac{1}{4}''$ downwards; in five, a certain portion of the flap lived; in one, the entire flap survived; and in another, very nearly the whole remained. In three, the whole flap disappeared; in one of which it was torn off with the bandage in the night. In all cases, even those in which the whole flap sloughed, the ectropion for which it was done was diminished. Mr. Benson alluded to this, and suggested that the improvement might be accounted for by the fact that the newly formed cicatrix, though it contracted, did not do so to the same extent as the primary one; and compared the process to that which occurred when von Burow's operation for entropion was performed. A comparison was instituted between the operations performed in the eight cases quoted, and the operation usually practised in such cases, viz., taking a skin-flap with a pedicle from the side of the cheek or forehead. 1. If both failed, in the former case, no harm was done, except a slight scar produced on the arm; but, in the latter, there was an additional scar added to the face without corresponding benefit to the eyelid. 2. If both succeeded, in the first case, the patient derived unmixed good; whilst, in the second, the improvement in the lid was obtained at the expense of increased scarring of the face. 3. There were many cases in which the former was possible, whilst the latter was impossible, owing to the extent and density of the surrounding cicatrices. The question which still required answering was: "Are the chances of success in the operation of transportation sufficiently good to justify its employment in those cases where a choice is possible?" Statistics were still required before the question could be considered settled; but Dr. Agnew of New York had obtained seven successes in eleven operations; and in the series just detailed there were five partial successes in eight operations. Numerous isolated successes had been published, but such were nearly useless, as the relation they bore to the number of failures remained an unknown quantity. Several interesting points regarding the clinical history of the cases were discussed, especially the rapid diminution in size which the flaps underwent, even after they had become perfectly vital in their new bed, and the late appearance of sensation in transported flaps; in one case which was carefully noted, it did not appear until the forty-seventh day. In conclusion, Mr. Benson thought the operation worthy of a more extended trial, and considered that its introduction marked an epoch in the history of plastic surgery. For if it could be shown that the percentage of successes was fairly good in operations on the eyelid, there was every reason to suppose that, in situations more favourably situated, the ratio of successes would be much greater. The subject was of interest, therefore, not only to the ophthalmologist, but to every operating surgeon.—The VICE-PRESIDENT had not himself performed the operation of transportation, but had confined himself to the older methods of face-flaps with pedicles.—Dr. BENNETT had seen some of the operations performed by Mr. Benson, but was not yet convinced that the operation was a very valuable addition to plastic surgery, the risk of failure being so much greater in it than in the ordinary methods.—Mr. STORY had performed several of the operations recounted by Mr. Benson; and, while acknowledging that some of the results obtained by it were in the highest degree satisfactory, he would feel inclined to resort to it only in those cases where other means were not available. If impossible to obtain a suitable flap from the face, he would prefer to employ the old Tagliacotian operation.—Mr. ARTHUR BENSON, in reply, considered that the operation was justifiable in a considerable number of cases, but that its relative advantages must be determined by a much larger experience of it than any of the speakers had yet had. The operation was a comparatively new one, and must not be lauded or condemned without fair trial. He had no doubt that, as his experience of it increased, so would his percentage of successes. The only question unsettled was the relative number of successes by each method; for, on all other counts, it possessed indisputable advantages.

OBSTETRICAL SOCIETY OF DUBLIN.

SATURDAY, MARCH 4TH, 1882.

J. A. BYRNE, M.B., President, in the Chair.

Fibrous Tumour of the Uterus.—Dr. ATTHILL exhibited a fibrous tumour, about the size of a goose's-egg, which had been partly expelled (spontaneous enucleation), but remained adherent at one end to the muscular structure of the uterus. There had been but very slight hæmorrhage before the woman was admitted to the Rotunda Hospital. On

examination, the vagina was found completely filled by the mass. A wire *écraseur* was passed round it, and the pedicle cut through with great difficulty; whereupon, for the first time in his experience, copious hæmorrhage followed, so excessive as to resemble *post partum* bleeding. Examination showed the source of this blood to be the cut pedicle of the tumour. Plugging with perchloride of iron, etc., restrained the hæmorrhage, and the woman made a good recovery, with, however, a temperature running up to 104° Fahr.

Sessile Vascular Tumour of the Uterus.—Dr. ATTHILL showed a small tumour which he had removed from the fundus uteri of a woman in the Rotunda Hospital. There had been very little hæmorrhage from the tumour; but he removed it as a prophylactic measure, having, in a similar case, formerly under his care, been obliged to operate, in consequence of the persistent profuse hæmorrhage.

Blighted Ovum.—Dr. HORNE showed a specimen which had been expelled from the uterus of a woman, aged 40, two days previously. Her last child had been born seven years ago. She had menstruated regularly since until August last; she believed herself to be in the sixth month of pregnancy. Three days ago, she got a fright, and hæmorrhage came on; when examined, the os was about the size of a shilling, through which a soft mass like the placenta was felt. The uterus was about half the size of that organ at full time, and the pain was severe. The uterus was injected with hot water, and the mass removed.—Dr. MACAN thought the curious part of the history was the small size of the specimen after so long a time. He regarded it as a specimen of fleshy mole.—Dr. NEVILLE regarded the specimen as one of so-called cystic degeneration of the chorionic villi seen in an unusually early stage.—Dr. ATTHILL, Dr. KIDD, and the PRESIDENT also spoke.

A Case of Concealed Hæmorrhage.—Dr. HORNE read the notes of a case of concealed hæmorrhage occurring in a woman, Mrs. B., aged 34, pregnant with her seventh child, otherwise healthy. Previous labours had been easy and uncomplicated. On November 11th, 1881, she went to the Rotunda Hospital; she was then weak and pale, with a moist skin, and was complaining of a feeling of extreme faintness, and of pain shooting down to the groins. She stated that on the previous day she had been exercising rather unduly. Examination showed the external os uteri to be patulous, the internal being closed. No presentation could be made out. Dr. Horne tried to rupture the membranes, but got no liquor amnii, nor could the fœtus be felt. There was the abdominal tumour, and the woman's history that she was far on in pregnancy; but palpation and the stethoscopic examination gave only negative results. The vagina was therefore plugged, and on the second day the fœtus, still-born, was found in the vagina, covered with the unbroken membranes, and the placenta attached. A large clot of blood was subsequently expelled from the uterus, and the woman made a good recovery. Dr. Horne had found records of thirty-seven cases; in 23, the mother died; in all, the child was still-born. Out of 110 cases compiled by German authors, 56 mothers died; whilst 7 children were saved. The cases were to be recognised by the presence of all the symptoms of hæmorrhage without visible bleeding, a tense uterus with pain over it, but at no time true labour-pains. The first question that suggested itself was, Was the woman pregnant or not, for no fœtus could be felt? The question of treatment was an important one, and one on which some difference of opinion existed. Was it better to treat it like a case of ordinary accidental hæmorrhage, or procrastinate in order to conserve the patient's strength? The latter was the line adopted in the present case, and and with the favourable result recorded.—Dr. KIDD thought that the great difficulty was the diagnosis. He saw a case of a lady who, when eight or nine months pregnant, fell downstairs; pain set in, soon followed by collapse, which passed off in a few hours. He found the uterus enlarged and doughy; the os was closed; there was no hæmorrhage in the vagina. He introduced a Barnes's bag, dilated the os, and delivered as quickly as possible; but the woman died. The best practice in such cases was to dilate the os and deliver as quickly as possible, unless the woman were actually collapsed and pulseless.—Dr. DENHAM related a case which had occurred in Dr. Johnston's practice. A lady, between eight and nine months pregnant, was suddenly seized with a fainting fit, and all the symptoms of hæmorrhage except external bleeding, not a single drop appearing externally; she died, and the *post mortem* examination showed the placenta to be adherent all round its margin, but detached on its flat surface completely, and a large hæmorrhage separating it from the uterine wall. He agreed with Dr. Kidd, that dilatation of the os and rapid delivery was the best treatment in such cases, but preferred to use his fingers instead of Barnes's bag.—Dr. ATTHILL said that in the 14,000 cases which had been delivered during his mastership of the Rotunda Hospital, this was the only case of concealed hæmorrhage, showing how rare it was. In all the recorded cases in which the membranes were ruptured, the patients died; he did not, therefore, think the practice a good one; and, considering the sudden emptying which occurred under such circumstances, there was every reason to believe that it would tend to produce fresh hæmorrhage. He therefore advised that, unless the woman were dying or sinking, the membranes should not be ruptured, or delivery rapidly effected, unless uterine action could be first induced.—Dr. MACAN said that the rule on the Continent was not to rupture the membranes unless the uterus were acting, for, by doing so, the only thing which restrained the hæmorrhage—namely, the intra-uterine tension—was relieved. Pain he regarded as an important diagnostic. Women died from shock, which was quite out of proportion to the amount of blood lost. He did not advise rupturing the membranes, but dilated the os by means of Hegar's dilators, as they were more easy of application than Barnes's bag. The utter want of uterine action in such cases made him think there must be something radically wrong with the uterus itself.—Dr. DILL had long been impressed with the belief that the collapse was due to the shock of the hæmorrhage, and not to the amount. He thought that a diagnosis could generally be made by the (1) history, (2) local pain, and (3) collapse. He advised an expectant line of treatment, sustaining the patient's strength, and giving ergot, and encouraging uterine action.—The PRESIDENT, Drs. DOYLE, HENRY, and CRANNY also took part in the discussion, and Dr. HORNE replied.

MEDICAL SOCIETY OF THE COLLEGE OF PHYSICIANS IN IRELAND.

WEDNESDAY, MARCH 1st, 1882.

THOMAS FITZPATRICK, M.D., Vice-President, in the Chair.

Ascaris Lumbricoides.—Dr. J. W. MOORE exhibited a large specimen of the common round worm passed by a girl, aged 16, who was under treatment by oil of turpentine for a severe attack of catarrhal pneumonia consequent upon measles. In a fit of coughing, the worm came up without the least trouble.

Temperature-Charts in Fever.—Dr. J. W. MOORE submitted a series of charts illustrative of clinical observations in continued fever. The first case detailed was that of a young man, subject to asthma, who fell ill of typhus. On the seventh day of the fever, there was an attempt at crisis; but the temperature rose again, until, on the thirteenth day, there was a second definite attempt at crisis. Almost immediately the phenomena of typhoid fever appeared, and the illness ran on to the sixtieth day, terminating at last by lysis. The history of this case showed that the two continued fevers might coincide, or at all events follow one another very closely. A second chart illustrated the important clinical fact that hæmorrhage from the bowels at an early period of typhoid fever was sometimes of advantage to the patient, perhaps by causing depletion and relieving that hyperæmia of the intestinal mucous membrane which often precedes the development of typhoid ulceration of the ileum. A young man, aged 20, had considerable bleeding from the bowels on the twelfth day of his fever. Hardly had it ceased, when there was a rapid amelioration in his symptoms, and he was completely apyrexial by the eighteenth day. A third chart showed an unusually slow pulse in convalescence from typhus maculatus of sixteen days' duration. During the fever, the pulse was weak and rapid. On the fourteenth day, it fell to 86. On the seventeenth day of his illness, he was completely apyrexial, his pulse being only 40 in the minute; and during four days afterwards it never exceeded 46. Then it began to rise again, reaching on the twenty-fourth day 72, and on the twenty-fifth day 86, in the minute. That comparatively quick pulse coincided with a completely apyrexial state, his temperature on the twenty-fourth and twenty-fifth days being only 98.4° and 97.2° respectively.—Dr. NIXON said he had experience of the reduction of temperature on or about the seventh day of typhus. Liebermeister also had called attention to its prognostic value.—Dr. WALTER SMITH had also observed a similar depression of temperature on the seventh or ninth day. This remission was even of diagnostic importance.—Dr. HENRY KENNEDY endorsed the observations of the previous speakers. In his experience, intestinal hæmorrhage in fever was frequently beneficial. He had recorded cases in which the pulse fell to an extraordinarily low rate even during the fever. The symptom was, as a rule, not of moment.—Dr. J. W. MOORE replied.

Apparent Recovery from Morbus Addisonii.—Dr. J. MAGEE FINNY detailed the case of a widow, aged 50, who was admitted to the City of Dublin Hospital, under his care, on May 17th, 1880, suffering from great debility and discoloration of the skin. Since Christmas 1879, she had been daily becoming weaker and losing flesh. Dr. Finny based his diagnosis on the constitutional and local symptoms which

were present. 1. The constitutional symptoms were those of anæmia and asthenia—such as general muscular debility, wasting, faintness, and breathlessness on any exertion, a subnormal temperature, a diminution of solids in the urine, feebleness of the pulse, and weakness of the heart's action. These symptoms were, indeed, but the expression of profound asthenia and anæmia, as Addison fully recognised, and were not peculiar in themselves to the disorder under consideration, being present in idiopathic anæmia and the advanced stages of other wasting diseases, as cancer, renal or splenic degenerations, etc. Their significance was, however, at once enhanced by the absence of any other known conditions which could produce them. Frequent and careful examinations of the patient, as well as the subsequent progress of the case, precluded the possibility of there being any other cause for her symptoms. 2. The local symptoms were equally well pronounced. The pigmentation of the skin was characteristic (*a*) in the usual situations—the face, arms, hands, fingers, axillæ, areolæ of nipples; (*b*) in its nature, varying in shade from a dingy yellow to an olive black, the colour fading imperceptibly from the darker to the lighter shades; (*c*) the deeper pigmentation which followed the application of a test-blister; and (*d*) the unmistakable staining of the mucous membrane of the lips, palate, gums, and buccal surface, and the inky discoloration of the tip of the tongue, exactly corresponding in colour though not in extent with the admirable plate depicted by Dr. Greenhow in his monograph. The treatment was based on the prominent symptoms of asthenia and anæmia. The former indication was met by giving eggs, beef-tea, wine, and as much other nourishing diet as could be safely borne, and by medicines directed to strengthen and stimulate the heart, and the other by preparations of iron and arsenic. Under this treatment, she soon began to mend gradually, and, from November 1880, she had not required any treatment; she was now able to walk a couple of miles without much fatigue, and, when seen last week, she presented little of the original disease for which she came under Dr. Finny's care. A small woman, she was fairly well nourished; the face no longer attracted notice, and all the pigmentary changes in the mouth and hands had totally disappeared. The patient who was the subject of the disease was introduced and examined by the members present.—Dr. NIXON observed that there was nothing to make it certain that the patient had suprarenal disease; nor was it certain that the group of symptoms associated by Addison with the disease named after him were at all associated with disease of the suprarenal capsules. One or two cases had come under his observation in the Mater Misericordiæ Hospital in which the symptoms laid down by Addison were present to a marked degree, and yet afterwards there was a considerable abatement of them. He did not think that, because Dr. Finny's case was cured, they were not to regard it as the special form of disease described by Addison.—Dr. WOODROFFE said that, on seeing the patient that evening, he did not recognise her at all, so marked was the change for the better since he saw her first.—Dr. HENRY KENNEDY said that the number of cases that had occurred since the time of Addison was comparatively small. He concurred with Dr. Nixon that it did not follow that, because a case recovered, it was not Addison's disease. He had long had the impression that this disease was in some way connected with the strumous diathesis—first, because it was found in the suprarenal bodies, and, secondly, because the vast bulk of the cases that were examined after death showed symptoms of tubercular disease of the lungs.—Dr. WALTER SMITH said that the most conspicuous symptom of the disease was the disturbance of the pigment formation of the skin, and the most important symptom was the anæmia, with its attendant train of symptoms. Very little was known of the causes of the affection that was called idiopathic pernicious anæmia, and Addison's disease might be looked on as an analogous condition, *plus* excessive pigmentation.—The CHAIRMAN mentioned the case of a boy who had discoloration of the skin and debility, but who recovered under treatment. He was of a strumous habit.—Dr. KNOTT had tried the experiment of extirpating the suprarenal capsules in cats, dogs, and rabbits, and very few recovered the operation. There was great pigmentation of the rete mucosum in this case.—Dr. FINNY replied.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, MARCH 18TH, 1882.

WILLIAM STOKES, M.D., President, in the Chair.

Report of the Committee of Reference.—Dr. J. M. PURSER brought up the report of the Committee of Reference on a case of malignant disease of the œsophagus, exhibited by Dr. J. Magee Finny on March 4th. The new growth was a flat-celled epithelioma, and the nodule in the left lobe of the liver was of the same nature.

Lympho-Sarcoma (?) of the Mediastinum.—Dr. J. W. MOORE exhibited the thoracic and abdominal viscera of a servant woman aged 55, whose illness had been of four months' duration. She died with symptoms of great respiratory distress. Both pleuræ were thickened. There was complete collapse of the right lung, and partial collapse of the left. From the second rib to the diaphragm a new growth, brownish-yellow in colour, resembling hyaline cartilage, occupied the anterior mediastinum. Posteriorly, a similar growth extended from the third dorsal vertebra downwards to the fourth lumbar vertebra, embracing in its route the bronchi and the innominate artery and thoracic aorta. Pressure on the main bronchi had, doubtless, led to pulmonary collapse. The lymphatic glands were extensively involved in the disease, which appeared to be a lympho-sarcoma.

Pathology of Resection of the Knee-joint.—The PRESIDENT showed a series of six specimens, illustrating the pathology of resection of the knee-joint. In one case (that of a young lad), there was only synovial disease, characterised by pulpy, frog-spawn-like, gelatinous thickening of the synovial membrane. There was no disease of the bone or cartilages. A second patient was a man of intemperate habits, aged 36, the subject of carious ulceration of the bones. Secondary amputation had to be performed, owing to excessive suppuration. A third patient was a child aged 8, suffering only from synovial disease; there was no history of traumatism or of stroma. Cases four and five occurred in young lads, and were examples of synovial disease only. In case six, there was extensive disease of the bones in an adult. Secondary amputation was required.

Fractures of Bodies of Vertebræ.—Dr. E. H. BENNETT showed three fractures of the bodies of the vertebræ, exceptional in not involving the spinal canal, and in the fact that, in all three, there was osseous union. They were examples of the *fracture par écrasement* of Malgaigne. In one case the fourth, and in another the first, lumbar vertebra was fractured. In both instances, the body was cleft in the centre, the anterior fragment being depressed downwards and forwards; a small piece was thrust back into the spinal canal. In the third case, a fracture detached the odontoid process downwards and forwards. The cases showed that a certain number of individuals recover after an injury usually supposed fatal.

Pulmonary Gangrene.—Dr. J. MAGEE FINNY showed a specimen of gangrene of the lung, occurring in an intemperate man, aged 22, who had suffered from a cough for a year. A week before admission to hospital, symptoms became acute, and he complained of something bubbling in the right side. The sputum was abominably fœtid on March 11th, but the fœtor disappeared on the 16th, when he died of hæmorrhage into the pleura. The left lung was adherent to the thickened pleura; a typical gangrenous cavity engaged its upper and back portion, being apparently the centre of a pneumonic process.

Injury to the Eye, causing Amaurosis.—Mr. ARTHUR BENSON showed a boy, who had been struck under the right eye on Sunday, March 12th, with a blunt rod of steel. There was no external hæmorrhage. The eye was rather prominent; the motions of the globe were restricted. The internal structures were apparently normal, but the sight was entirely gone. The lesion was probably due to pressure far back of effused blood on the optic nerve, but the cause of the absolute blindness was doubtful.

Exophthalmic Goître.—Dr. B. A. WINDLE presented the thyroid gland and uterus of a woman aged 35, who suffered from rheumatism four years ago. In September 1881, she first noticed a pulsating swelling in her neck after a violent fit of coughing and dyspnœa. Her eyes now became prominent. There was orthopnœa, and the heart's action was rapid, irregular, and frequently intermitting; there was an apical systolic murmur. She died suddenly in January last. Ophthalmoscopic examination during life had revealed nothing abnormal. The thyroid was much hypertrophied. The glandulæ concatenatæ on the left side were also enlarged. The sympathetic nerves on both sides of the neck were normal. The orbits contained more fat than was normal. The heart was dilated; the mitral orifice was enlarged and rough. The ovaries were large and degenerated.

Medullary Sarcoma of Orbit.—Mr. LAMBERT H. ORMSBY showed a medullary sarcoma, which he had removed from the right orbit of a boy aged 3. It had grown rapidly in three months, used to bleed freely, and had a fœtid odour. It was removed easily without hæmorrhage.

Spasmodic Torticollis.—Mr. ORMSBY introduced a young man, aged 23, afflicted with choreiform movements of the right side of the neck. The spasm ceased during sleep. The patient had always been nervous, and was subject to nocturnal emissions.

THE annual fancy dress ball in aid of the North and South Charitable Infirmaries, Cork, was held last week, but was not so successful as on the previous occasion, there being a very much less number of tickets disposed of.

REVIEWS AND NOTICES.

THE BRAIN AND ITS FUNCTIONS. By J. LUYS. London: Kegan Paul, Trench, and Co. 1881.

THE present volume, one of the well known International Scientific Series, is, the author tells us in his preface, an abstract of his personal experience, and of most of the ideas on this subject which he has been endeavouring to popularise in his public lectures at the Asylum of La Salpêtrière. The repute of the author compels our attention, and the intricacy and difficulty of the subject upon which he discourses stimulate our interest. Perhaps it may not be altogether inopportune to say that our first impression of the book is one of disappointment, and others will no doubt feel likewise; but, after further perusal, we are now able to say that this is owing to the plan of the book, and is inevitable, but that it is not persistent. The volume is divided into two parts: the one anatomical and dry, the other physiological and juicy. But, as the author says, the anatomical part serves as the foundation of the work, and therefore could not be dispensed with. M. LUYS has, as is well known, attempted to elucidate the difficult question of the minute structure of the brain by means of photography; and if we feel inclined to doubt whether, like a traveller, as he says, returned from distant lands, he has been able to bring back correct views of certain territories of which our predecessors caught scarcely a glimpse, we do not any the less appreciate the value of his physiological disquisitions. Nay, we feel sure that any solid work of this kind gives the worker a truer insight into the physiology of the organ investigated, even if the conclusions arrived at be indefinite, or even supposing that some of them are erroneous, than any amount of speculation or reasoning, apart from such previous work, could do.

It is interesting to note that M. Luys carries the homology, which many others have endeavoured to trace between brain and spinal cord, to the very cortex of the brain, and finds there, in the superficial small cells and the deeper layers of large nerve-cells, parts analogous to the anterior and posterior tissues of the spinal cord; and further, that his anatomical studies have led him independently to the conclusion—at which Fritsch and Hitzig and Ferrier have arrived by other means—that the different functions of the brain are localised. And by the way, as additional evidence of the same fact, certain special pathological researches still unpublished are alluded to, by which he has been able to demonstrate that those who have long been deprived of one or other of these extremities suffer a distinct localised atrophy of the cortex of the brain, and further, that the atrophied region is not the same for the leg as for the arm. M. Luys is, of course, not now singular in such facts and conclusions; but recorded cases of this kind are not too numerous, and it would be well if these observations were put into some shape more available for reference.

The second part takes up first the general properties of the nervous elements, epitomised under three heads—sensibility, organic phosphorescence, and automatism. The section on sensibility need not detain us; it is a somewhat studied production, but not uninteresting, though less so than the subsequent chapters on the second and third heads. The remarks upon the organic phosphorescence of the nervous elements are strikingly original and instructive. The author illuminates a very obscure subject, by gathering together what appear to him to be analogous reactions in other elements. He cites, for instance, the persistent reaction of phosphorescent bodies set in motion by luminous undulations; the latent storage of luminous vibrations, if one may so speak, that is daily witnessed in the collodion of the photographic plate. Here is a property possessed by inorganic substances of preserving the impressions which have first set them in motion, and which is essentially a property—and the same property—of the nervous elements. This M. Luys proposes to call organic phosphorescence; and we think it must be allowed that the analogy, whether it be strictly correct or not, is one which is suggestive, and promises to throw some light upon the phenomena of nervous action.

Having adopted it, the author not unnaturally makes it the fundamental doctrine of the phenomena of memory, many of the difficulties of which are much simplified by invoking the aid of some such hypothesis. We have chapters on the genesis and evolution of memory, the memory in exercise, the development of the phenomena of memory, and its functional disturbance; and the author is particularly happy in the more practical aspects of his subject, and when drawing illustrations from his wide experience or reading. Thus he treats of and explains the localisation and the association of memories; and, having touched on the physiological side, a chapter is devoted to the morbid conditions—the functional disturbances of memory—in which this property which the nervous elements possess, of retaining a record of external excitations, perpetuates itself, and becomes a species of unsubduable erethism. But even this section, worthy as it is, and abounding as it does in illustrations which are apt and teaching, both to the lay and the professional mind, is hardly so valuable as that which follows, upon the automatic activity of the brain. This is a subject which is of the highest importance, and, we feel assured, is one with which the public need greatly to be more intimately acquainted. For instance, we commonly talk of, and have no words too severe for, what we are pleased to call "red tapeism". Now red tape is only routine, and routine is only another name for automatism; but, in inveighing against automatism, we are warring against our very nature, for it is a law of central function that what is done habitually is ultimately done automatically. There are no minds which entirely resist the influence of automatism; but those who resist it most are the best intellects of the sphere in which they move. The doctrine of automatism is, indeed, a most absorbing one; for example, in it may be found a rational basis, if we be so minded, for a belief in one of the main teachings of various religious codes, the doctrine of eternal punishment. At least from it, it follows that, given an original choice between right and wrong modes of action, the perpetual indulgence in either tends to become automatic; and the wrong-doer is ultimately incapable of acting rightly, for he is no longer a voluntary agent. His nervous energy discharges itself automatically in wrong lines, and, after a time, never can do otherwise. Much, too, of insanity is comprehended in automatism. This is illustrated abundantly all through this part of the author's work; thus, at one time we come upon a quotation from Baillarger, to the effect that he is convinced that the delirium of lunatics consists in the involuntary exercise of the faculties. A little further on, we read that there are professors who, speaking volubly, repeat annually the same phrases and the same words, at the same periods, and all this involuntarily; or, to take a homelier illustration, we are all acquainted with the man who, in assenting to an observation, answers "quite so", and reiterates the same over and over again quite automatically, though with an *empressement* which gives it an appearance of volition. What is that but delirium of the "quite so" centre? Or again, everyone knows, as the author says, that it is enough to set loquacious individuals going at a favourite subject to make them unfold all their ideas. What is that but a species of insanity? Dreaming and delirium are, again, closely associated, and are in the main dependent upon automatic action of the nervous centres in states of undue erethism or excitement.

Here we must stop, not because we have exhausted the many questions discussed, for we have not so much as noticed very many; but what we have said will, we hope, suffice to show that the volume before us has an interest for a large number of readers. It is certainly an instructive one for anyone who pursues the medical calling, but not alone for him; it is of value and interest to all who have attempted, and who shall hereafter attempt, to fathom the depths of their own minds, to analyse their springs of action, and the routes along which their mental faculties travel.

NOTES ON BOOKS.

Du Traitement des Fractures des Membres; Nouvelle Méthode. Par V. RAOULT-DESLONGCHAMPS. Paris: J. B. Baillière et Fils. 1882. In this monograph, rendered bulky by the details of seventy-six cases, the author describes a plan of treating various fractures by means of splints composed of laminated zinc, cut according to a paper pattern, and moulded to the broken limb. The fractured extremity is first protected by cotton wadding and bandages, and the splints are maintained in position by means of circlets fastening with buckles. In addition, the author advocates a swing for the fracture, suspended from a rod fixed to the arm-chair in which the patient sits, thus obviating the necessity of remaining in bed. The advantages claimed for this plan of treatment are, that it allows the patient to move from the horizontal posture; that the splints are cheap, are readily applied in time of war or other emergency, and are light and comfortable to wear. That the method possesses any advantages over pasteboard splints and common starch, especially in leg-fractures, is not clearly made out. Woodcuts, depicting the apparatus applied to various parts of the body, are interspersed throughout the book. Judging from the cases published, Dr. Raoult-Deslongchamps seems to have been eminently successful in actual practice; the literary style he employs is, according to his own suggestion, somewhat "chatty".

AT the eighty-third annual commencement of Jefferson College, Philadelphia, the honorary degree of Doctor of Laws was conferred on Dr. Thomas Addis Emmet, of New York.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1882.

SUBSCRIPTIONS to the Association for 1882 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, APRIL 29TH, 1882.

RECENT RESEARCHES ON BACTERIA.

I.—KOCH'S METHODS OF INVESTIGATING PATHOGENIC BACTERIA.

THE prominent part played by micro-organisms in the production of disease, and the necessity for the minute study of their life-history, is now almost universally admitted. Their relations to surgery, more especially to the progress of wounds, and also to many diseases which come under the care of the physician, are of the utmost importance; but in no department of medicine is a thorough knowledge of these minute creatures more requisite than in that of sanitary science. The evil effects of bad sanitation, and the spread of infectious diseases, are closely associated with the growth of bacteria; while the onset and progress of fevers strongly suggest the entrance into the body and development there of some particle capable of indefinite self-multiplication. For several years, observers have been making experiments on the relations of bacteria and infective diseases, but in only a very few instances have definite and positive results been obtained. This failure is now shown to have been due to the use of imperfect methods of observation and research; and it was not till the appearance of the first writings of Dr. Koch, now of Berlin, that a definite basis for such observations was obtained. Dr. Koch has of late done some striking work, and within the last few weeks has published some remarkable experiments on tuberculosis, which we propose to notice in our next article. He is a worker on whose observations and accuracy the most implicit reliance can be placed, and those who have had the pleasure of seeing him at work will hesitate before they find fault with his statements. The place which has been taken in this question by Pasteur with reference to chemistry, and by Lister with reference to surgery, is now worthily occupied by Koch in reference to infective diseases and sanitary science.

In the recently published *Mittheilungen des Kaiserlichen Gesundheits-Amtes*, Dr. Koch writes a number of papers on the most recent work which he has been carrying on; the first of which, "On the Investigation of Pathogenic Bacteria", we propose to consider in the present article. In studying a bacterium, from a sanitary point of view, we have first to determine whether or not it be pathogenic, then whether it be infective and on what animals, then the mode in which it enters the body, its behaviour outside the body in air, water, earth, etc.; and lastly, the influence exercised on it by various antiseptic substances.

In the first place, in determining whether an organism be pathogenic or infective, its presence in the blood and tissues of the body must be demonstrated. In reference to this question, Koch discusses the possibility of the existence of micro-organisms in the tissues of the healthy living body, and denies their presence both from his own observations and from those of other writers. The methods by which the presence of micro-organisms in fluids and tissues are demonstrated, were published several years ago by Koch in Cohn's *Beiträge zur Physiologie der Pflanzen*, and are now so well known as to need no description. Some improvements have, however, been introduced since. The fluids are dried in a thin layer on a cover glass, and, instead of being then stained, as at first recommended, they are either placed in alcohol for some days, or they are raised to a temperature of 120° to 130° Cent. (248° to 260° Fahr.) for a few minutes. This coagulates the albumen, fixes the specimen to the cover glass, and prevents the precipitation of albumen and granules of anilin which occurred during the staining of specimens prepared in the old way. By this means only bacteria and nuclei are stained, the rest of the material remaining beautifully transparent and unaffected, while specimens can be examined a few minutes after their removal from the body. The objection to the method is that the bacteria are somewhat altered in thickness and size; but, if only specimens prepared in this way be compared, this alteration is of no material consequence. For most things, Koch now recommends the methylen blue introduced by Ehrlich, in preference to the methyl violet formerly employed. For photography, however, the brown stain must still be used. The method of staining sections of tissue has been recently published by the Sydenham Society in their translation of Koch's *Traumatic Infective Diseases*, and requires no description. A point of importance is, however, that different forms of organisms take different stains best, and therefore it is not sufficient to examine sections stained by methyl violet alone, other stains must be employed. Thus the spirillum of relapsing fever will not stain in the tissue with methyl violet at all, and can only be found in sections stained with anilin brown. The material which seems to stain the greatest variety of organisms is the gentian violet lately introduced by Weigert. By keeping the staining material at a temperature of 40° to 50° Cent. (104° to 122° Fahr.) the specimens are much more rapidly coloured than at the ordinary temperature.

The presence of a particular form of organism having been discovered in the blood and in the tissues, it remains to be seen whether this is pathogenic or not. This is tested by the introduction of material containing the organism into the body of a suitable animal, if possible of the same species. The most frequent mode in which this is done is by inoculation, where the minutest quantity is placed in contact with a scratch which does not pass through the whole skin. This inoculation must be carefully distinguished from introduction into the subcutaneous tissue; for some forms of organisms differ in their effects, according as they are merely inoculated or subcutaneously injected. Distinct from these, again, we have the injection into the veins. Of course, all instruments employed must be thoroughly disinfected; and for this purpose, prolonged heating at 150° Cent. is best.

The most important of these investigations is, however, the pure cultivation of the bacteria found in the foregoing manner in the body. So long as infection is only produced by the fluids of the body, it is always open to objection that the bacteria are only accidentally present, and that the true cause of infection is some mass of protoplasm or fluid derived from the body. But, if the bacteria can be grown on a variety of substances apart from the body, and if it be found that their introduction into the body, after being in this way separated from the original animal material, is still followed by infection, the presumption is very strong that they are the cause of the infection. The methods of cultivation in fluids have attained great precision, more especially in this country; but it is often difficult to get these organisms pure in the first instance, and, if more than one kind of bacteria enter a fluid, it is almost impossible to separate them again. Indeed, the only way in which this has been done is by the elaborate process described by Mr. Lister, in his paper on Lactic Fermentation. Dr. Koch, in cultivating pigment-bacteria on potatoes, observed that, even though other forms of organisms fell on the potato, they only grew where they fell; and thus, in spite of the presence of other forms, the variety under consideration could always be obtained, and remained pure. Hence he concluded that, if pathogenic bacteria were placed on a suitable *solid* soil, they could be kept pure for an indefinite time. In order to obtain a solid material, he adds from 3 to 5 per cent. of gelatine to the infusion or other substance with which he is experimenting. He thus gets a substance which can be clarified, and any organism placed on it grows, and its mode of growth can be observed under the microscope. If any accidental growth occur, it only spreads at one point, and fresh material can be inoculated from a pure part

without risk of contamination. Also, if in any material there be two sorts of organisms, they can be separated from each other by making the gelatine liquid, and shaking it well. In a few days, small opaque spots will be observed throughout the gelatine, and these will be found to consist often of one or other form of organism alone. Fresh gelatine may be inoculated from one of these spots, and the organisms obtained pure. Thus, water, milk, etc., may be investigated, and the pathogenic properties of the various forms of organisms which are found may be ascertained by experiments on animals. By exposing a vessel containing gelatine to the air for a given time, the various forms present in that specimen of air will grow at different points on the surface of the gelatine, and may be examined separately.

The importance of this method of cultivation is very great; and in some succeeding articles we shall find examples of its results. The chief objection to it is, that the gelatine becomes liquid at the temperature of the body, and thus the advantage of the solid substratum is lost when it is necessary to keep the cultivation at the temperature of the body. This difficulty has been recently to some extent overcome, as we shall see in our next article on tuberculosis.

LEGAL OBLIGATIONS OF THE MEDICAL PROFESSION.

Contracts in Restraint of Medical and Surgical Practice.

A recent trial in the Chancery Division arising out of a case at Shrewsbury, has directed some attention to the law of medical partnerships, and agreements relating thereto. As contracts which prohibit individuals from exercising their professions are in many respects opposed to public policy unless they are reasonable, it has long been decided in the judicial tribunals of this country and other nations, that whatever restraint is greater than required for the necessary protection of the person with whom the agreement is made is unwarrantable, and therefore void.

In his judgment in the Court of Exchequer, in the case of "Mallam *v.* May", in 1843, Baron Parke (afterwards Lord Wensleydale) very properly stated that partial restraint not to practise a particular vocation, in many cases proves very beneficial, both to the public and the parties immediately affected by it, as, "in such a case, the public derives an advantage in the unrestrained choice which such a stipulation gives to the employer of able assistants, and the security that it affords that the master will not withhold from the servant.....communication of his own skill and experience, from the fear of his afterwards having a rival in the same business." Chief Justice Erle made a statement to the same effect in the case of "Mumford *v.* Gething", which was argued in the Court of Common Pleas in 1859.

Now, it appears to be the usual practice for assistants to medical men to enter into reasonable bonds not to practise physic or surgery on their own account, within a certain distance of the houses or towns within which their employers carry on their profession. An important case relating to this question was tried in the Chancery Division of the High Court of Justice, on the 15th and 16th March, before Mr. Justice Kay, viz., that of "Andrew *v.* Lindsay", and which was reported at great length in the *Shrewsbury Chronicle* on the 17th of the same month. The plaintiff, who was a legally qualified doctor of medicine, carried on a general medical practice in Shrewsbury and the surrounding neighbourhood, and had a large special practice as an aural and ophthalmic surgeon; and he was obliged to visit patients within a radius of more than forty miles from that town. In 1872, he engaged the services of the defendant as his assistant, but no written agreement was entered into between them, although, according to the evidence, there was a clear understanding that the latter should, when required by the plaintiff, execute a bond whereby he was to engage not to practise in Shrewsbury, or within a certain radius of it, for several years, though the precise terms of this agreement were not specified. For about six years, no such bond was presented to the defendant, but, during that period, his salary had three times been substantially increased, and the parties were on very amicable terms. In the latter part of 1878, the defendant was asked by the plaintiff to sign an agreement which the latter had prepared by his solicitor; and the defendant then executed such, which stated, among other things, that, in consideration of a certain salary to be paid to him, and being provided with board and lodgings, he would diligently serve his master in his professional practice for one year from the date of the contract, and continuously until it should be determined; and that he would not, either during the continuance nor for ten years after the end of the engagement, except by the plaintiff's written consent, practise as a physician or surgeon in Shrewsbury, or within twenty-five miles of that place; and there was a proviso for the payment of £100 as liquidated damages for each month that the defendant should practise in violation of the stipulations in the bond.

Soon after the agreement was signed, serious differences arose between Dr. Andrew and Mr. Lindsay; and on March 25th, 1879, the defendant left the employment of the plaintiff, in accordance with a notice which the latter had given him on the 26th of the preceding December. In May 1879, the defendant indicated an intention to practise in Shrewsbury, by putting up a brass plate; and the reason given by Dr. Andrew for not bringing the action previously for an injunction to restrain Mr. Lindsay from practising, in breach of his agreement, was that, while he endeavoured, he was unable to discover whether the defendant was actually practising until February 1881. In that month, Mr. Lindsay, contrary to the stipulations in his bond, advertised for the appointment of physician to the Salop Infirmary, and had, in fact, practised in Shrewsbury; and then this action was commenced. A motion for an interim injunction was brought before the Master of the Rolls immediately after the writ was issued; but, in this interlocutory application, his lordship refused to interfere, on account of the delay in bringing the action.

The defence raised to it was, that there was no consideration for the bond; that it was signed precipitately, under duress of the social and professional relations of the plaintiff to the defendant; that it was a fraudulent surprise; and that unconscionable sums were mentioned for liquidated damages. In delivering judgment upon the case, Mr. Justice Kay stated that the defendant, by his counter claim, asked to set the contract aside as it was a surprise amounting to fraud; but that, in his opinion, there was no ground for such an allegation. In his evidence, the defendant admitted that he was aware that such an agreement was almost always customary, and he, Mr. Justice Kay, believed the plaintiff's testimony that the bond was mentioned when the defendant was first engaged by the plaintiff, and was repeatedly referred to afterwards. He was, therefore, quite unable to see on what ground the contract could be set aside. He considered the agreement binding, and therefore granted an injunction in the terms in which it was asked, and dismissed the counter claim with costs, and ordered the costs of the original action to be paid by the defendant. This decision appears to be strictly in accordance with justice.

There are but few cases reported in which the validity of agreements of this kind have been contested; and we believe that the only important information to be derived from them is respecting the time and space to which they may legally extend in restraint of medical and surgical practice, a question which is determinable by the court according to the facts presented to it in each particular case. The following are examples. An agreement made by an assistant surgeon-dentist, upon the consideration that he should be instructed in the profession for four years, not to practise at any time at the end of this period in the city of London, was held to be valid and reasonable; but a similar bond not to practise within one hundred miles from the city of York, was decided to be excessive and illegal. Another contract by an assistant to a surgeon on account of this engagement not to practise on his own account in his profession for fourteen years within ten miles of a county town, was held to be reasonable and lawful; and an agreement under similar circumstances not to practise at any time within seven miles of such town, was also adjudged to be valid. Again, a stipulation in an

indenture of partnership between two surgeons by one of the parties, that, after its dissolution, he would neither practise nor reside at any time within two miles and a half of a certain house in London, was held to be legal and obligatory. There have been similar decisions concerning restrictions in the practice of the legal profession by solicitors.

The lessons of this case indicate the necessity of imposing an earlier and more precise legal agreement, when the principal intends to restrain an assistant from practice in his vicinity; and that, further, such agreements duly made are unimpeachable in a court of justice.

THE PRIMARY AND PASS EXAMINATIONS AT THE ROYAL COLLEGE OF SURGEONS.

In the London medical schools, it is not rarely said of some student shrewd enough as a dresser or unqualified assistant, but unlucky in his anatomical studies, that he could pass the Final Examination with the greatest ease if he once succeeded at the Primary, where he has several times been rejected. The spectacle of such a student passing the anatomical and physiological ordeal after five or six failures, and then presenting himself for the Final a week or a month later, is not grateful to the minds of his examiners at the Royal College of Surgeons. The authorities have very fair reason to be discontented in such a case. They expect two years to be devoted to the study of anatomy and physiology, and their regulations prevent any candidate from presenting himself for examination at an earlier date from the commencement of his studies. They presume that he passes this first test; and further regulations are framed, requiring that he should spend two years in the study of surgery and medicine. These regulations are carried out in due order when a diligent and punctual student is successful at the Primary; even then, two years devoted to the sciences immediately pertaining to his future profession is not too long a period, considering the importance of such studies. When, on the other hand, a student deficient in mind, industry, or sense of punctuality, does not pass his Primary Examination at the end of his second year, he cannot pass the Final at the end of his fourth year without spending a considerable proportion of the last two years in the study of sciences other than surgery and medicine, thus defeating the aims of the authorities at the College. Hence the anomaly to which we have above referred. Our report of the proceedings of a recent council meeting in our last number (p. 596), shows how the authorities are considering the mitigation of this evil by a regulation which is somewhat stringent in character. In colloquial English, it is to the effect that students be not allowed to go up for the Pass examination until two years after they have passed their Primary. The regulation is almost identical with the fifth resolution adopted by the subcommittee of the Committee of Council of the British Medical Association, "appointed to consider the resolution of the Metropolitan Counties Branch on medical education, and the replies of the Branches thereupon," at a meeting of the said subcommittee held at the offices of the Association on Saturday, December 11th, 1880. This resolution will be found in the Report of the Committee of Council of the Association on Medical Education, January 1881; and it recommends: "That no student should be admitted for his final examination until he has completed his fourth year of medical study, and not until the expiration of three years from the time of passing his first professional examination, and two years from the time of passing his second examination;" the "first professional examination" being proposed as a test for students before the commencement of their second year. Allowance is made, in the proposed College regulation, for cases where students have been delayed in presenting themselves for and passing their Primary through illness, study commenced in the colonies or provinces, or "unforeseen circumstances"; and those who pass the Primary Examination for the Fellowship at the end of their third winter session, dispensing altogether with the Primary Membership Examination, will be allowed to enter their names for the Final Membership a year later. Those who have qualified elsewhere before presenting themselves for the Primary Membership Examination are also exempted from two years' further study for the Pass Examination. In an extreme case, like that which we cited as a type at the beginning of these observations, the principle is in itself excellent, and quite in accordance with the resolution of our Committee of Council. We trust, however, that it may never weigh heavily on industrious men who cannot present themselves for the Primary at the end of their second winter session, because of the great multitude of other fellow-students who are then sent up to the College from their hospitals; in other words, there is not always room for everybody in April and May. Such students, delayed through no fault of their own, may pass the Primary in the succeeding July or November; but these regulations will prevent them from passing the Final in the course of their fourth April or May without the annoyance of framing a kind of petition to the Court of Examiners. Punctual passing of the diploma examination is particularly important to the diligent student, who has been selected for a house appointment requiring qualification. In actual fact, we have no doubt that such students would receive full indulgence, as the regulation is not framed for them, but against men of another kind.

Lastly, the Fellowship clause is mysterious. If the examiners desire two years to be devoted to surgical and medical studies, why do they, in this case, allow one of those years to be partly taken up by anatomical and physiological work of a high order? This clause implies that the one year's surgical study of a man who simply desires to be, or is pressed by his friends to try to be, a Fellow, is worth two years' study in the wards in the case of a less ambitious student who only desires the diploma of Membership. This, as well as the main part of the regulation, deserves grave deliberation before becoming law; it is highly satisfactory that the College has acted so much in accordance with the principles advocated by our Committee of Council, and based on the recommendation of ninety-two per cent. of the medical teachers consulted for that purpose. The College has now taken on itself the responsibility of the practical working of these principles, and we trust that their new regulation will never weigh heavily or unfairly against any individual student.

PRIVATE LUNATIC ASYLUMS.

Mr. Leighton's resolution in the House of Commons, "that all lunatics ought to be committed to the keeping of the State", reported in our Parliamentary Intelligence, was supported by him with so much excess in the statements which might be made in support of that view, and such obvious misstatement of facts, as at once to condemn the proposition for which he wished to gain legislative assent. There is a very strong body of opinion of the kind indicated by Sir Richard Cross, that the recommendations of the Select Committee might with benefit be carried out, and that an advance might advantageously be made in this country towards the system which works well in Scotland, and by which larger provision is made for other than pauper patients by medical asylums of a public character. The whole debate, however, although protracted, was quite unworthy of the subject; and was conducted, on the one hand, with overstatement, and, on the other hand, with a palpable want of knowledge and of interest. The fact is, the debate was kept up to a considerable extent by members who neither knew nor cared much about the subject-matter of the resolution, but desired to stave off the discussion on another Bill, which would otherwise have followed. The scene was far from an edifying one, and the discussion was one which will not, we fear, in any way advance the subject. Sir Richard Cross's opinion will of course have due weight; but, on the other hand, even his speech, though characterised by clearness and vigour, and evidently the result of a much better knowledge of the subject than that of some other speakers, is far from going to the root of the subject.

That the treatment of lunacy, on the whole, is enormously improved in this country is universally acknowledged, and it is just as plain that it has been so improved mainly, and even almost exclusively, by the efforts of medical men. The medical theory, that lunacy is a disease of the mind, has replaced the old popular notion that it was a possession of evil spirits—a spiritual disgrace and an external infliction. With this demon-

stration of modern medicine has been introduced a rational treatment by moral kindness, by therapeutics, and by general physical means, calculated to improve the bodily condition and to relieve and assuage mental distress. It is certain, also, that there is no gross abuse of any kind in the asylums in this country, either public or private, and that exceptional instances of misconduct on the part of the attendants are visited with the utmost severity, whether by the superintendents of public asylums or by the proprietors of private asylums. It is also certain that the proprietors and medical residents, as men of medical education, with thoroughly professional instincts, are bound by the tradition of the profession which regards the cure of the sick as the great object of its labours. All this, however, by no means proves that Mr. Leighton's resolution, more judiciously limited and more soberly supported, may not have a very considerable future before it, and it is not difficult to foresee that the whole tendency of future legislation must be considerably to increase the facilities for middle-class institutions for the insane on a public basis, and to substitute largely home residence in the houses of medical men for the multiplication of private asylums.

WE are glad to be able to state that Sir Erasmus Wilson continues to progress towards convalescence, although less rapidly than might be anticipated were the weather milder.

THE President and Council of the Medical Society of London have issued cards for a *conversazione* to be held at the Society's rooms, 11, Chandos Street, Cavendish Square, on Monday, May 1st, at 8.30 P.M., when the annual oration will be delivered by Dr. E. Symes Thompson.

PROFESSOR HÄCKEL of Jena, the celebrated Darwinist, has reached Egypt on his way home from India, where he has been making scientific observations for the last year or more. On returning to Germany after finishing his researches in Egypt, he will publish an account of his tour.

A NURSE of the Kent Nursing Institution, at West Malling, was, on Monday last, at Clarence House, presented by H.R.I.H. the Duchess of Edinburgh, who is a patron of this institution, with an honorary silver medal, which had been awarded to her in recognition of devoted service in nursing the poor.

G. TAYON, in a note presented to the Paris Academy of Sciences by M. Pasteur, asserts that African asses resist the infection of charbon. A series of experiments recently made by him lead him to believe that these animals do not present the conditions favourable for the development in their economy of the microphyte peculiar to "charbon".

THE Senatus Academicus of Aberdeen has conferred the degree of LL.D. on Dr. Grant Bey of Cairo, a graduate of the University, a member of our Association, and one of those accomplished, learned, and high-minded physicians who carry high in distant countries the honour and reputation of British medicine.

THE following members of the medical profession were present, by invitation, at the marriage of His Royal Highness Prince Leopold, Duke of Albany, to the Princess Helen of Waldeck, at Windsor, on Thursday: Sir W. Jenner, Bart., K.C.B., M.D.; Sir James Paget, Bart.; Dr. Acland, Dr. Wilson Fox, Dr. Wickham Legg, Dr. Poore, Dr. Laking, Dr. J. Ellison, Dr. Hoffmeister, Dr. W. Marshall, Mr. Profeit, and Dr. J. Reid.

AN official notice has been sent by the Secretary of the Royal College of Surgeons of England to the deans of the metropolitan and provincial medical schools, calling attention to the new regulations with reference to candidates rejected at the primary examination for the membership, and enclosing copies of the rules, together with the forms of certificate of additional study required.

M. FAUVEL, the eminent French sanitarian, who suggested the resolutions adopted at the National Conference held at Constantinople, in 1865, has defended before the Paris Academy of Sciences the results of that conference. M. Fauvel admits that the present system of quarantine requires improvement; but adds that, until another more in accordance with modern scientific progress is substituted, it is not advisable to abolish the one now existing. M. Lesseps notifies his intention to answer M. Fauvel when the commission sits.

THE first sheets of the new catalogue of the pathological collection in the Museum of the Royal College of Surgeons, Lincoln's Inn Fields, are already in type. Among the first series, illustrating general pathology, the large number of specimens taken from the vegetable kingdom are very conspicuous. Sir James Paget has already, in our pages, turned attention to the great value of the study of disease in plants as a means of solving some of the deeper but most elemental questions in pathology. His observations were suggested, to a great extent, by these vegetable specimens, which were mostly prepared by Mr. Shattock, curator of the Museum of University College Hospital.

DR. S. D. GROSS, the eminent American surgeon, has resigned, on account of advancing age, and a desire for comparative repose after a laborious professional life of fifty-four years, the professorship of Institutes and Practice of Surgery in the Jefferson Medical College, Philadelphia, to which he was appointed twenty-six years ago. On accepting his resignation, the Board of Trustees at once unanimously elected him Emeritus Professor of Surgery. Dr. Gross has been engaged during forty-eight years in the duties of a teacher in schools of medicine.

WE learn that notice of proceedings has been given by the School Board of London against the Strand Board of Works, to compel the latter body to take down their disinfecting chamber situated in Denzell Street, Clare Market, on the assumption that its continued existence will be prejudicial to the interests of the adjacent school and the health of the children attending it. We have carefully examined the premises and surroundings, together with the apparatus in which disinfection is carried on, and consider they are well adapted for the purpose. As, however, the points in dispute are about to be submitted to the arbitrament of a court of law, we forbear for the present giving any opinion as to the policy of the action of the School Board.

THE practice of medical men taking a part in such local discussions as are now raised on the subject of experiments on animals is, we are glad to say, considerably extending. Recently, at Richmond, in a largely attended meeting, at which leading members of the Antivivisectionist Society took part, the arguments in favour of the use of experiments on animals as a method of research were ably advocated, and the feeling of the meeting was so completely against the antivivisectionists who had summoned it, that they did not venture to put any resolution. This week, again, we have received a report of a large meeting of the St. Paul's Mutual Improvement Association at Sheffield, in which Mr. R. J. Pye-Smith took part. On this occasion, upon a vote being taken, the antivivisectionists were beaten by a large majority.

ROYAL COLLEGE OF VETERINARY SURGEONS.

A HIGHLY influential deputation, on Wednesday last, waited on the Lord President of the Privy Council (Earl Spencer), who was accompanied by the Right Hon. A. J. Mundella, M.P., and Mr. Lennox Peel. Among those who formed the deputation were the Earl Fortescue, Major-General Sir Fred. Fitz-Wygram, Sir Trevor Lawrence, Mr. Dent Dent, Dr. Cameron, Dr. Quain, Dr. Acland, Dr. Sanderson, Dr. Wilkes, Professor Flower; whilst the veterinary department was represented by Mr. Fleming, Mr. Collins, Mr. Pritchard, Professor Robertson, and others. The object of the deputation was to press on the Lord President the great necessity that existed for providing a

suitable building for the Royal College of Veterinary Surgeons in which examinations would be conducted, in which there would be a library and other suitable conveniences. The Lord President was addressed by Earl Fortescue, Major-General Sir F. Fitz-Wygram, Mr. Dent Dent, Mr. Collins; whilst the importance of the object was further impressed by speeches from Dr. Quain, Dr. Acland, Mr. Wilkes, and Prof. Flower. The Lord President, who listened with the greatest attention, said he was much impressed with the subject as brought before him by the speakers, and that the views expressed were in harmony with his own; and he assured them that he would impress upon his colleagues, more especially those of the Treasury, the opinions which he had heard expressed. More than that he was unable at present to promise. His lordship left a most favourable impression upon the minds of the important deputation which waited upon him, and a cordial vote of thanks was given, on the motion of Lord Fortescue.

THE LATE CHARLES DARWIN.

WE have been favoured with information as to the medical history of the great naturalist, which will be read with much interest. Under the domination of a many-sided, sensitive, and highly strung nervous system, the health of the late Charles Darwin was always delicate, and often seriously impaired. For many years, he was a sufferer from catarrhal dyspepsia; later, he suffered from various irregular manifestations of a gouty constitution, such as eczema, vaso-motor nerve-storms, vertigo, and other disorders of sensation. Nevertheless, by means of great care in diet, exercise, and regularity of sleep, he managed to keep himself in sufficiently good order for almost continual work of the highest kind. A year ago, he became subject to attacks of palpitation, with irregularity of the heart's action, occasionally accompanied by pain in the chest, spreading to the arms. A few months since, it was found that the heart and greater blood-vessels were degenerating. The anginal attacks became more frequent, and signs of heart-failure more serious; and it was, as we understand, in one of these attacks that our greatest naturalist expired. There are two common errors concerning Charles Darwin: one is, that that illustrious man was a professor, whilst in fact he never held any chair or fulfilled any educational duties that would entitle him to be so called; the second is the prevalent opinion that, in pursuit of the study of his great theory, he worked from morning to night. The truth is, that the delicate state of his health rendered him incapable of prolonged thought for more than about three hours daily. His success was due to the fact that he concentrated all his powers of thought on one subject, so that the yearly sum of the very few hours devoted on each day to such thought amounted to the high display of mental energy, the result of which is demonstrated by his works, and by the great influence they have exercised on modern science and philosophy. More than one daily paper has compared Darwin to White, of Selborne fame; but they only resembled each other in being genial and scholarly gentlemen, living in the country, and saved from the disadvantages of constant interruption to thought by deficient worldly means. The author of the *Natural History of Selborne* was not a profound thinker on deep biological questions, but rather an active observer of the habits and instincts of animals, which he described in that picturesque manner and a pleasant literary style which has justly made him a popular favourite.

MUNIFICENT BEQUESTS.

MISS SARAH BURR, who recently died in New York, left almost her entire fortune, consisting of three million dollars or more, to various charities. One of the codicils to the will provides for the founding of a new dispensary, and is as follows: "From the proceeds of my estate I give to my executors 200,000 dollars, in trust, to receive the income and pay over the same half-yearly to the following named persons, to be styled the Trustees of 'The Good Samaritan Dispensary',.....to be by them applied to the founding and support of a dispensary in the city of New York, to be called 'The Good Samaritan Dispensary', for the purpose of giving medical aid and advice to the indigent in the city of New York." Among the other medical institutions benefited by the will are the following: St. Luke's Hospital, Woman's Hospital, 30,000 dollars each; Home for Incurables, North-eastern Dispensary, Nursery and Child's Hospital, German Hospital, Mount Sinai Hospital, New York Infant Asylum, St. Mary's Hospital for Children, St. John's Guild, Floating Hospital, the Foundling Asylum, the New York Ophthalmic and Aural Institute, the Northern Dispensary, the Demilt Dispensary, the Manhattan Eye and Ear Hospital, the Northern Dispensary, and the Eastern Dispensary, each 10,000 dollars.

HOSPITAL AMBULANCE SYSTEM AT LIVERPOOL.

MR. REGINALD HARRISON of Liverpool has, by his publications and communications to the Medical Institution at Liverpool, rendered very great service in the direction towards which public opinion is now rapidly tending, of providing an adequate hospital wheeled ambulance system for our great cities. Mr. Harrison had observed this system in active operation in America, and reported the result of his observations and suggestions, and earnestly recommended such a system for adoption to his fellow-citizens by addresses and by publications. We see, with great interest, that a suggested scheme has been drawn up by the Liverpool Medical Institution, as the result of a consideration of the subject by the Hospital Ambulance Subcommittee of the Institution, which was appointed on October 20th of last year. This committee provides for the maintenance of an ambulance at a central fire-station, which should be in telegraphic or telephonic communication with various other local stations and with the hospitals. Provision is made for rapid intercommunication and for direct telephonic communication to the central station, where an inspector on duty will attend to calls. It is proposed that, besides the driver, the ambulance should be in charge of one or more police-constables, who should be instructed as to the removal of injured persons. By these arrangements, it is suggested, little expense need be incurred beyond the cost of the ambulance. The horses used by the fire-brigade could be made available for the ambulance; and, whereas now the services of four, five, or six officers are required to convey "stretcher cases" to the hospital, two at the most would suffice with the ambulance. The cost of establishing telegraphic or telephonic communication with the Royal Infirmary and the hospitals would be counterbalanced by the saving in cabs, officers' time, etc.; and the communication would be most useful in many ways. This scheme, of which, of course, we are unable to judge the local details, appears, however, to be extremely well considered and practical; and we hope that Liverpool will, as on many other such occasions it has done, take the lead in this valuable social reform, and be the first city in Great Britain to provide itself with a satisfactory wheeled ambulance hospital system. So far as we hear, the committee appointed in London, at the very influential meeting held at the United Service Association, has not proceeded, up to the present time, very actively to carry out the details entrusted to it, and no scheme is, at present at least, forthcoming from them. We hope, however, that they will be somewhat more diligent in the performance of the very important duty which they have accepted.

NEW FELLOWS OF THE ROYAL COLLEGE OF PHYSICIANS.

THE following is the list of new Fellows nominated by the Council of the College of Physicians: Thomas Robinson Glynn, M.D.London (Liverpool); Robert Leamon Bowles, M.D. Brussels (Folkestone); Daniel John Leech, M.D. London (Manchester); Francis Henry Champneys, M.B. Oxford (Great Cumberland Place); James Ross, M.D. Aberdeen (Manchester); James Matthews Duncan, M.D. Aberdeen (Brook Street). It is very satisfactory to see in this a very much larger number of provincial Fellows than we remember to have remarked on any previous occasion; the provincial Fellows, indeed, on this occasion are in the majority—a courteous recognition of the claims of provincial medical science which will be warmly appreciated by our associates at large, and which will, it is to be hoped, be a good precedent in the future.

THE BRITISH MEDICAL BENEVOLENT FUND.

DR. BROADBENT, Treasurer, writes to us: At the April meeting of the Committee of the British Medical Benevolent Fund, held on Tuesday, the 25th, grants were made to twenty-three applicants, the amount distributed being £307. Six of the recipients were over the age of seventy, and one had reached eighty-five. In the first four months of the year, no less than £997 has been voted in donations for the relief of urgent distress, nearly the whole of which is in course of distribution by weekly or monthly instalments.

ST. JOHN'S AMBULANCE ASSOCIATION.

DURING the last few days, a one-horse ambulance-carriage for use in streets and country districts has been on view in the Naval and Submarine Engineering Exhibition at the Agricultural Hall. This vehicle has been designed by Mr. John Furley, Honorary Director of Stores of the Association. Next to the comfort of the patients, simplicity and lightness have been the principal points aimed at in its construction. It is capable of great adaptability; and the interior may be used without seats, or as a wagonette. It can also be employed with one or two patients in a recumbent position, and three or four seated; or with four patients on stretchers, and two attendants seated. Seats for the driver and one attendant in front are so arranged that they can be drawn back over the front wheels, in order that the bearers may pass through the carriage without any obstruction. The stretchers are similar to those in general use by the Association, with the addition of India-rubber wheels under the head to facilitate their being put into position. The step at the back is of the width of the carriage, and, when closed, forms a door. A lamp is so placed over the driver's head, that its light can be turned outward upon the road or upon the interior. At the back and below the floor is a case of first aid appliances, which can be supplemented at the discretion of surgeons. The carriage is provided with a pedal brake with patent India-rubber blocks. This novel carriage has been visited by a great many surgeons and other gentlemen interested in ambulance work, and has received general commendation on account of its lightness and simplicity. It has now been placed at St. John's Gate, Clerkenwell, and is at the disposal of any doctor who wishes a case (not infectious) to be removed. Applications for the carriage may be made to the Honorary Director of Stores, St. John's Ambulance Association.

FASHIONABLE DEFORMITIES.

MR. NOBLE SMITH is taking up for the National Health Society the subject of fashionable deformities and the hygienic defects of modern dress of ladies, to which that Society has done so much to direct attention. A very healthy public feeling has been developed on this subject; and it is satisfactory to find that, on this occasion, a large audience assembled at Hampstead, under the presidency of Mr. Spencer Wells, to hear what Mr. Noble Smith had to say on the subject. The lecture was excellently illustrated by drawings, diagrams, and models; and Mr. Noble Smith laid down the proportions of the human figure according to the rules of proportion of Professor Marshall, viz., that the average height of English women was sixty-three inches, the width across the chest nearly nine and a half inches; at the waist, the width should be nine inches, or but half an inch less than under the arms; and on the hips about eleven and a quarter inches, while the circumference of the waist should be a little over twenty-five inches. Respiration and circulation were impeded by tight lacing, which also produced palpitation of the heart, torpidity of the liver, indigestion, and degeneration of the muscles covered by the corset. The lecturer pointed out that the chief purpose of clothing should be to maintain an uniform temperature for every part of the body. He also condemned the use of high-heeled, tight, or short boots, and contended that, in clothing generally, easy locomotion and the free movement of the limbs should be provided for. He commended a "divided hygienic skirt" costume, made under the auspices of the Society, and exhibited, the peculiarity of which appeared to be general ease, with an under skirt resembling men's nether garments, loosely made, and giving freedom in walking and other movements. He advised ladies also to take more exercise than was their usual habit. The absurd notion that the human figure can be improved by artificial devices of compression and distortion, to suit the varying fancy of the modish dressmaker, is an idea which all sensible persons treat with mingled ridicule and amusement, but which still exists as an accepted dogma in the minds of ordinary Englishwomen; and if the National Health Society can succeed in fanning to a flame the present sparks of reason which are showing themselves with some promising brightness, and inducing Englishwomen to adopt rational principles as the guide to dress and personal decoration, in lieu of arbitrary follies, it will have rendered an acceptable service. For this purpose, however, as for any other social reform of the kind, much perseverance and continuous hammering will be needed.

COMPARATIVE ANATOMY.

A COURSE of thirteen demonstrations on the Comparative Osteology of the Vertebrata will be given during the months of May, June, and July, by Dr. Garson, in the Museum of the Royal College of Surgeons of England, on Tuesday afternoons at 4 o'clock, commencing the 2nd of May. All students and other visitors to the museum are invited to attend these demonstrations. The subjects treated of during the course will be the following: 1. The Vertebral Column; 2. The Sternum and Ribs; 3. The Shoulder-girdle; 4. The Pelvic Girdle; 5. The Long Bones of the Extremities; 6. The Hand; 7. The Foot; 8. The Homologies of Limbs; 9. The Skull of Man; 10. The Varieties of the Skull of Man; 11, 12, and 13. The Skull of other Vertebrates.

SUSPECTED POISONING.

AN inquest has recently been concluded at Wannwrydd, Newchurch, Carmarthenshire, which has created no little sensation in the district. The wife of one Evans, a working carpenter, died suddenly, and was, indeed, found dead in bed. A death-certificate was obtained, and the body was buried on the third day after death. The coroner, Mr. George Thomas, hearing that the deceased's life had been recently insured for £900, a sum apparently out of proportion to her husband's means, ordered the exhumation of the body, and a *post mortem* examination. This was accordingly done, fourteen days after the interment. No appearances of disease were met with, and the body was in a very good state of preservation; so much so, in fact, as to strengthen the suspicion that poison might have been administered. The coroner requested Dr. Stevenson, of Guy's Hospital, to make an analysis of the viscera, and he, in view of the recent resolution of the Home Secretary, applied to the Home Office for instructions. The presidents of the two colleges not having at that time made any nomination, Dr. Stevenson was instructed to make the analysis, in conjunction with Mr. A. W. Stokes, Public Analyst for Paddington, and formerly chief assistant to Dr. Stevenson. These gentlemen reported that the viscera and stomach contents had been subjected to an exhaustive chemical and microscopical analysis, and that no poison had been discovered. Two extracts from the viscera and contents of the stomach had been administered to mice, and the animals were unaffected. The jury returned a verdict of death from natural causes. The good state of preservation of the body in this case may be accounted for by the unusually early period at which the corpse was interred, before putrefaction had set in.

A REMARKABLE CASE OF WOUND OF THE STOMACH.

ON April 17th a man applied at University College Hospital, complaining that so terrible a stench came from ulceration of the stump of his leg (the limb had been amputated by Mr. Marshall five or six years earlier), that none could bear to come near him. On examination this was found to be a manifest delusion. On the following day, however, he was admitted, under the care of Mr. Beck, having made a most determined attempt to commit suicide. He had placed the butt-end of a sword-stick against the wall, and thrown himself upon

its point. The weapon had entered between the fifth and sixth rib, just below the left nipple, and had been driven in with such force that its point could be felt in the back between the tenth and eleventh. The blade was so firmly fixed, that all attempts to pull it out were at first unsuccessful, even a small vice failing to cause the least movement. At length it was rotated slightly, and then came away with ease. The man died five days later of pleurisy, without having at any time brought up any blood, or suffered from vomiting. At the *post mortem* it was found that the pericardium had not been wounded, but that the sword, after transfixing the lower edge of the left lung, had passed right across the stomach, its course being marked by two punctures, one in the anterior surface, and the other in the lesser curvature, had just missed the descending aorta, and had finally traversed the body of the twelfth dorsal vertebra from before backward; the left pleura was covered with recent lymph and its cavity contained a serous fluid, and the lower part of the left lung was consolidated; the heart appeared to be fatty. Death was no doubt determined by the pleurisy and pneumonia, aggravated by the weakened condition of heart. The total absence of vomiting and of peritonitis after a double wound of the stomach is not a little remarkable; the punctures were clean cut, and the absence of extravasation of food and of hæmorrhage was probably due to the mucous membrane pouting through the wound, and so closing the punctures. Another point of interest about the case was that certain of the convolutions of the parietal lobule on the right side, containing the centres, according to Ferrier, for the amputated limb, appeared to be atrophied, the intervening sulci being unusually deep and wide.

DEAN SWIFT.

THE question of the nature of the malady from which this distinguished author suffered for many years, and which ultimately terminated in his insanity, is considered by Dr. Bucknill in *Brain*. After citing numerous passages from his letters and journal, he arrives at the conclusion that, from the age of twenty years, Swift was beyond doubt the subject of auditory vertigo, or Ménière's disease, which subsequently gave place to dementia with aphasia. Dr. Bucknill considers that the labyrinthine vertigo had an indirect effect in the causation of the insanity, but does not maintain that there was any extension of the local disease to the brain. The symptoms of this now well known form of vertigo appear to have been well marked in the Dean's case; and Swift himself has aptly described his condition as *vertiginosus, inops, surdus, male gratus amicis*. The article is of interest as showing how, with the advance of pathology, new light is thrown on the disorders of our illustrious ancestors.

PROPOSED HOSPITAL FOR NORTH LONDON.

IT is proposed to found a general hospital in north London, and a provisional council has been already formed for the purpose. The deficient hospital accommodation in the northern districts has been long felt; and not only has it been frequently adverted to by the medical and daily press, but has formed one of the hospital questions discussed within the past year by the members of the Social Science Congress; and formed part of a memorial to the Home Secretary by the British Medical Association. During the past few years, the question of hospital reform has received much public attention. In the foundation of the new hospital, the judgment of those reformers who have had large experience of hospital affairs will be followed, rather than established precedents. The following are a few of the principal features of the new scheme. 1. It is intended to combine a paying with an eleemosynary institution, and to establish a graduated scale of payments. 2. Provision will be made whereby paying patients may be treated by medical attendants of their own selection. 3. The out-patient department will be placed under such restrictions as shall ensure that those only receive gratuitous treatment who are fit objects of charity. 4. The government of the hospital will be by honorary officers, and, as far as possible, will be representative of all classes of the community. 5. In the committee of management, the medical officers will be adequately represented. By adhering to these principles, it is believed that the affairs of the hospital will be administered with efficiency and economy; that the abuse of the institution by the prosperous classes will be prevented; and that the money of the charitable will be spent on those only for whom it is intended, viz., the really necessitous poor. The provisional council, which is headed with the names of Sir Andrew Lusk, Bart., M.P., Mr. McCullagh Torrens, M.P., it is intended, shall be largely increased. The honorary secretaries are George W. Potter, M.D., 12, Grosvenor Road, N.; T. F. Black, 52, Queen Victoria Street, E.C.; and James Clunes, 19, Highbury Terrace, N.; of whom all information may be obtained.

PHTHISIS AMONGST CONVICTS AT CHATHAM.

IN alluding to the high rate of sickness in the Chatham Prison during 1880-1, the medical officer, in his last annual report, states that the climate of the locality, owing to the vicissitudes of temperature, is ill-adapted for invalids suffering from scrofula or diseases of the chest. According to his observations, the winter there is very trying to such cases, especially during the months of February and March, when keen easterly winds prevail at times, accompanied by rain, snow, or sleet. This severity is severely felt by prisoners employed at out-door labour, particularly those working at the dockyard extension, where the positions are much exposed. Cases of phthisis occurring among the prisoners, unless removed to hospital at an early stage of the disease, and subsequently sent to an invalid station, frequently run a rapidly fatal course.

ANALYSTS IN POISONING CASES.

THE recent decision of the Home Secretary to modify the present system of conducting analyses in poisoning cases, has elicited an important letter in the *Times* from "Public Prosecutor" in Edinburgh. Speaking with authority, he thinks that there are certain considerations which outweigh all that can be said in favour of the step taken. The question whether a person is to be put upon trial in such cases always largely depends upon the results of analysis; and this renders it necessary that the most impartial and effective means should be employed for the purpose. The Crown has, in the interest of the community and the accused alike, the whole responsibility of the proceedings, and hence is best fitted to select analysts—much better than an irresponsible body, or rather individual. Since, too, not to speak of the probability that persons to whom the selection of the analysts is committed will have no more special knowledge of the subject than the Crown advisers medical men have themselves been the administrators in most of the obscure cases of poisoning, it is impossible to predict that no undue influence would be brought to bear in order to secure a special nomination. The contention that it is at least reasonable that representatives on behalf of the accused should also have an opportunity of conducting an analysis is regarded as having merely an air of plausibility, and as being, when examined, unworthy of support; so that, on the whole, there is no call for the proposed change. "Public Prosecutor" argues against a defence analyst, that, in the case of an accused, but innocent, person the choice being given of leaving the matter of analysis to the Crown experts, he would prefer breaking down their testimony to having an independent analysis made, the result of which he must believe to be at least likely to disclose traces of poison by whomsoever administered, and the fact that the accused's own experts agreed with those of the Crown would be regarded as conclusive of guilt. But, on the other hand, if advantage were not taken of the opportunity, a jury would be apt to conclude that this was not done because of the consciousness of guilt. In short, if a separate analysis were allowed, an accused person would in all cases be placed between Scylla and Charybdis; feeling, on the one hand, that if he did not take advantage of the option his neglect would be attributed to a consciousness of guilt; and, on the other, that if he availed himself of the opportunity he must run the risk of thereby sealing his own doom. The plan adopted in the Lamson case, of the Crown appointing two analysts when a crimin

charge is pending, is a right one; that now adopted of having two analysts appointed by quasi-independent bodies is a questionable innovation. In the vast majority of cases of real or supposed poisoning, the analysis is required, without any definite suspicion of guilt having attached to anyone—cases of suicide, and the like. Is it intended, in all these cases, to appoint two analysts? This is a matter to which sufficient attention has not hitherto been directed.

CONVALESCENTS.

THE Convalescent Committee of the Charity Organisation Society, which was appointed in 1880, has just made its first report to the Council. Though the efforts of the Society have not been so successful as they had hoped, yet an excellent beginning has been made, and it seems probable that this department of the Society's work will gradually become a very important and beneficial one. The plan of registering information regarding vacancies has been carried on with only partial success, owing to the great pressure on the homes in the summer months. But the catalogue has indirectly led to a kind of organisation, by placing more complete information and particulars regarding a large number of homes at the disposal of the public. The Committee have communicated with the leading hospitals in the metropolis, with a view to their sending to the District Committees of the Society such cases of out-patients as might require, for their cure and proper medical treatment, change of air and good food rather than medicine. Some hospitals, such as Charing Cross and St. Mary's, and one or two others, have taken advantage of the offer of the Society; but, on the whole, the proposal has not been generally adopted. Two other departments of work have been opened out in the past year: that of lodging in the houses of respectable labourers and others in the country, children who required change of air owing to sickness. The supply of accommodation for these cases has exceeded the demand; and there is reason to believe that much might be done to give help in this form. Convalescent homes, however, will always be required where special care is wanted or diet has to be continued.

HOW DISEASE IS SPREAD.

AN almost incredible story comes from Bolton. At a recent meeting of the rural sanitary authority of that union, it was stated that a man, suffering from small-pox, was taken on foot from his house, nearly two miles distant from the workhouse, by one of the corporation inspectors. It appears that the inspector, having heard that the man was suffering from small-pox, called upon him on the Saturday. The man said he did not know whether he had small-pox or not, but he did not feel very well. The inspector asked him to call at his house the next morning, and he would then be able to say whether it was small-pox. The man, it is stated, walked to the inspector's house (a distance of half a mile), and he was then told that he was suffering from the disease, and must go back at once to his home. The inspector followed him, and finally walked him to the workhouse, much to the astonishment of the medical men there. It was further stated that, as the man was being taken through the town, children were coming out of two schools, and he passed through both groups of scholars. He was, in fact, quite surrounded; and one girl called out, "Eh! see, that chap's got small-pox". A somewhat similar incident is reported by the medical officer of Bristol, who states that a barmaid, suffering from small-pox, had been sent in a carriage and pair from a Wells hotel to Bristol, to the General Hospital, where she could not be received. She was admitted to the Sanitary Hospital, and the carriage was immediately disinfected. The medical officer added that, during his long experience, he had never known a more rash and reckless act than this, of sending such a patient to a populous city; and he hoped that the authorities would ascertain whether some persons had not made themselves liable to a prosecution. The patient told him the landlady of the hotel had ordered the coachman to leave her at the house of a relative. If such crass stupidity as is shown in these cases can be manifested by persons presumably acquainted with the danger of exposing infected persons, and with the law on the subject, it can hardly be expected that the ignorant and reckless working-classes will manifest much anxiety about the prevention of the spread of disease.

PRIZES OF THE ROYAL BELGIAN ACADEMY OF MEDICINE.

THE list of the subjects for competitions for prizes is as follows. For 1880-1883: The function of animate germs in the etiology of disease, as ascertained by new experiments; prize, a medal worth £80 (2,000 francs); close of competition, January 1883. For 1881-1882: Determine by new experiments and new applications the degree to which spectrum-analysis is useful in forensic medicine and medical police; prize, £48 (1,200 francs); close of competition, December 31st, 1882. For 1881-1883: Determine, from precise observations, the effects of alcoholism, from the material and the psychical points of view, both on the individual and on his descendants. In treating of alcoholism from the psychical point of view, the competitors will be required to estimate, by means of the data of pathological anatomy and the best documents furnished by medico-legal experiments, the limit which separates drunkenness from insanity, as well as the responsibility of the drunkard for his acts. The prize is £60 sterling (1,500 francs). The competition will close on February 15th, 1883. Elucidate by clinical facts, and, if needed, by experiments, the pathogeny and therapeutics of the disease of the nerve-centres, and especially of epilepsy; prize, £320 (8,000 francs); close of competition, December 31st, 1883. Sums varying from £12 to £40 may be awarded to authors who have not merited the prize, but whose labours are thought to be worthy of reward. A sum of £1,000 (25,000 francs) may be given besides the prize of £320 to the writer who may have made real progress in the therapeutics of diseases of the nerve-centres, such as the discovery of a curative remedy for epilepsy. For 1882-1884: The history of hysterotomy and its applications; prize, £32 (800 francs); close of the competition, February 1st, 1884. A comparative study of tuberculosis in domestic animals, under the heads of causes, symptoms, lesions, and treatment; a denomination of the relations existing between tuberculosis and phthisis; and of the consequences which the consumption of the meat and milk of bovine animals attacked by tubercle (*perlsucht*) may have on the health of man. Answers to this question should be based, not only on existing data and experiments, but also on new researches. The prize is £32 (800 francs). The competition will close on February 1st, 1884.

A FASTING GIRL.

DR. DOUGAL of Strathavon, who reported, nearly twelve months ago, the more important features of the case of Christina Marshall in the BRITISH MEDICAL JOURNAL, now favours us with the following further report of this unhappy girl, who died recently, and the circumstances of whose death have attracted much attention.

At the time of the last report, Christina Marshall was about fourteen years of age, was reputed to be taking next to nothing in the way of nourishment, was in a very weak condition, and very much emaciated; and this state of matters had been in existence for eighteen weeks. She was free from any serious bodily ailment, her most suspicious symptom being a slight dulness over the apex of the left lung; but, as her mother and two sisters had succumbed to phthisis, it was feared that any pulmonary weakness, however slight, would, under the circumstances, become intensified, and hasten the end. In the course of last May, she was induced to take rather more nutriment, in the form of beef-tea, etc.; and while this was done, she improved a little. Her pulse was of greater volume, she was less silent, and took a little more interest in what occurred in the house. Unfortunately, this did not continue; she gradually relapsed into her former condition of expressed inability to take food, and consequently the little improvement was soon gone, and she returned exactly to her former state. This lasted all through the remaining portion of last year, in spite of the most varied and strenuous endeavours of everybody concerned to overcome the difficulty. Throughout all those months, she never left her room, and was in fact confined to bed, except when lifted out for a short time once a week. She took sweets and water and beef-tea at rare in-

tervals, and then only sparingly, with occasionally a part of an orange. This statement, of course, is derived from those constantly with her, and most deeply interested in her. The last time I saw her was the end of the year. Her pulse was then about 84, and very feeble; her breathing, if anything, slower than normal. She seldom spoke, except to ask the time occasionally. She slept very little. Comparing her condition at the end of May with that at the end of the year, it was striking how little she had lost. She was certainly more emaciated, but not to the extent expected in such a case. The dulness over the lung was still appreciable, but she was perfectly free from any other phthisical symptom. She had no cough, no expectoration, and no hectic or night-sweats. Not having seen her during the course of this year, I cannot speak from personal observation, but I have sufficient authoritative information to close the record of the case. About the third week in February 1882, she complained of pain in the left side of the chest, and began to be troubled with a cough. At this time, the inclination for sweets left her, and at various times she asked for and received a bit of potato, some tea, and an occasional biscuit, but expressed herself as being the worse for them. In the beginning of April, she showed great falling off; her countenance became sunken, and of a pale yellowish colour; and she lay for days helplessly on her back. Her pulse increased in rapidity and feebleness, and she passed calmly away on Tuesday, April 18th, 1882, at 8.30 P.M. At that date, fifteen and a half months had elapsed since the time her parents stated she last swallowed solid nourishment, excepting the particular instances noted in this and in the preceding report. My now more extended connection with the parents enables me to repeat with confidence what I previously wrote, namely, that I believe the honesty and integrity of their characters to be above the faintest taint of suspicion; and that I have never, in all my connection with the district in which they reside, heard even the gentlest murmur of gossip pointing in the direction of latent channels of supply of food.

INFANTILE DIARRHŒA.

MR. CHARLES GREEN, the health-officer of Gateshead, who was for some time engaged with Dr. Ballard in investigating the causes of diarrhœa in connection with the general inquiry into this subject that was made in various large towns last summer, includes, in his last annual report, an interesting abstract of the cases which came under his notice. Eighty per cent. of the cases were under one year of age, ten between one and two years, five between two and five, and five were over three years. Seventy-five per cent. were sudden and acute, and the remaining twenty-five per cent. were chronic. Mr. Green is inclined to think that, while improper feeding is, to some extent, a cause of diarrhœa, this is not so much the case as is supposed. Insanitary surroundings are the principal cause of the disease. He especially draws attention to the condition of the ashpits in his district during the summer as having been a fruitful cause of the very prevalent diarrhœa. The wholesale throwing of slops into the street gutters, and the dirty condition of many of the houses, assists also, in his opinion, in propagating the disease by polluting the air. As to the influence of heat, Mr. Green found that, of the 82 deaths which happened during the year, 10 were registered in July, 30 in August, and 10 in September; *i.e.*, about half the cases occurred in the third quarter of the year—the only time when there was any summer heat. He believes the action of heat to be of two kinds: (1) it probably relaxes the tone of the system, and predisposes to the disease; and (2) it principally acts by assisting the process of fermentation in ashpits, deposits of rubbish, slop-pools, etc., which surround the greater number of patients who suffer from this disease. Heat also acts in assisting the fermentation of milk and other food kept under insanitary conditions; and food that has begun to ferment almost always causes diarrhœa.

DRASTIC COLONIAL HEALTH LAWS.

OUR colonial brethren are very sensible of the prime necessity of measures of compulsory notification and isolation as a means of preventing small-pox and other epidemics, and adopt drastic measures. The following is a summary of recent Melbourne legislation in respect to small-pox. So soon as a person in the colony is known to have been attacked by the disease, a *Gazette Extraordinary* will be issued, in terms of the Compulsory Vaccination Act, intimating the fact. Every one who knows of any other case, or of one resembling small-pox, will then be required, under a penalty not exceeding £50, and of not less than £20, to immediately report the same to the local board of health, or to the police. Superintendent Winch, the officer in charge of the metropolitan district, applied to the central board that the proposed course of action should be made clear, and the secretary of that body reported that the following arrangements had been made by the board and Alderman Moubray, chairman of the Health Committee of the City Council. 1. An ambulance tray wagon with a tilt and spring mattress will be purchased. 2. This will be kept at the police depôt. 3. A horse and harness will be always available there. 4. The seventeen local boards concerned will share the expenses, and in the meantime the Chief Secretary has authorised the central board to defray them.

THE OFFICIAL SCIENTIFIC ANALYST.

WE are authorised to state that the President of the Royal College of Physicians of London has nominated Dr. Stevenson to the post of Scientific Analyst, to conduct any analyses of bodies of deceased persons that may be ordered by the Secretary of State in the interests of justice during the year beginning 1st May next.

INDIAN GAOL MORTALITY.

THE report of the Inspector-General of Punjab Jails for 1880 (Dr. Dallas) is summarised by the *Indian Medical Gazette*. The death-rate was 7.8 per cent., against 14.01 in 1879. Bowel-complaints, fever, and respiratory diseases were the principal causes. The improvement in the health of the prison population was coincident with a change for the better in the sanitary condition of the province as a whole. Civil and under-trial prisoners exhibited very favourable vital statistics. The death-rate of the province, as a whole, was 27 per mille. Dr. Dallas discusses the question of jail mortality carefully. He finds that it fluctuates with the provincial mortality, and concludes that the same influences are at work in producing aggravation and improvement outside and inside jails. He attributes the larger mortality of the prison as compared with the free population to crowding and association; and believes that, were the separate system of imprisonment carried out, the death-rate would be greatly reduced. The Rawalpindee jail had a mortality of 40.40 per cent., which was caused by typhus fever, which the medical officer in charge mistook for intermittent.

SCOTLAND.

THE PROFESSORSHIP OF NATURAL HISTORY IN EDINBURGH.

PROFESSOR COSSAR EWART, of Aberdeen, has been appointed by the Government to fill the Chair of Natural History of the University of Edinburgh. Like Mr. Lankester, Dr. Cossar Ewart had previously filled an appointment in the zoological department of University College, London, a high tribute to the impartial intelligence with which the scientific posts of that college are filled. It is on the other hand, however, only fair to note how frequently such posts in the London colleges are filled by Scotchmen, since Professor Ewart was born north of the Tweed. This interchange of professional honours and exchange of professional teachers on both sides of the Tweed is one of the healthiest signs of the times.

UNIVERSITY OF ABERDEEN.

THE professional examinations for degrees in medicine were brought to a close on Wednesday, the 19th instant, and the ceremony of "capping" the graduates in medicine and surgery took place in Marischal College on Friday, the 21st. By the new ordinance, all candidates are required to take the degree of Master in Surgery, as well as Bachelor of Medicine, so that each graduate has a double qualification. Mr. Thomas Wardrop Griffith and Mr. George D. Knight obtained their degrees, with highest academical honours. The John Murray Medal and Scholarship was awarded to Mr. Thomas W.

Griffith. We are glad to be able to state that Professor Pirrie's health is gradually and steadily improving. The summer session commences on May 1st.

THE ST. ANDREW'S AMBULANCE ASSOCIATION.

THIS Association is actively engaged in Glasgow in carrying on its work, and it has just obtained from the municipal authorities a concession which should prove of great value. Permission has been given to it to use the various police-stations throughout the city for stretchers and other appliances necessary in cases of street or other accidents. This should materially aid the promptitude with which accidents can be dealt with. The Association has also provided itself with one of the improved Howard's ambulance-wagons, which is one of the most efficient of its kind; and it is kept in readiness for turning out at any moment for the conveyance of cases that require to be sent to hospital or conveyed to their own houses.

GLASGOW EAST PARK COTTAGE HOME.

FOR some years there has been in existence in Glasgow an association for aiding infirm children. This association really had its origin in the painful revelations that were brought to light by the operations of the School Board with regard to the numbers of children in an infirm and imbecile condition among the families of the poorer classes. With the object of aiding these, the association arranged house-visitation, and also established a cottage home for the most pressing cases. This East Park Cottage Home, which contains thirty beds, has recently been found too small, owing to the many infirm children waiting for admission; so its accommodation has now been extended to fifty beds by the purchase of an adjoining cottage and connecting the two buildings. This will help to meet the great demand for indoor accommodation; and it is to be hoped the directors will have no difficulty in raising the funds required for paying off the cost of the new building.

HEALTH LECTURES IN CUPAR FIFE.

DR. WHITELAW has just brought to a close a most successful course of five health lectures on "Food and Drink", "Digestion and Indigestion", "Circulation of the Blood", "Respiration and the Air we Breathe", concluding on the 21st instant with "What to do in Cases of Sudden Illness". This last was delivered to a very large audience, and the interest was increased by practical illustrations showing how to perform artificial respiration, and how to treat wounds, hæmorrhage, and fractures. The ambulance men performed their part to perfection, and were loudly cheered as they carried away, on an extemporised litter, their comrade, whose person could scarcely be seen for splints, bandages, and improvised tourniquets. Some additional illustrations, not in the programme, were afforded by the audience: two men fainting at an early stage, and several ladies retiring from the hall in dread that their turn would be next. At the close, the Rev. J. P. Mitchell, who occupied the chair, moved a vote of thanks to Dr. Whitelaw, and expressed the great pleasure and appreciative interest with which they had listened to these lectures. It was announced that, in deference to a widely expressed desire, it was intended to publish them shortly. The lectures were given in aid of the "Club for Supplying Nursing Appliances to the Sick Poor of Cupar."

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending April 15th, it appears that the death-rate in the eight principal towns was 24.8 per 1,000 of estimated population. This rate is 2.7 above that for the corresponding week of last year, and also 2.7 above that for the previous week of the present year. The lowest mortality was recorded in Leith, viz., 14.0 per 1,000; and the highest in Greenock, viz., 33.4 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 4.4 per 1,000, or 0.4 above the rate for last week. Whooping-cough was the most fatal epidemic, and the mortality therefrom was greatest in Glasgow, in which there was also a considerable increase in the number of deaths from diseases of the respiratory system. Acute diseases of the chest caused 137 deaths, or 21 more than the number registered last week. The mean temperature was 40.8, being 3.3 below that of the week immediately preceding, and 3.6 below that of the corresponding week of last year.

THE EDINBURGH HOSPITALS AND INFECTIOUS DISEASES.

TWO important communications have this last week been made to the municipal authorities of Edinburgh on the subject of the justice of their providing from the public rates for the reception and treatment of cases of zymotic diseases when such are epidemic. One is from the managers of the Royal Infirmary; the other from the directors of the Sick Children's Hospital. The former point out that now they have completed their arrangements in the eastern portion of the old infirmary buildings for the reception of infectious diseases, that they now have 78 beds available for such disorders, and that they have allocated them as follow: typhus fever, 20 beds; typhoid fever, 20 beds; scarlet fever, 20 beds; erysipelas, 14 beds; for students and for the observation of doubtful cases, 4 beds. They direct attention to the fact that the number of cases requiring admission during an outbreak of some of these diseases far exceeds the accommodation at their disposal; and they urge the Town Council to take the necessary steps to provide for the maintenance of the Fever Hospital, as there is no obligation on the managers to provide and maintain a hospital for diseases which the authorities are empowered to provide. They also point out that the alteration and equipment already mentioned has cost £2,500, and that the annual cost of the Fever Hospital is between £3,000 and £4,000; and that in Edinburgh only £7,000 was collected last year in aid of the Infirmary, while the expenditure of all the departments of the Infirmary actually amounts to £30,000 annually. The second communication, from the Sick Children's Hospital, directs the attention of the Town Council to the fact that, during the last four years, the average daily number of scarlet fever cases in the Sick Children's Hospital has been twenty-four, and that they have occasioned an outlay of over £1,000 *per annum*, apart altogether from any charge for interest, on the cost of the hospital buildings, or of the expense of maintaining them. They direct attention to the fact that 6,580 of the sick poor have been treated at the hospital during the last year; and considering how serious a strain the fever patients are upon their income, they submit their statement in confident expectation that the municipal authorities will give it their careful consideration, and see it to be their duty, as constituting the local authority, to subscribe to the funds of the institution an annual sum to cover the expenditure on the fever patients, in the spirit, and as provided by, the Act. There is, doubtless, much to be said in support of both communications, as both the infirmary and the Sick Children's Hospital are largely supported by the contributors at a distance; and it is not fair that their generous support should be diverted from its legitimate channel, and, in fact, only go to relieve the taxpayers of Edinburgh.

SMALL-POX AND EMIGRATION.

DURING the past fortnight, four cases of small-pox have been observed in Glasgow; two were imported from Belfast, and the other two were in emigrants going to America. A good many emigrants land in Leith, and are then sent to Glasgow and transshipped to America; as many as two thousand having done so last month. The Board [of Supervision has made a communication to the Leith Town Council, requesting it to cause its medical officer of health to inspect all emigrants arriving at Leith.

HEALTH OF THE PRINCIPAL SCOTCH TOWNS.

IN the eight principal Scotch towns, there were registered during the month of March the deaths of 1,164 males and 1,169 females; the total, 2,333, is under the average for the same month during the preceding ten years by 592, due allowance of course being made for increase of population. In the different towns, the respective mortalities per 1,000 of their population were: Leith, 17; Dundee, 19; Edin-

burgh, 20; Aberdeen, 21; Greenock, 23; Glasgow, Perth, and Paisley, 26. Forty-three per cent. of all the deaths were of children under five years of age, the respective percentages having been: Dundee, 36; Leith, 38; Aberdeen, 39; Edinburgh, 40; Paisley, 41; Perth, 42; Greenock, 43; and Glasgow, 47. Fourteen per cent. of the entire mortality was caused by zymotic diseases, but in Paisley and Perth this rate was much exceeded; in the former, it was 20.5, and in the latter, 33.8. Whooping-cough was, as usual, the most fatal, and to it 4.1 per cent. of all the deaths was due; in Glasgow, it contributed 5.4 per cent. of the entire mortality. Of 31 deaths due to fever, 6 were registered as typhus, and 25 as enteric fever. Measles caused 55 deaths, Diarrhœa 41, scarlet fever 32, diphtheria, 25, croup 23, metria 5, and small-pox 1 death. In Paisley and in Perth, measles was especially destructive; in the former, 9.8, and in the latter, 18.5, per cent. of all the deaths was due to measles. Apoplexy contributed 60 deaths, paralysis 54, cardiac diseases 140, hydrocephalus 66, and premature birth debility 82 deaths. Phthisis pulmonalis caused 297 deaths, or 12.7 per cent. of the whole; while inflammatory affections of the respiratory organs (other than those already mentioned) contributed 497 deaths, or 21.3 per cent. of the entire mortality. Of 71 deaths due to violent causes, 4 were of suicides. Five individuals—4 females and 1 male—died over ninety years of age, the latter being 93. There were registered in March the births of 2,073 males, and 1,843 females. As to the meteorological statistics of the month, the mean barometric pressure was less by 0.052 inch, its monthly range greater by 0.076 inch; the mean temperature greater by 3.9°, its daily range greater by 1.1°; the mean humidity less by 3°; the rain-depth greater by 0.84 inch; the number of days of rain greater by 4; and the wind-pressure greater by 1.84 lbs., than the average of the same month for the preceding 25 years. The leading features, therefore, are, the stormy nature of the weather, the rainfall, and the very high temperature. The greatest rainfall, 6.57 inches, was at Greenock; the least, 2.03 inches, was at Leith. The highest mean temperature, 45.4°, was at Paisley; the lowest, 42.6°, was at Greenock.

IRELAND.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE president of this college, Mr. Chaplin, of Kildare, entertained a large number of guests, both lay and medical, at a handsome banquet in the college on Saturday last. Mr. J. A. Baker, late Surgeon-Dentist to Steevens's Hospital, has been elected to the seat on the Council, vacated by the resignation of Dr. A. H. Jacob, on becoming a candidate for the Professorship of Ophthalmic and Aural Surgery in the College, the election to which will take place on the 8th proximo. The annual election of Examiners from among the Fellows of the College will take place, as usual, on Tuesday next, being the first Tuesday in May. Eight Examiners will be elected to examine candidates for Fellowships and Letters Testimonial; one Examiner in Ophthalmic Surgery; three Examiners to examine candidates for the Diploma of Midwifery; and three Examiners to examine students as to their proficiency in general education.

ALCOHOLIC POISONING.

AT Waterford Quay last week, some empty whiskey-casks were taken possession of by a number of men, who filled them with hot water to extract the whiskey with which the wood was saturated, and imbibed the contents so freely that, of sixty who became inebriated, ten had to be conveyed to hospital. One man died the same evening, and another the following morning. A verdict that the men died from the effects of drinking the dregs of whiskey mixed with fusel-oil was returned.

THE HEALTH OF DUBLIN.

AT a recent meeting of the Corporation of Dublin, a resolution was adopted confirming the appointment of Dr. Cameron as Superintendent Medical Officer of Health, at a salary of £1,000 *per annum*. This sum was fixed upon last September, and accepted by Dr. Cameron; the corporation being under the expectation, when the agreement was made, that half the salary would be recouped by the Local Government Board. The Board have now refused to sanction a Government contribution of £500, and will only grant £95 *per annum*. The difference, therefore, the Corporation have honourably and wisely resolved to pay themselves. Dr. Cameron is an efficient officer, and his services to the city are well worth the salary he receives. His report upon the state of public health and the sanitary work performed in Dublin during the year 1881, and his twentieth annual report upon the analysis and inspection of food, etc., just issued, show opportunely the extent and effect of his work.

OUTBREAK OF FEVER IN COUNTY WATERFORD.

THE medical officer of Ardmore dispensary district reported last week that there were thirteen cases of typhus fever in part of his district, the contagion having been brought from Dungannon Union. Dr. Cashin stated that he found it impossible to induce fever patients to enter a hospital, and to prevent the further spread of the disease he requested the permission of the guardians to empower him to put in force the provisions of the Public Health Act, and compel those infected to be removed to hospital. The guardians sanctioned the order required.

CHARLES DARWIN.

IT is impossible to write without profound emotion of the great man who was on Wednesday interred in Westminster Abbey by the side of Newton, amidst demonstrations of mourning co-extensive with the whole country and all ranks of society. The greatest reformer, the deepest philosopher, the most laborious investigator of the century, he was at the same time the most truly gentle, the most unassuming, the most beloved of men. Never have qualities which command both admiration and affection, reverence and devotion, been so perfectly combined as in the great and beautiful character, the memory of which remains with us for ever as a glory and a guide of which the English race will be proud, even when his teaching has become the accepted commonplace of elementary knowledge.

The theory of evolution had been advocated at the end of the last century by such naturalists as Erasmus Darwin, Goethe, Treviramus, Oken, and Lamarck, and its claims to consideration between that epoch and the appearance in 1859 of Mr. Darwin's book on the origin of species, had been kept before the scientific world by Geoffrey St. Hilaire, by the *Vestiges of Creation*, and by Mr. Herbert Spenser. The principle of "natural selection," or the "survival of the fittest in the struggle for existence" had even been definitely formulated and applied to the explanation of the production of new organic forms by such writers as Wells and Matthew in certain very limited instances. What, then, has been the special merit of Mr. Darwin in the matter? It has been this—to convince the whole world of a truth which had been previously scouted as fantastic, or repelled as involving a fundamental revolution in our beliefs as to the nature of life and of man himself. Mr. Darwin has lived to see what he himself predicted, namely, the remodelling not merely of zoology and botany, but of the fundamental conceptions and the methods of study of psychology, of political history and political economy, as the result of the acceptance of his theory. He achieved the task of convincing first the men of science and then the wider public, not by any gift of argumentative skill, though such skill was his in a most remarkable degree, but by sheer hard work, by that genius which consists in "an infinite power of taking pains," and can only develop itself in a great character marked by tenacity of purpose, devotion to ideal interests, single-mindedness, and a calm superiority to the petty rivalries of social ambition.

Mr. Darwin's circumstances were undoubtedly most favourable to the performance of his work, and to the development in him of an attitude both in study and in exposition which has had no small share in obtaining for him that rapid and wide-spread recognition and attention which is so remarkable. He was a man of independent property, able at the age of three-and-twenty to undertake at his own expense a voyage in H.M.S. *Beagle*, which furnished him with many valuable observations and ideas, able to settle down a few years later as a Kentish squire, and to search with unremitting industry for twenty years in the literature of zoology and botany for evidence in favour of his doctrine of natural selection, and to carry on original observations and experiments. He never was, strange as it seems, a "professional

scientist," but for all his profound speculation and absorbing devotion to his work, preserved the modesty and freshness of the amateur, of the *dilettante* in the best sense of the word, an attitude of which Goethe has pointed out the value, and one which has been essential to Mr. Darwin's popularity, as it was to that of a no less charming master of exposition, Faraday. Though during all his life suffering from a condition of the nervous system reacting upon the digestive organs which necessitated the greatest care, Mr. Darwin enjoyed that occupation of time and energy which consists in a methodical distribution of the hours of the day: a fixed time being regularly assigned to study or writing. It is difficult to imagine a more beautiful picture of human happiness than that which he presented in his Kentish home, working at those great books which are acknowledged to have been a priceless gift to humanity, surrounded by a devoted family, amongst whom his sons, as they grew up, had the privilege and delight of aiding their father in his studies, whilst their mother continued to the last to bestow that loving attention upon the needful management of his delicate health which has, doubtless, preserved for so long to us this great and remarkable man. This is not the occasion on which to attempt a summary of his works or an estimate of their respective importance. Now we can only mourn for the man: his work is still with us, and will remain with ever-increasing fruitfulness in all generations to come. There are many to whom the first reading of the *Origin of Species* has been an intellectual birth—the entering on a new life of thought, and it is those who will feel most surely, if the personal attributes of its writer were also known to them, that an increased sanctity, a new cause for reverence, was given to Westminster Abbey when Charles Darwin was laid beneath its stones.

THE ADVANCEMENT OF MEDICAL SCIENCE BY RESEARCH.

THE Council of the Association having this object, which was formed on March 28th, at the influential representative meeting reported in these columns, held its first meeting at the Royal College of Physicians on Thursday, the 20th of this month. Besides the *ex officio* members representing the Scotch and Irish Universities and medical bodies, the English Universities, the British Medical Association, and the Medical Societies, the Council consists, by the third rule passed last month, of members specially nominated by the President of the College of Physicians and the President of the College of Surgeons. The list so nominated for the present year is as follows: Sir William Gull, Sir Risdon Bennett, Professor Burdon Sanderson; Drs. Quain, Andrew Clark, Lauder Brunton, Payne, Pye-Smith, W. Roberts (Manchester). Michael Foster (Cambridge), Balthazar Foster (Birmingham), and Dr. Farquharson, M.P.; Sir James Paget, Mr. Darwin, Sir Joseph Fayrer, Mr. Bowman, Professor Huxley, Mr. Simon, Mr. Spencer Wells, Professor Gamgee (Manchester), Professor Gerald Yeo, Mr. Jonathan Hutchinson, Dr. McDonnell (Dublin), and Mr. Teale (Leeds).

The lamented death of Mr. Darwin occurred on the day before the first meeting of the Council. The great naturalist, himself the son, the grandson, and the father of physicians, took the warmest interest in the new Association from the first, and was a munificent subscriber to its funds. The vacancy on the Council caused by his decease was filled up on Thursday by the nomination of Sir Henry Thompson.

Sir William Jenner, the President of the Association, took the chair.

The offices of Vice-Chairman of Council, Treasurer, and Secretary were filled up as follows: Vice-Chairman, Sir James Paget; Treasurer, Dr. Wilks; Secretary, Dr. Pye-Smith.

An Executive Committee was then chosen from the Council, to consist of the following members: Mr. Bowman, Dr. Brunton, Dr. Andrew Clark, Dr. Matthews Duncan, Dr. Farquharson, Professor Flower, Dr. Michael Foster, Sir William Gull, Professor Huxley, Professor Humphry, Mr. Lister, Mr. Marshall, Dr. Payne, Dr. Quain, Professor Sanderson, Mr. Spencer Wells, Professor Gerald Yeo.

The first duty assigned to this Committee was the appointment of corresponding members of Council in each of the most important cities and towns throughout the kingdom, so as to enlist the support of the whole profession in this endeavour "to promote those exact researches in physiology, pathology, and therapeutics which are essential to sound progress in the art of healing, and to remove any hindrances which obstruct these researches.".

Before separating, the Council passed a cordial vote of thanks to Professor Gerald Yeo for the zealous services he has rendered as Provisional Secretary during the formation of the Association.

A first list of subscriptions will shortly be published.

Letters to the Treasurer should be addressed to Dr. Samuel Wilks, F.R.S., 72, Grosvenor Street, W.; and to the Honorary Secretary, Dr. Pye-Smith, 54, Harley Street, W.

PROPOSED HOSPITAL FOR NORTH LONDON.

A CONFERENCE of Members of Council and others interested in the establishment of a new general hospital for the North of London, was held at the Athenæum, Camden Road, on Wednesday evening, April 26th. Mr. Henry C. Burdett, late of the Seamen's Hospital, Greenwich, who is well known in connection with the question of hospital administration and reform, delivered an interesting address on the "Present State of Hospital Distribution and Management in the Metropolis, with especial reference to the condition of North London".

Mr. Burdett started by observing that out of a total of 4,579 hospital beds for the whole metropolis, the population of which could not be less than four and a half millions, about one-third of whom were annually relieved at the London hospitals, 3,486 were provided by the general hospitals situated within a radius of one and a half miles from Charing Cross. Omitting the 30 beds provided by the Great Northern Hospital, the remaining 1,080 beds were to be found in hospitals situated in East London (830 beds), and West London (280 beds). Taking the Highbury station on the North London Railway as a centre, and excepting the small Great Northern Hospital, the two nearest of the General hospitals, viz., University College and the Royal Free Hospitals, were some two miles from Islington, a mile from the nearest part of North London, and consequently between five and six miles from Highgate, Tottenham, and Hornsey, being further away still from some parts of the district. Putting the population of the North London District at 1,000,000, these made but one bed for every 33,000 of the inhabitants, and Mr. Burdett asked whether one hospital bed could be considered adequate to meet the requirements of a population of 33,000 human beings resident in one of the largest districts in a vast centre like London.

The situation of the workhouse infirmaries might be fairly taken as evidence of the localities where hospital accommodation for the poor was likely to be most needed. In North London there were two large Poor-law infirmaries, viz., the Holborn and Islington Infirmaries, which collectively contained 1,157 beds, both of which were situated in the district, and within a radius of a mile and a half of Islington station. If the Poor-law authorities found the poor population so numerous as to require one bed for every 900 of the population, Mr. Burdett inquired how it had come to pass that there was only one bed provided in the general hospitals for every 33,000 of the population of the district. The effect of this deficiency upon the sick and suffering in North London was seen in the accidents which occurred last year upon the North London railway. In one case, the German Hospital, though established, as its name implied, mainly for the relief of Germans, received a number of accident cases into its wards. The managers of the German Hospital had, however, not the means, even if it were within the scope of the scheme on which that hospital was founded, to provide accommodation for the whole of the population of North London. The greater number of the sufferers by these accidents had therefore to be taken miles away into central London, to some of the large general hospitals, entailing an amount of delay, suffering, and risk, which no doubt delayed recovery in some instances, and possibly caused death in others.

As to the probabilities of the financial success of a new general hospital or hospitals for North London, Mr. Burdett's opinion, formed after a visit to various parts of the district, was that if Manchester or Liverpool, or Birmingham, could not only support one but several hospitals, then North London—with its many wealthy and mostly thrifty inhabitants—could do, at any rate, as much, if not more, than this. It had been urged that there are already too many voluntary hospitals, and that a new hospital would interfere with the income of existing institutions. Mr. Burdett differed from this view for the following reasons.

1. Experience proved that the best and most economically managed hospitals were those situated in large towns or districts, where they constituted each a prominent and an interesting feature in the life of each locality. For this reason, if it were possible, Mr. Burdett believed it would be far better for the finances of the London hospitals, as well as for the welfare of the poor, if each district had its own general hospital in lieu of the present plan of building all the hospitals upon sites confined within a space so narrow that it constitutes less than a third of the whole area the inhabitants in which had perforce to use these charities. 2. The money subscribed at the present time to the various medical institutions was more than enough, if rightly applied, to meet all necessary expenditure. Thus the number of beds available in the general, special, and convalescent institutions throughout Great Britain approached 25,000, exclusive of Poor-law and cottage hospitals. The number of in-patients relieved every year at 200 institutions was nearly 190,000; the number of out-patients relieved at 250 general and special hospitals, and provident and general dispensaries, was nearly 2,000,000 annually. The average gross annual income from all sources

received by British hospitals, convalescent institutions, and dispensaries, amounted to £1,450,452, and the average gross annual expenditure to £1,447,601. These figures proved that if the income of the different medical charities were fairly distributed according to the requirements of each centre of population, the funds at present available would be equal to the demand. From a careful examination of the data on which his opinion was based, Mr. Burdett was led to conclude that North London was a new mine entirely, so far as hospitals were concerned, and that any well-considered scheme which provided for the present needs of the poor of this neighbourhood would be most handsomely supported.

Any scheme, to be approved by the meeting, whilst it provides for the free relief of the poor, must guard the recipients of its benefits against improvidence and loss of self-respect. The district of North London, which included Holloway, Barnsbury, Canonbury, Highbury, Stoke Newington, Hoxton, Haggerston, Shoreditch, and possibly some others, contained a population of many hundreds of thousands for which there was practically no hospital in-patient provision. In most of these districts there were a large number of clerks, shopmen, and shopwomen who lived in lodgings, in addition to the artisan classes. As there were no endowments of any kind, and as the primary expenses attending the erection of buildings, etc., would be considerable, Mr. Burdett recommended a system of free beds, supplemented by paying wards and pay beds on the American model, with the addition of a well-considered plan by which all the existing medical relief agencies in the district—provident and free dispensaries, hospitals for women and children (of which there are two, the North-West London and St. Saviour hospitals) and the Poor-law hospitals and dispensaries—could be brought into working relations. With regard to the out-patient department, Mr. Burdett was of opinion that the system, adopted successfully by several of the special hospitals in London, of taking a small sum from those patients who were able and willing to pay, had many things in its favour. He thought that a portion of the patients' payments should be set aside for the remuneration of the medical officers. This would be the more easy in the present instance, because all the medical agencies in the district would be brought into working relations, and the medical officers would, he hoped, be appointed mainly, if not entirely, from amongst the members of the profession who reside in North London.

As to the question of the class of hospital buildings to "fix" upon, he judged it to be undesirable to erect one huge hospital in the centre of the district, but to have a central hospital with a number of smaller cottage hospitals situated in convenient and populous centres here and there throughout North London, but all under the same management. It would also be probably found advantageous to build the new hospital or hospitals on some simple and cheap principle, as at Berlin, where one of the most complete of modern fever hospitals, containing 1,000 beds had been erected for the small sum of £10 a bed.

At the conclusion of Mr. Burdett's address, which was listened to with marked attention and interest, Professor Leone Levi moved a resolution pledging the meeting to use its best endeavours to secure increased hospital accommodation for North London. The resolution was seconded by Mr. A. B. Burdett-Coutts, in a speech that showed he had thoroughly mastered the subject, and was alive to the dangers of adding to the already too numerous pauperising agencies of the metropolis. He said that the Baroness Burdett-Coutts took a warm interest in the work which they had met to forward, and announced his intention of joining the committee. From personal experience he was aware of the merits of the pay-system, by which patients contributed at least something towards the expenses of their maintenance in hospitals. Speaking with a special knowledge of the appeals made to the philanthropic, he was convinced that sooner or later—and the time was not very far distant—the boundary of charitable relief would be reached. He urged therefore upon the promoters not to rely upon the large contributions of the few, but upon the small subscriptions of the many, so that every one in the district might feel an interest in the maintenance and welfare of the hospital.

THE MIDDLEMORE PRIZE IN OPHTHALMOLOGY.

We are requested to remind intending competitors for this prize that all essays must be forwarded by the 31st May next, under cover, with a sealed envelope bearing the motto of the essay, and containing the name and address of the author, addressed to the General Secretary of the British Medical Association, 161A, Strand, London. The amount of the prize is £50; and the subject of the essay is "The Scientific and Practical Value of Improvements in Ophthalmological Medicine and Surgery made or published in the past three years."

THE TAX ON CARRIAGES.

Mr. Gladstone's proposal to increase the tax on carriages will fall very heavily upon medical practitioners, for whom the carriage is really an instrument of trade, as much, in many instances, as the conveyances employed in trades and agricultural pursuits, which are specially exempt from tax. Under these circumstances, an effort will be made by the Parliamentary Bills Committee to induce Mr. Gladstone to give an exemption to practitioners of medicine in respect to carriages employed in the prosecution of their calling. Meantime, those gentlemen who feel strongly on this matter—and we have no doubt that their number is very considerable—should, we think, communicate with their members in the House of Commons, and at once obtain for the Parliamentary Bills Committee as much assistance as possible in this matter, and, if possible, induce members to make separate and direct representation to the Chancellor of the Exchequer on the subject. The matter is one which requires early and immediate attention; and all communication on the subject should be at once addressed to the Chairman of the Parliamentary Bills Committee of the British Medical Association, 161A, Strand.

THE CASE OF THE MILITIA SURGEONS.

We have already, on more than one occasion, referred to the peculiar hardship which recent regulations have inflicted, during the last few years, upon the older surgeons of militia. At the request of the representatives of this body, Mr. Ernest Hart, as chairman of the Parliamentary Bills Committee of the British Medical Association, undertook to bring the matter under the attention of the Secretary at War, and to ask for relief. With this view, an elaborate statement, setting forth the claims of the militia surgeons, was prepared and submitted.

After some delay, owing, it is stated, to the different points involved, and their repeated consideration, the following reply has been received.

(Copy.) "Financial Secretary's Department,
War Office, April 17th, 1882.

"Sir,—I am directed by the Secretary of State for War to acknowledge the receipt of your letter of the 15th February last, enclosing a petition from the surgeons of militia regiments, relative to their claim to a retiring allowance, or pension, on being retired by reason of age or infirmity; and inquiring whether Mr. Childers will receive a deputation from the Parliamentary Bills Committee of the British Medical Association on the subject.

"The facts of the case are as follows.

"Up to the year 1829, militia surgeons belonged to the permanent staff of militia regiments, and, like other members of the permanent staff, were granted pensions on retirement under the annual 'Pay and Clothing Acts'. The 5 Act, George IV, cap. 33, referred to in the petition, was one of these 'Pay and Clothing Acts'—all of which were in force a year only, and it expired on the 25th March 1830.

"The Act 31 and 32 Victoria, cap. 76, also referred to in the petition, merely secures to the militia surgeons employed before 1829, the pensions granted to them under former Acts.

"Under neither of the Acts quoted, therefore, have the militia surgeons now in question any right to a retiring allowance, or pension on retirement, whether by reason of age or infirmity; and there is no other Act of Parliament which gives them such right.

"Nor have these surgeons any claim to a retiring allowance on the ground of equity. The rule under which they are retired, at upwards of sixty years of age, was issued in 1872 (Clause 9 of the Auxiliary and Reserve Forces Circular of that year), four years before the Militia Medical Department was formed; and the officers of the department cannot, therefore, justly claim compensation on the ground of their compulsory retirement at the age of sixty-five. Like every other militia officer who does not belong to the permanent staff, they are not allowed pensions on retirement.

"It is alleged, in the petition, that their pay is very inadequate, as compared with that of the medical officers of the regular army. Mr. Childers is unable to concur in this view. An officer of the Militia Medical Department receives pay, exclusive of allowances, at £1 a day as a surgeon-major, and at 13s. 8d. a day as a surgeon, when in attendance on his regiment; and at other times is paid according to the duty he performs. As a rule, he is continually employed on regimental duty for only about two months in the year; his militia employment is nearly always in or near the place where he resides, and there is nothing to prevent him from continuing his private practice. An officer of the Army Medical Department, on the other hand, receives pay at from £1 to £1 7s. 6d. a day as a surgeon-major, and at £200 a year to 15s. a day as a surgeon; but he is debarred from all private practice. He has

to take his turn of foreign service throughout the whole of his military career, moving about at considerable expense for outfit, hire of furniture, etc.; and having to serve in India and other unhealthy countries, besides being exposed to the risks of the battlefield.

"Under all the cirumstances above pointed out, Mr. Childers regrets he can only arrive at the conclusion, that no useful purpose could be served by his receiving a deputation in support of the petition referred to.—I have the honour to be, sir, your obedient servant,

"H. CAMPBELL BANNERMAN."

THE SELECT COMMITTEE ON THE CONTAGIOUS DISEASES ACTS.

AT the meeting of the Committee on March 31st, Mr. Wheeler, of Chatham, was again called in, and was invited to justify or withdraw, according to his promise, the paragraph in his "Leaflet D," wherein he stated that, "hundreds of terrified girls have signed the form of voluntary submission, under threat and terror of imprisonment." Although this was the third time Mr. Wheeler has been questioned on this matter, he was still unable to give any further facts in support of his sweeping charge, and he could only refer to certain evidence given by Mr. Sloggett, before the Select Committee in 1869, and by Mr. Williams before the Royal Commission in 1871. These answers, he said, together with the Admiralty instructions to the police, confirmed him in the belief he had stated, and justified his expression of opinion that numbers of girls had been driven by terror into signing the voluntary submission. It was a matter of inference, and as such might be right or wrong, but he had published the statement *bonâ fide* for the public benefit, and must decline to withdraw it.

The next witness called was Mr. J. P. Kingston, of Cork, who was examined by Mr. Stansfeld. Mr. Kingston is a gentleman of independent means, who for many years past has been engaged in "Rescue" Work. He is a strong opponent of the Acts, and much of his evidence is at variance with that given last year by the Rev. Henry Reed, the Roman Catholic chaplain to the Lock Hospital. Mr. Kingston admitted that the number of registered prostitutes had much diminished, but was of opinion that there had been a considerable increase in clandestine prostitution of late. He considered that public order in the streets of Cork had greatly improved, and this he attributed, firstly to the closure of a large number of disorderly houses in 1876, and secondly to the great increase in the police force, whereby a regular system of patrols was maintained. But on the outskirts of the city a great deal of out-door prostitution was carried on, and most indecent scenes were witnessed every night. He did not think that the operation of the Contagious Diseases Act had any specially deterrent effect on the minds of young girls. However, in the course of his evidence, Mr. Kingston mentioned the case of a girl, whom he had succeeded in reclaiming by putting before her mind the wretched life of a registered prostitute, thus showing that sometimes the dread of the Acts was a very powerful deterrent. He thought that the system of periodical examination had a "hardening" effect on the women subjected to it; and in proof of this he mentioned the great difficulty he found in obtaining any good moral results with the registered women, and also the great falling off in the number of the inmates of the Protestant home shortly after the Acts came into force. But he was subsequently reminded that, just about this time, a large Roman Catholic refuge was opened, to which a great number of women were admitted. Mr. Kingston owned that the administration of the Acts was, on the whole, judicious. The work was very difficult, but the police did their best; they were well acquainted with the city, so that there was little fear of their making any mistake.

The Reverend Flavel Cook, D.D., Chaplain to the London Lock Hospital, was called in and examined by Mr. Osborne Morgan. His attention was drawn to a return, put in by a previous witness, showing the number of patients admitted to the Lock Hospital during the past year, with the number reclaimed; and he was invited to make any observations upon it that seemed to him necessary. In the first place, objection had been raised to the use of the term "Government patients", which was applied in the return to those women who were sent into the hospital under the Acts. Mr. Cook explained that, by the use of this phrase, no imputation whatever was made. The women so designated were kept in wards maintained by Government; and the expression "Government patients" was simply employed for convenience and brevity in the hospital books, instead of calling them "Patients admitted under the operation of the Contagious Diseases Acts". He next referred to a point which has been already mentioned, viz., that the figures 485, given as the number of patients sent in under the Acts during the year, did not represent that number of individual women, because every patient admitted again and again in the course of the year was treated on the books as a distinct case. As a matter of fact, there were only 224 separate persons. Out of this number, only 121 were admitted for the first time, and those only could be fairly compared with the voluntary patients, who by the rules of the hospital were only admitted once. It was not fair to compare, in regard to their chance of reclamation, the voluntary patients with those sent in under the Acts. The latter were all on one dead level, and were brutalised beyond description in appearance and manner; to call them professional prostitutes, was to designate them as mildly as possible. The voluntary patients, on the other hand, were very mixed, and many of them possessed a fair amount of education. Moreover, out of a total of 502 voluntary patients in one year, there were 24 who were married women living with their husbands. There was, no doubt, a large proportion of regular prostitutes, but there were others who were at least comparatively respectable. In fact, they shaded off gradually into the class of those who, if their own statements were to be believed, had only just fallen. Naturally, therefore, the voluntary patients presented a far more promising field for the chaplain's efforts than those sent in under the Acts, and the ratio of reclaimed women among them was much larger. But although these registered women were so hard to deal with, and so little open to remonstrance or entreaty, he did not attribute their hardened condition to the operation of the Contagious Diseases Acts. He was convinced that, if these Acts were abolished tomorrow, this class of women would remain just the same. His opinion, founded on many years' experience, moreover was, that, if these Acts were repealed, the worst class of prostitutes would not come voluntarily to the hospital when attacked by disease. And further, it was an absolute certainty that, if they did apply, they would not, after admission, remain in hospital until they were thoroughly cured, unless they were compulsorily detained. Thus it was a necessary inference that, by the agency of these Acts, a number of prostitutes was brought to the Lock Hospital and subjected to good moral and religious influences, who, but for the Acts, would have remained in a deplorable condition of mind and body. Though in the Lock Hospital itself the patients were classified and separated, when they entered the "home" attached to the hospital, they were all merged in one body. There they were prepared for domestic service or other suitable employment; and Mr. Cook mentioned, as an encouraging fact, that, contrary to natural expectation, there was never the least difficulty in procuring good situations for them. The hospital was greatly in want of funds, and he believed the subscription-list suffered on account of the antipathy many people felt to the Contagious Diseases Acts. With regard to his own views of the operation, beneficial or otherwise, of these Acts, he wished to say that his position was at present one of reserve and observation. The duties of his office did not require him to have any definite opinion on the matter, and he had not yet gathered sufficient facts to make him decide strongly one way or the other.

INDIAN BRANCHES OF THE BRITISH MEDICAL ASSOCIATION.

THE *Indian Medical Gazette* of March 1 publishes a report of a recent meeting of the profession at Allahabad, from which we extract the following. We have now a considerable and growing number of members and subscribers to the JOURNAL in India, and we trust that they will heartily second the effort now made under agreeably spontaneous conditions at Allahabad.

On Thursday, February 2nd, a meeting of members of the medical profession was held at Allahabad, at the house of Deputy Surgeon-General J. Hendley, who invited to luncheon all the gentlemen who could attend. The following were present, and letters were received from many others expressing regret at their inability to come:—Messrs. W. Ashton, G. Sherman Bigg, F. A. Davy, K. M. Downie, Shirley Deakin (all of Allahabad), P. J. Freyer (Ghazipur), F. W. Hall, Geoffrey Hall, Lees Hall (all of Allahabad), J. Hendley (Deputy Surgeon-General, Allahabad Circle), D. M. Jack (Rae Rareli), T. R. MacDonald (Lucknow), B. O'Brien (Bara Banki), A. P. O'Connor, J. L. Peyton, J. Shearer, H. S. Smith, L. M. Thorburn, J. Watts (all of Allahabad, F. W. Wright (Bahraitch), and Temple Wright (Nagpur). The chair was taken by Deputy Surgeon-General HENDLEY.

The following resolutions were carried:

1. Proposed by Mr. WATTS, seconded by Mr. SHIRLEY DEAKIN: "That an endeavour be made to establish a Branch of the British Medical Association in the North-West Provinces and Oudh."

2. Proposed by Dr. MACREDDIE, seconded by Dr. DAVY: "That a report of this meeting be published in the papers." It was intimated that this was merely to let other medical officers know what was being done in the North-West Provinces, so as to encourage them to form

Branches, according to the existing statutes of the Association, wherever it might be practicable.

3. Proposed by Dr. DOWNIE, seconded by Mr. LEES HALL: "That the following gentlemen be elected office-bearers, with power to add to their number: *President for the Provinces*, Surgeon-General Sir A. Christison; *President for the Command*, Deputy Surgeon-General J. Hendley; *Vice-Presidents*, Brigade Surgeons Watts and Carter; *Honorary Secretaries*, Surgeons Shirley Deakin and Sherman Bigg. *Committee*, three to form a quorum, Drs. Ashton, Downie, G. Hall, MacReddie, Peyton, and the office-bearers previously mentioned."

Mr. DOWNIE said he hoped other committees would be formed at other places, and that it would be ascertained by the honorary secretaries what gentlemen would be willing to hold office and exert themselves to read papers and collect specimens.

4. Proposed by Dr. ASHTON, seconded by Dr. FREYER; "That meetings be held periodically at such place and time as may be agreed upon by the members."

A hearty vote of thanks was passed to the chairman, who afterwards presided at a very pleasant subscription dinner, for which the members reassembled at the North-Western Provinces Club by the kind permission of the club committee. A most agreeable evening was spent, and it is hoped that the prevailing cordiality will facilitate the expected amalgamation of the Army and the Indian Medical Departments.

ASSOCIATION INTELLIGENCE.

BRANCH MEETINGS TO BE HELD.

THAMES VALLEY BRANCH.—The next meeting of this Branch will be held on Thursday, May 4th, at the Griffin Hotel, Kingston-on-Thames, at 6 P.M. Paper by Arthur W. Edis, M.D., on the Diagnosis of the Causes of Uterine Hæmorrhage.—EDWARD L. FENN, M.D., Honorary Secretary.—April 25th, 1882.

YORKSHIRE BRANCH.—The spring meeting will be held in the Museum at York, on Wednesday, May 10th, at 3 P.M. Gentlemen intending to read papers, are requested to communicate at once with ARTHUR JACKSON, Sheffield.—April 25th, 1882.

STAFFORDSHIRE BRANCH.—The third general meeting of the present session will be held at the Bell Medical Library, Cleveland Road, Wolverhampton, on Thursday, May 26th, at 3 P.M.—VINCENT JACKSON, General Secretary, Wolverhampton.—April 24th, 1882.

LANCASHIRE AND CHESHIRE BRANCH.—The Honorary Secretary invites members to give early notice of papers to be read at the intermediate meeting, which has been proposed to be held at Blackpool early in May, and at the annual meeting, which will take place at Chester in June.—A. DAVIDSON, M.D., Honorary Secretary, 2, Gambier Terrace, Liverpool.—April 19th, 1882.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.—The annual meeting of this District will be held at the Kent and Canterbury Hospital, on Thursday, May 4th, at 3 P.M.; Mr. J. E. Schön in the chair. The following communications have been promised. 1. Mr. Bishop: Large Tumour removed from Occipital Region. 2. Dr. Gogarty: A Case of Suppression of Urine; Specimens of Sacculated Kidneys. The dinner will take place at the Fleur de Lis at 5 P.M.—T. WHITEHEAD REID, Honorary Secretary.

NORTH OF ENGLAND BRANCH.—The spring meeting will be held at the Hospital, Stockton-on-Tees, on Friday, April 28th, at 3 P.M. The first business will be the election of a President-elect, in the place of the late Dr. Robert Wilson of Alnwick. The following papers and cases have been promised. 1. Dr. Philipson: On Fixed Abdominal Pain. 2. Dr. Foss: Case of Fractured Patella treated by Aspiration of the Knee-Joint. 3. Dr. Foss: Case of Double Amputation. 4. Dr. Drummond: On some Points in the Diagnosis of Chronic Pulmonary Phthisis. The following subjects will be brought forward for discussion. *a.* Communication from Dr. J. M. Fothergill regarding the Editorship of the BRITISH MEDICAL JOURNAL. *b.* Communication from the South-Western Branch regarding Homœopathic Practitioners. Members and their friends will dine together at the Stockton Club at 5.30 P.M.; charge (exclusive of wine), 6s. 6d.—T. W. BARRON, M.B., Durham, DAVID DRUMMOND, M.D., Newcastle, Honorary Secretaries.—April 12th, 1882.

SOUTH MIDLAND BRANCH.—*Preliminary Notice.*—The annual meeting of this Branch will be held in the Committee Room of the Northampton General Infirmary, on Thursday, June 1st, at 2.30 P.M. Gentlemen who are desirous of reading papers, or of exhibiting pathological specimens, are requested to communicate at once with the Honorary Secretary.—G. F. KIRBY SMITH, Honorary Secretary, Northampton.—April 24th, 1882.

SOUTHAMPTON DISTRICT: SOUTHERN BRANCH.—The next meeting of the District will be held at 6, Anglesea Place, Southampton, on Monday, April 24th, at 8 P.M. Paper by Surgeon-Major Blair-Brown on Resection of the Elbow. Paper by R. Cæsar, Esq., on Four Cases of Cerebral Tumour.—THEOPH. W. TREND, M.D., Honorary Secretary.—April 17th, 1882.

STAFFORDSHIRE BRANCH: GENERAL MEETING.

THE second general meeting of this session was held at the Railway Hotel, Stafford, on Thursday, February 23rd, 1882. Present: Mr. J. K. WYNNE, President, in the chair, and twenty-four members.

New Members.—Mr. G. T. May, of Tunstall; Dr. Somerville, of Leek; Mr. W. H. Hallam, of Newcastle; Mr. J. C. Bailey, of Ravenshall; Mr. G. P. Baldwin, of Rugeley; and Mr. C. E. Baddeley, of Newport, Salop, were elected members of the Branch.

Homœopaths and the Membership of the Association.—A letter having been read from the South-Western Branch referring to the relations existing between homœopaths and the British Medical Association, it was unanimously resolved—"That it is the opinion of the Staffordshire Branch of the British Medical Association that By-law 3 of the Association be enforced with regard to those who practice homœopathy, whether such persons have been admitted members of the Association prior to or subsequent to their profession and practice of homœopathy."

Communications.—The following communications were made:

1. Dr. REED showed a Cancerous Liver removed from an Infant.

2. Dr. MCALDOWIE exhibited a specimen of Congenital Stenosis of the Pulmonary Artery, taken from a Child thirteen months old. The stenosis was associated with deficiency of the upper part of the septum ventriculorum. The arch of the aorta passed over the root of the right lung, but there was no transposition of the viscera.

3. Mr. VINCENT JACKSON exhibited the Lower Jaw and two-thirds of the right Upper Jaw, which, for a Myxomatous Sarcoma, he had removed from a man aged 58. To diminish as much as possible the hæmorrhage, the right facial artery was ligatured previously to the removal.

4. Dr. MCALDOWIE read a paper on Fibrinous Coagula in the Left Ventricle.

5. Dr. J. H. TYLECOTE read notes on two cases of Pseudo-Hypertrophic Muscular Paralysis.

6. Mr. FOLKER read the records of a case of Removal of the Kidney for Hydronephrosis.

CORRESPONDENCE.

THE ASSOCIATION FOR THE ADVANCEMENT OF MEDICINE BY RESEARCH.

SIR,—The letters of Dr. Wilks, the treasurer of this Association, and of "A Member of the Provisional Committee", in the last number of the JOURNAL, will, I am sure, be received with gratitude for the new light they throw upon the movement. That light can, however, hardly be accepted as sufficient by the mass of the profession whose views and whose interests the "leaders" in this movement have undertaken to represent.

Dr. Wilks says, "I am sure that it has been the aim of all engaged in promoting the Association to gain the co-operation of all in the profession. The question which has given the impetus to it is one between the profession and the public". Of this there can be no doubt. But the question remains exactly as I ventured to state it. What steps have been taken "to gain the co-operation of all in the profession"? The answer must be: None whatever.

It is impossible to doubt that the Presidents of the Colleges possess the entire confidence of the profession. But that is not enough to invest them with the special authority which is necessary to convince the "public" that they represent the general feeling of the profession in this matter.

Both Dr. Wilks and the member of the Provisional Committee state that the organisation and scheme of the Association are imperfect. "The Association is scarcely yet formed, and no doubt changes will be introduced when experience has proved them to be useful." "Only experience can show what future modification may be desirable. At present a good beginning has been made, and with united action, and a wise mixture of zeal with discretion, we are certain of a good continuance."

These qualified propositions must be read in connection with the last resolution of the Association, setting forth: "That the present rules, defining the objects and constitution of the Association, shall not be altered except by the written consent of three-fourths of the entire council, after consideration at a meeting called for the specified object, on a fortnight's notice, and with the further written sanction of the two presidents."

Gratification that the imperfection of the scheme is admitted, is marred by the resolution which renders reform of that scheme all but impossible.

One cannot help seeing that the difficulty lies in the radically false theory of representation which the framers of the scheme have adopted. That theory is embodied in the fundamental resolution, "That registered medical men desirous of promoting the above objects shall, with the consent of the Council, be admitted as members of the Association,

on the nomination of an ordinary or corresponding member of the Council."

Where is the representation? Where is the constituent body? If the Council be, as it certainly is declared to be, the executive body, it ought, on all constitutional principles, to be an elected body; but here we see the executive, in whom is vested all power, electing its own constituency. A strange theory of inverted representation. It will surely provoke the dangerous imputation that the first exercise of the Council's "discretion" is governed by distrust of the profession which they assume to represent.

That the association so remarkably constituted may do good work, I am willing to believe; but that an association founded on true representative principles would do infinitely better work, and influence public opinion more effectively, few can doubt. It can hardly be expected that the great mass of the profession, entertaining, as it does, earnest convictions upon the great question of freedom of scientific research, will be satisfied to be "represented" by an association in which it has absolutely no voice.—I am, etc., ROBERT BARNES.

15, Harley Street, April 24th, 1882.

INCISIONS FOR NEPHRECTOMY.

SIR,—Will you allow me to correct a slight error which occurs in the two recent reports of the Clinical Society, owing to the confusion of the name of Langenbeck with that of Langenbuch?

The former surgeon, so far as I am aware, has never performed the operation of nephrectomy; but Langenbuch has on three occasions excised a kidney. In his second and third operations, he used an abdominal incision external to the rectus muscle, and was thus enabled to reach the kidney, on the outer side of the colon, by dividing the outer layer of meso-colon. It was this incision to which I referred as the best, when an operation through the peritoneum has been determined upon; but I maintain that the extraperitoneal operation, in the loin, must always prove the safer for kidneys of such a size as to be capable of being extracted through the limited space there at disposal.

I rose chiefly to point out that an inverted L-shaped incision—the vertical limb running on the outer edge of the quadratus lumborum, and the other extending forwards and downwards near the margin of the ribs—gave the greatest space in this region. It is the incision I found myself compelled to adopt, and it has been employed by several operators who have followed, among whom I may mention Mr. Morrant Baker, Mr. Barwell, and Mr. Golding-Bird.—I am, your obedient servant, R. CLEMENT LUCAS, B.S.

Finsbury Square, April 21st, 1882.

SPECIAL CORRESPONDENCE.

VIENNA.

[FROM OUR OWN CORRESPONDENT.]

The General Hospital.—Dr. Chiari as a Necroscopist.—A Disadvantage of Specialism.—The Water-Supply and the Health of Vienna.—The proposed Hungarian University.—University News.

THE Hospital is just now very quiet; most of the special courses are still going on, but all the university lectures have stopped; the foreign students are one by one disappearing, and new ones (chiefly American and French) are gradually taking their place. Vienna has certainly reason to be proud of the number of students that attend the university; for, in the last winter session, it rose to the very high number of 4,823. These were divided among the various faculties as follows: theology, 226; law, 2,240; medicine, 1,412; philosophy, 769; and pharmacy, 176. Since the session 1877-78, the number of medical students has risen from 712 to 1,412.

The following rather good finish to a speech was made by a student, at a social meeting, which was convened to show the regard in which the students held Dr. H. Chiari. "In many here will the unspoken wish arise, that, should fate lead any one of us to the marble table, it may be granted him to have the *post mortem* examination performed by Dr. Chiari's hand." This was not mere flattery: for his rapidity and dexterity in performing necropsies is something remarkable. Out of curiosity I timed several, and found the average for an examination—including brain, larynx, stomach, three or four feet of intestines, and bladder—to be seven minutes.

Vienna is just now beginning to feel one of the evils of carrying specialism to its extreme; for it seems that there is no man of note in Austria who can be elected to fill the chair of medicine, vacant by the death of Professor Duchek. Of specialists, there are plenty; but no one who has devoted his time to general medicine. At present, Dr. Kretschy (for several years Duchek's assistant) is taking the duty, and a committee of the professors has been formed to consider the subject. According to the *Medicinishe Presse*, it is probable that a successor will be called from Germany; and that the choice will rest between Professors Erb of Leipzig, Eulenberg of Greifswald, and Nothnagel of Jena. All of these, however, but more especially the first, are specialists.

At a meeting of the "Gesellschaft der Aerzte", held lately, Professor Arlt read a paper on the influence of the "Hochquellen" water-supply on the health of Vienna. This supply was introduced in November 1873, and is derived from the mountains, about fifteen miles out of the town. Since this date, more and more houses have been supplied from it. A fall in the mortality from typhoid fever began in 1851, but the most important was in 1874. In 1855, it averaged 2.3 per 1,000; at present, it is 0.2. In 1874, in the houses supplied from this source, the mortality was 1.7 in every 100 cases of fever; in those supplied from other sources, 3.1. In 1877, the former had declined to 1 per cent., while the latter had risen to 10 per cent. This shows very clearly what an important effect the water-supply can have on a town. If the sanitary authorities would now devote a little time to the drainage, especially the closets, many of which are unpleasantly odoriferous, it might be possible to get Vienna into a still more healthy condition.

From Buda-Pesth, we learn that the report of the Committee of Professors, which was recently formed to consider the suitabilities of Szegedin, as the site of the third Hungarian University, has been adverse to that town. According to the report, this town, which is situated in southern Hungary, possesses a hospital; but it is so small, and its hygienic conditions are so unsatisfactory, that it would require to be rebuilt. A meeting also took place concerning Pressburg, which was rather more favourable, as its special qualifications are not inferior, and it has the advantage of being a more cultured town. Students might well be envied who had to study at so prettily situated a town as Pressburg.

Professor Eppinger of Graz has been appointed to the chair of Pathology in Prague; Dr. Chiari is spoken of as the probable Prosector here; and Dr. Weichselbaum as Kundrat's successor in Graz. Professor Kundrat has already commenced duties here.

MILITARY AND NAVAL MEDICAL SERVICES.

THE death of Surgeon-Major Pollard occurred on Sunday, April 25th, a few days after he had attained his fifty-first birthday. For six years he had been subject to locomotor ataxy.

MR. BARRAUD, of Gloucester Place, London, has published a large-sized and handsomely mounted portrait of Sir William Muir, A.M.D. It is a striking likeness, and an admirable example of artistic photography.

THE NURSING STAFF OF H.M. FLEET.

SIR,—Naval medical officers in general must have been surprised at learning, from the letter of a "Medical Officer", that such a staff existed. When "nurses" are required on board ships of war, they are selected by the principal medical officer, and approved of by the captain, generally from among the patient's messmates. The duties of the sick-berth staff are not those of nurses; and your correspondent will find, in Par. 1053 of the Queen's Regulations and Admiralty Instructions, that "the sick berth steward, attendants, and nurses, are to be entirely under his direction". This shows that nurses are provided independent of, and in addition to, the sick-berth staff.—Yours obediently, SENEX.

EXAMINATIONS OF VOLUNTEER SURGEONS.

SIR,—May I ask some of your military readers to inform me whether this examination is limited to surgeons holding commissions, or if any civil medical man having the desire to pass can do so? I presume the necessary arrangements for such examinations are made by the Army Medical Department through the regiment to which the officer belongs, or are they held at certain fixed times and places?—I am, yours truly, IGNORAMUS.

PROFESSOR VON ARLT.—The seventieth birthday of this well-known ophthalmic surgeon was celebrated in Vienna on April 18th.

PRESENTATION.—A large number of the friends of Mr. James Irvine waited on him last week at his residence in Belfast, for the purpose of presenting him with an address accompanied by a purse of sovereigns, as a mark of their esteem, and in order to testify their appreciation of the able manner in which he had discharged the duties of medical officer of Castlereagh district for the past thirteen years. The purse of sovereigns was intended for Mr. Irvine to purchase for himself a horse and vehicle.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS, Tuesday, April 25th.

The Lunacy Laws.—Mr. S. LEIGHTON called attention to the impropriety and danger of permitting private persons to make pecuniary profit by keeping in their custody lunatics of the wealthier classes, and to the unfairness of requiring the ratepayers to maintain lunatics of the middle and lower classes, and moved: "That all lunatics ought to be committed to the keeping of the State." The present system divided lunatics into two classes—the rich and the poor. It legalised speculation in lunacy, and encouraged large investments in houses for the sake of bringing profit to the owner, who was a mere trader in madness. It was well known that it was possible, by the administration of drugs, to retard the recovery of lunacy, and this temptation was especially strong to those who made their living in this way. He proposed that the State should become the proprietor of the licensed houses. The state of the pauper lunatic asylums was most unsatisfactory. They were filled with persons who were not paupers at all—men from the middle class, many of them holding commissions in the army and navy, clergymen, literary men, farmers, and shopkeepers. If the Government took over these asylums, a system of classification could be brought about, the subvention to local rates would be abolished, the association between pauperism and insanity would be got rid of, justice would be done to both rich and poor, and a scandal to our law would be removed.—Mr. GORDON, in seconding the motion, contended that lunacy ought to be dealt with by national management and at the national expense.—Mr. DILLWYN thought the Government ought to deal with the question of lunatics amongst the better classes.—Dr. FARQUHARSON thought that, although the present system laid medical men open to great temptation, it was much in their favour that it had been resisted.—Mr. HIBBERT said that he did not think any case had been made out for a change of system for closing private asylums, and for the State taking over and managing such institutions. If anything was wanted, it was in the direction of greater care and inspection, and much greater care before a lunatic was allowed to be sent to those institutions. The number of persons confined in private asylums, he found, had increased from 6,454 in 1871, to 7,741 in 1881; and that those confined in public asylums had increased from 56,735 to 73,113 in the same period. No case, he thought, had been made out for dealing with lunatics by the State differently from the way in which the pauper classes generally were dealt with. Personally, he should be sorry to see the day when the State would give anything directly in maintenance of the poor, which he believed would be a very dangerous innovation.—Mr. B. HOPE said the argument that a doctor in a private asylum might be tempted by lucre or gain to keep a patient longer than a doctor would in a public asylum fell to the ground when tested by figures. The fairest test was the average time of detention in a private as compared with a public asylum. In public asylums, patients were detained, on the average, for rather more than three years and seven months, and in private institutions rather less than two years and five months, which showed a difference of one year and two months in favour of the private asylums.—Sir R. CROSS said there were three points which particularly deserved consideration. The first was, how far there were sufficient safeguards for admission of lunatics into private asylums; the second, their treatment while there; and third, how they could get out when they were cured. The public were not convinced, as they ought to be convinced, that the greatest care was taken before a person was confined in an asylum; and what he wanted was that the public should have more assurance than at present that nobody was confined in private asylums unless there were ample grounds for his being confined. He recommended the Visiting Justices and the Lunacy Commissioners to make their visits at unexpected times.—Mr. DODSON could not see that it was any more the duty of the State to undertake the charge of persons in private asylums than it was to keep persons suffering from infectious diseases or similar complaints.—Mr. SCLATER-BOOTH said that what was wanted was that the wealthy and middle classes should have that ample security which the poorer classes of the community now enjoyed.—The House divided, the numbers being, against the motion, 81; for, 34; majority against, 47.

Medical Grant to Scotland.—Lord F. CAVENDISH said the Government had hoped to deal this Session with the general question of grants in aid; but having been reluctantly obliged to abandon that hope, they intended to temporarily meet the present anomalous state of things with regard to Scotland by moving for a medical grant of £20,000, instead of £10,000, which was the present amount allowed.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

POOR-LAW INFIRMARIES AND CORONERS' FEES.

SIR,—Poor-law medical officers are much indebted to you for the space you have devoted to the question of coroners' fees now in dispute between Dr. Danford Thomas and some of the medical officers of the London Poor-law infirmaries. It appears to me that this question, which has hitherto not been raised, must shortly come before a court of law, in order that it may be decided whether pauper infirmaries are public hospitals or infirmaries within the meaning of the Act, 6th and 7th William IV, cap. 89. I cannot think that any pauper institutions are public infirmaries, especially if I take into consideration the words in Clause v, "whether the same be supported by endowments or voluntary subscriptions", which are evidently inserted by way of explanation. If these words be read carefully, and full weight given to them, any doubt which might have existed as to the meaning of the clause without them must be, I think, at once removed.

As I gather from Mr. H. S. Moore's letter in the JOURNAL of the 8th inst., Dr. Danford Thomas considers he has the power to compel a medical witness to make a *post mortem* examination; in other words, that he has the power to compel a witness to "get up" evidence, or further evidence. If he have this power, it is a power which no other coroner has, or even ought to have; and if I thought I possessed it, I would, as a coroner, never exercise it. The coroner's warrant for a *post mortem* examination doubtless authorises the holder of the warrant to make it, and gives him legal power to do so. Ought it to do more?—Your obedient servant,

D. B. BALDING, F.R.C.S., Coroner for Herts.

Royston, April 17th, 1882.

NOTIFICATION OF NUISANCES.

SIR,—In your answer to Dr. Taaffe in the JOURNAL of April 15th, have you carefully considered the wording of the latter part of Section 259 of the Public Health Act, which seems to give the clerk to an authority power to institute, as well as to carry out, any legal proceedings within the powers of the authority? The question is an important one; and if your interpretation of the Act be correct, I fancy that many sanitary authorities will have to change their mode of proceeding.—I remain, sir, yours faithfully,

MICHL. THOS. SADLER.

Barnsley, April 18th, 1882.

*** In consequence of our correspondent's letter, we have again considered this question, and entertain no doubt that it is not legal for any official to be entrusted with a roving commission to prosecute at his unrestricted discretion. There must be a "resolution of such authority" in every case. The question has often been discussed, and nobody has ever tried to obtain the sanction of a superior court to the contrary view.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in Anatomy and Physiology, at a meeting of the Board of Examiners, on the 24th instant, and when eligible will be admitted to the pass examination.

Messrs. William Windley, B.A.Cantab., Hubert Nicholls, B.A.Cantab., and Thomas Brushfield, B.A.Cantab., students of the Cambridge School; Thomas H. Fisher, George H. Carrington, and Andrew M. Paterson, of the Manchester School; J. G. Garibaldi Corkhill and Thomas G. Laslett, of the Liverpool School; Henri J. Capron and Frederic Morton, of the Bristol School; Oliver Scattergood, of the Leeds School; Richard E. Genge, of the Westminster Hospital; David Milligan, of the Edinburgh School; George de J. Patterson, of the Dublin School; Horace Jefferies, of the Birmingham School; Herbert Mickle, of the Toronto School; and S. Lawson Deeble, of University College.

Seven candidates were rejected.

The following gentlemen passed on the 25th instant.

Messrs. Frank Rothera, George Mackay, Gustave P. Nicolet, Donald Paterson, and Charles W. M. Grier, of the Edinburgh School; Arthur N. Little, Frank J. Wethered, and Patrick H. Williams, of the Bristol School; Patrick C. Scott, B.A.Cantab., and Frederick W. Stericker, of the Cambridge School; George Cowen and Michael A. Ottley, of the Dublin School; Charles P. Walker, of Guy's Hospital; Frank H. Barendt, of the Liverpool School; Joseph A. Moon, of the Glasgow School; George H. Melson, of the Birmingham School; and Thomas W. Cundall, of the Leeds School.

Seven candidates were rejected.

The following gentlemen passed on the 26th instant.

Messrs. Frank J. Mackinnon, A. Ogier Ward, Thomas Kennedy, and George S. Carden, of the Edinburgh School; Samuel C. Jones and Campbell Williams, of University College; William T. H. Spicer, B.A.Cantab., and Thomas G Davy, of St. Bartholomew's Hospital; Christopher F. Wakefield and Samuel H. Agar, of Guy's Hospital; Robert W. Green, of the Leeds School; and Sydney C. E. Wright, of the Westminster Hospital.

Twelve candidates were rejected, including two who had an additional three months.

The following gentlemen, having undergone the necessary examinations, were admitted Members of the College at a meeting of the Court of Examiners on the 20th instant.

Messrs. John B. Sutton, L.R.C.P.Lond., L.S.A., Canonbury Square; and Louis Albert Dunn, L.S.A., Brighton.

Out of the sixty candidates examined, seven were approved in surgery, and when qualified in medicine will be admitted Members of

the College; and twenty-one candidates, having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for six months.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, April 28th, 1882.

Davies, John Charles, Rhosllanerchrugog, Ruabon.
Goodsall, John Kenaz, Burton Joyce, Nottingham.
Lovegrove, Thomas Ernest, Harman Road, Brixton, E.C.
Williams, John Henry, Llanidloes, Montgomeryshire.

The following gentlemen also on the same day passed their Primary Professional Examination.

Cree, Howard Eustace, Middlesex Hospital.
Leslie, George Herbert, Liverpool Royal Infirmary.

MEDICAL VACANCIES.

The following vacancies are announced :—

ALNWICK INFIRMARY—House-Surgeon. Salary, £100 per annum. Applications by May 6th.

BRISTOL GENERAL HOSPITAL—Assistant House-Surgeon. Salary, £50 per annum. Applications by May 4th.

BRITISH HOSPITAL, Buenos Ayres, South America.—Resident Medical Officer. Salary, £200 per annum. Applications by May 1st.

CHARING CROSS HOSPITAL, West Strand, W.C.—Assistant Surgeon. Applications by 15th May.

CITY DISPENSARY, 46, Watling Street.—Surgeon. Applications by May 5th.

CLINICAL HOSPITAL AND DISPENSARY FOR WOMEN AND CHILDREN, Park Place, Manchester.—House-Surgeon. Salary, £80 per annum. Applications to Mr. Edwin Marshall, Secretary, 38, Barton Arcade, Manchester, by 29th instant.

CLONAKILTY UNION—Medical Officer for Rosscarbery Dispensary District. Salary, £100 per annum, with £20 per annum as Medical Officer of Health, registration and vaccination fees. Election on the 3rd May.

CORK DISTRICT LUNATIC ASYLUM—Assistant Resident Medical Superintendent. Applications by May 1st.

COTTAGE HOSPITAL, Scotland.—House-Surgeon. Salary, £30 per annum. Applications to No. 161A, BRITISH MEDICAL JOURNAL Office, 161A, Strand.

EBBW VALE WORKS.—Surgeon to attend the workmen and their families. Applications to Mr. W. Dayson, Ebbw Vale Works, Mon.

ENNIS UNION—Second Medical Officer and Apothecary to the Workhouse, at a salary of £75 per annum.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge Road, S.E.—Registrar and Chloroformist. Salary, £30 per annum. Applications by the 15th May.

HANTS COUNTY HOSPITAL.—House-Surgeon. Salary, £100 per annum. Applications by May 6th.

HARTLEPOOL UNION—Medical Officer for the District. Salary, £50 per annum. Applications to the Clerk by May 17th.

HARTLEPOOL UNION—Medical Officer for the Workhouse. Salary, £65 per annum. Applications to the Clerk by May 17th.

MEDICAL MISSION TO CENTRAL AFRICA—Fully qualified Practitioner. Salary, £200 per annum. Applications to M. Smale, Esq., Secretary, G. S. L., 89, Seymour Street, Connaught Square, W.

MONAGHAN UNION—Medical Officer for Scotstown Dispensary District. Salary, £120 per annum, with £15 yearly as Medical Officer of Health, registration and vaccination fees. Medical Officer must reside in dispensary house, Scotstown, let at nominal rent of £10 per annum. Election on the 2nd May.

ROYAL HANTS COUNTY HOSPITAL—House-Surgeon. Salary, £100 per annum. Applications by May 6th.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL, St. George's Circus Southwark.—Clinical Assistant, three days per week. Salary, £25 per annum. Applications by May 6th.

SOUTH YORKSHIRE COUNTY LUNATIC ASYLUM, Wadsley, near Sheffield.—Third Assistant Medical Officer. Salary, £100 per annum. Applications to Dr. Mitchell by the 8th May.

ST. GEORGE'S HOSPITAL.—Physician. Applications by the 11th May.

ST. GEORGE'S HOSPITAL.—Assistant-Physician. Applications by the 11th May.

SURREY COUNTY LUNATIC ASYLUM, Brookwood.—Junior Assistant Medical Officer. Applications by May 1st.

TORBAY HOSPITAL AND PROVIDENT DISPENSARY, Torquay.—Junior House-Surgeon and Dispenser. Salary, £90 per annum. Applications by May 22nd.

UNIVERSITY COLLEGE, W.C.—Jodrell Professorship of Zoology. Salary, £288 per annum. Applications by the 8th May.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Surgeon. Salary, £80 per annum. Applications by May 6th.

WEST RIDING LUNATIC ASYLUM, Wakefield.—Resident Clinical Assistant. Applications to Dr. Herbert Major, Medical Superintendent.

WILTS COUNTY ASYLUM—Assistant Medical Officer. Salary, £120 per annum. Applications by 17th May.

MEDICAL APPOINTMENTS.

BOURKE, J. McW., M.B., appointed Surgeon to the Chelsea, Brompton, and Belgrave Dispensary, *vice* H. Mackintosh, M.D., resigned.

CHAFFEY, W. C., M.B., appointed Junior Resident Medical Officer to the General Hospital for Sick Children, Pendlebury, Manchester, *vice* A. F. Street, M.B., resigned.

COX, L. F., M.R.C.S., appointed Medical Superintendent to the North Wale Counties Lunatic Asylum, Denbigh, *vice* W. Williams, M.B., resigned.

CULLINGWORTH, Charles J., M.D., M.R.C.P.L., appointed Physician to St. Mary's Hospital for Women and Children, Manchester.

DAVIES, David, M.R.C.S.Eng., reappointed Medical Officer of Health for the Stapleton Urban Sanitary District, Gloucestershire.

DIXEY, H. E., M.D., appointed Surgeon to the Malvern Rural Hospital, *vice* W. Tyrrell, M.R.C.S., resigned.

FLETCHER, H. B., L.S.A., appointed Junior Assistant House-Surgeon to the Sheffield Public Hospital and Dispenary.

HADDEN, W. B., M.D., appointed Medical Officer to the Emperor Life Assurance Society, *vice* R. C. Croft, L.R.C.P., deceased.

HOVELL, T. Mark, F.R.C.S.Ed., appointed Assistant Aural Surgeon to the London Hospital.

HUGHES, John, F.R.C.S.Eng., reappointed Medical Officer of Health for the Carmarthen Urban Sanitary District for three years.

KERSWILL, John B., M.R.C.P.Ed., appointed Medical Officer of Health for the St. German's Rural Sanitary District.

LONG, H. P., M.R.C.S., appointed Medical Officer for the Workhouse to the Mere Union, *vice* J. Chilcot, M.R.C.S., resigned.

LYDEN, M. A., L.R.C.S., appointed Medical Officer for Castlebar Dispensary District, *vice* G. A. O'Connor, L.R.C.P., resigned.

MACSWINEY, C. H., L.K.Q.C.P.I., appointed Medical Officer for Gurteen Dispensary District to the Boyle Union, *vice* A. D. Peyton, L.K.Q.C.P.I., resigned.

PHILLIPS, E., L.R.C.P., appointed Assistant Resident Medical Officer to the Children's Hospital, Birmingham.

RANSOME, A., M.D., appointed Honorary Physician to the Hospital for Consumption and Diseases of the Throat, Manchester, *vice* J. S. Fletcher, M.D., resigned.

SILK, J. F. W., M.B., appointed House-Physician to the General Infirmary, Leeds, *vice* A. G. Barrs, M.B.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., *which should be forwarded in stamps with the announcements.*

BIRTH.

BLENKARNE.—On April 20th, at West Street, Buckingham, the wife of W. l'Heureux Blenkarne, M.R.C.S., L.S.A., a daughter (Blanche Annie).

MARRIAGE.

ADAMS—VEVERS.—April 20th, at St. James's Church, Piccadilly, by the Provost of Worcester College, Oxford, assisted by the Rev. Dacre Craven, brother-in-law of the bridegroom, the Rev. Edward Charles Adams, M.A., Fellow of Worcester College, of "The Lindens", St. Leonard's, to Jane Elizabeth, second daughter of Henry Vevers, Esq., of Hereford, President of the Worcester and Herefordshire Branch of the British Medical Association.

THE jubilee of Professor Henle's graduation as doctor of medicine was celebrated in Göttingen on April 4th. A bust of the eminent professor was unveiled in the anatomical department of the university.

MR. ARTHUR FLINT, L.R.C.P., of Westgate-on-Sea, has been unanimously elected to the Rural Sanitary Authority and Joint Hospital Committee of the Board of Guardians of the Isle of Thanet Union.

SOCIETY OF APOTHECARIES.—At a Court of Assistants of the Society of Apothecaries of London, held at their Hall, Blackfriars, on the 21st March 1882, it was resolved unanimously: "That this Society desire humbly to express to Her Most Gracious Majesty the Queen their feelings of deep indignation at the recent attempt upon her valuable life, and their hearty thanks to Almighty God for her providential deliverance from so great a danger."

METROPOLITAN PROVIDENT MEDICAL ASSOCIATION.—A meeting was held at the Mansion House on the 26th instant, under the presidency of the Lord Mayor, to support the efforts of the Metropolitan Provident Medical Association to extend self-supporting and self-governing provident dispensaries throughout the metropolis. The Right Hon. James Stansfeld, M.P., the Chairman of the Association, moved the first resolution: "That, in the opinion of this meeting, the formation of self-supporting and self-governing provident dispensaries in co-operation with hospitals will conduce to beneficial relations between the medical profession and the working classes, by securing due attention to the medical needs of the latter on reasonably paying and non-pauperising terms, and by relieving the overcrowded out-patient departments of the hospitals." Referring to the great existing out-patients' departments at our hospitals, with their vast system of indiscriminate relief, he said they were not only a heavy weight to those institutions, but injurious to the community at large, as they tended to pauperise and to demoralise the habits of the inhabitants of this metropolis. It had been found that many were desirous to give substantial help to a provident dispensary who would not take shares in the company that had been first formed. It had therefore been determined to open "The Dispensaries Preliminary Expenses Fund". The resolution was seconded by Mr. Timothy Holmes, and carried unanimously. Another resolution, pledging the meeting to support the association, was also carried.

THE METEOROLOGICAL SOCIETY.—The monthly meeting of this society was held on April 19th, at the Institution of Civil Engineers, 25, Great George Street; Mr. J. K. Laughton, F.R.A.S., president, in the chair. A paper was read on "Barometric Gradients, Wind Velocity, and Direction at the Kew Observatory," by Mr. G. M. Whipple and Mr. T. W. Baker. For the purpose of investigating the subject of the relation of the force and direction of the wind to the distribution of barometric pressure, the authors had discussed the Kew Observations for the five years 1875-79. The results showed that the rate at which the wind blew increased almost directly with the inclination of the gradient in an arithmetical proportion, the mean rate of increase being 1.85 mile per hour for each additional ·0025 inch of difference in the barometer readings at each end of the slope. The authors found that the angle at which the wind crossed the line of gradient at Kew did not vary with either the steepness of the gradient or the velocity of the wind to any material extent, and also that the angle was found generally to lie between 40° and 60°, the average of the whole series of observations giving a deviation of 52°. A paper was also read on "Difference of Temperature with Elevation," by Mr. George Dines. The author gave a summary of his observations made at Walton-on-Thames during the last six years. Two stands, almost identical in size and construction, were used, one being placed on the ground, and the other on the top of the tower of the house; the bulbs of the thermometer in the former being four feet, and in the latter fifty feet, above the ground. The results showed that the average maximum temperature for every month was always greater, and the average minimum lower, on the ground than on the tower.

HEALTH OF FOREIGN CITIES.—A table in the Registrar-General's last weekly return supplies the following facts and figures, which may be accepted as trustworthy indications of the recent health and sanitary condition of various foreign and colonial cities. According to the most recently received official weekly returns, the annual death-rate averaged 29.3 per 1000 in the three principal Indian cities, and was equal to 26.8 in Calcutta, 32.7 in Bombay, and 38.3 in Madras; cholera caused 30 deaths in Calcutta and 25 in Madras, measles 44 in Bombay, and small-pox 12 in Madras. No returns have been received from Alexandria since the end of March. In twenty-one European cities, the death-rate averaged no less than 32.6, and exceeded by no less than 9.9 the average rate prevailing last week in the twenty-eight large English towns. The death-rate in St. Petersburg was again so high as 56.4; the 722 deaths included 86 fatal cases of typhoid and typhus fevers, and 26 of scarlet fever. In three other northern cities —Copenhagen, Christiania, and Stockholm—the death-rate averaged 27.2; measles, however, caused 13 more deaths in Copenhagen. In Paris, the death-rate rose again to 30.4, and the 1300 deaths included 70 from diphtheria and croup, 37 from typhoid fever, and 28 from small-pox. In Brussels, the rate further rose to 25.3, and 3 fatal cases of "fever" were reported. In Geneva, the rate was equal to 29.3. In the three principal Dutch cities, the death-rate averaged 25.6; the deaths in Amsterdam included 5 fatal cases both of measles and whooping-cough. The Registrar-General's table includes returns from nine German and Austrian cities, in which the death-rate averaged 32.9, ranging from 24.8 and 25.1 in Berlin and Hamburg, to 43.0 in Vienna and 44.2 in Buda-Pesth. Small-pox caused 25 more deaths in Vienna, 5 in Buda-Pesth, and 3 in Prague; diphtheria showed fatal prevalence in Berlin, Dresden, and Vienna. In two of the principal Italian cities, the death-rate was equal to 26.0 in Turin and 30.0 in Venice; measles caused 4 and diphtheria 7 deaths in Turin. The annual death-rate in four of the largest American cities averaged 27.8, and ranged from 23.1 in Baltimore to 32.9 in New York. Small-pox caused 14 deaths in New York and 4 in Philadelphia. Scarlet fever showed fatal prevalence in New York and Brooklyn; and 17 fatal cases of typhoid fever were recorded in Philadelphia.

RESECTION OF THE SPINAL ACCESSORY NERVE.—AT a recent meeting of the Paris Academy of Medicine, M. Tillaux gave the history of a patient whom he treated for torticollis, accompanied with violent pain in the left region of the occipito-vertebral articulation. She had previously been treated by induction currents and magnets; also by metallotherapy, continuous currents, bromide and iodide of potassium; but without success. M. Tillaux divided the sterno-mastoid muscle, and, for some time after the operation, the patient appeared to be cured, but eventually the pains returned, and her head was again drawn to the right side. M. Tillaux kept the patient in his wards for eighteen months, and ultimately decided to resect the spinal accessory nerve. The pain was much less violent after this operation, and the head was only slightly drawn to the right side. This improvement still continued. Claude Bernard considered the spinal accessory nerve to play an important part in the function of the voice. In the patient, this function was not disordered.

OPERATION DAYS AT THE HOSPITALS.

MONDAY..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S. 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S. 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2 o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., Tu F., 2; Eye, Tu F., 9.15; Ear, M. Th., 2; Skin, Tu. Th., 1.30; Throat, M. Th., 1.45 Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2 o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30 Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. T F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15 Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical daily, 1.30; Obstetric, Tu. F., 3; Eye, M Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Dr. E. Symes Thompson wi deliver the Annual Oration, after which a *conversazione* will be held.—Odonto logical Society of Great Britain, 8 P.M. Mr. Steele: Caries. Casual com munications.

TUESDAY.—Pathological Society of London, 8.30 P.M. Specimens—Dr. Dickin son: Cancer of the Sigmoid Flexure. Dr. Douglas Powell: 1. Specimens o Intestinal Obstruction; 2 (with Mr. Sutton) Dissection of Nerves, etc., fro Addison's Disease. Mr. Boyd: Embolism of Pulmonary Artery; Rupture o Œsophagus. Dr. Angel Money: Caries of Sacrum. Dr. Lediard (of Ca lisle): Tumour from Spinal Cord. Mr. Pearce Gould: Lateral Asymmetry o Bones and Brain. Dr. Whipham: Aneurysm of Aorta causing Bilateral Par lysis of Vocal Cords. Mr. Harrison Cripps: Disseminated Polypi of Rectum Dr. Stephen Mackenzie: 1. Ulcerative Endocarditis; 2. Ulceration of Larg Intestine. Card specimens—Dr. S. West: Defects in Valves of Heart, et Dr. Hale White: Œdema of Vocal Cord from Aneurysm of Aorta; Suppura tion around Kidney, etc.

WEDNESDAY.—Obstetrical Society of London, 8 P.M. Specimens will be show Dr. W. A. Popow: On the Corpus Luteum. Dr. John Williams: On th Natural History of Dysmenorrhœa.—Epidemiological Society of Londo 8 P.M. Dr. Sonsino (of Cairo): Filaria Sanguinis Hominis.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE ATTRACTION TO EDINBURGH.

SIR,—Referring to the letter under this heading in the JOURNAL of April 1st, I beg leave to make the following remarks. 1. I take it for granted that Scottish universities and medical schools do not exist solely for the use of Scotchmen, any more than English or Irish universities and medical schools exist solely for the use of Englishmen or Irishmen. All universities and medical schools must be considered as the common property of the United Kingdom; and this has become more especially the case, so far as medicine is concerned, by the passing of the Medical Act, which extended the qualifications granted by these bodies to the whole empire, whereas before they were limited to their respective countries. 2. In choosing a medical school, students or their guardians are usually actuated by such considerations as: first, the quality of the teaching and the facilities for study; second, the possibility of getting, at the place of study, a legal qualification to practise; third, the entire cost. 3. Now, I think there can be no doubt of the excellence of the Edinburgh teaching, whether it be conducted by the professors of the university or by the large and complete staffs of the other two flourishing medical schools. The facilities for study are ample, and the student for the licences of the Colleges of Physicians and Surgeons can pick his teachers from any one or all three of the schools. The town itself does not offer in so large a degree the temptations which assail and distract the London student; and the atmosphere is decidedly academical and professional.

Again, by the happy agreement of the College of Physicians with the College of Surgeons, a conjoint examination is held by representatives of both Colleges, so that students may obtain at once the diplomas of both Colleges—an arrangement which, although much desired, the two London Colleges have not yet been able to effect. By this conjoint scheme, the unnecessary expense of both time and money is saved by the Colleges and the students—a matter of much consideration to the latter, who thus escapes the expense and absurdity of a second similar examination.

Finally, the cost of living and the class-fees being smaller than in England, the student effects a considerable saving in his four years' curriculum.

These, sir, are, I believe, the true causes of "the attraction to Edinburgh". As for the other reasons which your correspondent implies to exist, they may be left to those who wish to believe them, and to work out their own eradication. Comparisons between different examinations and qualifications are invidious; and I think your correspondent should have rested content with his belief in the pre-eminence of his university, and trusted to her children, by their professional ability and otherwise, to maintain her good name. On the other hand, so far as those are concerned who prefer to take their physicians' and surgeons' licences from the two Colleges, your correspondent may set his mind at rest. They will never reflect anything but credit on the Edinburgh School; and I know, from personal experience, that they ably hold their own amongst the profession generally. Altogether, I feel much inclined to remark upon your correspondent's letter—"trop de zèle', "trop de zèle".—I am, sir, yours faithfully, M.B. ST. AND.

SIR,—I shall feel obliged if you will kindly allow me space for a few words in reply to the letter of "Civis Acad. Edinensis". The writer of that letter has seized on a very slender pretext to draw an invidious distinction between the Royal Colleges of Physicians and Surgeons of Edinburgh, and the university of which he claims to be a graduate. His remarks are as uncalled for as they are offensive to the colleges named, and to the great mass of Edinburgh licentiates, not to speak of the class of gentlemen whom he designates the "plucked ones". Could anything be more gratuitously offensive than the statement that "there is a widespread idea among the unsuccessful that the Edinburgh colleges are a haven to which they can stretch their poor plucked wings, and finds a certain rest"? Again: "If it (the examination) be not inferior, it is cruel not to undeceive these plucked ones, and also injurious to the reputation of the Edinburgh Medical School". What a burst of sympathy and pity is here expressed for the poor "plucked ones", and for the welfare of the Edinburgh medical schools! Had the writer known anything of the requirements for the double qualification, and how the examinations are conducted at Edinburgh, he might have paused before making such an insinuation. He would have learned, had he inquired, that an avowal of the standard of these examinations is made, and he would also have learned that an idea which at one time gained some belief, that Edinburgh opened it doors to students who were unsuccessful elsewhere, has years since been exploded; and that, if ever there was anything to justify it, things are greatly changed, and now the examinations for the double qualification are as extensive and as strict as they can well be made. Indeed, there are no other examining boards who give a more thoroughly searching, practical examination. I have known several gentlemen, some of them prizemen and gold medallists of the Queen's University, who went to Edinburgh for the double qualification, and were rejected. I mention the late Queen's University, because the very high standard of its examinations is so well known and acknowledged, that no one will venture to question it. The assertion about the Edinburgh qualification is entirely at variance with fact. Englishmen everywhere, no matter where they have graduated, value it as much as any other, provided the holder can claim their respect; while, in America and the colonies, it is very highly appreciated. I state this from personal knowledge.

A short time ago, I had a promise of a very good post in Australia, when ready, and the Edinburgh qualification was almost made a *sine qua non* to obtaining it, or going there at all. The attraction to Edinburgh is undoubtedly great, and deservedly so, not because diplomas are more easily procured there than elsewhere, but that it affords a good qualification in any part of the civilised world. Considering the large numbers who go for the diploma, many of whom are doubly qualified beforehand, there is nothing wonderful that, out of the small number who passed at the last examination, only three were Scotchmen. There is nothing to warrant the assumption that this is an average proportion, or that Scotchmen do not avail themselves to the fullest extent of their own examining board.

"Civis Acad. Edinensis" need, therefore, have no fear that he will be considered as having entered the profession by the "back door", or that the university for whose reputation he is so much concerned will be considered inferior to any other, so long as it maintains its present high standing. But he has taken the surest means of depreciating it by the want of confidence he has shown in asking for the republication of a meaningless paragraph from a local newspaper, which he uses as a lever to raise a discussion on the supposed "pre-eminence" of the one, and the imaginary demerits of the other. A war of schools can only end in jealousy, and bad feeling, which should not be allowed to creep in amongst us. If any change be needed in the medical schools, it is to make their teaching less theoretical and more practical. I do not undervalue extensive reading; it is what I contend for; but I know it is quite possible to make an advanced study of a specified set of text-books so compulsory, that the future student of medicine will be obliged to "cram" incessantly in order to satisfy the examiners at the end of his four years; and after he is qualified, he must set about learning his practical work. The Edinburgh Colleges have, with commendable judgment, made their examinations so practical, while they demand a thorough knowledge of every subject usually required from candidates, that they can well afford to bear a shot from a masked battery, especially when one looks over the list of eminent men who have qualified there, and so long as their diplomas are held in such favour as they are at the present day. I trust they may continue to send as good men into the profession as they have hitherto done, without either fear or favour from without.—I am, sir, yours faithfully, EDIN.

SIR,—It seems strange to me that the *Edinburgh Evening News* and "Civis Acad. Edinensis" should want to be enlightened upon a subject which, I should think, was very clear to anyone who had lived in Scotland, or knew about medical education in Scotland. After I had lived in Scotland a few weeks, I could scarcely understand how any Scotchmen ever thought of going up for the L.R.C.P. or L.R.C.S. Scotland possesses three sterling universities, where a student who takes up medicine can obtain a sound medical education for the medical degrees the university confers, at about the same expense as if he took the double qualification, and only a little more studying; for he is taught up to the standard of the examinations of the university at which he is. Is it very likely he will go in for ordinary diplomas when he can obtain the M.B., C.M., so easily?

The English student cannot obtain a degree unless he keeps residence at some university, and perhaps he does not think of that until he has spent his four years at some London hospital; and being, perhaps, without money, or not having time to go in for four or three examinations, he gladly avails himself of the double qualification where he is examined only twice, and can get the two diplomas for £20. If the College of Physicians and the College of Surgeons or the Societies of Apothecaries were to combine together and give two sensible examinations, and charge about twenty-one guineas for the two diplomas, I do no think your correspondent need have asked the question.

I will not enter into the merit of the examination of the two combined colleges, for I think the silent contempt with which the authorities at Edinburgh have treated uncomplimentary remarks that have from time to time appeared in the JOURNAL sufficient answer to any remarks on them.—I am, your obedient servant, M.B.

SIR,—Had "A. T." passed an examination on the last "Students' Number" of your JOURNAL, as well as in Hindustani, he would probably have been able to give an explanation to "Civis Acad. Edinensis", which would have been more consistent with facts than is the case in his letter to you this week. The laity in England have, as a rule, very hazy notions concerning medical degrees and qualifications, especially Scotch ones; but it is a little surprising that a medical practitioner—as I take "A. T." to be—should be ignorant of the distinctions between the University and the Colleges of Physicians and Surgeons of Edinburgh. The L.R.C.P.Ed. is certainly not a very difficult degree to obtain, but that is not due to the absence of chemistry in the examinations, as the regulations state that candidates are examined in that subject.

The facility with which the Edinburgh University degree can be obtained, exists only in the minds of such as "A. T."; as it is well known that the M.B.Ed. is a guarantee of thorough training for at least four years (two of which must be at an university); and is to be obtained only after a searching examination in all the branches in which a medical man ought to be proficient, as well as in chemistry, botany, and natural history.—I am, yours truly, R. O. L.

London, April 15th, 1882.

PERCUSSION AS A THERAPEUTIC AGENT IN NERVOUS DISEASES.

SIR,—With reference to Dr. Granville's article in the JOURNAL of March 11th, on the above subject, I should like to state that, some time ago, I was informed, by an officer who had been a good deal in Japan, and knew something of the habits and customs of the Japanese, that light percussion (immediate) by the fingers or knuckles of both hands, is a very common remedy there for any sort of pain. Percussion with them is generally accompanied by kneading and rubbing of the part affected.

The force applied during percussion varies according to the part affected, an my informant was operated on by the stretched out fingers for severe headache, and derived much benefit from it. He had also seen a case of constipation, which was attempted to be relieved by "circular" percussion around the umbilicus; but the treatment did not succeed, and the intestine was consequently opened through the abdominal wall, and the patient's life saved. "Percussion" with them means also "patience", for a Japanese operator thinks nothing of continuing the process for one or more hours. It is much recommended by the native doctors, and frequently practised by the blind.—Yours faithfully, J. H. ANDERSON.

H. M. S. *Salamis*, April 10th, 1882.

INFANTILE PARALYSIS.

SIR,—In reply to Dr. Francis's query, in the JOURNAL of the 15th instant, I would recommend him to apply for the appliance he requires to Mr. Bigg, 56, Wimpole Street, Cavendish Square, whose inventive genius is well known in such matters. Faithfully yours, ANDREW SPEARING.

Shaw, Oldham, April 17th, 1882.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

MEDICAL ATTENDANCE ON RAILWAY PASSENGERS.

SIR,—In two instances, I have been summoned by a servant of a railway company to give medical assistance to passengers taken ill at their station. In both cases, the messenger was sent by the person in chief authority at the station. I have sent in a claim to the company, which, however, they repudiate. Will you kindly inform me in your answers to correspondents whether I can recover the amount of my claim in the county court, and if so, cite some legal authority which I may make use of. I think you will see that the question is one which materially affects the profession at large.—Yours faithfully, H. G. ARMSTRONG.

160, Friar Street, Reading, April 17th, 1882.

*** Upon referring to the only two cases reported relating to the query of our correspondent, we regret to state that he cannot legally recover his claim against the railway company for the medical services rendered by him to the sick passengers at their station. In the case of "Cox *v.* the Midland Railway Company", it was decided, in the Court of Exchequer in 1849, that it is not incident to the employment of a station-master of a railway to enter into a contract with a surgeon to attend a passenger injured by an accident on such railway, and therefore the defendants, on whose railway a passenger was injured by an accident, were not liable to the plaintiff, a surgeon, who sued them for medical services rendered to the former at the request of one of their station-masters. In delivering the judgment of the court, Mr. Baron Parke remarked that "It is not to be supposed that the result of our decision will be prejudicial to railway travellers who may happen to be injured. It will rarely occur that the surgeon will not have a remedy against the patient, who, if he be rich, must at all events pay; and, if poor, the sufferer will be entitled to compensation from the company, if they by their servants have been guilty of a breach of duty, out of which he will be able to pay the surgeon's bill, for that is always allowed for in estimating the damages. There will, therefore, be little mischief to the interests of the passengers, little to the benevolent surgeons who give their services; but it would be a serious inconvenience to the public if the rule of law, as applicable not merely to railway companies, but to all partnerships and individuals, as to the extent of authority given to an agent, were relaxed out of a compassionate feeling, which it is difficult not to entertain towards the suffering party, the present plaintiff." In the case, however, of "Walker *v.* the Great Western Railway Company", decided in the same court in 1867, it was held that the general manager of a railway company had an implied authority to engage a medical man to attend upon a servant of a company who suffers an accident on a railway, and that, therefore, the company were liable for his fees.

VERTIGO AMONGST COAL-MINERS.

SIR,—In answer to "A Junior Member's" letter in the JOURNAL of April 8th, under the above heading, I write to say that this vertigo is always associated with, and is probably due to "Miner's Nystagmus". Its proper treatment is to discontinue the cause—mining; to improve the general health and nutrition; while the internal administration of iron and strychniæ seems to be beneficial.

In the BRITISH MEDICAL JOURNAL for July 30th, 1881, "A Junior Member" will see a letter by myself giving an epitome of the symptoms, etc., in these cases, and references to the writings of others, both here and on the Continent.—Yours truly, HENRY EALES.

7, Newhall Street, Birmingham, April 12th, 1882.

REPORTS ON CRIMINAL LUNATICS.

MR. W. J. LUND (Tunbridge).—1. A report of the Broadmoor Criminal Lunatic Asylum is published every year, and a copy is sent to the library of the College of Surgeons, and another to that of the College of Physicians. Copies are also sent to the medical journals. 2. Criminal lunatics are detained at Broadmoor as long as it may be desirable and necessary in the interests of the public safety. The discretion with respect to granting a discharge is vested by statute in the Secretary of State for the Home Department. It does not necessarily follow that a criminal lunatic is discharged immediately the attack of insanity has passed off. Full details with respect to persons discharged are published in the annual reports of Broadmoor. The Commissioners in Lunacy also give, in their annual reports, particulars with respect to this matter. We are not aware of any published reports in detail with respect to criminal lunatics at Fisherton House Asylum; but the bulk of persons acquitted on the ground of insanity are sent to Broadmoor.

CHLOROFORM.

SIR,—In my letter on chloroform, I state that Mr. Wingate of Liverpool introduced the drug to Dr. Simpson. I am now corrected by reading a paper, showing that it was Mr. Waldie who introduced it to the professor.—Yours truly,

119, Shaw Street, April 14th, 1882. B. BLOWER.

INVERSION OF THE UTERUS.

SIR,—I saw Mrs. T. on the night of March 2nd. She had been delivered two hours previously, the placenta being retained. The midwife removed it, but, in doing so, pulled down the uterus along with it. On my arrival, I found that my assistant (who had been called to the case, and, seeing its nature, sent for me at once) had, by compressing the inverted mass, controlled the hæmorrhage, which had been serious. I found the woman almost pulseless, and, fearing the delay likely to arise if I attempted to reinvert, I returned the uterus *en masse*, and then reinverted it by making steady pressure against the fundus for a short time. Under a steady and not too great pressure, reinversion gradually took place. The woman made a rapid recovery without a bad symptom, and is now going about.

A few years ago, I was called to a case similar to this. Unfortunately, the woman lived at a greater distance from my residence, and before I could reach her she died. If these cases have no great interest in themselves, I think they show that the midwives in the country should be under some supervision.—I am, etc., WILLIAM DONOVAN.

Whitwick, April 10th, 1882.

BORACIC GLYCERINE.

SIR,—It appears to me that it might be worth while that the boracic glycerine, which has been found so successful by Professor Barff in arresting the putrefaction of meat, should be tried in antiseptic surgery; an adequate aqueous solution of it would be far less irritating, as well as less poisonous, than carbolic acid, and it might prove equally efficacious.—I am, your obedient servant,

BALMANNO SQUIRE.

24, Weymouth Street, Portland Place, W., April 5th, 1882.

UNDERTAKERS ON COMMISSION.

THE connection between doctor and undertaker has, says the *Pall Mall Gazette*, been a grim joke from time immemorial; but it would appear, from a letter published in an evening contemporary, that there are not wanting undertakers who look upon it as a pure matter of business. One of these gentlemen addresses private and confidential circulars to medical men, offering them a commission on any "cases" that they may put into his hands. His terms vary from 5 per cent. on a £5 funeral to 20 per cent. on a £20 funeral, and he is probably quite capable of offering 50 per cent. on a £100 funeral. He hints as much, indeed, by adding "so on in proportion". The circular, however, does not go beyond the 20 per cent., and the figures show that he only expects to trade upon the humbler class of mourners. That any class of medical men would listen to such overtures we should be loth to believe, and all who are solicited in the same way would do well to follow the example of sending the circular to the papers—name and address of the enterprising undertaker included.

F. H. W.—1. Killing an animal does not come under the Act for regulating "experiments upon living animals calculated to give pain" (clause 2). 2. When an animal is dead, you may do what you please with its body. 3. Pithing a frog so as to destroy the brain has been decided officially (as well as by the laws of nature) to be killing it. Therefore, you may do what you please with an animal after it has been killed by pithing.

STAMMERING.

SIR,—I should feel greatly obliged if any of your readers would give their experience as to the treatment of stammering.—Yours, etc., DEMOSTHENES.

C. W. G.—In every case in which a medical practitioner is called to visit a patient who is at the time under the care of another medical man, professional etquette requires that he should at once communicate the fact to the medical man already in attendance; and he ought not to continue his attendance unless specially desired by the patient or the patient's friends to do so.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Mr. Watson Cheyne, London; Mr. H. E. Allen, London; Mr. T. M. Hovell, London; Dr. Styrap, Shrewsbury; Mr. E. G. Archer, Thetford; Dr. J. Ramsay, York; Dr. T. O. Dudfield, London; Mr. Litton Forbes, London; Dr. Broadbent, London; Mr. K. W. Millican, Kineton; Dr. W. B. Hadden, London; Dr. E. Woakes, London; Mr. B. C. A. Windle, Dublin; Mr. A. Stewart Brown, London; Mr. A. T. Winterbottom, Manchester; Mr. Hugh Hughes, Bangor; Mr. T. Whitehead Reid, Canterbury; Mr. Arthur Jackson, Sheffield; Dr. A. Sheen, Cardiff; Dr. Ford, Portsea; Our Glasgow Correspondent; Dr. Creighton, London; Mr. A. Childs, Crewe; A Member of the Association; Dr. Glascott, Manchester; Our Dublin Correspondent: Dr. J. Spottiswoode Cameron, Huddersfield; Dr. Fairlie Clarke, Southborough; Dr. Dougal, Strathaven; Dr. Robert Barnes, London; Mr. B. Blower, Liverpool; Mr. E. S. Newton-Clare, Calne; Our Aberdeen Correspondent; Mr. A. Teevan, London; Mr. E. White Wallis, London; Dr. Allchin, London; Mr. W. C. Blackett, Durham; Mr. H. Vevers, Hereford; Mr. Flint, Westgate-on-Sea; Dr. A. Downs, Chelmsford; Mr. J. R. Buck, Worcester; Mr. A. Wynter Blyth, London; Dr. Saundby, Birmingham; Mr. R. Clement Lucas, London; Dr. C. W. Suckling, Birmingham; Mr. J. F. W. Silk, Leeds; Mr. H. H. Muggeridge, Ashford; Dr. H. Sutherland, London; Dr. J. Crichton Browne, London; Mr. H. Rooke Ley, Prestwich: Dr. Stirling, Aberdeen; Mr. J. Farrar, Morecambe; Mr. H. T. Twyman, London; Messrs. E. Greenwood and Co., London; Dr. Cronin, Queenstown; Mr. Herbert Thompson, Sevenoaks; Mr. A. E. Livsey, Walton, Liverpool; Dr. J. Macpherson, London; Mr. A. B. Jay, London; Mr. F. A. C. Fletcher, Crosshills, Leeds; Messrs. Charles Griffin and Co., London; Mr. G. Buckston Browne, London; Mr. B. Barker, London; Dr. Stevenson, London; Mr. Arthur Milman, London; Sir Edmund Lechmere, London; Mr. Reginald Harrison, Liverpool; Mr. J. M. Sharpe, Farnley; Dr. Collie, Homerton; Mr. F. H. Weekes, York; etc.

BOOKS, ETC., RECEIVED.

Zur Entwickelungsgeschichte des Spondylolisthetischen Beckens und seiner Diagnose Von Dr. Med. Franz L. Neugebauer. Halle: Niemeyer. Dorpat: Krüger. 1882.

Medical Lexicon. By Elias Longley. London: H. Kimpton. 1882.

What to do in Case of Poisoning. By W. Murrell, M.D., M.R.C.P. London: H K. Lewis. 1882.

A Practical Treatise on the Diseases of Children. By J. Forsyth Meigs, M.D., and W. Pepper, M.D., LL.D. London: H. K. Lewis. 1882.

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CROONIAN LECTURES
ON THE
CLIMATE AND FEVERS OF INDIA.

Delivered before the Royal College of Physicians of London.

By SIR JOSEPH FAYRER, K.C.S.I., M.D., F.R.S.,
Physician to the Secretary of State for India in Council.

Lecture III. Part II.—*Concluded.*

Enteric Fever.—It was not until the year 1853, when attention was called to certain pathological changes in the intestines of persons dying of fever in India, that it began to be suspected that protracted and fatal cases were identical with the typhoid of England. Careful observation of the morbid appearances after death, and the symptoms and progress of the disease during life, led observers to believe that the diseases were one and the same, modified, it might be, by climate and the influence of malaria; and in a few years typhoid fever became fully recognised as a prevalent and fatal form of disease, especially among young and susceptible Europeans, a class notably represented by the young soldiers of our army in India. Annesley had left it on record that he had never remarked any appearance of fever from a specific or contagious source in India, and that, although believing in the influence of infection as regards the continued adynamic fever of temperate climates, he had never, during an experience of thirty-seven years in India, observed fever to proceed from contagion in that part of the world. The fevers, therefore, in India, and he believed of warm climates generally, are the effects of exhalations from the soil, and of vicissitudes of season. But great advances have been made in our knowledge of the nature of fevers since he wrote, and it has been fully established that relapsing typhus and typhoid fevers are Indian diseases. Within the period of my service in India, attention was first directed to the existence of typhoid fever of India; it now appears in the sanitary report as the chief fever death-cause among our young soldiers. It would, however, be as reasonable to say that it had not existed in England before Zincke and others defined it as a specifically distinct disease, as that it did not exist in India before Scriven, of the Bengal Medical Service, pointed out its presence in that country, and separated it from remittents in India, as in England it was separated from typhus. The honour of this important step in fever pathology is clearly due to Scriven, and his views were confirmed by Dr. J. Ewart, a Fellow of our College, and the late Dr. E. Goodeve, who published a clinical lecture on the subject in the *Indian Annals of Medical Science* of January 1859. But these gentlemen made no discovery of a new disease; their merit consisted in pointing out one, but which had hitherto been overlooked as distinct from other diseases with which it had been associated and confounded. Annesley, Twining, Martin, and others had pointed out the diarrhœa, enteric ulceration, and other phenomena characteristic of adynamic types of fever. Annesley says*: "The fevers of warm climates, especially as observed in the Eastern hemisphere, seldom go through their entire course without evincing a predominance of morbid action in some viscus or texture. Marks of disease of the small and large intestines are generally confined to their internal tunics. The duodenum, jejunum, and ileum, especially the duodenum and termination of the ileum, very frequently are diseased in their mucous surface, which is inflamed in patches, sometimes covered with a muco-purulent secretion, and studded with small ulcerations, particularly the termination of the ileum. In several cases the ulcerations, which sometimes are large and far apart, at other times small and agglomerated, especially the former, have nearly penetrated the tunics of the intestines, and in a very few cases I have observed this occurrence actually to have supervened, the contents of the bowels being partly effused into the peritoneal cavity, and having produced peritonitis. Marks of inflammatory action are occasionally met with in the peritoneum, omentum, and mesentery, in all the forms of fever; and in protracted cases of the remittent and intermittent types, especially those in which the liver and spleen have been obstructed or otherwise diseased, considerable effusions of a serous fluid into the cavity of the abdomen are not uncommon. In these cases the peritoneum presents either a sodden appearance or congestion of the veins. In many of those cases, also, the mesenteric glands are enlarged, of a light colour, and hard consistence. Diseased appearances of the mesenteric glands are not associated alone with the dropsical effusions, as they are frequently observed when no such effusion is present, and when the mucous surface of the bowels is diseased, and the liver and spleen enlarged, and otherwise changed in structure." Sir R. Martin, speaking of the congestive continued fever of Bengal, says: "In neglected cases we find hepatic abscess and sometimes ulceration of the mucous digestive surface. The latter I found to be very prevalent among the labouring classes of natives whom I had to treat at the Native Hospital of Calcutta, on account of neglected fevers of from fifteen to twenty days' duration, and a large proportion recovered." Twining, in 1842, describing what he called congestive fever, says: "There is often much congestion at the root of the mesentery, and in the fat and cellular structure surrounding the duodenum, where it is bound down across the spine. In a few rare instances, where patients have died after a protracted fever of this sort, superficial ulcerations of the mucous membrane of the small intestines were found. I will not venture to assert that the ulcerations above alluded to ought to be considered as causes of the fever of the cold season; and my reason for not deeming that pathological condition a primary affection existing at an early period of the disease is, that active purgatives may be repeated daily for a long time at the commencement of this fever without producing irritation—in fact, they almost always afford relief. Should extended observations prove that these ulcerations of the small intestine exist generally in the cases which terminate fatally, and that such a pathological condition is rarely met with in the inspection of subjects that have died of other descriptions of fevers in Bengal, I should be inclined to adopt the opinion that a peculiarity of the disease would be thus ascertained, which might establish a resemblance to some modifications of European typhus, although the resemblance be not strictly correct in all its details." Dr. Morehead remarks that the observation of a case, together with the reports of Scriven, Ewart, and Goodeve, removed the doubts he had previously entertained as to the existence of typhoid in India, and says: "The investigation will require to be prosecuted with much care, in order that the tendency so common in medical research to exaggerate the importance of new subjects of inquiry, to the neglect of established truths, may be sufficiently controlled; it is to be recollected that disease of Peyer's glands, either in the stage of turgescence or ulceration, is not peculiar to typhoid fever only. About 1851, Assistant-Surgeon Lee made several *post mortem* examinations at the General Hospital of cases of fever of the hot weather, occurring chiefly among European seamen, and was surprised to observe ulceration of Peyer's patches, and was reminded of cases of dothienteritis which he had just been seeing in Edinburgh. Dr. Macpherson had not been in the habit of examining the small intestines minutely in fever cases, it being the received doctrine that they were not much affected in tropical fevers. The fevers in which the ulceration was discovered did not appear to him to differ from fevers which he had been treating for many years, except in so far as he was accustomed to see the types of fever vary considerably in different seasons. In or about 1853 my attention was arrested by a case of fever at Lucknow in the person of a young Frenchman, aged 28, who died after a fever of more than three weeks' duration, attended with diarrhœa, hæmorrhage from the bowels, iliac gurgling, tympanites, stupor, sordes, and, finally, death; a collapse evidently supervening on perforation. He had been exposed to malarial influences; the fever was regarded as climatic, for there was no reason to suppose that he had been exposed to the influence of fœcal poisoning. I then thought of the possibility of malarial fever assuming the enteric form. Dr. Maclean, C.B., says: "So far back as 1838 I treated fevers in Secunderabad, in the Deccan, and in China as far north as Nankin, extending over more than twenty days, with bowel complications. The mortality exceeded that of fevers distinctly malarial, and they were not amenable to quinine; death from hæmorrhage from the bowels was frequent, and the intestinal lesions were those we now recognise as characteristic of enteric fever."* Dr. Gordon, C.B., says: "In fevers as I saw them in British soldiers, enteric complications, including ulcerations precisely like what occurs in specific fever in this country, occurs in fevers (in India) that cannot be traced to anything pythogenic or otherwise specific. If a non-specific fever in the tropics occurs in a young delicate lad, it will almost to a certainty become complicated sooner or later in its course by diarrhœa or dysentery, and ulceration will occur in small or large intestines, Peyer's glands included." I do not gather from Dr. Gordon's reports and papers that he denies the existence of specific typhoid fever in India, but rather that he insists on the necessity of sifting all cases, with the view of ascertaining if cases recorded as specific fœcal enteric fever may not

* *Diseases of India*, p. 535.

* I refer to Dr. Maclean's observations as proof that fever with enteric ulceration existed previously to 1851, not in reference to etiology.

have been of malarial or climatic origin. Dr. Chevers says: "The question, Is enteric fever at present a common or a rare disease in India? is certainly one of the most perplexing, as it assuredly is one of the most practically momentous questions with which medical men in that country have to cope. It being a plain fact that if we, encountering a case of paludal remittent, with bowel complication, insist upon calling it true enteric fever, and treat it as such, withholding that free and steady use of quinine which is the only remedy, that case will almost inevitably end in death. Dr. Bryden did a good and very needful work in giving enteric fever a place in the register of cases; but after admitting this, I confess my unwillingness to admit that we have proof sufficient to convince us that 571 European soldiers of the Indian army died in six years of true enteric fever." Dr. Wall, of the General Hospital of Calcutta, writes: "I believe that a large proportion of cases returned as typhoid fever have no right to that name. If a man die in India after having an elevated temperature, and an ulcer can be found in his intestine, the case is at once called typhoid. My experience is that this form of ulceration often occurs in cases that would better bear the name 'remittent' than anything else." Dr. MacConnell, the very able Professor of Pathology in the Medical School of Calcutta, says: "As regards typhoid or enteric fever in India, and its etiology, I am inclined to believe that the evidence of a specific poison is not nearly so generally available here as in Europe, and that probably climatic influences, *plus* want of proper sanitation, gives rise to not a few cases in India. There is great difficulty in diagnosis. In all the cases that I have seen here and verified by *post mortem* examination, neither the course of the fever nor the range of temperature has been at all typical, and the presence of rose spots or of any specific eruption has been quite exceptional. Of course it is more difficult to see rose spots on the dark skin of a native, but they have been looked for carefully and repeatedly. In not a few cases the etiology of the disease seems to differ from that usually assigned to it in Europe, viz., specific fœcal contamination, but may arise possibly from climatic causes, combined with non-specific fœcal evacuations or other like poisonous material productions, the result of insanitary conditions in dwelling-houses, sewers, cesspools, drinking water, and all other sources of personal human contamination. It affects individuals rather than communities, and thus exhibits a behaviour quite different to that of the specific poison and its resulting phenomena in temperate regions or climates." Dr. Alfred Clarke, of the Army Medical Department, says: "Of the staff, some hold that a specific poison or germ is not absolutely a *sine quâ non*, but that ordinary filth causes may develop it *de novo;* that climatic influences, acting on young and undeveloped constitutions predisposed in some way specially to develop typhoid, may also start the disease. The experience of our soldiers in Zululand seems to confirm this view. I have seen genuine enteric fever in India, where all filth causes, in the ordinary sense of the term, were absent; and once started, the disease may spread rapidly, or appear to do so, without being actually contagious. The outbreak in Natal, January 1882, is an example." Dr. Woodward, of the United States Army, says: "In the fall and early winter of 1861 reports began to come from various quarters that a new form of fever was prevailing in our camps. The medical officers were well acquainted with ordinary typhoid, and it was precisely these men who first called attention to fevers that differed in many important particulars from those to which they were accustomed at home". A board of inquiry, after careful examination, recorded the opinion "that, while a certain number of cases of ordinary typhoid existed in the army, the large majority were bilious remittent, which, not having been controlled in their primary stages, have assumed the adynamic type which is prevalent in typhoid fever. The best instructed medical men, recognising an unusual type, called it Chickahominy fever." Dr. Woodward, believing this form of fever to be the result of the combined influence of malarial poisoning and "the cause of typhoid fever", proposed the name typho-malarial, which was adopted. Speaking of *post-mortem* examination of persons dead of this fever, Woodward says: "between the simple inflammatory enlargement of the closed glands and the more luxuriant process which occurs in typhoid, every possible transition existed. I for one confess myself unable to draw a line between the two conditions. . . . . The sloughing and ulceration is, I think, sufficiently well explained by the intensity of the process without conjuring up in imagination an undemonstrated specific something to account for it." It seems tolerably clear from this that in America the existence of climatic fever with ulceration in the small intestines, distinct from the specific enteric fever, is recognised; it has been placed apart, and is regarded as the result of the combined action of a malarial and typhogenic poison, though there are not wanting indications that it may be the result of progressive action of a febrile condition however set up. M. Léon Cotin says: "A theory was advanced by M. Boudin that intermittent and typhoid fevers were antagonistic, and that where one existed the other was absent; but it has been abundantly shown that in Algeria and in Italy the mortality from both has been excessive. These facts prove that malaria confers no immunity; indeed, intermittents and typhoid appeared simultaneously in the same regiments in Algeria and in Rome." In India, localities notoriously malarious are not remarkable for the prevalence of typhoid, but no part of India, except the hill stations, can be regarded as exempt from malarial influences; and that no part of India where European stations are located is exempt from typhoid; but there appears to be nothing in India to support the theory of antagonism between malarial and typhoid fever; that if, as is thought by some, fever with enteric ulceration is that of miasmatic origin, the question of relative prevalence and mortality proves nothing more than that the fever had assumed one type rather than the other; very careful analysis of the history of individual cases and outbreaks should be made, especially in such developments of fever as have occurred in regions like Burdwan, the Doab, and other districts where low and continuous forms of fever, ascribed to miasmatic influences have prevailed. Some interesting reports have been published on the Burdwan fever by Drs. French and Roy, of the Bengal Service; they attribute it, as do others, to paludal influences; in their account of the cases there is much that is suggestive of enteric fever. Examination of the intestines might have discovered enteric ulceration. Unfortunately there are no necropsies recorded, and this is one of the great difficulties attending study of disease in India. That typhoid fever with ulceration occurs in India among the native population is beyond dispute; but how much of it depends on specific poisoning; how much on general causes; and what are the distinctive phenomena in life and lesions after death, are subjects that require further inquiry. I repeat my conviction that there is much fever of climatic origin which is as like specific typhoid as one case of typhoid may be like another, and that it is of the same character as that called by Americans "typho-malarial", and by the French "typhoïde palustre". After many years' experience, such is the conclusion I have arrived at, and I find that similar views are entertained by others. M. Léon Cotin says authors of great weight have expressed the opinion that the paludal typhoid is the result of the combined action of paludal and typhoid elements, and refers to some that occurred at Nancy in 1875, when the infection was at the same time telluric and putrid. But he says that the fever in other circumstances is the transformation of a paludal into a typhoid fever, and is of opinion that all acute febrile conditions, accompanied by a marked alteration in the secretions and by gastro-intestinal complications, may induce the spontaneous development of typhoid ("Fièvre Typhoïde", *Archives Générales*, 1878, p. 283), in such cases it is natural that it should be impossible to recognise the affection during life, for the two diseases have ceased to be distinct, the remittent fever being transformed into typhoid. On this subject M. L. Cotin has written to me as follows:—"Mes recherches personnelles m'ont inspiré la conviction que la fièvre typhoïde est et a toujours été fort commune dans les pays chauds; qu'elle y a été longtemps méconnue, parce que l'on ignorait ses symptômes et ses lésions: que sa fréquence y a été grande, surtout quand on a envoyé en ces pays des contingents considérables de jeunes soldats. Je donne la preuve de ces faits à la page 31 d'une brochure sur la *Fièvre typhoïde palustre*. Quant à la nature et à l'origine de cette fièvre typhoïde des climats chauds, elle peut certainement dépendre de l'influence des foyers *typhoïgènes* analogues à ceux des climats tempérés (miasmes des égouts, des matières fécales, etc.); mais, suivant moi, elle tient surtout à la transformation, dans l'individu lui même, de la fièvre malarienne qui infecte l'organisme, et met celui-ci en puissance de créer la fièvre typhoïde par auto-infection. Dans cette même brochure j'indique pourquoi cette transformation a lieu surtout chez les individus jeunes, nouvellement expatriés, et dans les pays chauds où l'empoisonnement malarien donne lieu à des accidents fébriles spécialement intenses." Dr. J. Wise, late civil surgeon of Dacca, in Eastern Bengal, has had many opportunities of observing and recording all that is connected with their etiology, symptomatology, and pathology. He has noted the occurrence of a variety of bowel complications in malarial fevers, and has recorded cases in which ulceration has been found. My own opinion, after much consideration and observation, is that it is a true paludal or malarious fever, due to the same exciting causes as are universally believed to produce ague, namely, to miasmata given off from decaying or fermenting organic matter, and not necessarily connected with emanations from drains, cesspools, or privies. The irresistible mass of facts collected by Murchison, Budd, and others, prove that enteric fever in Europe is truly pythogenic, and that in most instances it is caused by decomposing fæculent matter. In India we cannot accept that as the sole, or perhaps chief, exciting

cause of enteric fever. Dr. Parkes (*Practical Hygiene*, ed. 1866, p. 455) also entertains doubts that the generally accepted cause is the only one to which enteric fever is to be referred. No one has more persistently and ably affirmed that enteric fever is generated in India by other causes than fæcal emanations than Dr. Bryden. In 1872 he wrote: "Eight years since, from the facts then at my disposal, I made the generalisation, that the typhoid fever of the British soldier in India is primarily due to climatic influences. The belief that defective conservancy will be found in every case when typhoid fever shows itself is very apt to lead to the conclusion that any statement to the contrary must be erroneous. This is a narrow view, and it is not warranted by any feature in the aspect of typhoid as we meet with it among our soldiers." (*Appendix to the ninth Report of the Sanitary Commissioner with the Government of India*, 1872.) Dr. Wise's remarks on malarial pneumonia with enteric symptoms are interesting and valuable: "The disease with which paludal enteric fever is most frequently and easily mistaken is asthenic, or typhoid, pneumonia. This is a most common disease in Bengal, either appearing idiopathically, or secondarily, to other diseases. Among the natives it generally assumes the type called bilious, in which gastric and enteric symptoms are most conspicuous. In thirteen cases I made careful examination of the small intestines after death from this disease. In ten, congestion, more or less intense, and varying from a pink to a port-wine colour, with patches of extravasation, were found in the mucous membrane of the ileum; in one an ulcer of the duodenum with extravasated spots in the ileum existed; in one Peyer's glands were congested and pitted, while the mucous membrane around was deeply injected; and in one Peyer's patches were singularly distinct, their surfaces being humid and reticulated, the solitary glands were swollen and mammillated, and the mesenteric glands were enlarged, containing a milky fluid like chyle. But pneumonia with typhoid symptoms is no less common as a complication of intermittent or remittent fever—the febrile pneumonia of Morehead. As cases are seldom seen among natives until at least a week has elapsed it is often difficult to distinguish the primary disease. If the patient is intelligent, and is seen early, a correct conclusion may generally be arrived at; but when he is delirious, with a black furred tongue, has twitching of the muscles, and diarrhœa, it is often impossible to decide. Pneumonia with enteric symptoms is often, I believe, confounded with pneumonia secondary to paludal enteric fever. In my experience, inflammation of the lungs rarely appears in the course of any of the malarious group of fevers before the end of a week, while in enteric fever it is generally during the third week. In all cases of doubt, twenty-grain doses of quinine given twice a day, or five-grain doses with antimony every four hours, as recommended by Morehead, will decide the question whether the disease is secondary or not. There is nothing more certain in medicine than this. A few doses of quinine given to a patient prostrate with febrile pneumonia work a wondrous change; they check the fever, and the patient passes in a few hours from a state of misery into one of comparative ease and health. Of all the practical benefits conferred by Dr. Morehead on the people of India, none probably will be more enduring than this one, which he was the first to recognise." Surgeon-Major A. Clark informs me that typhoid fever has prevailed very extensively in Natal and Zululand during the war. Since January 1, 1879, to May 31, no less than 267 admissions for enteric fever have been recorded. Many of these occurred in healthy camps on ground previously unoccupied (virgin soil), and in bodies of picked men. The water supply, as a rule, good; no sewers or drains; conservancy, dry earth or trench, and carefully attended to. Surgeon-General Woolfreyes describes this fever as "typho-malarial". He says: "I am of opinion that it is climatic, the true autumnal fever. It, as a rule, commences with sore throat, a peculiarity; the rose-spots are invariably present, and in fatal cases the lesion of Peyer's patches are well marked." At the time that enteric was reported so common in the first division, jaundice also prevailed very extensively, but was unknown in the second division. Enteric has also been reported as causing much sickness amongst the troops in Afghanistan. Here, again, camps were often pitched on virgin soil, though the water supply was far from satisfactory, and dead camels so constantly polluted the streams. It prevailed with cholera and severe remittent fevers. Altitude made no difference, cases being admitted in camps several thousand feet above sea-level. Enteric cases are reported from nearly every station in the Bengal Presidency, some such as Cambellpore, in the Punjab, where the cases of enteric fever have occurred from time to time, without any discoverable connection with each other, and in the great majority of cases in the persons of new comers. In every instance the disease was closely marked by the usual characters, and could not possibly be mistaken for any other. If enteric fever, according to the commonly accepted theory of its origin, is always associated with defective sanitary arrangements, then Ascension, of all places with which I am acquainted, ought to be exempt from it. There is no such thing as a sewage drain or cesspool in the island, all sewage and other filth being removed daily and thrown into the sea, to leeward of all dwelling-houses. The water (partly collected from the roofs of buildings during rain, and partly condensed) is stored in iron and cemented stone tanks removed from all possible source of contamination, with the exception of the summit of Green Mountain, where there is a soil resulting from the decomposition of grey trachyte. The island is a mass of volcanic rock and ashes, incapable of supporting any vegetable life whatever. My investigations have utterly failed to connect the fever with any of the conditions commonly believed to be essential to its production. Dr. Don, of the Medical Department, says: "The early symptoms of these fevers are usually so much alike, that it is often quite impossible on admission to determine what form may ultimately supervene. Many times have I seen cases admitted under febricula, then changed to simple continued, and finally to enteric, as the fever developed. This was forced on us by the supervention of phenomena which it was quite impossible to anticipate. They occur simultaneously, concurrently, and mixed up at the same time and place, in the same regiment or community. From the same barrack or company room one man may be admitted into hospital with febricula, a second with simple continued, and a third with enteric, all on the same day. All these fevers have the same seasonal period of prevalence. During winter and spring they are at a minimum, or wholly absent; from June to October is the season of their prevalence north of the line, with a corresponding reverse period in the southern hemisphere. I think they can be better explained by a study of the internal or predisposing causes: "1. Constitutional, hereditary, or acquired predisposition. 2. Age. 3. Want of acclimatisation. I cannot help thinking that enteric lesion is to be found in several forms of a closely allied fever; at the same time this bowel lesion does not necessarily imply a specific causation under every circumstance and in all parts of the world. In short, there can be no doubt that enteric fever cases constantly crop up in hot climates, the causation of which is inexplicable, either by a theory of propagation or of pure pythogenesis." I am indebted to Dr. Kynsey, P.M.O. of Ceylon, for an interesting memorandum on the fevers of that island, which seem to be of a milder type than those of India. It singularly illustrates the confusion which still obtains about the nosology of tropical fevers, and attests the existence of a form of climatic continued fever which resembles the specific enteric. There can be no doubt as to the existence in Ceylon of genuine enteric fever, but there is a strong tendency to call all protracted fevers by this name; but I am convinced there is a form of fever in the tropics indistinguishable during life from this fever, and without the characteristic lesions of Peyer's glands after death.

Anomalous Fever in China and elsewhere.—Dr. P. Manson, of Amoy, China, has sent an account of an epidemic of continued fever in China. It was of a circumscribed prevalence and presented anomalous characters (*China Imperial Maritime Customs Report*, 11 Special Cases, No. 2, 1881). In some respects it resembled enteric, in others malarial fever. Quinine in some cases was of benefit, in others it failed. The fever was of a continued type, with high temperature, up to 105° or 106°, diarrhœa, delirium, and some rose-coloured spots. In some of the cases, he says: "The symptoms of typhoid were present; in others they were not, beyond the fact that the fever was continued and was uncontrolled by quinine. In one case that did intermit, quinine had no effect." Dr. Grabham, a Fellow of our College, writes from Madeira, November 16, 1879: "In Madeira, where I have had much experience during the last eighteen years, there are present from time to time cases of typhoid whose origin is precisely that pointed out as referable to general and climatic causes. I have long ago convinced myself that it is vain to seek to trace many well-marked cases of pure typhoid to sources of filth contamination. I have again and again seen such cases arise in situations many hundreds of feet above Funchal, far away from all dwellings, and in regions where the cold drinking water springs from beneath basaltic columns of rock. It is quite certain that however they acquire it, nevertheless such patients, equally with those who have imbibed their disease from polluted water, are able to spread their infection to others." Dr. Johnston Ferguson, Surgeon-Major, writes: "I, too, have long been of opinion that typhoid fever may have origin in other causes than the filth to which in most cases it is rightly assigned, and this more especially in tropical and subtropical climates. During a service of twenty-seven years I have treated typhoid fever in the Mauritius, Barbadoes, and Bermudas, and the conviction has gained strength as my experience has extended." Surgeon-General Irvine informs me that an outbreak of enteric fever has taken place among our troops in South Africa. The P.M.O.

attributes it to the fouling of the streams on which the camps were pitched, by dead cattle and filth of all sorts, the heavy rains washing the foul matter into the rivers. In this case, the origin of the disease seems attributable to animal emanations, but not especially to a specific contagion developed in human excrement; epidemic outbreaks are probably generally to be explained by such causes. The strength of the troops was—Officers, 107; men, 2,939; women, 43; children, 69. Of these one officer was attacked, but recovered; 183 men were attacked and 33 died. The women and children escaped. No details having reached me, I am unable to give any account of the symptoms of the disease or of the *post mortem* appearances, nor why the women and children should have escaped. The sanitary report for Assam, 1880, contains an account of an outbreak among the sepoys of a native regiment stationed on the north-eastern frontier, which clearly proves the existence of the disease, and in this case it would seem to be traced to defective water. The civil surgeon of Góalpára gives a description of a case and *post mortem* examination, which leaves no doubt as to the nature of the fever. It is by careful study of such outbreaks as this, of isolated cases, in regard to locality, water, sanitary condition, previous history of the sufferers, and personal attributes, such as age, race, temperament, time of year, etc., we may hope to discover the true causation. That enteric fever should have specific origin in temperate climates is no proof that it may not have others in climates of a different character. Some of the low forms of fever described in this country, and in France and America, as typho-malarial, paludal typhoid, seem to be of this nature, and in this connection Dr. S. Harley's views on this subject seem to me of great interest. The apparently increased proclivity of the meat-eating and spirit-drinking races to enteric fever is interesting in reference to the possible effect of the diet of the European soldier in India; but though it may be more frequent, it is not confined to meat-eating natives, as shown by Dr. Wise's cases. I concur in Martin's remark that as regards the etiology and causation of enteric fever much uncertainty unquestionably exists. Even in Europe, where its connection with a specific poison, or with the products of fæcal or other organic decomposition, contaminating air or water, seems to be established by a large number of observations, the cumulative effect of which amounts to very forcible evidence, it cannot be said that we have exhausted our knowledge of the causes of this fever. I believe a considerable amount of climatic fever occurs in the tropics, in which the symptoms and phenomena so closely resemble those of true enteric fever that they may be, and are, mistaken for them, and that the *post mortem* discovery of ulceration attests the severity of the disease, does not proclaim its original cause. I would ask all medical officers in India to study each case in all its aspects most critically, for no one will deny that we have still much to learn about fever in tropical climates. If it be admitted that specific fever may originate in effluvia and emanations generally, and is not restricted to a specific contagium developed only in human excrement, it is probable that in this source we may find its origin, for there are few localities in which organic exhalations do not taint the air or pollute the soil or water. Still, the fact that these conditions are often so rife, and yet this form of fever so unfrequent, and that the effects of season, locality, age, and want of acclimatisation play so important a part in developing it, seems to indicate that climatic conditions are largely concerned. Let me turn to the latest reports and see how the matter is viewed at present. The preponderance of opinion is in favour of a specific origin for all enteric fever; but there is a certain vagueness as to etiology, varying from the extremest specificity of a contagium to the results arising from decomposition of organic matter generally, or even malaria. No one, I think, disputes the existence of enteric fever, and I doubt if any exception would have been made to the name "enteric" did it not imply a specific contagion, which in this respect covers views of specific causation which is inapplicable as a general term for India. A most valuable report has recently been drawn up by Brigade-Surgeon J. Marston, the able and accomplished secretary to the head of the Medical Service in Bengal, who has had ample opportunity of seeing the disease at home. He says: "I came out here imbued, rather than otherwise, with a belief in the views of European pathologists; but Indian experience has compelled me to recognise that those views as to the causes of enteric fever are too exclusive, and quite inadequate to account for the facts; they do not cover anything like all the facts, and they are irreconcileable with some of them. But how can any specific or other fæcal contamination of air, milk, or water account for such facts as these? 1. The remarkable proclivity to this disease exhibited by recent arrivals in this country. 2. The occurrence of cases at certain seasons, at stations extending over vast areas of country—miles and miles. 3. The isolated nature of such cases in a great many instances. 4. Their occurrence at certain definite seasons, *e.g.*, at the hottest and driest, when the wells are lowest, and at the end of the monsoon, when they are highest. 5. Again, from the British dominions in India up to Kabul, you had, at almost all the military posts occupied by the various columns in Afghanistan, cases of enteric fever, notwithstanding that many of these posts must have been occupied by Europeans for the first time in history. I have tried unsuccessfully, and others have done the same, to obtain reasonable proof out here of the operation of those causes set down as the only and invariable causes of enteric fever at home. The more I think of it, the more convinced I feel of the inadequacy of the usually accepted views to account for all, or anything like all, the facts in this country." On the whole, I think, as a tentative and working hypothesis, that there are two forms of it in India, which cannot, however, be clinically or pathologically differentiated: one (the larger class) which does not depend on the contagion of any specific poison generated in the intestine of one person and conveyed to another through some vehicle, nor, indeed, on any fæcal poisoning, or poisoning of any kind, unless it be that the patient is autogenetically poisoned by his own fæcal matter; the other, occurring in outbreaks (not singly, in isolated cases), and with a history by which the cases can be traced to some common cause, such as infection, fouled air or water, diseased or high meat, etc. In the first variety, however, I am disposed to think climate—meaning by it to include the whole combination of changed physiological conditions environing the young and newly-arrived soldier in this country—plays a very important, if not the main part. It is a notable fact that of a number of fatal cases returned as remittent fever, where the *post mortem* appearances disclosed an absence of any intestinal glandular lesion, the subjects are older men and longer resident in the country; whereas, where ulceration of Peyer's patches was found, but the fever has been diagnosed as remittent or enteric fever, the subjects are, as a rule, younger and less long resident soldiers.

"Making every allowance for carelessness on the part of some, and for the tendency, inseparable from all official systems of registration and reporting, to execute clinical work in a perfunctory manner, or to assign some cause without considering its relevancy or adequacy, medical officers have utterly failed in India to satisfactorily trace out the intimate connection of the disease with filth-causes of specific infection, with which, according to European authorities, it is invariably connected. Such failure has not been due to any want of zeal on the part of the medical officers, who have striven to harmonise the conviction due to the doctrines in which they have been educated with the results of their Indian experience."

It seems quite clear that the conviction forces itself on the medical authorities, that the causal relations of this form of continued fever are not, in India, limited to those which give rise to it here; and I feel convinced that there is, at all events, sufficient to give interest to searching inquiry, which will probably show, not that there are more fevers, but more causes, than has been believed. I would, for the sake of precision of registration, urge the adoption into the nosological returns of something that should distinguish climatic from specific fever.

The symptoms are much the same in India as elsewhere, modified, perhaps, by malarial influences. By some it has been thought that any difference the disease may present in India from that in England is due to the added action of malaria. There are distinctive characters which differentiate enteric from remittent fever in the early stage, though it is often exceedingly difficult, if not impossible, in the more advanced stages, to distinguish them. At the outset, it may be insidious; and for the first few days there are only *malaise*, chills, perhaps diarrhœa, loss of appetite, weariness, aching of the limbs, and headache. The patient at length lays up; the pulse quickens; the temperature rises; the skin becomes hot and dry; there are thirst, heaviness, and dulness; whilst the thermometer indicates a rising temperature, gradually rising until it reaches 104° or more, with a remission towards the evening. The abdomen becomes distended; and there is tenderness on pressure, especially in the right iliac region, with gurgling. The diarrhœa may increase, become of a yellowish colour; the excretion perhaps tinged with blood. The tongue is red at the tip and edges, dry, cracked, and tender. The teeth begin to be covered with sordes. During the second week, the characteristic spots make their appearance, but are often absent, and on the dark skin of the coloured races are difficult to detect. As the disease progresses, the patient becomes delirious. The delirium is at first wandering; but it gradually becomes incoherence, and may be noisy or muttering, with complete prostration. The diarrhœa increases; the tongue is dry and glazed; the teeth covered with sordes. There may be epistaxis, or hæmorrhage from the bowels, and the patient becomes unconscious. The temperature rises to 106°, or even higher. The patient has subsultus of the tendons, muscular twitchings, picking of bedclothes. Death supervenes from exhaustion, or from peritonitis caused by perforation of the ulcerated bowel.

The ordinary duration is three weeks, often more; in severe cases, may terminate fatally much earlier, probably before the intestinal ceration has taken place by the intense action of the poison on the rve-centres; but, in milder cases, it may terminate earlier. About e fourteenth day, the symptoms sometimes improve, the temperature gins to fall, the general symptoms abate, the diarrhœa decreases, d the appetite and sleep improve.

I have already referred to its great fatality among our young soldiers ring the early part of their service; and a certain amount occurs in e civil population, and generally, though not always, among young ople. Every year I had cases of enteric fever, with all the characristic phenomena. The worst, and a fatal case, that recurs to me, as one of a gentleman nearer fifty than forty years of age, in whose se it would be difficult to trace a specific origin of the disease. I garded the case generally as an ordinary example of the enteric fever, it I never could feel satisfied that the origin was quite the same, unss, indeed, organic miasmata be allowed a wider extension than that pending on fæcal matter; were this admitted, causation would not so far to seek.

The diagnosis between specific enteric and climatic enteric is often ry difficult. The close resemblance between some remittents and e specific forms is very great. It is by observation of the earlier mptoms and study of the previous history that the distinction will be acticable. In the specific form, the invasion is gradual, and it is not r some days, during which the temperature rises in the evening, until out the fourth evening, that it attains to 104°. In the climatic or alarial forms, the premonitory symptoms are more sudden. There is ore marked chill or rigor, the *malaise* is greater, the temperature sing to 104° or 106° as early as the evening of the first or second day, ough these distinctions are not always well marked. There is diarœa in both, and, all the other symptoms of ulceration being established, ie phenomena become identical. The rose-coloured spots are by me regarded as pathognomonic, but they are often observed in cases of ecific enteric, and it is very difficult to detect them, or to distinguish em on the dark skins of natives; it is quite possible that they may, anding in relation to the bowel-ulceration, occur, however that conition is established.

There is, as in all fevers of malarial origin, a disagreeable sensation f chill from contact of air, even when the body-temperature is very igh. Dr. Wise has observed that the stools are always acid; to this e has paid much attention, and he thinks it a point of considerable nportance. He further remarks that the anxiety depicted on the ountenance of the specific typhoid patient is wanting. When it occurs the course of simple ardent or paroxysmal fevers, when the rise of mperature at the outset is more abrupt and sudden, and when the ermograph is irregular, I believe that the origin is more general than specific pythogenic source. I admit the extreme difficulty of diagnosis after a certain stage, and when intestinal ulceration has taken lace, and can well imagine that septic absorption from these ulcerations may so modify the symptoms that there is practically no real distinction. In short, I believe, as I have before said, that, in India, nteric lesions are apt to supervene in the course of miasmatic fever, and hat in this condition they become identical with specific enteric fever. f asked, Why seek for any other explanation than that accepted in this ountry? I reply, that there is more evidence that ordinary climatic ever may assume the typhoid, *i.e.*, enteric condition, than that all nteric fever is caused by fæcal contamination.

It has been said that an important means of diagnosing these diseases s the treatment by quinine. In remittent fever, if large doses of quinine be given, the fever will in most cases be cut short, which is not he case in typhoid. Quite true; but there is not much danger of confounding a remittent, with well pronounced remissions, with typhoid. The cases in which there is difficulty are the continued or continuous remittents, and there quinine will not cut short the fever, though it will reduce the temperature, and for this reason is a most valuable remedy. In fever with enteric ulceration, however caused, it is not to be expected that it could be cut short, and therefore quinine cannot be regarded as the crucial test; though in the earlier stages, before ulceration has set in, it certainly may prove so.

It is on points of detail of this kind that further observation is required; and I would ask our colleagues in India and the tropics to consider this among other desiderata, for it is in the study and careful observation and comparison of these special features that the main issues will be determined. General descriptions abound; what is wanted is further investigation, with the absence of all bias in favour of this or that theory, of the facts bearing on etiological and pathological relations of these fevers.

Treatment of Enteric Fever in India.—It would unduly prolong the subject to enter into further details; nor is it necessary that I should say much on the subject of treatment, for in fact it is exactly that which is adopted here, and consists mainly in the careful administration of fluid nutrients, avoiding all that could excite or irritate the disordered bowel. Diarrhœa should be controlled, not unduly checked; temperature should be reduced by apyretics or diaphoretics; and the use of quinine in moderate doses is useful in pyrexia, however caused; whilst as to the mode and extent of its administration, the circumstances of each particular case will be the proper guide. As regards wine or other forms of alcohol, I have administered it according to the effect it produced. As to nourishment, animal broths and milk—perhaps diluted with some alkaline water—have been the most appropriate; avoiding any possible source of gastro-intestinal irritation, even after convalescence was well established. Relapses occasionally occur; and a nearly fatal one in an officer of long service, who, in the fourth or fifth week, suffered from a recurrence of dangerous symptoms, simply as the result of eating a few raisins given him by the nurse, left a strong impression on my mind as to the importance of caution as to diet. The temperature-charts will show the varied character of the pyrexia, and how little there is that can be said to draw a distinct line of demarcation between the different forms of fever. I regret that I am unable to analyse them at length; but will only ask you to look at them and the specimens which represent enteric ulceration from fever patients in India, for which I am indebted to Professor Aitken, of Netley, to whom, as to many of my brother officers in India and at home, I am so much indebted.

I am reluctantly compelled to bring this lecture to a conclusion. I knew the subject was extensive; but it was only in attempting to compress it into the short space allowed to three lectures that I realised the magnitude of the work I had undertaken. I am sensible I have omitted much that should have been said, and that I have but imperfectly availed myself of the time at my disposal. I had hoped to have considered the subjects of typhus, relapsing, dengue, and Indian plague; but these for the present must be deferred. It only remains for me to thank you for the attention with which you have listened to my imperfect endeavour to add something to the story of Indian fever.

ABSTRACT OF LECTURES
ON THE
ANATOMY, PHYSIOLOGY, AND ZOOLOGY OF THE EDENTATA.

Delivered at the Royal College of Surgeons of England.

By W. H. FLOWER, F.R.S., LL.D.,
Hunterian Professor of Comparative Anatomy.

Lecture I.

The name assigned by Cuvier to this group, which some naturalists think ought to be regarded rather as a subclass than an order, is often objected to as inappropriate; for, though some of its members are edentulous, others have very numerous teeth. It is, however, now so generally adopted, and its meaning so well understood, that it would be very undesirable to change it. In fact, similar reasons might be assigned for ceasing to use nearly all the other current ordinal designations; for it might be equally well objected that all the Carnivora are not flesh-eaters, many of the Marsupialia have not pouches, and so forth. On this subject, it is well to bear in mind two aphorisms of two most eminent former occupants of the Hunterian Chair. It has been written by Owen, that "the sooner a term becomes an arbitrary sign, the better;" and by Huxley, that "it is better for science to accept a faulty name, which has the merit of existence, than to burden it with a faultless newly invented one."

Accepting the word, then, some limitation must be placed upon the group as understood by Cuvier, as the Australian Monotremes, the *Ornithorhynchus* and *Echidna*, the structure of which was at that time imperfectly known, were formerly included in it, but are now, by almost universal consent, removed to an altogether different section of the class.

If the teeth are not always absent, they invariably present, as compared with those of the more highly developed mammals, certain imperfections, which are, indeed, almost the only common characters which bind the animals of the group together. They always belong to the kind called *homodont;* that is, are not separated into distinct groups, as incisors, canines, premolars, and molars. They never have more than

one root, or in fact are rooted at all, but always continue to grow at the base as they wear at the crown. They always want one of the constituents which enter into the composition of the complete mammalian tooth—the enamel (although, as shown by C. Tomes, the enamel-organ may be present at an early stage of development). They are almost always *monophyodont*, or only developed as a single set; and, finally, they are never present in the anterior part of the mouth, and very rarely even in the premaxillary bones.

It is highly probable that the existing members of the group are very much differentiated representatives of a large group, the greater number of which are now extinct, and which have become so without attaining a high grade of organisation.

The great diversity of structure of the existing families, as shown not only in the more obvious characters, but even in the structure and arrangement of the fœtal membranes, the high degree of specialisation to which many have attained, the paucity of species and even of individuals, their limited area of distribution, and their small size compared with known ancestral forms, all show that this is an ancient and waning group, the members of which seem still to hold their own, either by the remoteness and seclusion of their dwelling-places, their remarkable adaptation of structure to special conditions of life, or by aid of the peculiar defensive armature with which they are invested.

Their former history can, however, only be thus surmised, rather than read, at present; for, though we have ample evidence of the abundance and superior magnitude of certain forms in the most recent or post-tertiary geological age, and in one part of the world, beyond this time—*i.e.*, in the true tertiary period, and in other parts of the world than America—the remains of animals of this order hitherto discovered are only fragmentary, and give a most imperfect idea of their actual condition, and afford no indications which serve to connect them with any other branch of the class.

The existing members of the order readily group themselves into five distinct families, the limits of which are perfectly clear. These are: 1. *Bradypodidæ*, or Sloths; 2. *Myrmecophagidæ*, or Anteaters; 3. *Dasypodidæ*, or Armadillos; 4. *Manidæ*, Pangolins, or Scaly Anteaters; and 5. *Orycteropodidæ*, Aardvarks (earth-pigs), or African Anteaters. The geographical distribution of these families coincides with their structural distinction; the first three being inhabitants of the New, and the last two of the Old World.

It has been usual to arrange these families into two larger groups or suborders: 1. The *Phyllophaga*, or leaf-eaters, also called *Tardigrada*, containing the Sloths alone; and 2. The *Entomophaga*, insect-eaters, or *Vermilingua*, worm-tongued, containing all the other families; from which sometimes the *Orycteropodidæ* are separated as a third suborder, under the name of *Effodientia*.

At first sight, this arrangement seems well founded; but, bearing in mind the intermediate characters of some of the extinct forms, and giving full weight to certain anatomical peculiarities on which sufficient importance has not hitherto been laid, it appears highly probable, however opposed to preconceived views, that the Sloths are more nearly related to the American Anteaters than the latter are to animals which appear to represent them in the Old World, the Pangolins, etc.; and that the group of *Entomophaga* or *Vermilingua*, composed of the American and Old World Anteaters, has no existence in nature. These relationships will, however, be developed as the structure of each group is reviewed in succession. We shall then be in a better position to form some idea of their mutual affinities.

The general characters of the family of Sloths (*Bradypodidæ*) are as follows:—Externally covered with long, coarse, rough hair. Head short and rounded. External ears inconspicuous. Fore limbs greatly longer than the hind limbs; all the extremities terminating in narrow curved feet; the digits never exceeding three in number, being encased for nearly their whole length in a common integument, and armed with long strong claws. Tail rudimentary. Teeth, five above and four below on each side. Stomach complex. No cæcum. Penis rudimentary. Uterus simple. Placenta deciduate, dome-like, composed of an aggregation of numerous discoidal lobes. They are strictly arboreal in their habits, feeding on the leaves and young shoots of trees; slow in their movements; solitary, nocturnal, silent, and inoffensive animals. They produce only one young one at a birth, and show an almost reptilian tenacity of life in surviving very serious injuries and poisons in large doses, and also in exhibiting irritability of muscular tissue persistent long after death. They are limited geographically to the forest regions of South and Central America. They were all included in the genus *Bradypus* by Linnæus; but Illiger separated the species distinguished by possessing only two toes on the fore feet under the generic name of *Cholœpus*. Of the latter, there are two species—*C. didactylus*, the common two-toed Sloth of South America; and *C. Hoffmanni*, from Costa Rica, Panama, and Ecuador. Of the genus *Bradypus* there are several species; but their characters are not yet well defined by zoologists.

The external dry, shaggy, dull-coloured covering of the Sloths renders them very inconspicuous among the mosses and lichens which abound in the trees among which they live; and the concealment thus afforded is heightened in some species by the peculiar greenish tint of the outer clothing, very uncommon among mammals, and which is not due to the colour of the hair itself, but to the growth upon its surface of an alga, the lodgment of which is facilitated by the fluted (in *Cholœpus*) and rough (in *Bradypus*) surface of the exterior of the hair. This alga (*Pleurococcum*) has been fully described by Welcker and Kuhn, and also by Sorby. Its growth is promoted by the dampness of the atmosphere of the gloomy forests in which the Sloths dwell, as it soon disappears from the hair of animals kept in captivity in this country, and its colour is lost in dried museum specimens. If this parasitical growth really have any efficient action in concealing the Sloth from its enemies, it is a very remarkable instance of the co-operation of two such totally different organisms as the simple minute epiphyte and the highly organised mammal for their mutual benefit—the one affording protection, and the other lodgment.

NOTES
ON
THE VOLUNTARY DISLOCATIONS OF A CONTORTIONIST.

By EDMUND OWEN, F.R.C.S.,
Surgeon to, and Lecturer on Anatomy at, St. Mary's Hospital.

I READILY comply with the request of the Editor of the JOURNAL, that I would prepare for publication some account of Warren, the American acrobat and contortionist, who was seen at a recent meeting of the Medical Society of London. When, as was the case on that occasion, he acts as his own showman, his performance is somewhat suggestive, perhaps, of spangles and foot-lights; but, when he gives himself up to scientific examination or demonstration, he is found to be a pleasant and highly intelligent man, with a keen interest in the anatomy and surgery of his peculiar and abnormal accomplishments.

He appears to have been examined by almost every anatomist and surgeon of note in the western world; and, as he has been lately shown in several of the metropolitan and other hospitals, and is about to wander over the European continent, he promises to play a part in the republic of surgery not unlike that of Alexis St. Martin in physiology. Certainly one should not throw away the opportunity of examining him. The interest which Dr. Hamilton, of New York, has evinced in him, is of itself sufficient to give the imprint of genuineness to Warren's claims; and, though there happens to be no allusion to him in that edition of Hamilton on *Fractures and Dislocations* which I possess, the author considered the case worthy of forming the subject of a special clinical lecture, which he delivered at the Bellevue Hospital, at the end of the year 1878. This lecture was reported in the *Hospital Gazette* of March 8th, 1879, and a copy of it is now before me.

When Warren, who is about thirty-four years of age, was a small child, it was discovered that the occasional tumbles to which he was liable were due to the head of the femur slipping out of the acetabulum; but there was no difficulty experienced in the reduction of these displacements, and certainly the condition bore no analogy to the so-called congenital dislocation of the hip.

When he was eight years old, he joined a company of strolling performers, and soon showed such a proficiency in the dislocation of certain joints, and in the assumption of unclassic forms, that he earned from an increasing circle of admirers the proud title of the Yankee Dish Rag. Of his acrobatic talents, pure and simple, I have seen nothing, nor have I witnessed any of his displays of strength. His muscular system is, however, beautifully developed, each superficial bundle of fibres showing clearly through his delicate skin, nor is there a particle of superimposed fat to blur its definite outline. Altering the trim of his beard, and ignoring the gross anachronism, one might almost imagine him to have been the smaller model for Laocoon himself. Of his muscles he is justly proud; and, with the view of preserving their refined development, he has forsworn alcoholic drinks.

An interesting feature in connection with his muscular system is, that he has, by determined practice, obtained isolated control over individual muscles which one is accustomed to see acting in concert. No doubt, the dissociation of contracting muscles is a mere matter of edu-

cation : as little children, few of us, I suppose, could afford the doctor a thorough inspection of the tongue, without at the same time widely spreading out the fingers; nor, at the first attempt, could we call into solitary contraction an orbicularis oculi. But, in all such matters, Warren has left us far behind ; he can throw into energetic contraction the biceps alone, the supinator longus, the radial extensors, the platysma myoides, and I know not how many other muscles ; and when he "strings" (as he calls it) the sartorius, he makes that riband muscle start up from its groove, and show itself as a tightened cord, from the front of the iliac spine to the inner side of the knee.

Fig. A.

Another and more "showy" feat of his is to leave flaccid that part of the serratus magnus which is attached to the inferior angle of the scapula, whilst he rouses into energetic contraction the rhomboids and certain other muscles, until the shoulder-blades are so displaced, and their lower angles made so prominent, that a condition like that which Liston described as "luxation of the scapula" is produced. But all this is effected with a considerable *coup de théâtre;* and though, no doubt, it was considered an effective part of his old performances, still it is so utterly devoid of grace and artistic merit, that its discontinuance might have been advised.—"O, it offends me to the soul, to hear a robustious periwig-pated fellow tear a passion to tatters, to very rags, to split the ears of the groundlings."

That accomplishment of his in which the "judicious" are most interested is the power of producing, by muscular contraction, a dislocation at each hip-joint, which, with less local commotion, is as quickly

Fig. B.

reduced. These changes of position of the upper end of the femur are, however, accomplished with so sudden a jerk, that it is impossible to work out in detail either the muscular movements by which they are effected, or the course which the head of the bone is made to take. But this much is certain ; first, that after the disturbance the top of the great trochanter is brought an inch and a half, or more, above the line which runs from the anterior superior spine of the ilium to the prominence of the ischial tuberosity ; and, secondly, that the head of the femur has come out of the acetabulum, and has travelled in a direction backwards as well as upwards. The accompanying illustration shows the knee advanced, the thigh inverted, and the outline of the hip disfigured. The first time that I saw Warren stand with his femur dislocated, I accused him of having arranged the limb after Sir Astley Cooper's drawing ; this he denied ; but he confessed that the toes on the dislocated side did not necessarily abut on the opposite instep. Nevertheless, in posing him for Mr. Jerrard, I placed the toes upon the opposite tarsus ; and, in this way, steadied the trembling limb, showed the amount of its shortening, and bowed to a conventionality which every reader of and writer upon the subject of dislocations of the hip, is justified in expecting. (I put the word "reader" first in order, for I apprehend that every modern writer on the hip first reads Sir Astley Cooper's work ; and certain it is that the closer he keeps to the master's lines, the more clear and practical will his description be.) Perhaps one may express regret, however, that Sir Astley depicted his patient as cheerful and erect ; for, with this sketch in his mind, the student winds up his account of the signs of the dislocation with the statement that, when the man stands up, his great toe points across the opposite tarsus. The assurance that such patients are invariably found in the horizontal posture comes to him as a shock which should have been avoided.

Like every practical surgeon, Warren is fully alive to the value of Nélaton's line in the diagnosis of dislocation of the femur ; but he states—and I give the assertion for what it is worth—that comparatively few of the surgeons who examine him draw the line with accuracy. I am inclined to think that the student is not, as a rule, made sufficiently appreciative of the practical bearing of this diagonal. Its importance in the late stages of hip-joint disease can hardly be overestimated. A child, for instance, has been suffering from suppuration in the articulation, and the ligamentum teres having been destroyed, the upper end of the femur makes its way with the escaping matter through the thin posterior part of the capsule into the dorsum of the

ilium; and because from that time the local and general disturbance diminishes, it is but natural that the parents of the little sufferer should comfort themselves with the belief that the cessation of pain denoted the advent of the long looked-for convalescence. If the surgeon should now have recourse to Nélaton's line, he will at once appreciate the retrogressive changes, and, dispelling vain hopes, may at once consider the propriety of excising the diseased parts, and so save much valuable time. Illustration B shows the line represented by a dark cord, which,

Fig. C.

running over the buttock, connects the prominent parts of the anterior superior iliac spine and the ischial tuberosity; in its course it just touches the top of the great trochanter of the femur when in the normal position. (Before taking this, and in the succeeding illustration (C), the free borders of the great trochanter were traced out on the skin in dark chalk.)

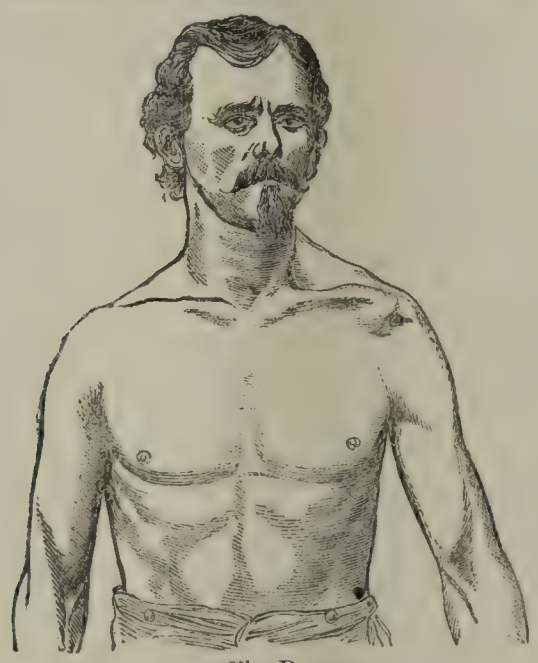

Fig. D.

C is an exact copy of the photograph which was taken just after the dislocation had been effected, the former marking of the great trochanter having been washed off, and the cutline marked in the new and abnormal position. For the accuracy of the lines I hold myself responsible. That there is a dislocation of the head of the femur upwards and backwards does not admit of questioning, though, from the strain of the muscles and the thickness of their covering, it is impossible to say with certainty the exact position in which the head is placed. Warren inclines to the belief that it has entered the great sacro-sciatic notch, an opinion to which I am not prepared to assent, though probably it is not far from the upper border of the notch. The luxation, whatever its exact nature may be, differs from that which the surgeon is now and then called upon to treat, in this, that the head of the femur is still inclosed within the capsule. In all probability both the capsule and the ligamentum teres are entire, though stretched, as it were, far beyond the limits of anatomical possibility. Warren has, apparently, regarded a condition of congenital relaxation of various ligaments as his "talent"; certainly he has not wrapped it in a napkin. On the contrary, he has employed it so profitably that he can now produce at will many subluxations and distortions. Of these I have neither the space nor the inclination to say much, though I considered the partial dislocation of the left humerus worthy of being photographed and permanently represented (Fig. D).

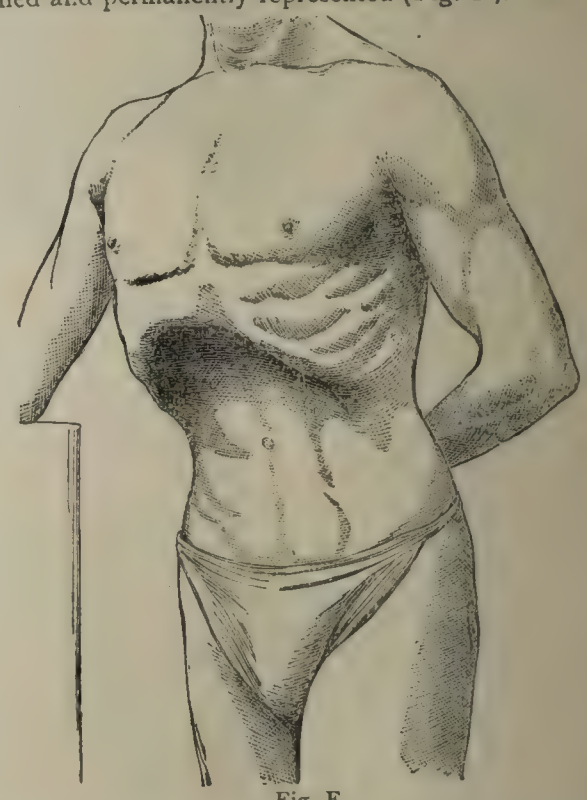

Fig. E.

Of the last two illustrations, E represents the abdomen rendered so

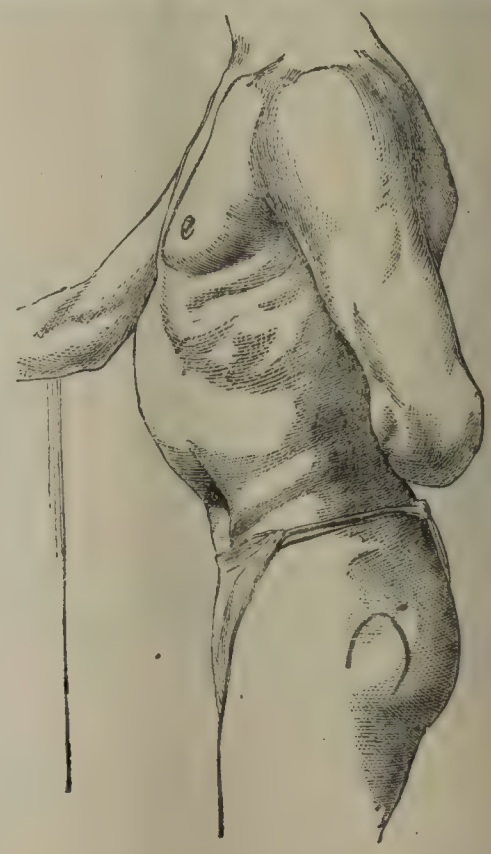

Fig. F.

flat and shallow th t tl e contour of the aorta may be distinctly made out by the fingers a lit le above the umbilicus and slightly to the left

f the mediun line. In this performance he has "crowded" most of he abdominal contents beneath the diaphragm. In F, on the other and, he has produced a "phantom tumour" by driving coils of intestine within the weird and peculiar grasp of the rectus and oblique nuscles. The "growth" is rounded, and dull on percussion, and, as ie remarks, looks as if it wanted an exploratory puncture. Certainly t is most suggestive, and well worth an inspection.

In conclusion, I would tender my best thanks to Mr. Jerrard of 107, Regent Street, for the time and skill which he placed at my disposal n the preparation of the excellent photographs from which the woodcuts have been prepared by which these notes are illustrated.

TRAUMATIC MALIGNANCY.

By W. HARRISON CRIPPS, F.R.C.S.Eng.,
Assistant-Surgeon to St. Bartholomew's Hospital.

THE communications of Mr. Barwell and Mr. Butlin, in recent numbers of the JOURNAL, are of great interest and value in again directing attention to the connection occasionally existing between injuries and malignant growths. All who have had opportunities of recording the history of patients suffering from malignant disease, must remember cases in which traumatism has been the starting-point of malignancy. During my period of office, as registrar of St. Bartholomew's Hospital, several cases came under observation, in which malignant growth more or less rapidly supervened upon injury. I select the following as examples of malignant growth following blood-extravasation.

CASE I.—A woman, aged 40, admitted under the care of Mr. Willett, stated that she was quite healthy a year previously to her admission. At that time, after a walk in a new pair of boots, she noticed a blood-blister (of the size of a sixpence) on the sole of her right foot. She was very certain that, previously to the blister, her foot was sound. After a while, the blister broke, leaving a raw surface, which never healed, and gradually increased in size. On admission into the hospital, a growth (of the size of a florin) was seen on the foot, in the site of the blister. It was moderately hard, and covered with a thin bluish cuticle. The growth was removed, with a narrow margin of healthy skin round it; and a flap of skin, cut on the near side of the foot, was turned downward, so as to cover the wound on the sole. The wound healed satisfactorily, and the patient was discharged from the hospital in fair health; there was, however, a slight enlargement of one of the femoral glands. In six months, she was readmitted. At the margins of the cicatrix on the foot were several little nodules of recurrent disease; but the portion of skin brought down to cover the wound was healthy. In the groin, the femoral glands formed a mass of disease of the size of a small orange, and about the upper part of the body were a few small subcutaneous nodules. She was greatly emaciated. During the next few weeks, hundreds of small nodules appeared beneath the skin of the trunk, the limbs remaining free. Symptoms of internal complication rapidly supervened, and she died, nine months after the original operation.

At the *post mortem* examination, the subcutaneous nodules described were found to be little masses of sarcomatous material, lying beneath the skin. The surface of both lungs were found studded with nodules as large as peas. These nodules were just beneath the pleuræ, and apparently growing in the course of the lymphatic vessels. Similar nodules were found growing beneath the pericardium and the endocardium. The right femoral and inguinal glands, and the lumbar glands of both sides, were converted into masses of disease. Secondary growths were thickly studded in the kidneys, pancreas, and liver. The intestines presented an extraordinary appearance, looking as if they had been thickly covered with boiled sago, caused by thousands of nodules in the peritoneal coat. The mesenteries were similarly affected, and the great omentum was converted into a white nodular mass, weighing four pounds.

Portions of the disease, from the sole of the foot close to the cutaneous margin, presented (under the microscope) an appearance closely resembling alveolar cancer—that is to say, a series of spaces, formed by fairly well-marked fibrous tissue, filled with cells approximating an epithelial type. If, however, the slide were moved, so as to obtain a view of a deeper portion of the tumour, the alveolar structure was lost, and it presented the structure of a round-celled sarcoma—that is to say, a collection of small-round-cells, without definite arrangement, and only here and there divided by fibrous trabeculæ. These cells, both in their shape and staining, closely resembled the nuclei of the epithelial-looking cells towards the surface of the tumour, and, I believe, were derived from them. Sections of the secondary deposits had a similar structure, or rather want of structure, to that seen in the deeper parts of the primary growth. They consisted, in fact, of a collection of small round-cells, described pathologically as sarcoma. These sarcomatous masses, when examined under the microscope, often present appearances exactly similar to the collection of lymphoid cells normally found in the submucous tissue of the healthy intestinal tract.

CASE II.—E. M., a police constable, was kicked in the left breast whilst arresting a prisoner; the blow was not severe, nor did it prevent his continuing his duty. On the following day, there was a bruise of small size surrounding the nipple. The dark mark of the bruise remained for some weeks. A little more than two months later, he noticed a lump, of the size of a marble, on a portion of the site previously occupied by the bruise. He was perfectly certain that there had been no hard swelling of any kind at the time of the injury; for he had carefully examined the part during the first few days after the blow. The swelling steadily increased; and, when admitted to the hospital a year after the accident, there was a large sarcomatous tumour, of the size of a fœtal head, with two large lumps in the axilla.

Notwithstanding the undoubted connection, in these two cases, between the injury and tumour-formation, yet it is exceptional to trace the starting-point of malignant disease from a local injury. Such a connection cannot be traced in more than 7 or 8 per cent. of cases. Small as this percentage is, it is sufficient for our present purpose, as showing conclusively that an injury may be the starting point of malignancy. The question immediately arises, seeing that malignancy may be the sequel to an injury, how it comes to pass that thousands of injuries are inflicted without being followed by such an untoward result? Mr. Butlin and Mr. Barwell answer such a question, by assuming that an injury, which in an ordinary person would be followed by no ill consequence, is, if it fall on a patient with a "constitutional cancerous diathesis", likely to produce a malignant growth. Mr. Butlin, in his paper, thus expresses this belief: "That there is probably a strong predisposition to the development of tumours in persons who thus break out in tumour-growth on the application of a violence." He further states: "The evidence in favour of this theory is as strong as that which supports a like belief in a strumous or rheumatic diathesis."

This theory has long been held, and often advocated, among others, by Sir William Jenner, who, at the discussion at the Pathological Society in 1873, called this constitutional state "a disposition, under irritation, to form cancer."

From the manner in which this diathesis is spoken of, and its being compared with gout and rheumatism, it is clear that those who believe in its existence must regard it as something that belongs to the body generally—a so-called constitutional state. In the two cases I have recorded, constitutionalists would see evidence of a specific diathesis, called into activity by the injury; for they would truly say, that a thousand such injuries might fall on as many individuals without producing cancer; and from this they would argue, that there must be a second factor, besides the blow, to produce such an exceptional result. All would acknowledge that some such second factor does exist; but the point I wish to raise is, What is the evidence to show that this resides in some peculiar diathesis affecting the body generally, rather than in some specific influence started in the site of the injured part?

So long as the doctrine of an inherited cancerous tendency was taught and universally accepted, it afforded strong support to the view that a peculiar constitutional condition was required, fit for the growth of cancer. In the fourteenth volume of *St. Bartholomew's Hospital Reports*, I criticised at some length the evidence upon which this doctrine of inheritance was founded; and, by comparing the various tables published on this subject with the records of cases in the hospital registration volumes, concluded that the disease was not inherited; the offspring of cancerous parents being no more liable to suffer from the disease than the children of other people.

If this tumour-forming constitutional condition really existed, it would seem that any blow struck on the patient with such a diathesis should be followed by tumour-growth; but this is not the case, for wounds, contusions, inflammations, and suppurations have frequently occurred in persons actually suffering from cancer, yet, save in the rarest instances, no second cancerous growth has resulted in the injured part, unless the injury have occurred in the immediate neighbourhood of the primary disease. It might be assumed, that when the morbid constitutional state has found expression so to speak in the primary tumour, that the diathesis vanishes, and that the body "under irritation ceases to produce further tumour formation". Such a view is entirely contradicted by fact; for secondary growths flourish and develop coincidently with the increase of the original tumour, which could not be the case if the primary growth monopolised the diathesis. These secondary growths are certainly not independent outbreaks, and are clearly derived by infection from the primary tumour. They first show themselves at exactly the points where we should expect foreign particles

or abnormal cells to be arrested in the lymph or blood-stream passing from the tumour.

Thus we see that the glands of the axilla are first affected in cancer of the breast, and the liver-substance in malignant disease of the intestine. Of course, after a while, the glands and the liver, becoming disorganised, are no longer able to filter out the obnoxious particles, and, eventually, general dissemination takes place. Again, by microscopic examination, the structural peculiarities of the secondary deposits often admit of their being identified with the primary tumour; for instance, in secondary cancer of the liver, not only can the large epithelial cells of the rectum be recognised, but they actually attempt to develop into an adenoid growth having all the characteristics of Lieberkühn's follicles. From these facts, it would seem that the early secondary growths develop from morbid cells derived from the primary tumour. Subsequently, no doubt, the cells of the tissue in which the secondary deposits develop become infected, and thus, after a while, the identity of structure of the secondary deposits with the parent tumour is lost.

The source from which these cells spring, and the cause of their collection into tumours, is the real pathological problem, of which the so-called diathesis is no explanation. Neither do I think that the multiplication of names by which modern pathologists designate malignant tumours gives much assistance in understanding their real nature. What the surgeon removes, and the microscopist cuts into sections, must not be regarded as the disease, but rather as the product of some hitherto unexplained irritation, a portion of which is almost certainly left behind, and which will in time cause a reproduction of the disease. In one way, however, we are much indebted to the microscope, for it has at least taught us that there is nothing obscure in the structural formation of the primary tumour, and that it is formed by the undue collection of the cells normal to the part in which it grows.

I have elsewhere published the results of microscopic investigations, that have led me to entertain the view that the function of the epithelial cells, whether of the intestine, skin, or gland-tissue, is not merely excretory, but that they have a higher function, inasmuch as they are the parents or producers of the leucocytes of the body, and that their nuclei, multiplying, are passed into the submucous or subcutaneous tissue, eventually finding their way into the circulation. Moreover, I have suggested, under certain circumstances, that these nuclei will develop into the likeness of the parents whence they spring. If this view should prove to be correct, or even partly correct, it would in some measure afford an explanation of secondary malignant growths; the young cells, infected at birth, are unable to pass freely into the body, and, becoming arrested, multiply *in situ*, forming the primary tumour; while such as escape are for a time arrested in the glands, where they develop into the likeness of the parents from whence they were originally derived.

As to the nature of this infection, at present we have no direct clue; but analogy would suggest some specific poison, for the course followed by cancer closely resembles what is observed in other diseases known to be due to specific inoculation—for instance, as in pyæmia. In both we have a primary infection, glandular implication, and eventually a general dissemination about the body. In cancer, however, the duration of the disease must be reckoned by months or years, while pyæmia runs its course in days or weeks. In both, the secondary deposits consist in cell-accumulation; in the one, slowly collecting and organising into a distinct tissue; in the other, rapidly accumulating into the formation of abscess.

Again, with reference to a traumatic causation, thousands of blows may be struck on bones without causing acute pyæmic necrosis, just as we see that similar injuries are rarely followed by malignancy. In cases of acute pyæmic necrosis, the primary subperiosteal abscess often teems with minute organisms, and yet there has been no lesion of the skin by which such bodies could have been admitted from the external air. Thus, one is driven to the conclusion that the poisonous organism must have been circulating in the blood, in which it was innocuous; but, when the extravasation caused by the blow allowed it to become stationary, it multiplied, producing all its poisonous local effects. I would venture to raise the question, as to whether the explanation of traumatic malignancy might not lie in some organism accidentally circulating in the blood becoming the cause of active disease, by infecting the cells of a part when left stationary, by effusion into the tissue.

The objection will at once be raised, that such an organism has never been seen, nor has cancer ever been propagated by inoculation. The first is no real objection, for it may merely infer imperfection in our method of observation; nor do I consider the negative experiments with regard to inoculation as conclusive. The demonstration that is occasionally carried out by nature would suggest that such inoculation might take place, if the diseased and sound epithelial cells were kept sufficiently long in contact. In an instance recently recorded at St. Bartholomew's Hospital, an epithelial ulcer had developed over the internal condyle of the humerus, in a case in which the arm had been closely bandaged to the chest, and kept in contact for two months with an ulcerating cancer of the breast. This auto-inoculation is not of very rare occurrence, but has not hitherto received as much attention from pathologists as the importance of the phenomena would suggest.

POST PARTUM HÆMORRHAGE.

By JOHN BASSETT, M.D.,
Professor of Midwifery in Queen's College, Birmingham.

UNDERSTANDING that the term uterine hæmostatics may be construed broadly, and as comprehending the consideration of the causes and prevention, as well as the treatment, of flooding after delivery, I venture to offer some remarks with the object of ascertaining, as far as may be, the causes which induce an unnatural loss of blood at or near the time of delivery, and then of inquiring whether we have any means in our power of preventing such occurrences.

It is admitted by all obstetric writers that hæmorrhage at the time of delivery is one of the most formidable of the complications which beset the parturient woman, not only from its frequently having a fatal termination, but also from the great damage which it occasions to the general health, and the liability to the development of latent hereditary tendencies, which display themselves under the debility occasioned by great losses of blood. Further, such cases are a cause of so much anxiety and perturbation to the accoucheur, that he requires to be armed with all the foreknowledge which a careful examination of the subject can furnish.

It is assumed that the loss of more than a limited amount of blood at the time of delivery is an unnatural circumstance, and one that brings any case in which it occurs within the domain of pathology.

Hæmorrhage at or near the time of delivery may be roughly divided into four orders: first, those cases in which it occurs from an unusual situation of the placenta; secondly, those cases where it happens from lacerations and injuries to the uterus or placenta, or to the utero-placental vessels; thirdly, those cases in which it is brought about from certain circumstances which transpire during the progress of the labour and delivery; and, fourthly, those cases in which it is produced by constitutional states of the mother, such as diseased conditions of the liver and kidneys and other important viscera, but more especially by general anæmia, and more rarely by a too plethoric state of the system. It is no part of my present purpose to dwell upon other causes of hæmorrhage, such as the association of pregnancy with fibrous tumours, or cancer, or obliquities of the uterus; nor shall I dwell upon the first two of the divisions which I have named. With reference to the third, I observe that a variety of circumstances transpire during the course of an otherwise natural labour which have a strong tendency to disturb the uniform and rhythmical action of the womb. The well-known influences of hope and fear are under daily observation; and, among other causes, are the tendency which exists in certain classes of society to administer alcoholic stimulants, whereby the force and frequency of the circulation are greatly increased; the tendency which has existed, and does still exist, to help the labours by the use of the finger and the too frequent use of the ergot of rye; also, too rapid emptying of the uterus, from diminished power of resistance, or too rapid delivery by the forceps, or, on the contrary, undue delay in the use of the forceps. Errors in the management of the delivery of the child and of the placenta, are fruitful sources of hæmorrhage, in not permitting the womb to expel the trunk of the child slowly; in not following the nates by the hand, so as to get the placenta detached at the same time that the child is expelled; in not allowing the womb a suitable interval of rest after the expulsion of the child; in pulling at the umbilical cord to ascertain if the placenta be detached; in forcibly extracting the placenta without the concurrent action of the uterus; in not dealing promptly with the placenta when it has become partially detached and the womb is being filled with blood; in not administering ergot of rye and opium, when their use is plainly indicated by the paralysed or spasmodic state of the womb. These various causes are quoted as having a direct tendency to bring about an irregular and imperfect contraction of the womb, whereby hæmorrhage is greatly promoted. In nearly all such cases, a spasmodic state of the womb has been established, in which one set of fibres is acting, perhaps, violently, whilst others are either passive or relaxed. Blood is poured out, which in its turn becomes a source of irritation to the interior of the uterus.

By far the largest number of cases of hæmorrhage come in the fourth division which I have named, and arise from an altered state of the

blood, which induces a weakened condition of the muscular fibre of the body. This may be due to visceral unsoundness, or to malassimilation and defective nutrition. It is now well known that very frequently, during pregnancy, the blood undergoes chemical and physical changes which alter its vital relations. These changes vary in degree and kind in different cases; and if they are associated with defective secretion and excretion, a pathological state of a dangerous character may be established. In former days, these changes were always regarded as being of a plethoric order. Now we know, from an analysis of the blood, that during pregnancy it contains an excess of water; that the serum is deficient in albumen; that the red corpuscles are diminished in number; and that the fibrine and extractive matters are in excess. This is a condition which, in other words, is one of anæmia—a state which, according to my experience, is comparatively common in pregnancy, and one which is associated with those severe floodings which arise from imperfect and insufficient contraction of the womb after delivery. It is well known that in anæmia and chlorosis the muscular fibre of the body is in an incompetent condition, that the action of the heart is most irregular, either from its fibres being weak, or from the blood not imparting its natural physiological stimulus to the walls. It has been shown by Dr. Goodhart, in a paper read before the Hunterian Society, that anæmia may be a cause of heart-disease, and that it produces fatty striation of the muscular fibres. I have met with three or four cases in which heart-disease has been established during a pregnancy which has been associated with anæmia; and I doubt not that, when the muscular fibres of the uterus come to be examined carefully and critically in those cases of hæmorrhage which prove fatal, they will be found to be imperfectly organised, from defective nutrition, and that this, with the altered vital properties of the blood, will be recognised as the principal factors in producing this form of uterine hæmorrhage.

The second issue raised in this paper is, whether cases of uterine hæmorrhage can be prevented? My reply to this is, that in very many instances they can: first, by avoiding unnecessary interference during the progress of the labour, by permitting the delivery to take place slowly, by following the uterus with the hand as it expels the nates, by using expression rather than traction for the removal of the placenta, and by the not too liberal use of the ergot of rye; secondly, in all those cases where, from previous knowledge, I have reason to expect flooding, or where, from a careful examination of the patient, I detect signs of imperfect nutrition and general debility, I adopt a tonic treatment, into which the administration of iron usually enters, with a carefully regulated diet, and suitable hygienic surroundings. By these means, the tone of the health is raised, the muscular fibre of the body is strengthened, and the nervous system is braced, so that nature is able to perform the task she has in hand in a satisfactory manner; in other words, I have for some years paid the strictest attention to the health of pregnant women, and have not the slightest hesitation in declaring that I have seen the greatest possible benefit result therefrom.

CLINICAL MEMORANDA.

SUDORIFIC TREATMENT OF TYPHOID FEVER.

HAVING for many years past effectually treated several incipient cases of typhoid fever, and stopped its ravages, by immediately resorting to active sudorific treatment, vigorously kept up till all abnormal temperature had subsided, I think it well to call the attention of the members of our Association to it, who may have a wider field for testing its efficacy than I have. The cases I have treated in this way came under my notice at the very early stages of the disorder, and were ushered in by rigors, headache, and abdominal tenderness, with acceleration of pulse, and abnormally high temperature. From the physical appearance of the patients, and from the defective sanitary condition of their homes, they left no doubt, in my mind, as to how the disease would eventually terminate if left to run its ordinary course.

I have kept no special notes of the cases I have successfully treated in this way, as they extend over a period of more than twelve years. But they may be summed up in a few words. In about eight or ten hours after commencing the treatment, I found the temperature fall to very nearly its normal standard, the headache and abdominal tenderness cease, and the patient, though suffering extreme weakness, appearing in every other way free from the disease. My usual mode of proceeding, is to wrap the patient well up in blankets, and to cover all with a mackintosh sheet or waterproof apron to prevent evaporation, and, if there be nausea or sickness, to freely administer draughts of soda-water. The action of the skin is then kept up till all febrile symptoms have subsided. Within the last few months I have treated a case in this manner, with the addition of jaborandi, and feel convinced that it saved my patient many weeks of suffering. I believe that sufficient importance is not paid at the present time to the due action of the skin in the early stages of febrile disorders, when a little assistance on our part would enable nature to throw off the poisonous influence of the disease.

RICHARD RYDER.

SMALL-POX IN BIRDS.

APROPOS of "small-pox in birds", I may perhaps mention the fact that some years ago, a former steward of this hospital was in the habit of breeding a large number of canaries. As these arrived at maturity it was a common occurrence to find many of them dead, and presenting evidence of having suffered from some eruptive disease. It was further observed that, when the hospital contained a somewhat large number of patients, the mortality among the birds increased, and *vice versâ*.—

WILLIAM GAYTON, M.D., Medical Superintendent,
Small-Pox Hospital, Homerton.

MALIGNANT DISEASE VERSUS SYPHILIS.

EVERY surgeon, I am sure, reads with pleasure and profit anything from the pen of Mr. Jonathan Hutchinson. In the JOURNAL of March 4th he refers to the clinical differences in character of malignant disease, according to its seat. Referring to certain cases of cancer of the skin of the trunk, it is stated that "In all, the ulceration progressed slowly during many years, caused but little pain, and produced no gland disease." Further on: "The disease of which I speak is most intractable, and, as far as I have observed, recurs immediately after removal." Reference is next made to an interesting case, in which Mr. Hutchinson twice removed the ulcer by the knife, and three or four times by caustic, but without benefit. "As soon as the sore was nearly healed, it recurred."

May a provincial surgeon be permitted to give a case in many respects parallel? Some years ago, a man aged 45, suffering from epithelial cancer of the scrotum, sent for an eminent surgeon, for the purpose of having it removed. The operation was well performed. No one who saw the case had the slightest misgiving regarding its nature, but, as a formal matter, the diseased structure was handed to a practised microscopist in the neighbourhood, who stated that it was epithelioma, without doubt. When nearly healed, it recurred, and was removed again, only to begin to spread when almost completely well. A third time it was taken away, with a like result. At the fourth operation, the testicle, which now appeared to be implicated superficially, was removed. When cicatrisation was all but perfect, the surgeon left town for his holidays, and shortly afterwards the patient's medical attendant requested me to perform the fifth operation, as the disease was spreading again. Having the history of the case before me, in a hopeless, half-hearted sort of way I cleared away the diseased tissues as carefully and completely as possible with the knife, and watched the healing process with much interest. Matters progressed very favourably until the healing line was reached, when once more the ulceration began. Such conduct in a chimney-sweeper's cancer appeared to me unique. I saw that operating again was useless, and as I stood pondering at the bedside, my eye rested on the shining bald head of the patient. As a random shot, the question was put as to when his hair first came out. He said his hair began to fall soon after he joined the service, more than twenty years ago. The answer gave the clue. Iodide of potassium was prescribed, when the wound rapidly and perfectly healed, and has so remained.

Last year a lady, aged 60, came to consult me regarding an ulcer on the left side of the nose. She had been recommended by her medical attendant, whose card she brought, to see me regarding removal by operation. The sore, she said, began about two years ago, as a small scab or flattened wart, and continued to increase in size slowly and without pain since that time. The ulcer was now about five-eighths of an inch in length by half-an-inch in breadth, throwing out little discharge, and surrounded by an elevated, clear, glistening border. As she was accompanied by a friend, few questions were asked, and I simply stated that it might be prudent to defer operative interference in the meantime. The patient was given a prescription for tertiary syphilis, requested to use the medicine for six weeks, and then return. She did so, and the sore was completely healed. This was apparently a small rodent ulcer, with a syphilitic origin. We are, probably, yet far from thoroughly understanding the multifarious ramifications of syphilis.

ALEXANDER PATERSON, M.D., Glasgow.

DR. JAMES HYSLOP, of the Royal Edinburgh Asylum, has been appointed resident surgeon of the Pietermaritzburgh Asylum in Natal, the particulars of which appointment recently appeared in our advertisement columns.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

ST. THOMAS'S HOSPITAL.

CASE OF HÆMATURIA, OF VESICAL ORIGIN, WITH MARKED ALKALINITY OF THE URINE: TREATMENT BY BENZOIC ACID: RECOVERY.

(Under the care of Dr. ORD.)

[From notes by Dr. S. W. SUTTON, House-Physician.]

N. J., a girl, aged 12, was admitted on March 11th, 1882. The illness began three months before admission with pain in the back, which lasted for two days, and thirst. She had received no injury, and could not account for the pain. After this, it was noticed that her urine was very red, and contained clots of blood. When getting up in the morning, she had lately had pain in the right side of the abdomen, shooting up and down, but lasting only a short time; and had also had headache. There was no vomiting, shivering, or giddiness. For three months before the hæmaturia began, she had had epistaxis; but this entirely ceased two months before admission. The family history was good: there was no history of hæmophilia.

On admission, the patient was a pale girl, with lips, gums, and conjunctivæ showing marked anæmia; and complaining of nothing but the bloody condition of her urine. The urine was bright red, with a large deposit of blood, mucus, and pus; it was strongly alkaline, and contained abundant crystals of the triple phosphate; there were no other crystals, and no casts. Forty-one ounces were passed in twenty-four hours; the specific gravity was 1030. The blood, examined microscopically (quarter-inch power), showed the corpuscles to be well shaped; there were from five to seven pale corpuscles in the field. Examined by the hæmoglobinometer, it showed almost fifty per cent. diminution of red corpuscles. There was no sign of any tumour in the abdomen, and no tenderness over either kidney or elsewhere. The abdominal organs were natural, except that the bowels were confined. The bladder was examined by the sound. This caused no pain; and no stone or new growth could be detected; but it was thought that the mucous membrane was a little rough towards the left of the fundus. The heart's apex beat in the fifth intercostal space, half an inch outside the nipple-line. Dulness reached to the fourth rib, and to the left border of the sternum. The heart's action was irregular, and unusually strong. Pulse 80. Exertion caused shortness of breath. There was a little dulness behind at the extreme base of both lungs, with a diminution of the vocal thrill. Respirations 20.

March 21st. Fifteen grains of benzoic acid, in a little mucilage and water, was ordered to be taken three times a day.

March 23rd. The urine had now lost its red colour, was acid, and contained no blood and no crystals, and much less pus.

April 1st. Up to to-day, the urine had continued to improve, but to-day it was slightly alkaline again, with more pus and crystals of triple phosphate. There was still no blood, however, and the patient was a little less anæmic in appearance.

April 3rd. The urine was again acid, with very little pus, and still no blood; specific gravity 1016.

April 10th. As the urine still continued improved, ten grains of the benzoic acid were to be taken three times a day, instead of fifteen grains.

April 17th. The urine was still acid and free from blood, containing a very little pus. The patient had been up every day for a fortnight; she was certainly less anæmic, and was no longer subject to attacks of dyspnœa on exertion. She had been taking ordinary diet with meat, except during her first week in the hospital, when she was on "milk-diet".

April 24th. Except that a very small quantity of pus was still present in the urine, the patient appeared quite well. She had a good colour, had gained flesh, and was very bright and cheerful. She was discharged.

REMARKS BY DR. ORD.—The diagnosis arrived at in this case was chronic cystitis, producing ammoniacal decomposition of the urine, with reaction upon the mucous membrane of the bladder, producing hæmorrhage, the child being, according to the history, somewhat prone to bleeding. The diagnosis was based, first, on the fact that the urine was always intensely ammoniacal when passed—this being a condition which indicates certainly that the bladder is unhealthy, whatever other disease may be present; next, upon the presence of pus without the presence of casts or of epithelial forms belonging to the kidney or its pelvis. The urine was searched for signs of parasites, and the blood was also examined with reference thereto. The history of pain referred to the region of the kidney was vague; and, on examination, no tenderness or tumour could be anywhere detected. At the same time there was no dysuria or increased frequency of micturition. The benzoic acid was given in full doses with the object of restoring the acidity of the urine, and so of checking the hæmorrhage. The acid reaction was obtained the day after the commencement of the treatment, and the blood disappeared completely and permanently. The urine was again and again examined microscopically with reference to the presence of casts or other renal products which might have been decomposed by the ammonia; but no sign of renal complication was ever found. Hippuric acid was obtained from the urine while the benzoic acid was being taken. The patient was kept on milk-diet for three weeks after the cessation of hæmorrhage.

ST. MARY'S HOSPITAL.

CASES IN AURAL SURGERY.

(Under the care of Mr. FIELD.)

CASE I. *Cerebral Abscess: Death.*—S. T., aged 42, a strong, healthy-looking, and able-bodied man, presented himself at the hospital on March 23rd, 1882. He stated that, under treatment there some years previously, he had been cured of a discharge from the left ear. This, after a long period, had returned, and had latterly become so offensive as to force him again to seek relief; it seemed to be unaccompanied by any suffering. He was ordered an aperient mixture and a weak carbolic acid lotion. In a week, his wife came to say that he appeared to have caught cold, and had some pain behind the ear. Six leeches, to be applied over the mastoid process, and a dose of iodide of potassium three times a day, were consequently prescribed. A few days afterwards, the patient rather suddenly died.

Post Mortem Examination.—The dura mater was moderately adherent to the skull-cap; as it was cut through, much black blood oozed from the sinuses. There was some pinkish injection of its inner layer. The arachnoid exhibited general stickiness. In the meshes of the pia mater, beneath the arachnoid of the sulci of the hemispheres, was some yellowish puro-lymph, most abundant over the left temporo-sphenoidal lobe. The left lateral lobe of the cerebellum was adherent to the dura mater of the temporal bone, except where separated by an abscess-cavity of the size of a walnut. The cavity had thin walls, spotted with punctiform extravasations; it was filled with greyish-green very fœtid pus, and extended inwards as far as the middle lobe, where the surrounding tissue was greyish and softened. No other abscess was found on section of the hemispheres. The temporal bone, which was broken in extraction, showed considerable necrosis, with yellowish and greenish discoloration of the walls of the tympanum; one of the veins in the roof of which was filled with a blackish soft clot, and passed into the midst of the portion of bone united with the cerebellum. The dura mater over the temporal bone was abnormally thick and pink, and, over the necrosed area, opaque and greyish. The cavity of the tympanum was occupied by opaque fœtid cheesy material. The membrana tympani was absent.

REMARKS.—As Mr. Toynbee first pointed out, "affections of the external meatus and mastoid cells produce disease in the lateral sinus and cerebellum." He most truly observes that "the insidious progress of cases in which matter in the cavities of the ear injures the petrous bone and the brain cannot be too often or too forcibly impressed upon the mind of the profession."

CASE II. *Exostosis in the Auditory Canal.*—J. F., a girl, aged 18, who came to the hospital on March 20th, 1882, had four weeks previously, after gradual loss of hearing during eighteen months, suddenly become very deaf in the left ear. There was no history of gout or of syphilis in her family. On examination, the external auditory meatus was found occluded by a large deeply seated outgrowth of soft bone, firmly attached by an exceedingly broad base to its posterior wall, and painless when touched by a probe. On March 27th, the patient was placed under chloroform, and all attempts either to reach it with stump-forceps or to cut it away by *écraseur* having failed, an elevator such as is used by dentists was carefully applied, with the effect of severing it from its attachment. It was then seized with a pair of dressing-forceps, and easily brought away. Notwithstanding its large size, it weighed only eight grains. In shape it resembled a tooth, and one might at first sight, from its appearance, have judged it to be a hard ivory exostosis; but, as has been explained in former papers by Mr. Field, such a growth, on account of its extreme compactness, could not have been removed satisfactorily except by the dental engine.

QUEEN'S HOSPITAL, BIRMINGHAM.

TUMOUR OF LEFT LOBE OF CEREBELLUM: ALBUMINURIA.

(Under the care of Dr. B. HUNT.)

[Reported by Mr. LESLIE PHILLIPS, House-Physician.]

T. W., an ill-developed lad of 16, was admitted on October 11th, 1881. There was no history of syphilis or cancer in his family; but a paternal aunt had phthisis. The patient had scarlet fever four years ago, and had suffered from dropsy for three years. Eight weeks ago, he complained of giddiness, and a week after, while at work, had a fit. He was carried home; but it was not noticed that any loss of power of one side existed. For seven weeks before admission, he had had severe frontal headache, night and day; and amblyopia for five weeks. His mother stated that he staggered, and asserted that he tended to fall to the left. He had vertigo, and vomited every morning at 2 A.M., and again at 6; this had been so since September 30th. Memory and intellectual power had progressively failed since the fit.

On admission, he had double optic neuritis. Vision, left eye $= \frac{20}{40}$, right $= \frac{20}{200}$. There was difficulty in effecting the conjugate movements of the eyes to the left. There was nothing characteristic in his gait. He held his head stiff, and walked slowly and deliberately, but did not reel. He said he could not walk quickly. No tendency to fall to the left was observed. The patellar tendon-reflex was active on both sides. He heard a watch with the left ear at four feet, with the right at one foot. He vomited frequently while in hospital. He had had constant severe headache. The pupils were large and equal, 8½ millimètres in diameter. There was no anæsthesia; no paralysis of the muscles, but a marked adynamic condition of the body. He lay quietly in bed, speaking very little, never complaining unless asked. No abnormal physical signs were found in the region of the heart. Pulse 130, feeble. The radial arteries were thick and cord-like. He passed daily from twenty to thirty ounces of straw-coloured urine; two-thirds of the column consisted of albumen and granular casts. The sense of smell and taste were not impaired. He had no œdema of the legs. An ice-bag was ordered to be applied to the head, and five grains of iodide of potassium with three grains of citrate of iron and ammonia to be taken three times a day.

October 18th. He had severe pain in the head: he held his head inclined to the left, while his eyes looked a little to the right.

December 1st. He complained of pain on the left side of the head near the frontal suture; and was becoming weaker. On December 3rd, dimness of vision was observed. On December 10th, his head was retracted. On the 14th, he was amaurotic: he had had dysphagia for the last four days. On December 21st, his head was still retracted. On the 28th, the dysphagia was more marked. On January 14th, his neck was stiff; pulse 152. His head was inclined to the left till a few days before death, when it turned to the right. He gradually sank, and died on February 10th.

NECROPSY.—The apices of both lungs contained calcareous nodules. The lungs were adherent to the chest-walls throughout. The pericardium was adherent throughout. In the anterior wall of the right auricle was a mass of firm consistence, of the size of a hazel-nut (tubercular). The valves were healthy; the left auricle and ventricle were hypertrophied. Caseous glands were found in the mediastinum. On the under surface of the right lobe of the liver, near the anterior border, just beneath the capsule, was another nodule of cheesy material, apparently tubercular. The kidneys were triangular; the pyramids atrophied; the cortex pale. There was pyelitis of the left kidney. A deposit of lymph was found in the membranes of the brain to the left of the longitudinal fissure. The arachnoid was opaque; the sinuses engorged. The infundibulum was dilated to the size of a crow-quill. The lateral and third ventricles were dilated with serum, containing about one ounce. The left lobe of the cerebellum was enlarged, and adherent to the dura mater; the greater part of its extent was occupied by a cheesy yellow opaque mass of solitary tubercle, of the size of a small hen's egg. It was solid on section, and of firm consistence.

MATER MISERICORDIÆ HOSPITAL, DUBLIN.

IODOFORM IN ULCER OF THE STOMACH.

(Under the care of Mr. J. M. REDMOND.)

HAVING observed how rapidly external ulcers healed under the action of iodoform, Mr. Redmond was led to try its effect on ulcer of the stomach, and in other affections of the stomach; it was administered either alone, or combined with opium. The results have been most satisfactory, as the following case will help to illustrate.

B. C., aged 21, an unmarried female domestic servant, was admitted on January 21st, 1882. She stated that her health had been tolerably good until about two years earlier, when she was seized with vomiting of blood, which continued for three successive days, accompanied by pain and tenderness in the epigastrium. Since then, her health had been considerably impaired. She had been alternately well and sick for days at times.

At the time of admission, the tongue was moist, and coated with white fur. Incessant vomiting had commenced three days previously, with a severe attack of hæmatemesis; she complained of pain and tenderness at a spot about one inch to the left of the xiphoid cartilage, and of pain shooting out under the left scapula. Milk, and a mixture prescribed to control the vomiting, were rejected almost immediately. On the following day, the vomiting continuing, nutrient enemata, a blister to the epigastrium, and iodoform (three grains in pill), three times daily, were prescribed. On January 23rd, the vomiting had ceased; the pain and tenderness had diminished; the tongue was still loaded. On January 26th, the improvement still continued. On February 3rd, she felt quite well, and could take milk, jelly, etc. Nutrient enemata were now discontinued. On February 15th, it was noted that there had been no return of the vomiting since January 23rd, and that meat, etc., could be used without causing the least inconvenience. A mixture containing iron was ordered. On February 25th, she was discharged from hospital. She then stated that she had not felt so well for the last two years.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, APRIL 25TH, 1882.

JOHN MARSHALL, F.R.C.S., F.R.S., President, in the Chair.

On Wounds of the Theca Vertebralis with Discharge of Cerebro-Spinal Fluid. By T. HOLMES, F.R.C.S. Referring to a case published in the sixtieth volume of the *Medico-Chirurgical Transactions*, in which a copious flow of limpid fluid took place from a wound in the back, and in which it was believed that the ureter was wounded, though it was also admitted as possible that the fluid might have been cerebro-spinal, the author related two cases; one under his own observation, in a patient of Mr. Rouse, at St. George's Hospital, the other from the *Lancet*, in which a similar copious discharge of watery fluid was caused by a wound of the spinal membranes, not involving any wound of the cord or large nerves, as proved in one case by *post mortem* examination, and in the other by the position of the puncture. He said that such wounds did not of themselves produce any symptoms, the loss of fluid being gradual, and the fluid no doubt rapidly re-secreted. Inflammation around them might interfere with the functions of the spinal cord or nerves even to a fatal degree; and there seemed some warrant for believing that the very sudden withdrawal of large quantities of the fluid (as in operation for spina bifida) might produce dangerous syncope.—Mr. JONATHAN HUTCHINSON referred to the escape of fluid from the ear in injuries of the head, which was sometimes unattended with any detriment to the patient, and was in some cases followed by recovery. In cases of puncture or rupture of spina bifida, even when there were no immediate serious consequences, arachnitis was very liable to ensue.—Mr. THOMAS SMITH had seen cases both of artificial opening and of rupture in cases of spina bifida. The escape of fluid was generally not attended with immediate danger; but, when long continued, it was liable to be followed by inflammation of the membranes of the spinal cord, and death. He had, however, seen cases of recovery after spontaneous rupture; rupture was, indeed, not rarely the commencement of cure among the few cases of spina bifida in which spontaneous recovery took place. He had seen a large spina bifida which had been divided by the lancet. The child lived for some time, and seemed about to recover, but at last died. It would be probably injurious in cases of supposed wound of the theca vertebralis to delay healing until a certain diagnosis could be made.—Mr. J. H. MORGAN had assisted Mr. Holmes in operating on a child from India, who had a congenital pedunculated tumour just below the middle dorsal region. The fluid contained in it could not be forced into the spinal canal by pressure. The tumour was removed by means of an elliptical incision on each side; but, when the base was cut through, the child suddenly became moribund, and, though it partially recovered, it died within twelve hours. Mr. Holmes thought that the symptoms were due to poisoning with carbolic acid; but Mr. Morgan would rather attribute them to the action of the knife on the connection between the tumour and the spinal cord. He had had under his own care a child with a tumour, also pedunculated, and having no

apparent connection with the spinal canal. Its removal having been decided on, he first introduced a small trocar, when collapse immediately took place. A little of Morton's iodo-glycerine was injected, care being taken to prevent it from entering the spinal canal by tying the base of the tumour. This child also died; and he could not explain the collapse except by the action of the trocar on the connection with the spinal canal. He had also seen a case in which a midwife had slit up a spina bifida with scissors, the child recovering.—Dr. WHARRY thought that symptoms were not immediately produced in cases of injury of the theca vertebralis, because the fluid had to pass through the trabeculæ of the subarachnoid space, and was discharged slowly, so that it was reproduced as it was removed.—The PRESIDENT explained that Mr. Holmes was unavoidably prevented from being present. He thought that it was possible to make an early diagnosis of wound of the theca vertebralis, except in cases in which products of inflammation might have become mingled with the fluid discharged. The position of the injury might also have an influence on the result, it being less dangerous when situated low down in the back. Attention should not be entirely confined to the mechanical use of the cerebro-spinal fluid; it might have some other function. In a case of spina bifida in which he injected iodine, although he took care to prevent the iodine from escaping into the spinal canal, the child fainted, and had a convulsive attack.

Suggestions for the Treatment of Special Cases of Empyema by Thoracentesis and the Simultaneous Injection of Purified Air. By ROBERT W. PARKER, M.R.C.S.Eng.—The author commenced his paper with the record of a case of empyema in a child aged 3¾ years, who had been in the East London Children's Hospital under the care of Dr. H. Donkin. The physical signs pointed with great clearness to a very large effusion; but, on attempting aspiration, only four ounces could be withdrawn. A few days later, a further attempt was made, and with no better result, although the chest-wall was punctured in two or three places. Finally, a free incision was made, when between forty and fifty ounces of fluid were removed. The child ultimately recovered with hardly any deformity, although she had an attack of small-pox while the empyema was still discharging. The mechanism of tapping was then referred to. It was *vis à tergo* which expelled the fluid, rather than *vis à fronte*. Either the lung re-expanded, or the diaphragm rose, or the chest-wall fell in. There were cases, however, in which, owing to rigidity of the chest-wall and binding down of the lung, this expulsive force was reduced to a minimum, and additional means became necessary in order to empty the abscess-cavity. Dr. Bouchut of Paris had published a case similar to Mr. Parker's, and had proposed to forcibly expand the lung through a tube introduced into the bronchus. Instead of this somewhat heroic treatment, it was suggested that filtered and carbolised air should be introduced into the pleural cavity in order to displace the fluid. A suitable apparatus for this purpose was shown, and its mode of use demonstrated. At the completion of the operation, the air in the empyema-cavity ought to be somewhat less dense than the external air, so that the lung might be in a position to re-expand from the first; while the gradual absorption of the air would keep up that advantage during the period of cure. It was contended also that the presence of air in the chest under such circumstances, by supporting the vessels, would tend to hinder the re-accumulation of fluid, which a condition of vacuum, as under ordinary circumstances, would rather tend to promote. A case under the care of Dr. Symes Thompson at the Brompton Hospital, in which this plan of treatment was successful, was referred to. Cases also were mentioned in which there had been difficulty in withdrawing the fluid, depending on other causes; and particular stress was laid on them, for in such cases the injection of air into the pleural cavity would not suffice to overcome the difficulty. The author pointed out that his plan of treatment was adapted chiefly for those cases in which the difficulty of removing the fluid depended on rigidity of the wall of the cavity. This condition was most likely to occur in adults, although the case mentioned at the commencement of the paper was a typical one, occurring in a young child. He recommended its trial before free incision, which was a somewhat severe measure, was adopted.—Dr. SYMES THOMPSON said that, in the case under his care which had been mentioned, the results were very satisfactory. The removal of the fluid and the introduction of air were unattended with any discomfort to the patint. He thought that, instead of making a double opening, air might be admitted by the same passage as that by which the fluid escaped. The method proposed by Mr. Parker seemed to be suitable for cases in which the chest-walls were inelastic. It would probably be of advantage where the fluid was serous; but, in cases of purulent effusion, he believed that a free incision was preferable, so as to remove the fluid as quickly and as completely as possible. Mr. Marshall had advised the making of the opening at a point anteriorly, where spontaneous discharge generally took place; and had pointed out that it was undesirable to make the puncture far back, where the diaphragm could close the wound. Dr. Thompson thought a middle course best, the puncture being made neither far back nor far forward.—Dr. DOUGLAS POWELL thought that the case operated on by Mr. Parker at the Brompton Hospital was peculiarly adapted to the proceeding. Dr. Hicks, the resident medical officer at the hospital, had done an analogous operation in another case, in which the fluid could not escape in consequence of the lung being diseased and incapable of expansion. It was a question, whether the same object might not be gained by opening the chest-wall, under the carbolised spray. He thought that there must be some fallacy in Mr. Parker's case, as to the reason why the fluid did not escape from the pleura. He had seen a case in which fluid was retained after tapping, probably in consequence of some layers of fibrinous exudation not being cut into at the same level as the external wound, and therefore closing it. In his case, there was a sudden escape of fluid from the wound during the night, probably from softening and removal of a flake of lymph. He thought that it was not desirable to remove all the fluid in cases of serous effusion; it gave rest to the pleural surfaces. In purulent effusion, free incision and rapid removal was the best plan.—Dr. REGINALD THOMPSON thought that Mr. Parker's cases did not support the value of his suggestions.—Dr. COUPLAND thought Mr. Parker's proposal of some value. It would have been useful in a case of pleuritic effusion in the Middlesex Hospital, in which the lung was bound down by adhesions; in this case, the fluid became purulent, and the patient died.—DR. WARNER thought Mr. Parker's method useful. When free entrance and exit of air was allowed, rest was given to the lung.—Dr. F. J. HICKS had introduced air into the pleura in a case of chronic pleuritic effusion at the Brompton Hospital; the effusion returned, but in smaller quantity. In another case, of acute empyema, air was introduced alternately with the withdrawal of the fluid. In a third case, air was introduced with success, to prevent dragging and rupture of the lung; here also the air was admitted alternately with the withdrawal of the pus, and the pleura was afterwards washed out with Condy's fluid. This was necessary, as, by the admission of air, the mechanism was altered, so that the whole of the fluid could not escape. He showed an apparatus which he used for the purpose. The introduction of air undoubtedly prevented the cough which followed the operation for the removal of fluid; but the same effect might be produced by applying an elastic bandage around the lower part of the chest.—The PRESIDENT could not understand that escape of fluid from the pleura was entirely prevented by rigidity of the chest-walls; the abdominal viscera might push up the diaphragm, and the other lung might expand. He thought that experience showed that air was absorbed very rapidly. A fluid might be used for injection; some one had recommended oil for that purpose. More extended observations were required as to the utility of Mr. Parker's suggestions in cases of rigidity of the chest-walls.—Mr. PARKER said that free incision was an efficient means of treating abscess-cavities in general; but in some cases in children it was not sufficient. In certain cases of serous effusion, the fluid again collected, and the patients lived for some time in that condition. It was, however, perhaps easier to carry air in the pleura than fluid; and he thought that, probably, air was not very quickly absorbed. Empyematous cavities ought to be treated like ordinary abscesses.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, MAY 2ND, 1882.

SAMUEL WILKS, M.D., F.R.S., President, in the Chair.

Cancer of the Sigmoid Flexure.—Dr. DICKINSON showed a specimen of this disease from a woman aged 49, who presented during life a large abdominal tumour to the left of the middle line; it extended from the thorax to the pelvis, and was extremely tympanitic on percussion. It appeared to be due to a collection of gas in the peritoneum; subsequently, the skin became very red; and, as it appeared ready to slough, it was punctured, and fœtid gas escaped; afterwards, fæces and pus passed through the wound, and the patient soon sank and died. At the *post mortem* examination, the cavity which had contained the gas and pus was found to be situated in the subperitoneal tissue, and was connected with a cancerous stricture of the sigmoid flexure which had perforated the gut; this stricture was so tight, that it was difficult to understand how fæces could have passed through it, and yet there had been at no time any obstruction.—Mr. HARRISON CRIPPS inquired whether there were any secondary growths in the abdominal organs; for it appeared to him that the growth might be one of the simple adenoid growths which were not malignant in the full sense of the word, and would probably eventually be found sus-

ceptible of removal.—Dr. DICKINSON said that no microscopical examination was yet made; the other abdominal organs were free from growth.

Dissection of Nerves and Ganglia in Addison's Disease.—Three dissections of the suprarenal capsules and of the related sympathetic, made by Mr. Sutton, were shown; one was from a case of Addison's disease, one was from a healthy adult, and one from an infant. Dr. DOUGLAS POWELL said that the patient with Addison's disease was a man aged 22, in whom the disease ran a very acute course. When admitted into the Middlesex Hospital, he was in a very emaciated condition; he presented a good deal of cutaneous pigmentation; the hands were extraordinarily pale; the pulse was hardly perceptible, and vomiting was very severe; blistering was followed by deep pigmentation. He gradually sank, and in about two months he died from exhaustion. At the *post mortem* examination, tubercular disease of both lungs was found; the heart and aorta were unusually small, and the former weighed only five ounces and a half. The suprarenal capsules were much enlarged, nodulated on the surface, and uniformly infiltrated with a fibroid material containing lumps of caseous and cretaceous matter. A dissection of the nerves of the suprarenal capsules was made by Mr. Sutton; they were found to be enlarged, owing apparently to thickening of the sheaths; the ganglia were enlarged and indurated. Dr. Powell thought that the case agreed with those others, before reported to the Society, which seemed to show that the destructions of the suprarenal capsules had little to do with the symptoms of Addison's disease, for it was impossible to suppose that such chronic changes in the capsules as he had described could occur in the short space of eight months. Microscopical examination did not reveal any decided change in the ganglia.—The PRESIDENT inquired whether the change in the nerves had travelled from the capsules along the nerves towards the plexus. He referred to a former discussion at this Society, in which the opinions generally expressed seemed rather opposed to the views held by Dr. Powell.

Embolism of Pulmonary Artery.—Mr. STANLEY BOYD, who exhibited this specimen, said that the patient was a woman, who had sustained fracture of the metatarsal bones of the right foot and severe bruising of the right leg and thigh. Thrombosis of the femoral vein ensued, and, a little later, she somewhat suddenly became cyanosed, and her breathing became exceedingly rapid, though not difficult; there was no pulse at the wrist. She died in ten minutes. At the *post mortem* examination the right pleura contained two ounces of bloody fluid; but the lungs were normal. In the right side of the heart was an almost completely decolorised clot, which extended to the bifurcation of the pulmonary artery. Beyond this, a firm clot, having no connection with the walls, was found. The left pulmonary artery was plugged as far as its second bifurcation. The clots in the various branches all ended abruptly. There was an appearance of an embolus in the clot in the left artery. On section of this supposed embolus, it was found to be firm, very dark in the centre, with a pale faintly laminated periphery.

Addison's Disease: Rupture of the Œsophagus.—Mr. STANLEY BOYD said that the patient from whose body the specimen was taken was a young woman aged 18, who was admitted in a moribund condition into University College Hospital, under Mr. Heath. The most marked symptom was vomiting of the most severe kind; there was no dyspnœa, and no subcutaneous emphysema. At the *post mortem* examination, about two ounces of bloody fluid, free from any trace of food, were found in the left pleura; this had apparently been extravasated through a rent in the left side of the œsophagus and its investing pleura. This rent was five centimètres long; its edges were well defined, and not ragged; the mucous membrane had been destroyed for a short distance in parts, and the pleura over this part of the œsophagus had quite disappeared, but was still smooth and glistening in the immediate neighbourhood; the gastric mucous membrane showed the recognised signs of self-digestion. The suprarenal bodies were much enlarged, and, on section, were firm and of a yellow colour. Microscopic examination showed a dense, very small, round-celled growth, containing many granular protoplasmic masses with marginal nuclei. Dr. Sidney Coupland, who had seen the specimens, agreed with Mr. Boyd in considering the change to be tubercular. Inquiries that Mr. Boyd had made proved pretty conclusively that the girl had been suffering from Addison's disease for about seven months (at least) before her death. Mr. Boyd believed that the rupture of the œsophagus had occurred during life, founding this opinion on the form of the rupture—a long tear, not a circular or irregular aperture—on the character of the fluid found in the pleura, and on the absence of much evidence of *post mortem* digestion. Zenken and Ziemssen had described sudden pain, cessation of vomiting, emphysema, collapse, and suppression of urine, as the symptoms of rupture of the œsophagus; and, as these were not present, he concluded that the rupture must have occurred shortly before death.

Rupture of the Œsophagus.—Mr. STANLEY BOYD also related a case, in which the œsophagus had ruptured into the right pleura, and exhibited the specimen. The patient was an infant, aged four months, who had been exceedingly ill for some weeks before death, owing to an attack of erysipelas, succeeded by peritonitis, which had followed an operation for strangulated undescended testicle. About two hours before death, dyspnœa suddenly set in, and lasted for an hour; after the dyspnœa passed off, the child was able to take food in small quantities, but while it prevailed it choked when given brandy and milk. At the *post mortem* examination, about one ounce of clear deeply blood-stained fluid, free from lymph or any trace of milk, was found in the right pleura; both lungs were partially collapsed, the lower and middle lobes on the right side were very red, and were studded with petechiæ; and at the root there was a considerable subpleural hæmorrhage. The pleura was absent from the œsophagus over the whole of its right side, below the root of the lung, and its torn edge could be easily seen near the diaphragm. Pressure on the œsophagus caused a bubble of air to escape through a small opening in its wall; on the inner aspect of the gullet several small blood-clots were found near the hole referred to; this measured about two millimètres, and, for a short distance, above and below, the circular muscular fibres were exposed. Mr. Boyd considered that the clots in the gullet, the bloody fluid in the pleura, the marked redness and numerous petechiæ on the surface of the lung, proved that the perforation took place during life; and that, possibly, it had been the cause of the dyspnœa which set in a few hours before death.—Mr. BUTLIN did not think that the first case was an instance of *ante mortem* rupture of the œsophagus. He inquired whether the stomach or pleura contained blood.—Mr. BOYD said that the pleura did contain some bloody fluid, and, in reply to the President, he referred to another case, described in the *Transactions* of the Society for 1846-47, where a man was seized with sudden severe pain after making an attempt to vomit soon after a heavy dinner. After death, extensive recent pleurisy was found.—Mr. MORRIS wished to know whether there had been any evidence of marked interference with the functions of the pneumogastric nerve.—Mr. BOYD said that there had been no such symptoms described by authors, or witnessed in his case, beyond some collapse.—Dr. POWELL said that it was to be remembered that, in the first case, there was Addison's disease; and, as the pneumogastric nerve gave a branch to the suprarenal capsule, the branches supplied to the œsophagus might have also been affected, and some nutritive changes might thus have been produced in the œsophagus.

Disease of the Sacrum.—Dr. ANGEL MONEY showed a sacrum, removed from the body of a boy, aged three years, who had died, under the care of Mr. Marsh, in the Hospital for Sick Children. On admission, the child presented two large abscesses, one at the upper and outer part of the left thigh, and the other in the left calf. The abscesses were opened, and, on the following day, the temperature rose to 105.4°; a scarlet rash appeared, as well as sore-throat, and some diarrhœa. These symptoms all continued. Ten days later, slight otorrhœa was noticed; and, on the following day, the child died. At the *post mortem* examination, the anterior borders of the first and second sacral vertebræ were found discoloured, bare, and rough, and the intervertebral fibro-cartilage was wasted and softened. The abscess in the left thigh communicated with the sacral disease through the great sciatic notch; there was no lumbar or rectal disease. A surface of bone at the posterior aspect of the tibia was bare and roughened; the abscess in the calf did not communicate with that in the thigh. The middle ear on the right side was full of pus, and so also was the left hip-joint; no other purulent collections were detected. Dr. Money thought the case of interest from the rarity with which the body of the sacrum was the seat of primary disease.

Tumour from Spinal Cord.—THE SECRETARY (Mr. H. Morris) said that Dr. LEDIARD (of Carlisle) had sent to the Society a specimen of tumour of the cord, and had supplied a clinical history which was shortly as follows. The patient experienced at first some pain in the back of the neck without any discoverable cause; subsequently paralysis of sensation and motion of the left upper limb gradually came on; then the left lower limb became paralysed; then the limbs on the other side gradually became similarly affected, so that for a fortnight before death he remained absolutely unable to move; finally, the respiratory muscles failed, and he died, retaining his consciousness to the last. At the *post mortem* examination, a small tumour, which was sufficiently large to entirely overlap the cord, was found lying on its posterior aspect in the cervical portion; the surface of this tumour was smooth and firm; it lay beneath the dura mater, and was attached to it chiefly by small vessels. The tumour was a fibro-sarcoma.—The PRESIDENT said that it seemed to agree with most cases of tumour of

the spinal cord, inasmuch as the nerves were first affected, and then the functions of the cord were abolished by the pressure.—Mr. BUTLIN, speaking as a surgeon, suggested that such tumours as these, if they gave evidence by such distinct symptoms of their existence, might be removed by an operation.—The PRESIDENT observed that there was no vital organ which surgeons would not touch now-a-days.

[*To be continued.*]

CLINICAL SOCIETY OF LONDON.

FRIDAY, APRIL 28TH, 1882.

J. LISTER, D.C.L., F.R.C.S., F.R.S., President, in the Chair.

Cases of Antiseptic Ligature of Arterial Trunks in their Continuity.—Dr. HECTOR C. CAMERON, of Glasgow, read notes of all the cases of antiseptic ligature of arteries in their continuity in which he had performed such an operation, whether for aneurysm or for accidental wound. The material employed was antiseptic catgut (prepared by one or other of the methods suggested by Mr. Lister), of medium size, and tied in a reef-knot with sufficient tightness to ensure division of the internal and middle coats of the vessel. Very accurate coaptation of the cutaneous margins of the wound was practised by stitches of carbolised silk or silkworm gut, with an occasional stitch of thick silver wire for purposes of relaxation where that seemed desirable. Free drainage was effected by means of India-rubber drainage-tubes in all the cases except one, in which a number of strands of carbolised catgut were employed. The operations, as well as the subsequent dressings, were conducted with rigid antiseptic precautions. The first case was one of traumatic aneurysm of the brachial artery. A labourer, aged 38, in good general health, had a large aneurysm of the lower and inner part of the left arm. About six months before, he had been struck by a riveting-hammer in that situation. The brachial artery was tied with carbolised catgut in the first part of its course. In ten days, the wound was sound, having furnished throughout only a slight sero-sanguineous discharge, and having been free from any pain or swelling. In the following winter, he suffered from a limited mortification of one or two toes, from which he also made a good recovery. His arm, he said, was as strong and useful as ever. The second case was one of large diffuse popliteal aneurysm. An old soldier, aged 44, had a large popliteal aneurysm, extending as high as the junction of the lower with the middle third of the thigh on its inner side. A month before, he noticed a small pulsating tumour at the back of the knee, which he felt suddenly give way six days before treatment, while he was at work. On examining the part, he found that the swelling had greatly increased, while the pain became so severe as to make him discontinue work. From that date, the tumour had steadily increased in bulk. Pulsation could be distinctly seen and felt in it, and was controlled by compression of the femoral. There was some œdema of the foot and leg. The femoral artery was ligatured at the apex of Scarpa's triangle with carbolised catgut. On the second day afterwards, the drainage-tube was removed. On the tenth day, the wound was soundly healed. The tumour decreased in size very slowly, and he was not dismissed for two months. The discharge from the wound was, throughout its healing, serous in character, and there was no constitutional disturbance, except a slight rise in temperature during the first few days after the operation. Two months afterwards, he returned to show that the last traces of the tumour had disappeared, and to report himself as being in excellent health. The third case was one of popliteal aneurysm. Mr. H., a commercial traveller, aged 32, had an aneurysm, about the size of an orange, which occupied the right ham. It was said to be distinctly increasing, and occasioned much uneasiness in the limb. He had always been a robust man, but was unusually corpulent. Dr. Cameron tied the femoral artery at the apex of Scarpa's triangle with antiseptic catgut, when all pulsation ceased in the tumour. At the third dressing, on the eighth day, the wound was found firmly healed, except where the drainage-tube had lain; and in a few days this spot was also cicatrised. The temperature was normal throughout, and the patient's general health undisturbed. When he returned home (eighteen days after the operation), the aneurysm was much reduced in size. He was now quite well, and attended to business without inconvenience. The fourth case was one of femoral aneurysm. T. L., aged 43, had an aneurysm of the femoral artery just under Poupart's ligament, extending both above and below that structure. He was a janitor of a boys' school, but had been for many years in the navy. He had once been laid up by an attack of jaundice, and had suffered from syphilis in youth. Eight months previously, he first noticed a pulsating tumour, about the size of a marble, in the groin, which gradually increased. Dr. Cameron tied the external iliac artery with a piece of antiseptic catgut given to him by Mr. Lister, and which had been prepared by a method described by him in the *Lancet* of February 5th, 1881, both chromic acid and carbolic acid being used. The patient progressed without any fever or pain in the wound. The wound was healed throughout, except where the little piece of drainage-tube lay. The aneurysm became firmly consolidated, and underwent a marked decrease in size. In a week afterwards, on removal of the dressing, cicatrisation was found to be complete; and, on the thirty-third day, he was allowed to leave his bed. Ten days afterwards, he returned home. He lately consulted Dr. Cameron on account of a slight tendency to the formation of a hernia at the outer end of the cicatrix, for which the use of a truss was recommended. All trace of the aneurysm was gone, and he was in excellent health. The fifth case was one of aneurysm of the arch of the aorta and innominate artery, for which Dr. Cameron performed simultaneous ligature of the right subclavian and carotid arteries. Mrs. W., a widow without family, aged 57, had a pulsating tumour just above the right sterno-clavicular articulation. Dr. Finlayson, at the Western Infirmary, saw and examined her on March 22nd, and had furnished the following note of her case. "There was a very distinct pulsating tumour, involving apparently the innominate artery. It could be felt as a movable tumour, sliding, to some extent, behind the sterno-mastoid on being handled. Pulsation continuous with it extended into the sternal notch, and in that position had a heaving character. An obscure shock, coincident with the second sound of the heart, could be felt in the upper part of the sternum and contiguous part of the chest-wall, but no heaving impulse. On auscultation, the most prominent fact was the greatly deepened quality of the second sound, but no murmur was audible in any part of the chest. There was a pronounced area of dulness, extending from the right sterno-clavicular region towards the cardiac dulness, and measuring about two inches transversely. There did not appear to be any marked cardiac hypertrophy. The radial pulses were as nearly as possible equal, and there was no difference in the size of the pupils. No pressure-signs were recognisable, and the patient did not appear to suffer much inconvenience from the disease. The signs seemed to indicate clearly an aneurysm of the arch of the aorta of considerable size, and specially involving the innominate artery." On March 24th, Dr. Cameron tied the right subclavian and carotid arteries with antiseptic catgut given to him by Mr. Lister. It had been prepared by immersion in a one per cent. solution of chromic acid for twelve hours, and afterwards for twelve hours in the solution of sulphurous acid of the *British Pharmacopœia*. Both ligatures were placed in a watery solution of carbolic acid (1 to 20) for about half an hour before being used. The wounds were dressed four times (on March 26th, 29th, April 2nd and 5th), and, on the removal of the last applied dressing, on April 12th, were found to be healed. There was no constitutional nor local disturbance, the temperature continuing normal throughout. On April 12th, Dr. Finlayson again examined her, and reported as follows. "The incisions are healed. The defined tumour described as existing behind the sterno-mastoid muscle cannot be recognised; but there is marked pulsation in this situation, and the pulsation extends towards the sternal notch in a very pronounced manner, and is associated with much heaving there. Indeed, the heaving pulsation at this point seems to me to be more marked than before the operation, although the whole pulsating area is, no doubt, less. The dulness on percussion in the upper part of the chest, the deepened second sound, and the sense of shock on application of the hand, still continue very distinct. The radial and temporal arteries do not pulsate on the right side." In these five instances of aneurysmal disease, six large arteries were ligatured. In each, complete and permanent occlusion of the vessel was obtained without any constitutional or local disturbance, without any rise of temperature (if the case of diffuse popliteal aneurysm during the first six days be excepted), and without the formation of a single drop of pus. In each case, the last dressing was applied respectively on the fourteenth, tenth, eighth, eleventh, and twelfth days after the operation; and in each, on the removal of that dressing, the wound was discovered to be thoroughly sound. On similar principles, the radial artery was ligatured four times, the ulnar artery twice, and the popliteal artery once, with equally satisfactory results. In the last case, however, the anterior part of the foot lost its vitality, and ultimately required amputation. The vein, as well as the artery, was injured by the wounding instrument.—Mr. R. GODLEE said that in almost all these cases related by Dr. Cameron ligature of the artery was the only possible treatment. It seemed to him now that as treatment of aneurysm by digital pressure, the tourniquet, Esmarch's bandages, flexion, etc., was usually very irksome and painful, it might possibly be well to treat all cases at the first by ligature with carbolised catgut which, as now prepared, kept its hold of the vessel a sufficient length of time to ensure its occlusion.—The PRESIDENT said that Dr. Cameron's experience coincided with

his own in so far as this, that the old-fashioned carbolised catgut fulfilled its purpose if properly prepared, and the treatment was thoroughly antiseptic, except in cases where a very long-continued pressure of the vessel by the catgut was necessary. But the catgut should be as strong as silk, as soft as the normal tissues; it should be capable of retaining a knot on it with perfect security, and should be free from porosity, so as not to hold organisms in it, as did silk. But, however nearly perfect the ligature might be, there was no use in it unless perfect antiseptic treatment were also adopted, because, otherwise, the outer coat of the artery must die and suppuration ensue. He believed this was the reason why Dr. Cameron's treatment was so universally successful, he having strongly insisted on the antiseptic treatment in its entirety.—Dr. CAMERON, replying to Mr. Godlee, said that Esmarch's bandage had been first tried in the two cases of popliteal aneurysm, but the agony was intolerable after some minutes, and each patient could endure no more. The ligature was then used with success. In two cases he had seen no benefit follow pressure, and his surgical colleague, going by his (Dr. Cameron's) experience, had then ligatured the femoral artery in Hunter's canal. When compression was tried, and the collateral circulation thereby established, one might find a second ligature even necessary, as in one of these two cases, in which the artery was tied in Hunter's canal, when the ligature at the apex of Scarpa's triangle had failed. He believed that as the treatment by the ligature was so free from risk, it was better practice to adopt it at once than to try earlier treatment by these other methods which were irksome, and interfered with the chances of successful treatment by ligature should it become necessary.

Case of Spina Bifida Cured by Injection of Iodine.—Mr. A. PEARCE GOULD read notes of this case. R. C. W., male, aged six months, was brought to Westminster Hospital on January 16th, 1882. A tumour was situated over the lumbar vertebræ, about the size and shape of a large tomato; the tumour was translucent, fluctuating, sessile, covered with healthy skin; the child was otherwise well, and had no paralysis or deformity. The tumour became tense when the child cried; and pressure on it caused fulness of the anterior fontanelle. Mr. Gould drew off about ℥j. of the contained fluid, and injected ℥j. of Morton's iodo-glycerine solution. As no effect was produced, the operation was repeated a week later, when ℥ss. of the same solution was injected. After this the tumour became solid, and shrank. The child was shown at a previous meeting, when the tumour was seen as a thick fold of skin over the lumbar spines. The chief interest of the case lay in the fact that the fluid removed was analysed by Dr. Dupré and found not to contain even a trace of sugar, showing that it was arachnoid, and not cerebro-spinal fluid; and Mr. Gould pointed out that this form of spina bifida was the most favourable for medical treatment. By experiments Mr. Gould found the iodo-glycerine solution did not readily mix with the fluid, but when poured into it, it sunk to the bottom, thus confirming Dr. Morton's theory.—Mr. PARKER said he had operated successfully on a similar case five years ago; the child now had a tendency to hydrocephalus and talipes; nevertheless, successful cases were very few and far between. In another case that day, the fluid drawn off had contained no sugar, and became nearly solid on being boiled. The injection had no immediate effect on the child. In a case in which the sac was cut across, because of commencing inflammation around it from pressure, the child had recovered. This bold treatment, if accompanied by the adoption of all antiseptic precautions and subsequent pressure, might possibly avert the spread of inflammation to the spinal cord.—The PRESIDENT thought Mr. Godlee's case a favourable one for the operation, and the treatment by Morton's fluid seemed to be the best at present in vogue. He had at one time attempted the gradual treatment of spina bifida by slow drainage, under antiseptic precautions; but his first case was disastrous in its result, due to the free flow of cerebro-spinal fluid. In the next case he arranged for a still slower drainage, but that child also sank. This treatment, he was convinced, should be abandoned; nor did he think the laying open of the sac would be generally likely to succeed.—Mr. GOULD had tried the treatment by Morton's solution in two other cases. He had altogether lost sight of the first case. In the second case, complicated with hydrocephalus, the child sank, and on the day after the operation was profusely salivated by the absorption of the iodine. In another case, under his colleague, Mr. Macnamara, the tumour of the spina bifida had been injected three times, and the child was now recovering.—The PRESIDENT believed that Dr. Morton now thought it advisable not to draw off the fluid from the spina bifida, but merely to inject the fluid, that being quite sufficient for the treatment of the case.

Case of Congenital Intestinal Obstruction.—Mr. PEARCE GOULD read notes of this case. A female infant, three days old, was brought to Westminster Hospital on August 5th, 1881, because, in spite of several doses of castor-oil, it had not passed any meconium or motion. It had vomited several times. The child was thin, but showed no outward deformity. The anus was normal, and the last joint of the little finger could be passed into the rectum, which appeared to be closed over above it. No fulness nor tumour was to be felt in the pelvis *per rectum*. A catheter and probe were each stopped about one inch from the anus. The belly was distended, its walls œdematous; and there was a little ascites. At 1 A.M., August 6th, Mr. Gould opened the belly above the left Poupart's ligament. A coil of distended small intestine presented, and no coil of large intestine could be brought into the wound. The former was therefore carefully stitched to the edges of the incision and then opened, and a large quantity of meconium escaped. The child died twenty-one hours afterwards. At the necropsy, no trace of peritonitis was found. The cæcum and lower four inches of the ileum, and four inches of the colon, were filled with a firm whitish substance of the consistence of cheese, firmly applied to, but not united with, the mucous membrane. In the colon beyond this plug, were found several masses of milk-white firm mucus. Below this, the colon and rectum were empty, and firmly contracted to the size of a clay tobacco-pipe stem. Above it the small intestine was distended with meconium and gas. It was pointed out that there was here no fault in development, but obstruction from a plug. From the white colour of this plug it was assumed that it was deposited by the third month of fœtal life, as bile passed into the duodenum at that time. Three cases of congenital obstruction of the small intestine, briefly referred to by Mr. Holmes, were mentioned; and also the case of obstruction from a croupous membrane, recorded in the Clinical Society's *Transactions* by Dr. Markham Skerritt. Mr. Gould also insisted on the advantage of opening the belly in the groin in all cases of congenital intestinal obstruction, in preference to lumbar colotomy, which would have been impossible in this case.—Dr. COUPLAND asked if the obstructing mass were formed of inspissated mucus. The case was almost unique. If the substance were inspissated mucus, it showed that in that case the glands of the large intestine must be acting some time before birth.—Mr. GOULD said that the matter was undoubtedly inspissated mucus.

Case of Primary Perichondritis of the Larynx.—Dr. DE HAVILLAND HALL read notes of this case. M. C., aged 24, a dust-collector, was admitted into the Westminster Hospital on September 6th, 1881. With the exception of an attack of gonorrhœa, the patient could give no account of having had any illness till about Christmas 1879, when he had a cough and rheumatic pains. He stated that he had been hoarse since that time; the hoarseness came on quite suddenly. In the winter of 1880-81, he had a cough, and this had continued more or less, so that he had been unable to work since Christmas of 1880. About May 1881, he had a sore-throat (he pointed to the thyroid cartilage as the site of the pain) and difficulty in swallowing, but he had no difficulty in breathing till June. In August, he expectorated some blood and pus, which relieved him somewhat. In the beginning of September, he became much worse, suffering from great difficulty in breathing, paroxysmal cough and hoarseness, and was admitted in this condition on September 6th. Tracheotomy was performed on September 10th. After the operation, the epiglottis was found to be intact, the glottis greatly contracted in all its diameters, the cords being much reduced in length, the right cord moving slightly on phonation, anteriorly and posteriorly; but the central part was incurved, leaving a narrow elliptical opening, the thickened and hardly recognisable remains of the left cord being immovable in the median line. On deep inspiration, the glottis would about admit a No. 12 catheter. There was a considerable amount of inflammatory swelling in the ary-epiglottic fold, especially on the left side. While in the hospital, he was treated with iodide of potassium; and, though the swelling diminished and the glottis increased in size, he was discharged on November 22nd, still wearing the cannula, all attempts at leaving it off being followed by great dyspnœa. On December 31st, he expectorated a piece of ossified cartilage, and two smaller pieces on January 3rd. This case was brought forward as an example of primary perichondritis of the larynx, on account of the absence of all the usual exciting causes of this disease. On the most careful inquiry, no history of syphilis could be obtained. The patient was a well-nourished man, and anything but cachectic in appearance. There was no suspicion of phthisis; there was no history of any blow on the larynx. He had not had typhus or typhoid fever. The conclusion was arrived at that the patient had had an attack of bronchitis (which was very probable, considering the nature of his occupation); that, accompanying this, he had laryngitis; and that the inflammatory mischief ultimately involved the perichondrium and caused necrosis of the cartilages. The patient was still under treatment for dilatation of the stenosed larynx. —Dr. SEMON said that the chief point of interest in the case was its etiology. In this country, cases of secondary perichondritis were much rarer than abroad, especially at Vienna. In typhoid fever, ulceration of the aryteno-epiglottic fold was much less common here than

abroad; and ulceration of the cartilages in syphilis was much more rarely seen here than in Vienna, for example. But the nervous diseases of the larynx were much more common here than in Vienna. He still thought Dr. Hall's case, which he had seen, was possibly one of syphilis of the larynx. As regarded the immovable fixation of the vocal cords, he was surprised at the rather common occurrence of this symptom. It might come without change in the voice or respiration; and yet, upon use of the laryngoscope, one half of the larynx might be found immovable. He considered it to be always due to, and to indicate, deep organic disease of the larynx or of the nervous centres.—Dr. HALL said that Mr. Gould had also examined the patient, and had thought the case not due to syphilis; nor, because it might be alleviated by iodine, was it, therefore, of syphilitic origin.

HARVEIAN SOCIETY.

MARCH 30TH, 1882.

WILLIAM HICKMAN, M.B., President, in the Chair.

Meningitis in Children.—Dr. MORTON read a paper on two cases of meningitis in children, illustrating the non-tubercular class of cases. The first, which was connected with recent inflammation of the left temporal bone, afforded a good example of amnesic aphasia. Insensibility was never quite complete, although sight was lost during the last two or three days, and there was no paralysis of limbs or sphincters. The patient lived fifteen days, and seemed slightly on the mend, when she died suddenly, probably from thrombosis. The other case set in, during the defervescence of measles, with slight stupor, followed by convulsions, on the subsidence of which the child remained for one month unconscious, blind, and rigid, with the left arm flexed and the right extended. There were frequent jerkings of the left arm, face, and eyes; high fever, sweating, and sudamina. A repeatedly threatened fatal termination by hyperpyrexia was averted by the cold bath, which was given about twelve times, and each time was followed by three or four hours' good sleep, and a suspension of the severity of the symptoms. At the end of a month, slow improvement set in, the rigidity leaving the right side first; and sight, speech, and control of bowel and bladder returning by degrees. Recovery had been complete, with the exception of slight weakness of the left arm, not marred, as he had usually seen it, by paralysis, epilepsy, or idiocy. He attributed recovery to the cold bath, but for which she must on several occasions have died. He had also some faith in mercurials, which had been given in all the few cases he had seen recover.—Dr. MAHOMED had seen several cases of meningitis recover. He considered true meningitis rarely, if ever, present in fever. He had seen a case of tubercular meningitis recover, the diagnosis being confirmed by *post mortem* examination on death occurring from a second attack three years afterwards. He recommended Leiter's tubes for lowering the temperature.—Dr. BUZZARD remarked that, in many cases of true meningitis, there were singularly slight changes to be observed, and these required the aid of the microscope. After some remarks from Mr. DREW, Dr. MORTON replied.

Pathology of Lead-Palsy.—Dr. FERRIER read a paper on this subject. After referring to the pathology of the dropped wrist, characteristic of lead-poisoning, describing its clinical features and diagnostic indications, he alluded to various theories which had been put forward as to its causation. Many of these he considered to have failed, mainly because constructed without due regard to the action of lead on the system generally. This was absolutely necessary, in order to understand the particular affection under consideration. He described numerous affections of the mind and body, of the sensory and motor powers, and of the various organs and tissues, which were found to result from lead. He then reviewed the various positive and negative facts revealed by *post mortem* examinations in regard to the brain, spinal cord, and peripheral nerves; and also the result obtained by administration of salts of lead to the lower animals. The most constant appearance was a peripheral neuritis, more especially observed in the nerves of the paralysed muscles. But the question still remained, why certain muscles, particularly the extensor communis, should be affected, and others supplied by the same nerve-trunk escape. Numerous clinical facts in reference to hemiplegia, paraplegia, the muscles of the larynx, and the observations of Onimus in reference to the excitability of the nerves after death, were cited to show that the extensors and abductors were physiologically weaker, and sooner lost their vitality than the flexors. And he considered the special affection of the extensor communis in lead-poisoning to be due to the fact, that this muscle possessed the least vital resistance, and soonest gave way to destructive influence exerted on the peripheral nervous influence in general. Next, the action of lead was general, and not confined purely to the muscles actually paralysed. To prove this, he adduced various arguments: among others, he quoted cases observed by Dr. Buzzard, in which muscles, apparently normal, were really affected, as indicated by electrical exploration. In reference to the spinal origin of lead-poisoning by limited affection of the anterior cornua, which was a view maintained by several modern neurologists, he described in considerable detail the mode in which the nuclei of the extensor muscles were connected with those of other muscles in the anterior horns of the spinal cord, according to the experimental investigations made by himself and Dr. Gerald Yeo on the motor roots of the brachial and lumbar plexuses in monkeys. He argued that a localised affection of the anterior cornua would not cause such paralysis of the extensor communis, as is seen in lead-poisoning, without causing also paralysis of other muscular groups, which, as a rule, entirely escaped. He was of opinion that an anterior poliomyelitis might occur as the result of lead-poisoning, but the usual and typical form of lead-paralysis was to be accounted for rather by a general peripheral neuritis. This also better explained the other phenomena, especially in the domain of sensory nerves, which undoubtedly also occurred as the result of lead-poisoning.—Dr. BUZZARD mentioned the case of a lady whose wrists became weak four years ago, after using hair-wash for two years. The muscles of the extremities and trunk were now paralysed, though not completely. There was no wasting; she had dropped wrists, and could not lift her fists. There was no response to the faradic current, except in the interossei of the hands. The supinator longus was not paralysed. A cousin, who also had used the wash for two years, noticed that her wrists were becoming weak.—Dr. MAHOMED had seen lead-deposit in the small vessels of the large intestine, which looked black. He had also seen three cases of saturnine mania; the patients had the blue line on the gums, and had used hair-wash. He recommended galvanic baths.—Mr. MALCOLM MORRIS had observed two cases of lead-colic produced by hair-wash, and urged the importance of not using strong lead-lotion, as insanity and paralysis might be produced by absorption.—Dr. FERRIER replied.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

FRIDAY, MARCH 17TH, 1882.

J. W. TRIPE, M.D., President, in the Chair.

The Necessity for an Alteration in the Laws respecting Revaccination.—Dr. TRIPE read a paper on this subject. His object was to show that the age, below which payment could not be made by the guardians to district vaccinators for revaccination, was too high. In the memorandum of the Local Government Board, dated October 17th, 1876, the age at which revaccination was recommended was from 15 to 18 years; but, when an epidemic of small-pox was prevailing, the memorandum stated that the age of 15 should not be waited for; the public vaccinator might charge for the revaccination of all persons not under 12 years of age, who had not been before successfully revaccinated. At non-epidemic times, 14 years was the age limit for which payment could be made. Dr. Tripe had found this limit to act prejudicially in his district. During 1880-81, of 1,075 vaccinated persons attacked with small-pox, 0.5 per cent. were under one year of age; 6 per cent. from 1 to 5 years; 10.9 per cent. from 5 to 10 years; 16 per cent. from 10 to 15 years; 33.9 per cent. from 15 to 25 years; 19.2 per cent. from 25 to 35 years; 8.8 per cent. from 35 to 45 years; and 4.7 per cent. above 45 years of age. Of 160 unvaccinated persons, 25 per cent. were children under one year of age; 24.4 per cent. from 1 to 5 years; 20.6 per cent. 5 to 10 years; 12.5 per cent. from 10 to 15 years; 14.4 per cent. from 15 to 25 years; and 3.1 per cent. above 25 years. A comparison of the number of vaccinated persons attacked, with the population of Hackney district, showed that the per centage who suffered up to 5 years was only 6.5, against 12.9 population; whilst at 5 to 10 years of age, it was 10.9, against 11.1 of population; at 15 to 25 years, 33.9, against 20.4 of population; at 25 to 35 years, it was 19.2, against 15.8 of population; and above 35 years of age, the percentage of those attacked was below the percentage of population of that age living in the district. Among the unvaccinated under 5 years, the percentage was 50, against 12.9 of population; from 5 to 15, the percentage of attacks exceeded the percentage of population; and from 15 to 25, the position was reversed. The protection afforded by vaccination, before the passing of the Amendment Act, 1871, diminished before 10 years of age was reached. An examination, in 1880-81, of a school of 197 children, under 12 years of age, showed that 29 had bad marks, and 7 no marks whatever—making 20 per cent. who were unprotected against small-pox; the marks of those under 7 years of age were more visible. Dr. Tripe was informed subsequently that the 36 children were afterwards successfully vaccinated. Under these circumstances, the author felt that he had made out a good case for the reduction of the age at which guardians might be empowered to pay district vaccinators for the revaccination of children whose vaccination-marks are imperfect. He proposed that the age should be lowered to 12 as regards all children,

and to 10 amongst those who were living in an infected place. Whether revaccination would afford reasonable protection in future life, he was not prepared to say; but he thought it better that people should be revaccinated three times rather then run the risk of contracting small-pox.—Dr. Bristowe, Dr. Corner, Dr. Moore, Dr. Browning, and Mr. Shirley Murphy, took part in the discussion which followed this communication.

The Position of Legislation concerning Metropolitan Bakehouses.—Mr. SHIRLEY MURPHY made some observations on this subject. The Bakehouse Regulation Act, 1863, was repealed by the Factory and Workshops Act, 1878, which came into operation on January 1st, 1879. The sections in the former Act relating to the proper cleaning and lime-whiting of the bakehouse, to its ventilation, and to the keeping it free from effluvia arising from any drain, privy, etc.—together with the prevention, under limitation, of the use for sleeping purposes of a room on the same floor as the bakehouse—were embodied in the latter Act. But the powers which Section 6 of the Bakehouse Act gave to the health-officer, and to the inspector of nuisances, to enter the bakehouse at all times during the hours of baking, for the purpose of inspection, had not been incorporated in the Factory and Workshops Act; and, therefore, the sanitary authority now had no more concern with bakehouses than with any ordinary dwelling-house in their district. The duty of inspecting bakehouses, as such, had now devolved upon the factory and workshops inspector. Section 4 of the recent Act provided that a factory inspector should give notice to the sanitary authority of any "nuisance" which he might find to exist in the bakehouse; and it then became the duty of the sanitary authority to take proceedings. But although this authority might still be used for the purpose of remedying an evil which already existed, their influence in preventing the occurrence of any nuisance had ceased. Mr. Murphy wished to elicit an opinion, how far the existing arrangements for the inspection of bakehouses fulfilled the conditions required—not only to keep the inmates of the bakehouse in good health, but to prevent the distribution to the public of bread made under conditions not conducive to the public health. But recently, the duties relating to the prevention of disease produced by the distribution of infected milk, had been made to devolve upon a body which had not even the advantage of medical aid in the performance of this responsible office. So far as his own district was concerned, he could find no evidence that more than 37 per cent. of the bakehouses had been visited by the factory inspectors since the last Act came into force. He was led to doubt whether the inspection of bakehouses could be as well carried out by a central authority, with the very few inspectors at their command, as by the local authorities.—A discussion followed, in which Mr. Lovett, Mr. Wynter Blyth, Dr. Browning, Dr. Bristowe, and Dr. Tripe took part.

Whooping-cough.—Dr. CORNER called attention to the prevalence of whooping-cough in the metropolis; and the question was raised, whether the sanitary authority ought not to take proceedings against those who wilfully exposed in public places children suffering from this disease; or whether a letter should be sent to hospital authorities, cautioning them not to treat such cases in the out-patient department. It was stated, in the discussion which followed, that the disease was often not recognisable until it had existed a fortnight, and therefore it could hardly be dealt with as other infectious diseases; also that, as a rule, cases of whooping-cough did not attend out-patient rooms, but were attended in their own homes.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, MARCH 11TH, 1882.

HENRY KENNEDY, M.B., in the Chair.

Diffuse Pulmonary Gangrene.—Dr. J. M. FINNY showed an example of diffuse gangrene of the right lung. The patient had been a labourer aged 47, who was admitted to hospital in collapse, having been ailing for three months. The lower lobe of the right lung was hepatised, and there was prune-juice expectoration. Four days after admission, gangrenous fœtor set in, and the sputa became greenish-yellow. The temperature now fell below normal, and the man sank in a state of great exhaustion. Before death, the percussion note had become tympanitic in the anterior part of the right lower lobe. Two-thirds of the right lung had been converted into a horribly fœtid gangrenous slough, traversed by trabeculæ of breaking down lung-tissue. In the right lobe of the liver was a large nodule—either carcinomatous or syphilomatous in character.

Paronychia Gangrænosa.—Mr. H. G. CROLY presented two specimens of the disease described by Mr. Charles H. Todd, in the second volume of the *Dublin Hospital Reports* (page 274), under the title "Paronychia cutanea maligna, vel gangrænosa." Both patients were middle-aged ladies, and in both the seat of disease was the inguinal phalanx of the first finger of the right hand, which phalanx at last separated. One of the initial symptoms was a severe pain, like the stinging of nettles, in the end of the finger. Vesicles then formed, which passed into unhealthy bullæ.

Irideremia.—Mr. ARTHUR BENSON exhibited the right eyeball of a boy aged 10, which he had enucleated that morning in St. Mark's Ophthalmic Hospital. The globe was considerably enlarged. The cornea was clear; the lens was subluxated and opaque, with calcareous plates here and there. The iris was entirely absent, except a small sector above, which was adherent to the lens capsule. The fundus could be illuminated round the margins of the lens, but no details could be made out. The lesions were probably due to intra-uterine irido-chorioiditis. There was a perforating ulcer of the left eye, with synechia posterior. The iris was, however, normal in extent and structure.

Ovariotomy.—Dr. LOMBE ATTHILL showed a large multilocular cyst, the rapid growth of which he had an opportunity of watching. The patient had been delivered prematurely last June. On December 17th, the tumour was of the size of a fœtal head; and, in the succeeding ten weeks, it increased fourfold. The patient made a good recovery after ovariotomy.

Lithotrity.—Mr. H. G. CROLY showed numerous fragments of stone, removed by lithotrity from the bladder of a blacksmith, who had suffered from occasional attacks of renal colic during five years.

SATURDAY, MARCH 25TH, 1882.

WILLIAM STOKES, M.D., President, in the Chair.

Calculus Pyelitis followed by Iliac Abscess.—Dr. J. W. MOORE presented the genito-urinary organs and other abdominal viscera of a married but childless woman, aged 28, who sank after an illness of several weeks' duration. When admitted to hospital early in February, she complained of dull aching pain in the right lumbar region and hip. Tha urine was considerably albuminous, and contained pus. There was no anasarca. In a short time, a distinct tumour appeared in the right iliac region, while the temperature-chart indicated the occurrence of suppuration or of pyæmia. Suddenly an offensive purulent diarrhœa set in, the temperature fell, and pus almost disappeared from the urine. Notwithstanding, the patient did not rally, but sank gradually, incessant vomiting being a prominent symptom. On opening the abdomen, the right kidney was found atrophied, and little more than a mass of connective tissue. A large oxalate of lime calculus occupied a sac in the pelvis of the kidney; and behind the stone was a fistulous opening into a perinephritic abscess, which had passed down the front of the psoas muscle to form a large iliac abscess below. The latter communicated with the intestinal tube by two large openings in the ascending colon. There was no general peritonitis. The right ureter was thickened, but not dilated; the bladder presented signs of subacute cystitis. The left kidney was enormously enlarged, weighing fourteen ounces; it had passed into a state of consecutive fatty degeneration from that of compensatory hypertrophy. There was perihepatitis near the kidney and the perinephritic abscess. The ovaries were atrophied.

Malignant Rheumatic Carditis.—Dr. WALTER SMITH showed, for Sir William Miller of Londonderry, the heart of a girl aged 23, admitted to hospital in acute rheumatism on January 17th, 1882. She presented well-marked cardiac signs and symptoms from the first; these progressively increased. Evidences of pleural and pericardial effusion supervened, and she died asphyxiated on March 2nd. After death, extensive left pleural effusion was found, the lung being compressed against the vertebræ, weighing only 8¾ ozs.; whereas the congested right lung weighed 23½ ozs. The pericardium contained much fluid, and was coated with lymph. Traces of an early inflammation of the valves were detected on opening the heart; namely, a festooned beading along the lunulæ of the aortic valves. The mitral valves were also engaged.

Deposit of Crystalline Ammonio-magnesium Phosphate in a Joint affected by Chronic Rheumatic Arthritis, simulating the Deposit of True Gout.—Dr. E. H. BENNETT exhibited a knee-joint altered by the familiar appearances of chronic rheumatic arthritis, with, in addition, an extensive deposit of a white substance on the surface and in the ligaments, quite similar to that of gout to the naked eye. Chemical and microscopical examination established the complete dissimilarity of the deposit to that of gout. It contained no lithic acid, and was a deposit on the surfaces of the joint-structures, not within their tissue. In structure, it was in the main crystalline ammonio-magnesium phosphate; the crystals were minute, but most definite in shape. Examined chemically by Professor Reynolds, its composition was exactly determined. Dr. Bennett stated that this was the first instance in which he had seen this deposit, knowing only of one similar observation, communicated by the late Professor Heschl of Vienna. He referred to

the records by Professor Redfern of two observations of the occurrence of crystalline oxalate of lime in a similar position and in the same disease. The amount and character of the deposit, as well as its absence from the other joints of the same body, excluded the idea that it might be the result of *post mortem* changes. No life-history was obtainable; but the diseased condition, so far as the rheumatic changes were concerned, was most marked in the limb from which the specimen was taken. Having referred to his previous observations of the association of true gout with chronic rheumatic arthritis, Dr. Bennett expressed his inability to offer any explanation of the mode of development of the deposit exhibited.

Scrofulous Pyonephrosis.—Dr. WALLACE BEATTY exhibited the left kidney and ureter of a woman aged 37, who had received a hurt two years ago in the left lumbar region. The prominent symptoms subsequently were, pain, at times shooting down along the inner side of the thigh as far as the knee; diarrhœa since last Christmas; great pain in micturition, which took place frequently, although the urine was scanty. Pneumonia of the left lung was the immediate cause of her death on March 20th. The left kidney was enormously enlarged, weighing 1 lb. 5¾ ozs. On section, it was found to be dilated into large cavities, some of which contained cheesy matter and pus. The left ureter was much thickened; its inner surface was studded with small yellow masses, apparently tubercles. The right kidney, spleen, and liver were all enlarged and amyloid. A small calculus was discovered at the vesical end of the right ureter. The specimen was one of scrofulous abscess of the left kidney.

Traumatic Suppurative Cyclitis and Hyalitis.—Mr. ARTHUR BENSON exhibited the eye of a man, which he had enucleated that morning in St. Mark's Ophthalmic Hospital for suppurative iridocyclitis of traumatic origin. Three weeks before that, a thorn-bush had struck him in the eye, penetrating the globe, and producing traumatic cataract. The circumcorneal vascularity was considerable, and increasing. Removal of the lens did not arrest the inflammatory process, so enucleation had to be performed. A section of the globe showed the ciliary processes completely covered with lymphy pus all round; the line of demarcation between them and the retina proper being sharply marked, the latter structure remaining free from the yellow effusion. Striæ of purulent infiltration could be seen running from the ciliary body into the vitreous body.

Epithelioma of Œsophagus.—Dr. CHRISTOPHER NIXON exhibited the thoracic viscera of a woman aged 45, who, before death, suffered from stridor with both inspiration and expiration. The respiratory sounds were otherwise feeble, but healthy. There was no dysphagia. After death, the larynx, trachea, and bronchi proved to be free from disease. A tumour sprang from the anterior and lateral walls of the œsophagus, pressing upon the trachea. This new growth was an ulcerating epithelioma, taking its origin from the submucous tissue of the œsophagus, and extending for a considerable distance downwards.

Rupture of the Spleen.—Dr. BERTRAM WINDLE showed the spleen of an aged woman, said to have been eight days ill when she was admitted to the Adelaide Hospital in collapse. She died eight hours subsequently. The abdominal cavity was full of blood-clots. The spleen was firm and large, but ruptured transversely in several places. This lesion was supposed to have been caused by the mad daughter of the deceased having knelt upon her. A mass of scirrhus was found at the cæcum, with a passage through it admitting the little finger. The remaining organs of the body were fairly healthy.

The Society adjourned, after a short valedictory address by the President, until next session.

THE ROYAL SOCIETY OF SCIENCES AND ARTS OF GOTHENBURG has unanimously elected Mr. Spencer Wells as an honorary member of the Society. In the letter enclosing the diploma of nomination the Secretary writes as follows :—"The aim and purpose of the Society is to contribute to the advancement of sciences and arts; and, during the time the society has existed, a period of 104 years, it has always been deemed an important means of gaining the above objects to elect as members of the society, and then to elicit the co-operation of men of mark in other countries who have made their names known through the world of science generally, and who therefore stand out as ornaments to the nations to which they belong. It is in the above spirit, and from a desire to give an expression to their sentiments of very high regard, that the society has elected you an honorary member." We have always great pleasure in hearing of the recognition abroad of the good work done here by members of our profession, especially when they belong to our Association.

REVIEWS AND NOTICES.

A TREATISE ON THE DISEASES OF INFANCY AND CHILDHOOD. By J. LEWIS SMITH, M.D., Clinical Professor of Diseases of Children in Bellevue Hospital Medical College, New York. 5th Edition. London: H. K. Lewis. 1881.

THAT a book professing to treat of diseases of children should have reached a fifth edition is in itself fair evidence of its worth, the more especially as it has not the field to itself, but has to compete with several other excellent manuals. When so extensive a subject is treated within a comparatively short space, it is evident that not the least of the writer's difficulties is what not to say. Whilst it is incumbent on the author to include within his volume all such additions to his subject as may be accounted facts, it requires no small judgment as to how far theories should find a place, especially in a book designedly practical. The just medium is not always easy to attain; and, to avoid the risk of overburdening his pages with speculative matter, the writer may fall into the opposite extreme, and neglect to notice points that are well deserving of mention. The main ground of criticism in the case of the book before us is to be found in its many omissions, a few of which may be quoted by way of illustration. One of the most interesting questions of late has been the relationship of syphilis to rickets; but we hardly think it is fairly dealt with in the following sentence, which is all that we can find on the subject. "The offspring of a tubercular or syphilitic or otherwise enfeebled parent are more apt to become rachitic than those of healthy ancestry; and it appears that disease of the mother is more apt to entail a rachitic predisposition than that of the father." In other respects, the chapter on Rachitis is excellent, and well up to the day—a remark which may with equal justice be applied to the chapter on Scrofula, which is one of the best we remember to have read. Under the head of Syphilis, reference is made to an increase of the connective tissue of the liver, known as syphilitic cirrhosis; but we look in vain for further description of those by no means very uncommon cases of cirrhotic liver where the syphilitic history is either doubtful or positively wanting. Indeed, diseases of the liver are not deemed worthy of separate consideration, neither a section nor even a chapter being devoted to them. We should have thought also that peritonitis in children was of sufficient importance to require special notice and description; but this is limited to a few lines under the heading of Tuberculosis. It is to be doubted also whether the following paragraph refers as fully, or even as accurately, as might be wished, to a very difficult subject; it certainly does not give much information to a student who might consult this volume for help on one of the acknowledged difficulties that have to be met. "The differential diagnosis of typhoid fever and acute tuberculosis may be made by attention to the following points. In tuberculosis, there is cough, with some acceleration of respiration, from the first, without epistaxis, stupor, or other nervous symptoms, and without the abdominal symptoms which are so prominent in the fever." If any subject demanded a more elaborate treatment, surely it is this, if only to emphasise the difficulties which here seem scarcely recognised.

Dr. SMITH would appear to be quite *au courant* with the work done on this side of the world, and refers freely to English and foreign authors, as well as to periodicals especially devoted to children's diseases. It is all the more strange, then, that we find no mention of aphthous vulvitis, described by Mr. Parrot; and it is still more singular that this writer's name does not occur once, that we can find, throughout the eight hundred pages, not even in the chapters on Syphilis and Rickets. Probably, the most important omission, and one for which no excuse appears possible, is the not uncommon disease known as ringworm. It is not mentioned. The entire chapter on Skin-diseases consists of but eighteen pages, the following only being referred to—erythema, roseola, urticaria, strophulus, eczema, and scabies. If the many other forms of cutaneous maladies, parasitic and others, be unknown in America, the children there are much to be congratulated.

One more example may be given. Acquired heart-disease and the rheumatic diathesis is of the utmost practical importance, and is full of interest, no less for the pathologist than for the clinical physician, both as regards treatment and prognosis. Dr. Smith does not seem to consider the subject deserving of special treatment; and, though referring to the development of valvular disease in the course of acute rheumatism, he says nothing of the conditions determining compensation, or the ultimate effect of the lesion. Cyanosis, under which are included the chief congenital forms of heart-disease, has a chapter to itself; but there is not a word on the well established relationship between obstruction in the pulmonary artery and tuberculosis.

Notwithstanding these defects, which render it very unequal, the book is in parts excellent. The diseases of the nervous system are well described, and so for the most part are those of the lungs. Although there still remains to be written a thoroughly sound work on diseases of children, this one might come very near occupying such a position, with a careful revision, and attention to such omissions as we have indicated.

FASHION IN DEFORMITY, AS ILLUSTRATED IN THE CUSTOMS OF BARBAROUS AND CIVILISED RACES. By WILLIAM HENRY FLOWER, LL.D., F.R.S., F.R.C.S., P.Z.S., etc., Hunterian Professor of Comparative Anatomy, and Conservator of the Museum of the Royal College of Surgeons of England. With Illustrations (*Nature* Series). London: Macmillan and Co. 1881.

THIS essay is enlarged from the text of a lecture delivered at the Royal Institution in May 1880, and several illustrations have been added, the drawings and diagrams employed at the lecture being also reproduced. The author discusses, in a scientific manner, some of those fashions in vogue among ancient barbarian and modern savage races, which consist in an alteration of the form of some part of the human body by systematic and wilful distortion. Without entering very deeply into the motives which induce American Indian squaws to flatten the heads of their infants, or Chinese ladies to distort the feet of their daughters, Professor Flower reminds his readers that many modern European fashions are based on distortions of the frame, as unnatural as similarly produced deformities amongst savages and semi-civilised nations. Of necessity, tight lacing and tight boots receive the author's fullest condemnation. Two woodcuts show how nearly the distortion of the foot that wears a modern Parisian shoe approaches to the Chinese deformity, excepting that the toes are pressed together in a French boot, but are squeezed under the sole in the boot worn by the monosyllabic lady of fashion. There is not a word to say in favour of the Parisian high-heeled shoe or boot, even if made wide enough to allow a certain spread of the toes; the anatomist, like our author, condemns it; the orthodox artist considers it the height of vulgarity, even the eccentric æsthete disapproves of it; and no sensible person, even if not trained by his calling to judge of health or of artistic laws of beauty, can look on this unsightly article as otherwise than ugly, clumsy, and meretricious. Professor Flower treats, also, of the evils of tight-lacing from an almost purely scientific standpoint, not entering into artistic considerations so deeply as a surgeon who has raised the subject before the public more recently. However much truth there may be in the artistic necessity for a slight constriction of the waist, as argued recently in our columns by a contributor who criticised certain assertions of Mr. Treves, there can only be one opinion with regard to the form of the Venus of Milo as contrasted with a "Paris Fashion, May 1880", at page 80 of Professor Flower's work; and, since that date, waists appear to be "worn" yet narrower. The author deprecates the constriction of the waist and the mischief done to the thorax and to the abdominal viscera, and has nothing to do with constrictions which involve the clothing alone. A dressing-gown suits its wearer best, no doubt, when gently tied in at the waist; were ladies' dresses girt up in the same manner, and to no greater extent, neither the author nor Mr. Treves would have ever wasted words on this subject. In short, all that Professor Flower has to say against tight boots and tight lacing is most just; and it is mere prevarication for the fashionable to carp at expressions of purely individual opinion on what is graceful or awkward, and to overlook the real evils of these fashions as unveiled by so competent an authority. Those who give way to such follies will never read, or, at least, never ponder on the author's demonstrations; but these misguided persons may be indirectly influenced by the expressed contempt of men and of sensible women, confirmed and emphasised by the teachings of Professor Flower. The sincerest form of flattery has been bestowed on our author by the simple fact that he has already found successors in public lecture-halls, who have pursued the question with equal energy and on similar scientific grounds. An interesting discussion recently carried on in our own pages has shown that there are some in our profession who defend the constricted waist, at least from an artistic point of view. In addition to the public labours of Mr. Treves and Mr. Noble Smith, artists and the cultivated members of the fair sex have taken up the subjects; and, through the medium of dress-reform societies and magazine articles, hygienic dresses and "divided skirts" are becoming prominent topics of our day.

VACCINATION.—Dr. John M. Bryan of Northampton has just received from the Local Government Board a grant of about £15 for successful and approved vaccination, being the fourth time he has received the same amount from the same source.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1882.

SUBSCRIPTIONS to the Association for 1882 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, MAY 6TH, 1882.

DIABETIC COMA.

THERE can be no doubt that the termination of diabetes by coma is by no means so uncommon as the comparative novelty of the subject might lead one to suppose; while the suddenness of its onset, the obscurity of its principal phenomena, and the valuable contributions which have recently been made towards their elucidation, both from a clinical and a pathological point of view, continue to render it at the present day one of the most interesting subjects of medical inquiry. Its history may be very shortly told. Prout, Foster, and others had described rapid and sudden deaths occurring in diabetes, especially after travelling. In 1874, Kussmaul described, for the first time, the clinical features of diabetic coma, and attributed it to intoxication by acetone, which had been discovered in the blood and urine of a diabetic patient by Petters so long ago as the year 1837, and regarded by him as the cause of death. Petters' observation was confirmed not long after by Kaulich; but from that time till the appearance of Kussmaul's paper, the subject attracted no attention. Kussmaul endeavoured to support his hypothesis by experiments on animals by injecting acetone into the rectum, or under the skin, and observed that it produced intoxication, stupor, and slow respiration; but the quantity required to effect this was relatively large. He suggested that the long-continued production of acetone in the blood might induce a state of chronic poisoning, which in weak conditions of the nervous system might some time assume an acute form, just as chronic alcoholism in drunkards suddenly breaks out into delirium. But in several cases competent observers have found no acetone in the blood, and in others only faint traces; while Rupstein has maintained that free acetone does not exist in the blood, but is produced by the splitting up of ethyl-diacetic acid, thus—

$$\underbrace{C_6H_9NaO_3}_{\text{Sodium Ethyl-Diacetate.}} + \underbrace{2H_2O}_{\text{Water.}} = \underbrace{C_3H_6O}_{\text{Acetone.}} + \underbrace{C_2H_6O}_{\text{Alcohol.}} + \underbrace{NaHCO_3}_{\text{Sodium Hydric-Carbonate.}}$$

One of the peculiarities of the urine in many cases of diabetic coma is the presence of a substance which gives a red coloration with ferric chloride, which so far resembles acetic ether, and does so furthermore by breaking up into acetone and alcohol. But, according to Quincke (*Berlin. Klin. Woch.*, January 5th, 1880), it differs from it by the facts that urine giving this reaction does not smell of acetic ether; it cannot be extracted from it by shaking with ether; and, if present in combination with something, this was found to be neither an alkali nor grape-sugar, nor any normal constituent of urine. Experiments on animals performed by Quincke showed that they died with marked dyspnœa, but the urine in only one instance gave a reaction with ferric chloride, and the breath never smelt of acetic ether; so that, apparently, it is rapidly destroyed in the body.

A. Deichmüller (Liebig's *Annalen*, Band ccix, p. 22) failed to obtain alcohol from forty litres of diabetic urine, and in a series of determinations found acetone present in quantity varying from .093 to .147 per cent. As the ferric chloride reaction points to the presence of a compound allied to ethyl-aceto-acetate, and as no alcohol was separable from the distillate, he concludes that the compound is free diacetic

acid. Tollens (*Ibid.*, p. 30) confirms this, and adds that, when diabetic urine is shaken with ether, there is only a trace of the ferric chloride reaction with the ether extract; but when he added to the urine one-tenth of its volume of a one to one-half per cent. solution of ethyl-aceto-acetate, the latter was readily extracted by ether.

It seems, therefore, that there is still considerable doubt as to the chemical nature of the compounds present; and Quincke is of opinion that the toxic phenomena are not always quite identical in character, or produced by one and the same substance.

In 1877, Dr. B. W. Foster read a paper on Acetonæmia at the annual meeting of this Association at Manchester, in which he drew attention to the peculiar cream-like nature of the blood, which, under the microscope, was found to contain molecular material insoluble in ether; and having, in conjunction with Dr. Saundby, observed that acetone breaks up the blood-corpuscles so as to produce a similar molecular condition, he suggested that the state of the blood was due to the action of the acetone, and the symptoms were the result of the destruction of the blood-corpuscles. Von Jaksch has published a similar case in which the blood-corpuscles were broken up, and the blood looked milky, although there was no fat present.

In 1879, the publication of a paper (*Edinburgh Medical Journal*, July 1879), by the late Professor Sanders of Edinburgh and Dr. D. J. Hamilton, on a case of diabetic coma with milky blood, due to the presence of a large quantity of fat, and with fat embola in the pulmonary capillaries, opened a new line of inquiry by suggesting that the symptoms were caused by capillary embolisms of the brain and lungs.

Dr. Louis Starr (*New York Medical Record*, May 1st, 1880), has described a case in which the blood was milky during life, giving rise to certain ophthalmoscopic appearances described by Dr. A. G. Heyl, and in whose lungs a few so-called fatty embola were found after death. But there was also croupous pneumonia, sufficient, in the author's opinion, to cause death.

Dr. Arthur Gamgee has published (*Physiological Chemistry*, vol. i, p. 169) the notes of a case of diabetic coma, under the care of Dr. William Roberts, in which the blood contained 13.55 parts of fat per thousand; but Dr. Dreschfeld was unable to find any embola in the lungs, kidneys, or brain. In a second case, which exhaled an intense etherial odour, and terminated by dyspnœa and coma, the blood was found to possess, after death, the acetone-like odour, and an analysis showed it to contain only 1.88 parts of fat per thousand.

Dr. Frederick Taylor (*Guy's Hospital Reports*, vol. xxv, p. 158) says that the results of the examination of the viscera for fat embola in three cases of diabetic coma, with milky blood, were completely negative.

Dr. R. H. Fitz (*Boston Medical and Surgical Journal*, February 10th, 1881) has reported a case in which a few fatty embola were found in the lungs.

In one case, published by Dr. Marshall J. Brown, a collection of small white clots filled the pulmonary artery, and these, on microscopical examination, were reported to consist wholly of fat. This sort of pulmonary infarction is different from that suggested by Sanders and Hamilton. So far, there has been very little evidence to confirm their hypothesis. It seems certain that all cases of diabetic coma have not milky blood; probably, also, all cases of milky blood are not due to the presence of fat; while there is strong evidence that, even when fat is present in large quantities, it does not always cause embola, and when it does so they appear to be neither more numerous nor better marked than may be seen in the lungs of cases of fracture which have died without having presented any special symptoms.

Besides acetone and fat in the blood, excess of sugar, and alterations in the somatic relations of the blood and the tissues, have been assigned as causes of the morbid phenomena.

Ebstein (*Deutsches Archiv*, Band xxviii) has drawn attention to the necrosis of the renal epithelium in diabetes, which he regards as by no means unfrequent, and as a cause of the retention in the blood of these poisonous substances (acetone, sugar, etc.), which, when accumulated in sufficient quantities, give rise to dangerous and fatal symptoms; but he admits that these products might be present in quantities too great for even healthy kidneys to excrete them.

Dr. Schmitz of Neuenahr (*Berliner Klin. Wochenschr.*, January 31st, 1876) has described fatty heart as an extremely common condition in diabetes, eighty out of one hundred patients presenting the objective signs of this condition, which is one that would favour the onset of the symptoms we are considering by tending to lower the blood-pressure and to impair the circulation in the brain, the lungs, and the kidneys.

Finally, Dr. Teschemacher of Neuenahr (*Berlin. Klin. Woch.*, August 1st, 1881) has recorded a case of diabetic coma, and draws attention to the resemblance of its main features to those of traumatic shock, and suggests that the cause is to be found in some lesion of the sympathetic system. According to Goltz, shock is probably due to reflex paralysis of the vaso-motor nerves, especially the splanchnics, so that the blood accumulates in the great abdominal venous trunks, and leaves the peripheral vessels and other organs bloodless.

The symptoms present in diabetic coma have been sketched by Senator (Ziemssen's *Encyclop.*, vol. xvi, p. 916) in the following words. "Sometimes suddenly, without any premonition, sometimes after a first stage of agitation, with general uneasiness, oppression, anxiety, and pain in the region of the stomach, the patient becomes somnolent, moves about restlessly, generally groaning loudly. The pulse becomes frequent; the arterial tension is low; the breathing is hastened and deep, although there is no impediment in either the upper or the lower portions of the respiratory apparatus. The extremities become cool, and even the general temperature of the body falls below the natural, and finally death ensues amidst the deepest coma, sometimes after the supervention of twitchings."

Dr. Cyr (*Archives Gén. de Méd.*, 1877, p. 691, and 1878, p. 37) says that coma is the final and most constant phenomenon, but is usually preceded by excitement and dyspnœa, more rarely by nausea and vomiting. The excitement is analogous to that seen in chloroform narcosis; the patient is a little incoherent, more vivacious than natural, and speaks rapidly; at the same time, he usually complains of *malaise*, and headache is occasionally present. This is followed by dyspnœa, which comes on generally suddenly and with violence; the inspirations are deep, both inspiration and expiration are prolonged, the air passes well into the lungs, but apparently does not oxygenate the blood. This stage may come on at once, without being preceded by excitement. The attacks of dyspnœa may recur several times, but finally the patient becomes less conscious of what is going on around him, and gradually sinks into coma, which becomes more and more profound until terminated by death. Here again, the coma may supervene suddenly, even during a period of apparent health. The length of time occupied by the stages above described has varied in the cases hitherto reported from ten or fifteen hours to three days or more, but the average has been about thirty-six hours.

Senator speaks of "twitchings" in the final stages of the coma; but at the time when Cyr wrote these had never been observed, and accordingly their absence gave to the condition a negative character, distinguishing it, for example, from uræmia. Dr. F. Taylor says that nothing like a fit has been observed in any case at Guy's Hospital; but it is certain that convulsive phenomena are sometimes present.

The premonitory symptoms, when present, are: unusual weakness or exhaustion, loss of appetite, constipation, slight drowsiness, breathlessness, headache, sleeplessness, pain in the abdomen, epigastrium, and loins. Dr. Frederick Taylor lays especial stress on pain, usually at the epigastrium and violent in character, as an early indication of the supervention of coma. No fewer than sixteen out of his forty-three cases had this symptom of pain; and he points out that, if an opiate be given to subdue it, the coma which supervenes may be wrongly attributed to the drug, either by the physician or by the patient's friends.

Professor Lépine has directed special attention (*Lyon Médical*, 1882,

No. 10) to the rapid pulse as an important premonitory symptom, and states that experiments on animals with acetone or ethyl-diacetic ether cause very frequent pulse, slow respiration, and lowering of the body-temperature.

Diabetic coma is undoubtedly more common in the young than in persons of more advanced age. Dr. Frederick Taylor shows that, while of all cases included in his statistics those under thirty form 45 per cent., they form 53½ per cent. of the fatal cases, and 69 per cent. of those dying from coma. It is liable to come on at any period of the disease; but the more rapid cases—those terminating under a year—generally die of coma; and, conversely, the majority of those dying of coma are cases which have existed for less than twelve months.

Treatment, or its absence, seems to have no distinct influence upon the occurrence of this mode of death. Constipation appears, with good reason, to be thought to have something to do with it. Teschemacher's case, for instance, was constipated for five days before the outbreak of excitement amounting to mania, which preceded the fatal coma. There is a very general consensus of opinion as to the direct effects of bodily fatigue in bringing about this condition. A diabetic patient, as Prout said, lives on the brink of a precipice; and a journey to London to consult a physician, or a journey to a foreign bath in search of health, or even the more everyday occurrences of hurrying to catch a train, to escape from a shower, or too long a walk, have been followed immediately by fatal coma.

Dr. Gamgee has described a case in which recovery took place temporarily, though the symptoms returned some time after; and probably no condition can be attended by a more grave prognosis. So far, treatment seems to have been very unsuccessful. At Guy's Hospital, stimulants, either internally or subcutaneously, and the intravenous injection of saline fluids, have been attended with no encouraging success. Dr. Foster has suggested the administration of thymol or some other antiseptic, to check the formation of acetone. The indications seem to be to relieve the constipation freely and as rapidly as possible, and to give diluents and stimulants by the mouth or veins.

MILITIA SURGEONS.

THE recent reply of Mr. Childers to the petition of the militia surgeons, laid before the War Office in February last by the Parliamentary Bills Committee of the British Medical Association, and published in our last issue, is one to which an ample reply may be made. The facts brought forward by Mr. Childers are far from being so accurate as to lead us to suppose that the present decision should be accepted in any way as final. The statement that the Act 4 George IV referred only to militia surgeons on the permanent staff, is one with which we can hardly concur; and the assertion that it expired on the 25th of March, 1825, is opposed to the fact that this Act, and all the Militia Acts passed at the time, were annual, and were continued from year to year by what was known as the Expiring Acts Continuance Acts. The Act 4 George IV was distinctly renewed and confirmed by 10 George, and this latter Act was confirmed by 31 and 32 Victoria, and the Act 4 George was not repealed, as the Statute Book shows, until the close of the session 1873. There is nothing in this, or, indeed, in any of the other Acts, to imply that it was necessary for militia surgeons to be on the permanent staff to entitle them to a half-pay of six shillings a day; but, on the contrary, it was distinctly laid down that "all surgeons of militia who, after twenty years' service, were retired, from age or infirmities," were entitled to this grant. By the general Militia Acts of George II and III, similar provision was made. Previous Governments to the present have likewise been of this opinion, or why should Act 18 and 19 Victoria have been passed? And this view of the case is further evidenced by the official circulars of Lord Panmure, in one of which (about February 1855) it was stated (in consequence of several militia surgeons having applied to the War Office, asking to what pension they would be entitled) that they would, after ten years' embodied service, receive a pension of five shillings a day. No circular can supersede an Act of Parliament, or have retrospective action; it is therefore but fair to assume that all who were appointed previously were entitled to pensions. Both by equity and by the common statute law, and by all precedents, we are led to expect that compensation should follow changes which, in many instances, have resulted in depriving militia surgeons of their only means of support. There are innumerable instances (which, if space permitted, we might quote) in which this compensation has been granted. To go no farther, two years since, when the prisons throughout the country were taken over by the Crown, every official whose services were no longer required received a retiring pension. Mr. Childers writes: "Nor have these surgeons any claim to a retiring allowance on the ground of equity. The rule under which they are retired at upwards of sixty years of age was issued in 1872." But is it equitable, we ask, that these men should be forced to retire without pension by virtue of a rule issued years after their appointment? These very militia surgeons, who are now turned adrift without any compensation, were told, on accepting service on the departmental medical list, that they would forfeit no rights they previously enjoyed by so doing; one of these rights being that they were not compelled to retire on account of age.

No complaint is made in the petition of the pay of the militia surgeons being inadequate (and, in this respect, Mr. Childers seems to have fallen into an error), nor has such a complaint, we believe, ever been made. On the contrary, it is stated in the petition that they were aware that they would not be entitled to the same pay and allowances granted to the medical officers of Her Majesty's forces.

Mr. Childers's statements in respect to private practice, and the militia employment being always in or near the place where the surgeon resides, if they were not, as they are, quite foreign to the question of compulsory retirement at sixty-five, might, we think, be easily disproved, the militia surgeon being, in many instances, on duty at the different camps several miles from his private practice.

Mr. Childers also discusses the question of difference between the pay of army and militia surgeons, which, however, is not referred to in the petition.

The militia surgeons complain that they have been badly treated for many years. One thing, we believe, is certain, and that is, that promises of redress held out by Mr. Cardwell and Mr. Hardy have never yet been fulfilled; Mr. Hardy having more than once stated in the House of Commons, in reply to a question, "that each claim for compensation would be considered on its own merits". This, we are led to believe, has never yet been done; we are informed that, on the contrary, every representation to the Secretary for War has been ignored. We believe that, during the Crimean War and the Indian Mutiny, much abnegation of self-interest was shown by militia surgeons, who sacrificed their practices and accompanied their regiments to the Mediterranean, Scotland, and Ireland. In the Militia Regulations for 1880, there was an order to the following effect: "No future appointments will be made to militia regiments, but those who have medical officers attached to them will retain their services till vacancies occur." These vacancies were naturally supposed to be those which might arise from conditions of health or from voluntary resignation. In January 1881, for the first time, and contrary to all precedent, the order was issued that no medical officer was to be allowed to remain in the militia service after he had attained the age of sixty-five years; and this order, we are informed, has been rigorously enforced. Up to the present time, it is stated, the number of militia surgeons who have been thus forced to retire does not amount to more than twenty. We believe that we are correct in stating that the country has thus actually been the gainer to the extent of nearly £4,000 a year; and even if the twenty already retired members of this service were to receive the half-pay o 6s. a day, the country would still be a gainer of £1,350 a year—an amount which would yearly increase as the retired surgeons died out. There are a number of the militia surgeons who voluntarily resign; but by these, of course, no hardship is felt.

We trust that Mr. Childers may reconsider his decision, and allow

the question to be referred to a small committee, when both the legal aspects of the question and the evidence of the militia surgeons who are sufferers by the present state of affairs may be duly weighed.

THE MEDICAL OFFICER OF CHESTER CASTLE.

WE are obliged to return once more to the consideration of the recent inquest in connection with the sudden death, from disease of the heart, of a prisoner very soon after his dismissal from Chester Castle, on the completion of a month's imprisonment, to which he had been condemned by the bench of magistrates. We would much desire not to infringe the axiom, *De mortuis nil nisi bonum;* but, in this unfortunate case, justice to the living demands that we should establish the fact, proved by uncontroverted evidence, that the prisoner —with sorrow we state it—was a drunkard, a thief, and a very filthy, ill-conditioned, irascible man, in the habit of inducing fits of dyspnœa and spasmodic breathing under irritation or excitement. From the time of his arrest, equally while in charge of the police as during the whole period of his incarceration in the castle, none of those who associated with him or had charge of him considered that he required special treatment. He was not only under the observation of the governor, the warders, other officials, and fellow-prisoners, but he was specially interrogated by Mr. Tollemache, one of the visiting justices, and, in reply, distinctly stated that he had no complaint to make. The coroner pointedly asked the witness who accompanied Mr. Tollemache, "Didn't he complain of this feeling in the chest?" and the answer was, "No, sir." Further, the coroner asked, "He didn't complain at all?" "No, sir." The coroner endeavoured to ascertain whether the prisoner suffered from diarrhœa while in prison, and clearly ascertained that he did not. The medical officer of Chester Castle is a man of very ripe and extensive experience. On comparing the *Medical Directory* with the evidence, we find that he is a Doctor of Medicine, a Member of the London College of Physicians, and a Fellow of the Royal College of Surgeons of Edinburgh; that he has been House-Surgeon to the Chester Infirmary; has been connected, as Resident Surgeon and Visiting Physician, with the Cheshire County Lunatic Asylum; and that he has been for twenty-eight years Surgeon to Her Majesty's Prison, Chester. In addition to these professional qualifications and appointments, he is both a county and a city magistrate.

With all these facts before us, we cannot bring ourselves to consider any one, who did not see the unfortunate prisoner while in prison, in a position to contravene the statements of the medical officer who saw and examined, and attended to him. The coroner, impressed by the sudden death of the man, would seem to have differed in opinion from the medical officer: for the remarkable examination, which forcibly reminds us of the mode of interrogation of prisoners adopted by judicial authorities abroad, presupposes a foregone conclusion. With all respect for his judicial authority, we, however, are of opinion that the disease of the prisoner was one in which a sudden fatal termination was not only probable, but almost inevitable, and that no human skill could have averted it. The medical officer saw the prisoner about two hours before he quitted the prison, and saw no reason to detain him longer in prison. The change from a warm equable temperature, however, to that of the outside air; the exertion incidental to the removal, and the mental excitement connected with it, brought on an aggravated form of dyspnœa and embarrassment of the circulation, which proved too much for the diseased heart, and resulted in unanticipated death.

In commenting on this case, in the BRITISH MEDICAL JOURNAL for April 22nd, we sought to make it clear that, afflicted as the prisoner was, his manner of death was naturally to be looked for; and we never contemplated wounding the susceptibilities of any one by our attempt to rectify what we regarded as most unjust aspersions on a worthy colleague. We regret to find it stated, in a medical contemporary, that: "We should have thought the advocates of the present prison system would have been wise to have allowed the recent occurrence at Chester Castle to have passed without further comment. But, as they have not done so, we are obliged to answer the objections raised by them to our observations on the matter." A long article is then written on the dietary of the prison. This, however, has no relation whatever to the defence of the medical officer, in which we sought to place his conduct, in connection with the case, in a true light, and to remedy the injury done to his fair and well-earned reputation by the unworthy aspersions wrongfully cast upon him. The dietary of the prisons, settled by a Select Committee of the House of Commons, after examination of numerous witnesses, and approved by the present Home Secretary, may very possibly be capable of improvement, and may very properly be subjected to discussion with that object; but that is not the subject we have now in hand. In no instance would we be a party to defending any member of our profession who might justly have incurred well-merited condemnation for error or neglect; but, whenever or wherever we find a colleague unjustly arraigned at the bar of public opinion, then and there reliance may be placed on our best efforts to rectify and neutralise any erroneous views that may have been adopted and promulgated; and, in this particular instance, we maintain that the medical officer of Chester Castle emerges scatheless from the present inquiry.

WEDNESDAY, May 10th, at 2 P.M., is appointed as presentation day at the University of London.

DR. G. BUCHANAN, Dr. Gaskell, and Mr. Jonathan Hutchinson, are the medical candidates this year recommended by the Council of the Royal Society for election.

M. AMÉDÉE LATOUR, after having edited *L'Union Médicale*, with great success, for thirty-five years, has been obliged to resign his pos from illness. Dr. Latour is now the honorary head of the staff, the acting editor being Dr. Richelot, who was unanimously elected to the post by the shareholders of the journal.

WE understand that there has been no change of importance in the condition of Sir Erasmus Wilson during the past week. The intestinal complication has been entirely overcome, but it is not anticipated that the bronchitis, which has all along been a troublesome symptom, will disappear until the atmospheric conditions become more favourable than has lately been the case.

MR. LEONARD ARMSTRONG, in his last report on the condition of Dawlish, mentions, as worthy of remark, that the severe October outbreak of measles in 1880, and the October outbreak of scarlatina in the year 1881, were both preceded by irregular cases of German or bastard measles. The coexistence of this disease with epidemics of scarlatina and measles, has been noticed by medical officers in other parts of the country.

AN inquest has been held at Preston on the body of a boy, aged 10, son of Mr. Smith, an auctioneer, of Chorley. It was stated that the deceased was brought to the house of Mr. Miller, a dentist of Preston, to have some teeth extracted. Seven teeth were taken out, the lad being placed under the influence of nitrous oxide gas. While unconscious he changed colour, put his hand to his throat, and died. It was afterwards found that one of the teeth had fallen into the windpipe and choked him. A verdict of "accidental death" was returned.

MORPHIA AND ATROPIA.

THE account which the convict Lamson has given of the effects of morphia and atropia injections upon himself, published in the form of a letter which appeared, before his execution, in the daily papers of April 27th, has elicited a letter, which appears in another column, from Deputy Inspector-General Francis W. Davis, R.N., on the antagonistic actions of the two alkaloids, and the use of atropia as a counter-poison to morphia in the treatment of cases of opium-poisoning. He

draws attention to the experience of Dr. J. Johnston in China respecting the successful treatment of opium-poisoning by means of hypodermic injections of atropia. This treatment, and its success in the hands of Dr. Johnston, has not hitherto received the attention it deserves. We believe that, where atropia has failed to exercise any appreciable influence in counteracting the fatal effects of morphia, it has been that the dose of antidote administered was too small. Instead of administering atropia in doses of one-sixtieth of a grain, Dr. Johnston uses one-sixth or even one-half of a grain—indeed, until belladonna-intoxication is produced. It has been stated, moreover, on the authority of Bartholow, that one grain of morphia requires one-twentieth of a grain of atropia to counteract its effects. Our readers will find Dr. Johnston's paper in the *Medical Times and Gazette*, September 7th, 1872, and February 15th, 1873; and it is referred to in the last edition of Guy and Ferrier's *Forensic Medicine*, pp. 523, 524.

QUEEN'S COLLEGE, BIRMINGHAM.

THE Council of Queen's College have determined upon some important changes in the systematic courses of lectures in the medical department of the school. Acting in harmonious co-operation with the authorities of Sir Josiah Mason's Science College, they have wisely decided to recognise the lectures of the new College in some of the subsidiary medical sciences, and to discontinue the corresponding courses in their own curriculum. In this way, the two Colleges enter upon an extended and conjoint scheme of professional instruction, to give effect to which suitable reciprocal arrangements have been agreed upon by the governing bodies of the two institutions. By this judicious and liberal procedure, the richly endowed chairs and the magnificent laboratories of Mason's College are thrown open, without extra fee, to the students of the Birmingham medical school. Botany, physiology, and chemistry are the subjects which will for the future be taught to medical students in the new science college. The professorship of botany, rendered vacant in Queen's College by the recent lamented death of the venerable Dr. Hinds, will not be filled up, and the students of the school are directed to attend the lectures of the professor of botany in Mason's College for the present summer session. Next winter, the courses upon physiology and chemistry will be given in Mason's College; the professors of these subjects in Queen's College will discontinue their instruction, retaining only an honorary connection with the school by holding emeritus professorships. The new arrangements to which we have referred, which could not have been completed in the absence of a liberal and unselfish desire in all the parties concerned to promote the welfare of the local professional school, will greatly strengthen the educational facilities of the students of medicine in the Midland metropolis, and give them unsurpassed advantages in the study of the exact sciences in their curriculum.

POISONOUS HAIR-WASHES.

THE labels on many of the compositions which are intended to conceal the effects of age as shown in the colour of the hair, etc., or to alter the tint of a lady's locks to suit the fashions of the day, inform us that the particular composition in question must not be considered as a dye, and that it contains no poisonous ingredients. We call attention to certain evidence given at a recent meeting of a medical society in London. In a discussion on a paper on lead-palsy, one member related the case of a lady who suffered severely from that affection after using a hair-wash for two years, her wrists being particularly affected, as is usual in lead-poisoning. Her cousin, who had used the same wash for a similar length of time, also suffered from distinct symptoms of lead-palsy. A second member had observed three cases of the form of insanity produced by chronic lead-poisoning in persons who had used hair-wash; and a third related his experience of two instances of lead-colic traced to the same cause. We are not concerned with the private prejudices of those who are sensitive about hair-lotions being called "dyes", or simply "washes"; but such persons should be aware that changes in the tint of the hair can only be effected by strong chemical agents, which, in spite of assurances on labels, may sooner or later seriously affect the health of those who employ them.

THE LAW OF TRESPASS.

A BLACKSMITH, named Malloy, at the Sheffield County Court recently sought to recover two guineas from Mr. Spowart, and a member of the local police force, as damages for trespass. Mr. Spowart and the constable had arrived at Malloy's house at an appointed time to make a *post mortem* examination on the body of his son, on which an inquest had been held, when they found a woman had locked the door and left the dwelling. Entering through a window the police-constable let in the surgeon, who made the *post mortem* examination, and hence the action. The Judge held that the defendants went to the house in the execution of a public duty, and, although they had committed a trespass not justified by law, yet their conduct, considering the peculiar circumstances of the case, was almost justifiable. Verdict was given for the plaintiff—one farthing without costs. His Honour added that, in his opinion, the case never ought to have been brought before the Court.

L'EMBARRAS DES RICHESSES.

THE specimens brought to the Pathological Society have grown so numerous during this session that a complete glut has now occurred. At the last meeting, though it was prolonged to an unusually late hour, it was impossible, owing to want of time, to give to the subjects standing last on the list the attention they deserved. For instance, of a most rare and important specimen brought forward by Dr. Stephen Mackenzie, an instance of perforation of the heart by ulceration, starting at the endocardium, only the most meagre description could be given. The President said that the Council had under consideration the propriety of holding an extra meeting, and we think it most desirable that the result of their deliberations should be formally announced at as early a date as possible.

POISONOUS CRAYONS.

LAST Saturday, Mr. Carttar, the coroner for West Kent, held an inquest presenting several points of medical interest. From the evidence, it appeared that, on April 1st, a little girl aged two years and six months was noticed to be feverish and restless, and was reported to have had a bad night. The following day, she vomited constantly, was unable to take any food, and suffered greatly from thirst. Dr. Kavanagh, who was in attendance, considered that she was suffering from severe gastric catarrh, induced probably by sucking cheap coloured crayons, the pink mark of one of which was noticed on the child's mouth. It was also reported that the child had had a fall, but the date of the accident appears not to have been ascertained; and it is stated that there was no mark or bruise on the head indicating an injury. In a few days, the child rallied, and it was thought that all danger was over; but, on the twenty-third day of the illness, she was seized with convulsions, and the next day she died. On making a *post mortem* examination, Dr. Kavanagh found that all the organs were healthy, with the exception of the brain and stomach. The left side of the brain is reported to have been distended or fluid, whilst the stomach presented signs of acute inflammation, and in two places perforation had occurred. Either the effusion into the ventricles or the condition of the stomach might, it was considered, have accounted for the fatal issue. An analysis of the crayons showed that they all contained poison. The most poisonous was a pink one, which consisted of more than half its weight of white lead, coloured with an innocuous vegetable substance. The weight of this crayon was fifty grains. Another crayon contained Prussian blue, mixed with Dutch pink. The jury returned a verdict that deceased died from convulsions, brought on by an accidental fall on the head, death being accelerated by swallowing poisonous crayons. The case presents so many points of interest, that it is hoped that a more detailed account of the symptoms of the *post mortem* appearances will be published. Lead is introduced into the system in so many ways, that it would be most interesting to know definitely if sucking crayons is

to be added to the number. Dr. Kavanagh could probably give us valuable information as to the state of the bowels during the twenty-three days that the poor unfortunate child lingered on in agony. Was there diarrhœa or constipation? What was the condition of the urine? Were there any signs of paralysis, and was there a blue line on the gums? It would be interesting to know, too, what treatment was adopted, and if the contents of the stomach were analysed. In a case of poisoning by white lead published many years ago, the child—a boy aged 5—swallowed a piece as large as a marble. He suffered from abdominal pain and constipation for three days. On the third day, vomiting ensued, the body was covered with petechiæ, and the gums were tense and white. He died in ninety hours from the administration of the poison; and, at the *post mortem* examination, a quantity of blood-stained fluid was found in the pericardium, the lungs were engorged, the liver, heart, and kidneys were soft and flabby, and the stomach was intensely inflamed. No trace of lead was to be found in any of the tissues.

SMALL-POX AT BARROW.

THE small-pox epidemic at Barrow, in Suffolk, seems now to have spent itself, though the infection has been imported into other villages, and fresh foci of disease set up therein. Altogether, forty-five cases have occurred, three of which have proved fatal. In consequence of the temporary hospital being quite full, an adjacent cart-shed was at the beginning of last week turned into a convalescent ward, into which male patients were removed. There yet remain in the hospital thirty-one cases, nineteen females and twelve males, received from twenty houses, all of which, together with those adjoining, have been disinfected under the supervision of the medical officer of health. A somewhat drastic system of quarantine has been imposed upon the village; and it speaks well for the inhabitants that they have willingly consented to measures which, however desirable, are not strictly authorised by the law. Twelve patients have returned home in a convalescent condition; but it is stated that they "have to remain in quarantine for twenty days. Indeed, no fewer than seventy-two persons (twenty-four of whom are able to work, the remaining forty-eight being children) have had to be kept in quarantine." The local gentry have come forward with unusual promptitude and liberality in raising funds for the relief of the cottagers, and it is hoped that the crisis has now passed. Orders were given from the War Office, at the commencement of the outbreak, forbidding men from the infected district joining their regiment of militia, which was about to go into training; and we now learn that the entire training of the regiment has, in consequence of the epidemic, been postponed indefinitely.

UNQUALIFIED MEDICAL ASSISTANTS AND CERTIFICATES OF DEATH.

AT the Swansea Petty Sessions, on April 15th, Mr. S. Jenkins was charged with making a false certificate of death. A man named Vaughan died on January 8th. The defendant signed a certificate, stating that he attended the deceased, and that he last saw him on January 7th. The widow of the deceased deposed that he was not attended by Mr. Jenkins, nor could she say that the defendant ever saw her husband. He was attended by Dr. Thomas and Mr. Bruen, and was ill for nine months. Only Mr. Bruen saw him within a week before his death. Mr. J. Bruen said the signature of the certificate was in the handwriting of the defendant, and, on cross-examination, he admitted that the rest of the document was in his (the witness's) handwriting. He acted as an assistant to the defendant. He was not a registered medical practitioner. He could not say whether defendant saw the certificate before it was filled up. The defendant saw the deceased before and after November. He had attended the deceased throughout his illness. Defendant had given him certificates, signed in blank, for him to fill up. In the defence, it was urged that this procedure had not been taken by any official appointed to carry out the Act, but that the information had been laid by a rival practitioner. There was no proof that the defendant ever saw the certificate, after signing it in blank. He might have been indiscreet in leaving the signed certificate, even with his assistant, but he had not wilfully made a false entry. The magistrates, after a consultation, said they considered the offence proved; but, as this was the first prosecution under the Act, they had decided to deal leniently with the defendant. He would be fined £1 and costs. The assistant was then charged with forging a certificate of the death of Vaughan; and Mr. Jenkins (on his subpœna) was called to give evidence in support. He said he signed the certificate produced, and the defendant Bruen wrote the upper part of it. Other witnesses deposed that the certificate produced was that filled in by the defendant. The Bench inflicted a similar fine in this case. It will be seen from the above, which we have abstracted from the *Western Mail* of the 17th ultimo, that general practitioners who employ unqualified assistants to conduct branch practices, or otherwise help them in their business, run much risk of being punished by fine and exposure. Unqualified assistants very frequently possess sufficient professional knowledge to usefully aid their principals, but such assistants should never be left to have the sole control of cases; and, in carrying on branch practices, the principals should take care only to engage the services of those who, by being qualified, will save them from falling into serious mistakes.

INSANE IN PRIVATE DWELLINGS.

AT the quarterly meeting of the Medico-Psychological Association, held at Bethlem Hospital on Friday, April 28th, Dr. Lionel A. Weatherley proposed a resolution "that single cases of insanity in private dwellings should be better supervised." In doing so, he pointed out the fault of the present day in allowing outsiders, who knew nothing of the details of the treatment of insanity, to propose sweeping reforms, which psychological physicians were of necessity bound to oppose. He hoped that the resolution he proposed would be followed by others of equal importance, and thus make the Association what it should be, viz., the starting point of lunacy reform. If such were the case, how much better would the so-called "lunatic doctors" be looked upon by the general public. If better supervision was considered necessary with regard to lunatics in asylums, how much more essential was it that single cases should be thoroughly and efficiently supervised. He maintained that a more vigorous supervision would cause the single system of treating many cases of insanity to be recognised as a most useful means of ensuring early treatment, of hastening the period of convalescence, and of rendering the lives of many chronic lunatics happier than they might be in asylums. After some discussion, the President, Dr. D. Hack Tuke, felt he was unable to put the resolution to the meeting, as the quarterly meeting in London did not properly represent the Association; and Dr. Weatherley gave notice that he would bring the subject forward again at the annual meeting of the Association in July.

REMOVAL OF THE SICK.

WE learn from the *Leeds Mercury* of the 21st April, that an inquest on the body of a girl named Elizabeth Tilson, aged 17, who had died on the 14th March, and which had been adjourned from the 8th April, was on the 20th brought to an end. It was held for the purpose of determining whether the death had been hastened by her removal, whilst in an unfit state, from the Women and Children's Hospital at Leeds, to the Dewsbury Workhouse Infirmary. The girl, it would appear, had been suffering from chorea; and, being very unmanageable in the hospital, owing to her affection being complicated with meningitis, was transferred to the workhouse, the hospital authorities considering that, from the fact of there being no resident medical officer, her condition could be better dealt with in the workhouse than in the hospital. The girl died three days after her removal, and the *post mortem* examination revealed meningitis as the cause of death. It would further appear that the inquisition was called for at the instance of the guardians of the Dewsbury Union, in consequence of their attention having specially been attracted thereto by Mr. J. S. Davy, Inspector of the Local Government Board, who, it would seem, had read the notes of the case as entered in the report of Mr. Halliwell,

the workhouse medical officer. At the adjourned inquiry, Miss E. Watkins, nurse at the hospital, deposed that the girl was under her charge from the 28th of February to the 11th March, on which day she was removed to the workhouse infirmary. During the last week, she gradually became worse, and on the 10th had to be removed to a private room, and strapped down in bed. At the time, there were several bad operation cases in the hospital; and her condition was such as to endanger the well-being of other patients. The coroner remarked, "Well, one case is as good as another"; to which the solicitor for the hospital replied, "Yes, but one is not as good as eighteen"; which was followed by the coroner saying, "That is just the same; you have no right to kill one for the sake of a thousand." Some letters which had been addressed to the coroner by Mr. Ikin, one of the surgeons of the institution, were read, from which it appeared that the girl had become gradually worse, and perfectly unmanageable; and, as they had no resident medical officer, no padded room, nor other proper means of dealing with such a case, that they had directed her removal to the workhouse (where in all human probability she laboured under the same disadvantages). Mr. Ikin also protested against any inquiry being held, as he contended that the girl had been kindly treated, and only transferred to the workhouse when it was found that she could not with advantage be retained in the hospital. The coroner remarked, "That a public institution which exists for the benefit of the public should have the confidence of the public; and every one feels that these matters should be cleared up." He also pointed out that the jury would have to consider whether Tilson's removal from Leeds was simply a piece of indiscretion, or a culpable act. This hospital was an institution which made an implied contract with the public that the patients received should be taken care of; and they would have to say whether the girl's removal had been made without a proper examination as to her fitness for removal, and if death had been hastened by a neglect of proper examination. He also said it might be advisable to again adjourn, for the purpose of giving an opportunity for an explanation of the letters; whereupon a juror remarked that it was a frivolous case, and that they ought to censure the board of guardians for their conduct with regard to the inquiry; which was followed by another juryman stating that it had been given in evidence that the girl would have died from meningitis, whether she had been removed or not. After an hour's deliberation, the following verdict was returned, "That Elizabeth Tilson has died from natural causes, and that we highly censure Mr. Ikin for removing her, or for causing her removal, when in an unfit state of health." In commenting on this case, we would express our regret that the perversity of the majority of the jury made them insist, despite the opinions of two of the intelligent members of their body, in censuring Mr. Ikin for directing that to be done which is carried out every day, more or less, in every large urban hospital—to wit, the transference of troublesome and, it may be, even perhaps moribund patients from their wards to the nearest workhouse infirmary.

THE TOTTENHAM SANITARY ASSOCIATION.

THE eighth annual report of this useful little society, whose organisation is worthy the attention of larger districts, has recently been published by the Committee. It contains a record of much good, if unpretentious, work in watching the doings of the local board of health, and in endeavouring to instil a greater interest in sanitary matters amongst the residents. The report refers at some length to the mortality of the district and its components, and speaks of the improvement in the death-rate which has been shown in the last few years—an improvement, much of the credit of which the Association is fairly entitled to claim. Up to 1871, the death-rate in Tottenham rose with the increase in density of population; but, though the population between 1871 and 1881 was more than doubled, the total death-rate during 1881 was 3.7 per 1,000 less than during 1871, while the death-rate from the seven principal zymotic diseases was only three-fifths of the rate during 1871. When it is remembered that, between 1871 and 1881, the increase of population in the suburb was chiefly of the wages-receiving class, the decrease in the death-rate during the decade is "a triumphant proof of the beneficial effect on the public health of effective sanitary administration." The Committee further observe that, "if the state of things which existed in 1871 (before the formation of the Association and the commencement of earnest sanitary work through its exertions) had been allowed to continue, *i.e.*, if in 1881 Muswell Brook and the other water-courses had been the principal channels for the sewerage of populous districts; if such sewers as these were had remained unventilated; if a great part of the water-supply had been drawn from land springs in the neighbourhood of highly manured market gardens; if more than 2,000 water-closets were still in direct communication with the water-mains by means of stool-taps; then, unquestionably, instead of being far healthier in 1881 than in 1871, Tottenham would have been in a deplorable condition, and would have shown a death-rate largely in excess of that year, instead of being markedly below it." Considering the good that the Association has done and is doing, the fact that only forty-five persons subscribe to its funds is not creditable to the neighbourhood.

SMALL-POX AND FEVERS IN THE PUNJAUB.

A RECENTLY published Parliamentary paper contains some interesting particulars relating to the prevalence of small-pox and fever in the Punjaub during the year 1880. Small-pox prevailed with great violence, the mortality exceeding even that of 1878—the same causes, scarcity and distress, favouring the epidemic force in both years. The number of registered deaths from the disease was 49,489, or 2.83 per 1000, against 40,271 in the previous year; of the total number, 9,832 deaths occurred among children under one year of age, and 36,326 amongst those under one and twelve years. In some parts of the Province, the death-rates from this disease alone exceeded 5 per 1000. The deaths from fever in 1878 reached a number never before approached; but it was exceeded in 1879 by more than 30,000, the total number being 472,939 or 27.04 per 1000, against 440,492 or 25.19 per 1000 in the previous year. This excessive mortality was owing to a continuance of the unusually severe and widespread epidemic which commenced in the previous September, continuing through the cold months into the spring of 1879. It was attributed to the distress occasioned by the exceptionally high prices that prevailed during the two previous years, combined with an abundant rainfall in the monsoon season. In addition to these, there were exceptional causes at work in certain localities where the drainage is very defective. This evil has long been known, and works are now in progress for improving the drainage of these districts. During the monsoon months, and those following to the end of the year, or six months in all, the number of deaths registered under fevers in seven districts was 158,978, or 123 per 1000 of a population of 4,646,570. In the remaining twenty-five districts of the province, with a population of 12,841,555 for the same period, there were only 131,893 deaths, or 29 per 1000.

THE DEATH-RATE IN VICTORIA, ESPECIALLY FROM PHTHISIS.

AN interesting paper has been recently read, before the Institute of Actuaries, on the rates of mortality in Victoria. Its various bearings were discussed at some length at the meeting of the society, when Dr. Symes Thompson represented the medical view of the subject. It is obvious that, with colonial society still in so changeable a state, it is too early to arrive at decided opinions as to the comparative mortality of Victoria and of England; and that conclusions from facts can, for the present, only be received conditionally. Still, it is well to learn such facts as the following ones. That the average number of deaths *per annum*, per 1,000, in Victoria, was found to be 16½, against about 22 in England; this is considered to be partly accounted for by the lives of emigrants being somewhat better than average lives. That the deaths in Victoria from violence were 9 per cent., against 3½ in England; this is accounted for by the various accidents which happen to pioneers in new and unsettled countries. That the infant mortality is more favourable in the colony than in the mother country; this is partly explained by the large number of infants removed by parents when they

quit the colony. What has caused surprise is the large number of deaths recorded from phthisis, which we have been apt to suppose to be unfrequent. The death-rate from that disease in Melbourne is found to approximate closely to that of the United Kingdom, although the rate for the whole of Victoria is considerably lower. One of the physicians of Melbourne holds a strong opinion that phthisis in that place is decidedly on the increase. Against this, it is argued that the mortality of Melbourne is augmented by the number of patients sent out of late years from England with the disease already developed; and also by the number of phthisical patients in the colony, who, as they grow worse, naturally resort to the physicians and hospitals of Melbourne. With reference, however, to the cases of phthisis imported from England, it has been found, on investigation, that the number of those who have died within two years of their arrival is remarkably small. To account for the prevalence of phthisis, one of the speakers pointed out that the climate of Melbourne is by no means a very equable one; it being a common remark in that place, that one may often with advantage change the thickness of one's clothing two or three times during the day. Other parts of Australia—as Ehuca, in Victoria, and Queensland—are said to be better adapted for phthisical patients; but our knowledge of particular localities, in a sanitary point of view, is still very limited. Dr. Thompson was, on the whole, of opinion that nothing had yet been brought forward that need deter medical men from sending out patients who manifested an early tendency to the disease, to well-selected places, as, on the Australian continent, there is a great variety of climates. Other questions arose at the meeting: such as, how far phthisis has been developed among persons born in the colony, who had no hereditary predisposition; in how far the excess of the general mortality of the colony, in some years, was explainable by the occurrence of epidemics of measles and of scarlatina; but no very definite conclusions were arrived at. The minuteness of the registration of the period of deaths in infants in Melbourne was favourably commented on—the first year of age being divided into four periods. This, if carried out, must eventually lead to a more accurate knowledge of the causes of the excessive mortality of infants during their first year of existence.

A RARE AFFECTION.

M. NIELLÉ, naval surgeon and professor of colonial pathology at Brest, has observed a papular eruption on a cabin boy of fourteen years of age, which is peculiar in character, and cannot be mistaken for either scabies or eczema. It resembles an affection called craw-craw, which exists among the negroes of the New Guinea coast. Microscopical examination of the serosity of the papules brought to light the presence of nematoid worms, similar to filariæ, in different degrees of development, from the adult and sexual stage, down to the embryonic. In the embryonic stage, they are found in the blood. This affection is not contagious. It is believed that the filaria enters the animal economy by means of the water imbibed. In the adult stage, the worm is one-third of a millimètre long, and one-hundredth of a millimètre in diameter.

PHOTOGRAPHY OF BIRDS IN MOTION.

M. MAREY, at a recent meeting of the Paris Academy of Sciences, showed the "photographic revolver-gun" which he has invented for the purpose of studying the flight of birds. It is composed of a copper tube about 5 centimètres in diameter and 70 centimètres long. The breech is represented by a rectangular box containing photographic plates. A piece of machinery provided with a spring, which is wound up like a clock, places in succession each plate in front of the tube. If, in a second of time, twelve plates pass in front of the tube, which has been previously put into position, each photograph will be taken in the twelfth of a second. The different phases of motion are described in eight positions, which represent collectively a third of a second; each position, therefore, represents the twenty-fourth of a second. By increasing the rapidity of the rotation of the movable portion of the breech, it is possible to take four, five, and even ten photographs in this time. M. Marey submitted to the inspection of the Academy eight photographs describing the movements of a sea-gull preparing to fly. Firstly, the wings are completely extended and drooping; then the analogue of the forearm is drawn towards the upper part of the thorax and flexed. During this time, the extremities of the wings remain drooping, but are immediately upraised so as to present the smallest possible surface to the resistance of the air. In a little while, the wings have assumed the most elevated position attainable. Finally, they are slowly lowered until they reassume the first position. M. Marey reserves for a future communication the observations these experiments have suggested to him. We understand that an attempt is shortly to be made at the Alexandra Palace to take a series of instantaneous photographs of the celebrated Canadian sculler Hanlan, as he sculls on the great lake in the grounds.

SCOTLAND.

THE GLASGOW UNIVERSITY COUNCIL.

AT the recent meeting of the Council of Glasgow University, the question of University Reform was very fully discussed; and, while it was generally admitted that some changes and alterations in the present state of matters were needed, there was a diversity of opinion as to the best way of carrying these out. Many favoured the view of having an executive commission appointed, but ultimately it was decided that there was no need for calling in any outside assistance, and that the University Courts, if their powers were only enlarged and their representative members increased in number, were best fitted to carry out all needed academic reforms in their respective Universities. It will thus be seen that Glasgow is not in accord with the sister Universities, who urge the appointment of an executive commission.

PROPOSED CHAIR OF PATHOLOGY IN GLASGOW UNIVERSITY.

FOR some time there has been a very general feeling, that steps should be taken to place the teaching of pathology in the University on the same footing as the other subjects included in the medical curriculum, by endowing a Chair of Pathology. At present, pathology is made a compulsory subject, and no complaints can be made as to the efficient manner in which it is now taught extramurally, as it were, by Dr Coats; but it has not the professorial status that many think, and very properly, it should have. With the view of accomplishing this end a proposal was made at the last meeting of the General Council of the University, by Dr. J. A. Campbell of Carlisle, for the appointment of a committee who should take all necessary steps for obtaining the required funds. Dr. Campbell's proposal was unanimously agreed to and an influential committee appointed. It is thought that a sum of £5,000 would be sufficient for the endowment of the chair.

THE SUMMER SESSION IN EDINBURGH.

THE summe rsession in the extramural Medical School in Edinburgh commenced on Monday. Two lecturers on midwifery and diseases of women have entered the field, Dr. Peter Young and Dr. D. Berry Hart. Dr. Hart (who has for several years been assistant to the professor of midwifery in the University of Edinburgh) delivered his opening lecture on Monday morning; it was well attended by the profession and others. Dr. G. A. Gibson, formerly lecturer on medical anatomy and physical diagnosis, having been appointed tutor of clinical medicine in the wards of the ordinary physicians to the infirmary, will be at work there this session. The session in the university commenced on Tuesday, on which day also the final examination commenced in the clinical medicine section. Considerably over 200 names have been entered for the final examination. The new professor of natural history, Dr. Cossar Ewart, delivers his opening lecture on Friday May 5th. The lists of successful candidates at the first and second professional examinations have been published, and it appears that 105 passed the first professional, two of them with distinction; and that 97 passed the second professional, of whom 16 gained distinction.

CHAIR OF NATURAL HISTORY IN ABERDEEN.

It is officially announced that the Crown has nominated Professor H. Alleyne Nicholson, M.D., Sc.D., of St. Andrew's, to the chair of Natural History in Aberdeen, vacant by the removal of Professor Ewart to Edinburgh. This appointment is regarded as a most advantageous one for the Medical School of Aberdeen, and also for the students of arts. The professor has to teach zoology and geology in winter, and zoology in summer. As Professor Nicholson has done much in both these departments, no one is more competent to fill the chair. The Medical School of Aberdeen has gained in Dr. Nicholson a teacher of undoubted ability, and one who is thoroughly acquainted with the bearings of zoology upon medicine, and also with the amount and kind of knowledge of zoology specially required by medical students. The success with which Dr. Nicholson conducted the class of natural history in Edinburgh is at once a high testimony to his ability as a zoologist, and a proof of his singular aptitude for conveying information to students. Lord Rosebery is to be congratulated on the expeditious way in which he has made the two last appointments to Scotch chairs.

HEALTH LECTURES AT DINGWALL.

We observe that a course of health lectures which have been delivered at Dingwall during the winter has just been completed. The course was opened by Dr. Sutherland of Invergordon, with a very eloquent discussion of the nature of life, which was followed by a clear and complete summary of human physiology, given by Dr. Ross of Inverness. Dr. Bruce and Dr. Adam of Dingwall took up the practical subjects of air and water, food and clothing; and Dr. Cowie of the same place then devoted a lecture to general hygiene. Personal health next received attention, Dr. Macnee of Inverness treating the subject of the health of women, and Dr. MacFadyen of Beauly discussing the more common diseases of children. Infection was handled by Dr. Mackenzie of Inverness, in a thoroughly interesting and instructive style; and Dr. Sutherland concluded the course by a practical account of surgical emergencies, and how to meet them. Such lectures serve more than one good purpose. They dissipate ignorance, by teaching the people what must be of vital importance to them in their daily life; and they prove to the public that the profession has no secrets which it wishes to keep from them. In the present instance, the lectures have also benefited the profession, by bringing the different medical men of the district together on the platform, and thus encouraging a generous rivalry amongst them.

THE TREATMENT OF FEVER CASES IN CHARITABLE INSTITUTIONS.

Some time ago, the directors of Leith Hospital applied to the municipal authorities for increased assistance in maintaining the hospital now that so many cases of fever are treated in it. They have prepared a memorandum on the subject, which is certainly worthy of consideration. In it is pointed out that, for the five years from 1876 to 1880 (years when the town was unusually free from fever), the fever cases numbered 382, or an average of 76 per year; and from 1st January last to this date they numbered 228, the greater proportion of the latter being cases of typhus. The expense of the Fever House in any of the years named amounted to about £500; and it will therefore be seen that the sum (£100) paid by the local authority is quite inadequate. The large demand upon the funds which has arisen from the great number of fever cases, compelled the directors to close wards containing sixteen beds in the new hospital, which were previously available for the reception of general cases of disease. The directors state that had it not been for the inadequacy of their funds, they would not have troubled the local authority; but, considering the circumstances of the case, and that it is incumbent on the town of Leith to have provision for fever cases at the cost of the taxpayers, they are compelled to take their present step. It is satisfactory to know that, through the munificence of a lady, such addition has been made to the funds of Leith Hospital, that the directors will be able to open and maintain one of the closed wards; and if the Leith authorities properly supplement the sum given already by them, and are followed in this by the South Leith parochial board, which at present gives £100, the North Leith, which gives £50, and the Dock Commission, which gives £50, the directors will be able to open all the wards in the new hospital. Mr. Charles Stewart, M.A., M.B., has been appointed resident surgeon to the hospital.

REGISTRAR-GENERAL'S RETURNS.

From the returns of the Registrar-General for the week ending April 22nd, it appears that the death-rate in the eight principal towns was 23.2 per 1,000 of estimated population. This rate is 2.3 above that for the corresponding week of last year, but 1.6 below that for the previous week of the present year. The lowest mortality was recorded in Greenock, viz., 17.8 per 1,000; and the highest in Glasgow and in Paisley, viz., 26.6 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 4.0 per 1,000, or 0.4 below the rate for the previous week. Whooping-cough was the most fatal epidemic in Glasgow, and measles in Edinburgh. Acute diseases of the respiratory organs caused 114 deaths, or 23 less than the number recorded last week. The mean temperature was 46.2°, being 5.4 above that of the week immediately preceding, and 3.8 above that of the corresponding week of last year.

IRELAND.

Mr. Alexander Nixon Montgomery, Senior Assistant to the late Sir Edward Sinclair, as Secretary of the Vaccine Department of the Local Government Board, has been appointed his successor in that office.

ROYAL COLLEGE OF SURGEONS OF IRELAND.

On Tuesday last, the following examiners for the licence were elected for the ensuing year: Messrs. B. W. Richardson, E. A. Stoker, E. S. O'Grady, W. Thomson, M.D., R. L. Swan, W. Frazer, M.D., B. G. McDowel, M.D., H. R. Swanzy, and P. S. Abraham. The outgoing examiners for the degree in midwifery, and for general education, were re-elected. The authorities of the College have decided on expending £3,000 in the enlargement and improvement of its medical school.

THE KING'S PROFESSORSHIP OF MEDICINE.

Dr. William Moore has communicated to the President and Fellows of the King and Queen's College of Physicians, his intention of not seeking re-election to the King's Professorship of Medicine in the School of Physic, and the *ex officio* Physicianship of Sir Patrick Dun's Hospital, at the expiration, in July next, of his present septennial term of office. Dr. Moore has been the King's Professor of Practice of Medicine in the School of Physic since July 1866, having been elected to the chair on its resignation by Dr. Banks, now Regius Professor of Physic in the University of Dublin. "The School of Physic in Ireland" is a medical school, formed by the amalgamation of the schools of Trinity College and of the College of Physicians. The school is governed jointly by the Provost and Senior Fellows of Trinity College, and by the President and Fellows of the College of Physicians. The King's Professors of Practice of Medicine, of Midwifery, of Institutes of Medicine, and of Materia Medica, are appointed by the College; and the Professors are, *ex officio*, Physicians to Sir Patrick Dun's Hospital. In 1868, it was resolved by the College of Physicians that, in future, no King's Professor in the School of Physic shall be allowed to hold an appointment as medical officer to any clinical hospital other than that of Sir Patrick Dun. The legality of this resolution is now seriously questioned, and it is probable that it may be rescinded. The point is one of extreme importance to determine; especially at present, when there are two King's Professorships—that of Midwifery and of Medicine—in the gift of the College. It will be readily understood that a physician, who would be most competent to fill a King's Professorship, would not seek the chair, if he had to resign his connection with the

hospital to which he was attached, and in which he made his reputation. In this way it might, therefore, possibly happen that the best man would not be secured for the professorship. We entirely disapprove of plurality of hospital appointments. But if, in such a case as we have put above, a physician of a hospital other than that of Sir P. Dun's were appointed to a King's Professorship, and declined to resign his own hospital and to do duty at Dun's, the College of Physicians could appoint a physician to do duty in his place at Dun's Hospital. In this way, nothing would prevent the professorships from being filled by the best men; and it would be against the interests of the College to put any but a competent physician into Sir P. Dun's Hospital.

THE PROPOSED ADDITIONAL TAX ON CARRIAGES.

MUCH excitement has been caused in the medical profession by the proposal of the Chancellor of the Exchequer to impose an additional tax on carriages. Several letters pointing out the hardship that would be inflicted on medical men by the proposed tax have been received by the chairman of the Parliamentary Bills Committee and at the office of the JOURNAL. The Parliamentary Bills Committee of the association met on Tuesday last, and unanimously agreed on a series of resolutions, which will be found below. The committee agreed on the following form of petition :—

To the Honourable the Commons of the United Kingdom of Great Britain and Ireland in Parliament assembled.

The humble petition of the undersigned practitioners of medicine in sheweth—

That the vehicles used by medical men are implements of their calling as much as are the carriages of farmers, brewers, and others, which are exempt from all tax; while, being of light construction, the carriages of the medical men do less injury to the roads than the heavier vehicles which are exempt.

That members of the medical profession already contribute more in proportion to personal taxation than any other class; it being necessary for them to dwell, for the purposes of their profession, in larger houses, which, though places of business, are rated as private dwellings.

That medical men have to pay income-tax on their gross and not on their nett profits, although such income is fluctuating, and dependent on personal exertion.

That medical men frequently require, in virtue of the necessities of their calling, to keep closed as well as open carriages, the use of which is often rendered imperative by the necessity of visiting hospitals and other institutions at a distance from their residences.

That an increase of the tax on carriages would press hardly on a large number of medical men, especially those practising in country districts.

Your petitioners therefore pray that, in any proposal for an increase of the tax on carriages, an exemption may be made in favour of medical men, so that they may not be called on to pay, in respect of the carriages used by them in the performance of their professional duties, a higher tax than that to which they are now subjected.

And your petitioners will ever pray, etc.

Members of the Association are earnestly recommended to make copies of this petition, to obtain as many signatures as possible from their professional brethren, and to forward them to their respective representatives in Parliament for presentation.* It is also essential that our associates should use their personal influence with members in support of the object of the petition. We are glad to see that this and other measures are already being taken in many quarters; and perhaps it is scarcely necessary to urge the importance of prompt action in the matter. It is confidently expected also that the branches of the Association will render much valuable assistance in the prevention of the hardship which threatens the hard-working practitioner, to whom a carriage is a necessity and not a mere luxury.

THE PARLIAMENTARY BILLS COMMITTEE.

AT a meeting of the Parliamentary Bills Committee, held at the office of the Association on Tuesday, May 2nd, 1882, there were present—Mr. Ernest Hart (chairman) in the chair, Dr. A. Henry, Dr. Partridge, Dr. Nicolson, Dr. Norman Kerr, Mr. Sibley, and Dr. Hart Vinen. The meeting was called specially to consider Mr. Gladstone's proposal to increase the tax on carriages.

The CHAIRMAN read letters which he had received from Mr. Dyke, Dr. C. Orton, Mr. R. S. Peart, Dr. Bryan, Mr. H. D. Palmer, Dr. Beales, Mr. T. Langston, Mr. Godfrey, and Dr. Percy Boulton.

Resolved : "That a petition be prepared to present to the House of Commons, that the proposed increase in the tax on carriages should not apply to the carriages of medical men."

Resolved : "That all the medical members of the House of Commons be requested to make formal representation to Mr. Gladstone on the subject."

Resolved : "That representation be made by the Parliamentary Bills Committee to Mr. Gladstone to this effect, and that he be asked to receive a deputation on the subject."

The CHAIRMAN reported that the subcommittee appointed at the last meeting to draft a Bill for the registration of midwives in England and Wales on the lines laid down by the Obstetrical Society, consisting of the Chairman, Dr. Robert Barnes, Dr. Grigg, Mr. Nelson Hardy, Dr. C. Holman, Mr. Sibley, Dr. Quain, Dr. Priestley, Dr. Playfair, and Dr. J. H. Aveling, had drafted a Bill in accordance with the instructions on that basis.

Resolved : "That the subcommittee be requested to continue its labours, and to obtain the introduction of such Bill into Parliament."

COLLECTIVE INVESTIGATION COMMITTEE.

THE FUNCTIONS OF THE LOCAL COMMITTEES.

THE work of organising the whole Association for the collective investigation of disease is being actively carried on. Several committees have now been appointed by various Branches of the Association, and others are being formed. Each Branch that has been applied to has most cordially responded to the call, and very able and active men have been enrolled to form local committees in the districts. It is evident that a large proportion of those most competent to aid in such a work as this will gladly welcome the opportunity of easily recording their cases of interest, and thus furthering the advance of our knowledge of medicine. The fact that the observations of so large a body of men are being simultaneously directed to the elucidation of certain obscure points, stimulates the desire of every man who takes an interest in his work to add his own experience and observations to the common fund. The committee supplies a necessity long felt; it gives voice to the great body of observers who are studying disease in all parts of the country, and under varying conditions and surroundings; it will enable them easily and with little trouble to obtain answers to many questions which are constantly presenting themselves to the mind of every thoughtful practitioner.

At the present time, when these local committees are being asked for and appointed, some information concerning the work proposed for them may prove useful. To appreciate this, it is necessary to bear in mind the chief object for which the Collective Investigation Committee was appointed, namely, to advance our knowledge of medicine by means of the experience of disease gained outside the walls of the hospital.

The opportunities for studying medicine afforded by hospital practice are chiefly confined to observations on the later stages of organic disease, and to the study of acute diseases. Little or no opportunity occurs for the observation or recognition of the functional conditions which must probably precede organic disease. Some of the more important subjects concerning which it is hoped to gain information by the collective investigation of disease, are included under the following heads.

1. Facts are required upon various matters which can only be known to those who have opportunities of watching individuals, and sometimes families, for periods extending over many years, or throughout their lives. Of these, the following subjects are examples. *a.* The earliest symptoms and minor ailments which foreshadow the occurrence of grave constitutional conditions, such as rheumatism, gout, osteo-arthritis, stone, goître, etc.; or of organic diseases, such as cirrhosis of the liver, Bright's disease, phthisis, and many diseases of the cord and brain. *b.* The alliances of various diseases in families, and the sequence of disease in the individual; for example, the relation of syphilis to scrofula, the production of cancer by local irritation of a part or perverted function of an organ, the relation of gout to rheumatism and osteo-arthritis, and of joint-affection to nerve-disease. *c.* The gravity of certain symptoms under varying circumstances, such as a mitral *bruit* in acute rheumatism, chorea, scarlatina, anæmia, pregnancy, or Bright's disease; of hæmoptysis in phthisis, gout, alcoholism,

* The following regulations should be followed in the preparation and execution of petitions to the House of Commons. Every petition must be written, and not printed or lithographed. Every petition must contain a prayer. Every petition must be signed by at least one person on the skin or sheet on which the petition is written. No letters, affidavits, or other documents, may be attached to any petition. No erasures or interlineations may be made in any petition. No reference may be made to any debate in Parliament.

amenorrhœa, and other conditions; of albuminuria in Bright's disease, in scarlatina, in adolescence, in gout, etc.; of ankle-clonus and other reflex phenomena in functional and organic nerve-disease.

2. Information is required concerning the liabilities to disease in certain districts. *a*. The production, modification, or prevention of disease by variations in soil, elevation above sea-level, prevailing winds, amount of rainfall and sunshine, hygrometric condition of the atmosphere, and the qualities of drinking-water. *b*. The liabilities to disease among the operatives in certain industries; this, though widely studied, is by no means worked out. *c*. The effects of syphilis on the population in districts where it is especially prevalent.

3. Many points of interest in the etiology of enteric fever, diphtheria, and others of the acute specific diseases, still await elucidation, and may well be undertaken by this committee.

4. The asserted communicability of phthisis is a subject which calls for immediate investigation.

5. The communicability of disease from animals to man is a question of increasing interest.

6. Last, but not least, carefully organised, extensive, and combined observations on the action of various drugs, may be expected to prove a fruitful subject for subsequent investigations.

These are some of the lines of work which the committee have in view; it remains to point out the manner in which the local committees may conduce to the work. The experience of past efforts of this kind, which have chiefly consisted in the circulation of schedules of questions, shows that they have failed on account of the complex and elaborate answers required, from the request being made for past and generally unrecorded experiences, from the want of a general interest in the subject, and especially from the want of an organisation by means of which personal application can be made to the members of the profession. It is hoped that, in the present movement, these causes of failure have been especially guarded against. The questions put to the observers are simple and definite; they can often be answered by a single stroke of the pen; they refer entirely to present or future observations, or to those of which a record has been previously kept; but the last and most important of these causes of failure will be met, it is thought, by the local committees. These will have essentially a stimulating function. Each member will be expected to interest his friends and neighbours in the work, and, by personal application to them, it is believed that he will obtain their assistance. The primary function of all local committees should be personal application to the members in their district, and this should be carried out in a carefully organised and systematic manner; each member of the local committee undertaking to make personal application to certain selected persons, for whom he should be made responsible.

The best method of organising and working each Branch will vary greatly; and this, again, can only be determined by the local committee.

In addition to propagating the work in their respective Branches, the local committees will be asked to consider the question of the prevalence of particular diseases in their districts; indeed, all the subjects of inquiry in the second group will come under their notice. Not only should the influence of climatic conditions in the production and prevention of disease be studied by them, but also the diseases produced by special trades or manufactures, and the local outbreaks of specific fevers. It is probable that, in many instances, special investigations, of local interest, will be suggested and carried out by local committees. Whenever a local investigation is proposed, it is hoped that a scheme will be drawn up, and the necessary questions framed, by the local committee; and that it will then be submitted to the general committee for criticism and suggestions. In drawing up the cards about to be issued, it has been found that those who frame a scheme of this sort and propound the questions in the first instance, are never able to effectively criticise their own work. This function of criticism is exceedingly well filled by the central committee, upon which all shades of thought and opinion, as well as much special knowledge, are represented.

The general committee will always be glad to lend assistance that may be necessary in carrying out any local investigation, either in organising, printing, or secretarial work.

Finally, each local committee is invited to send to the general committee a representative who will not only represent the Branch, but will keep the local committee in communication with the central body. Though it may be impossible in many cases for these representatives to attend the meetings in London, nevertheless, the subjects to be brought forward at these meetings will always be submitted to them for remarks and criticisms, which can be made by letter, and laid before the general committee.

The three cards which have been prepared, after many revisions and alterations, are now being stereotyped. Specimen slips showing how they should be filled up will be sent with each. The process is necessarily a long one, and some unavoidable delays have occurred, but they will be ready for distribution by the second week in May; together with reprints of the memoranda on the subjects of investigation, which will be issued to those who may wish to possess them. The cards will be issued by the local committees, or by the secretaries appointed for the various districts, to whom application should be made by those willing to take part in the work.

SIR,—The work of the Collective Investigation Committee is one of so much importance, that no amount of preliminary discussion can be considered redundant. I hope, therefore, I may be thought to be within the bounds of propriety in taking up my pen to emphasise a paragraph in the letter of Dr. Sturges, in the JOURNAL of April 22nd. Let me say that I am giving vent solely to my own personal opinion; nor do I conceive that, in doing so, I am in any way traversing the lines of investigation which the General Committee have wisely laid down. The paragraph to which I refer is this: "The schedules are issued to experienced men, who may be trusted to assert themselves with sufficient plainness, and to keep clear of pitfalls on one side or the other. They will know how to make erasures and additions accordingly."

Of those who receive these cards or schedules, some will not see their way to giving much assistance to the Committee; others, and, I should suppose, the majority, will take up the matter and work at it heartily. Now, by all such I conceive that the cards issued should be considered to have a twofold meaning. In the first place, they propose certain questions for solution—all of which, in whatever form they may be made, are to be considered as quite open. We are, in fact, to begin again, so far as is possible in human nature, without bias, and attempt to decide by figures what rheumatism is, what chorea is, and so on. This is what I understand to be the point of view of the Committee; and by it the inquiry, with wise precaution, is restricted to certain definite issues. But there is another point of view, viz., that of the observer; and Dr. Sturges, if I interpret him right, has in a measure expressed this in the sentence I have quoted. We are asking a number of experienced men to work at various diseases which have numberless points of interest, and which are, no doubt, viewed in proportionately different lights; and I wish to point out that, beside the elementary facts of disease—those facts which we all think we know already, but about which we are less sure when we come to discuss them—there are many others which are equally important, which no less require elucidation, and which, for some minds at any rate, may prove more attractive lines of observation. Nay, further, it is quite possible that there may be other features in any given disease, which, having hitherto escaped the notice of the many, are not even hinted at in any scheme of symptoms, but which may, perhaps, have revealed themselves to the few here or there. And now, or not for a long while to come, is the time to collect all facts of any description concerning those diseases which are proposed for investigation. The labour may appear heavy; but I assume that those who take up an inquiry of this kind are not likely to be broken by too much work, but their ardour may be chilled by cramp. I do hope, therefore, that, while we work upon the lines of the schedules, and give the General Committee the precise information for which it asks, we shall not, any of us, fail to "assert ourselves with sufficient plainness" in those points which have seemed to us worthy of note; and, as life is short, unless we do, not even collective investigation will settle those of any one disease.

And thus, I venture to suggest for rheumatism some of these points, which might very well be noted, and which are by no means unimportant. The first great want for acute rheumatism is, no doubt, a careful record of series of cases showing the life-history of rheumatic people. A. or B., when attacked with rheumatism, requires to be described on paper, as far as possible before the attack; and (what will be more easy) all his subsequent ailments should be recorded, and his heart examined at intervals. With reference to sex, this point strikes one of the many that might be enumerated: the liability to particular forms of heart-disease varies with the sex; one form (mitral contraction) is more common in women than in men. Does acute rheumatism preponderate in the female sex to explain this? and, supposing that this should be so, what is the meaning of it as regards the causes of rheumatism? Take the age, again: Are there differences between the rheumatism of childhood and that of adults? If not, well; but, if so, then what is the meaning of this with reference to the unknown quantity, rheumatism?

The state of the patient, whether married, single, or widowed, may suggest inquiry in various ways; but we want much to know whether or not there be any connection between acute rheumatism and the more chronic diseases, also popularly called rheumatism, but which are held by many to be distinct diseases—(osteo-arthritis may be taken as an

example); and also, indirectly, some information might be afforded tending to prove or disprove the relation asserted between rheumatism and certain neurotic ailments more frequent in women than in men, and under certain conditions of derangement of the sexual functions.

As to the time of year and locality, statements are made which ought now to be substantiated, not only by one or two, but by practitioners from all parts. Is rheumatism more common at one time of year than another, in cold than in hot weather, in moist than in dry, with one wind prevailing rather than with another? Is it more common in town or in country? and so on. Some practitioners hold that rheumatism is easily acquired; some that it is mostly transmitted by inheritance. What is the truth in this matter? Geographical distribution, evidence upon the climatic conditions under which it occurs, must afford most valuable information in aid of the settlement of this question. And, further, supposing it be found to be acquired, is it a constant result of uniform conditions, or a result common to varied causes?

The occupation is down for a note on the card, but much more than that might be recorded. I would have it typify the patient and his habits; his aspect, whether dark or light; his physique, whether strong or feeble; his muscular tone; his work; his recreations. Then, again, his food; it is surely necessary to know not only its character as regards quantity and quality. We ought to know what is its staple composition. Some people take saccharine matters largely; others are great meat-eaters; others vegetarians, and so on. Intemperance, too, is not confined to the imbibition of alcoholic drinks. It should always be a question whether a man is intemperate in meats, if not in drinks.

Then, again, what are the modifications of rheumatism? Has it any? Is it in one man shown by some skin-eruption; in another by neuralgia; in another by heart-disease; in another by gout? Here the family history comes in. We have first to determine if any families, traced through several successive generations, be absolutely free from rheumatism; and then, if it should happen that some families are thus exempt, what are the ailments which run with rheumatism or in place of it in rheumatic families; and is there any evidence bearing upon the transmutations of the disease? May gout in one generation be rheumatism or osteo-arthritis in the next, as some think? We want also to know what ailments replace rheumatism in the individual, or affect the rheumatic with sufficient constancy to justify the assertion that certain diseases are related to acute rheumatism.

The heart-disease of acute rheumatism gives rise to numerous questions: some tending to throw light upon the disease itself; others rather upon the etiology of heart-disease. Of the former, are the frequency of its occurrence in the two sexes; at different periods of life; the valves affected; and the possibility of its prevention by treatment. To the latter belongs the question, whether an acute attack of endocarditis is necessary for the production of those chronic thickenings which are so common; and, as regards recovery, both of the joints and heart, how important it would be to be able to gauge the frequency with which such chronic diseases supervene upon the acute; how important to be able to say, an attack of acute endocarditis having cleared up, what risk is run of the subsequent slow maturation of some chronic valvulitis.

To be able to answer many, perhaps most, of these questions, and many others that might be suggested, the patient persistent observation and record of those engaged in general practice are indispensable: for they involve no less than keeping an eye upon certain cases for many years. This, no doubt, involves a labour of no little magnitude; but it gives promise of results which may well cause us to overlook the intervening toil, and anticipate the ultimate harvest.—I am, etc.,

JAMES F. GOODHART.

SELECT COMMITTEE ON THE CONTAGIOUS DISEASES ACTS.

ON Tuesday, April 4th, Dr. Alexander Patterson, surgeon to the Glasgow Lock Hospital, was called in and examined by Mr. Stansfeld; the chief aim of his evidence being to show that, contrary to the experience of all other competent witnesses, there was no difficulty in inducing prostitutes to voluntarily enter the Lock Hospital, and to remain as long as might be necessary for their complete cure.

He was first questioned as to the great improvement that has taken place in Glasgow since 1870, as regards the appearance and behaviour of prostitutes in the streets, and also as to the number and character of the houses of ill-fame.

According to Dr. Patterson, previously to 1870, there were numerous brothels containing a large number of women in the centre of the city. The streets were thronged with prostitutes by day and night, and solicitation was rife. During all hours of the day, they sat at the windows of the brothels in a state of seminudity, and beckoned to the passers-by. They also dressed in a most conspicuous manner; and it was not uncommon, on summer afternoons, to see the mistress of one of these houses, with a troup of five or six females, marching in Indian file along the streets in their gaudiest attire. Now there was a great change. These brothels had all been suppressed, there was very little street solicitation, and the indecent exhibitions just mentioned had entirely ceased. This good result he attributed to the Glasgow Police Act of 1870.

But the Contagious Diseases Acts have never been applied to Glasgow, and this part of Dr. Patterson's evidence does not bear upon them in the smallest degree. It simply shows that, if sufficiently extensive powers be put in the hands of an energetic police, a great improvement in public order will soon be visible. Moreover, the same argument may be applied to this Police Act of 1870, as is applied to the Contagious Diseases Act by its opponents, viz., that it has done too much; and, while it has checked open and disorderly prostitution, it has actually increased the number of those who carry on their trade in secret. This objection is confirmed by a tabular statement handed in by Dr. Patterson, in which he contrasts the number of yearly admissions to the Glasgow Lock Hospital with the amount of the population. From this, it appears that, during the year before the new police regulations came into force, viz., 1869, there were the largest number of admissions to the hospital ever known in the city, but since that year, though the population has increased by a hundred thousand, the admissions are very much fewer than formerly. No doubt, it may be correct, as Dr. Patterson stated, that venereal disease has much diminished in Glasgow during the last ten years; but it is difficult to believe that, with a fixed population of 800,000, and a large seaport close at hand, the 349 cases admitted to the Lock Hospital represent anything like the whole of the venereal disease among the prostitutes of Glasgow and the vicinity during the past year; and the supposition is strengthened, that a large number of women must procure private medical assistance, or go unattended, from fear of betraying their place of abode, and thus subjecting themselves to the notoriously severe police regulations.

Moreover, these figures, 349, do not represent that number of distinct cases. As a matter of fact, only 209 patients were admitted for the first time; and, from Dr. Patterson's own report, which he put in evidence, it appears that very few indeed of them were avowed prostitutes. During a period of ten years, from 1870 to 1880, there were only 500 prostitutes admitted to the hospital, against 1,100 domestic servants, and 1,300 mill-hands, besides hundreds of women of other trades and occupations. Therefore, considering the class of patients that resort to the hospital, it is not surprising, as Dr. Patterson says, that they are as a rule quite willing to remain till cured.

The witness stated that the method of examination was similar to that employed at other Lock hospitals. Moreover, what has just been said with regard to the class of patients using the hospital is confirmed by the statement of the witness, that he found the use of the speculum give so much pain, that he had in many cases to administer chloroform before the instrument could be passed.

Admission to the hospital was free, but those patients who could do so were invited to pay a fee of one guinea. The institution was supported by voluntary contributions, which were, however, very insufficient; and the witness gave as the reason why, in so wealthy a city, so little support was given to this charity, that there was a strong feeling against the recognition of vice, even in the form of a hospital establishment.

On Tuesday, April 18th, the Rev. Stephen Rimbault, who described himself as an evangelist or missionary, was called in and examined, with a view to showing the effect of the Acts on the town of Maidstone, where he had resided for many years. It is needless to say that Mr. Rimbault is thoroughly opposed to the Acts, and is of opinion that their effect has been pernicious. He considered that there was a great increase of juvenile immorality in Maidstone, and he gave some peculiarly shocking details as to the depravity among lads and women in that town. But these facts, while showing an extraordinary precocity in vice, do not appear to have the remotest connection with the Contagious Diseases Acts; and similar instances could, no doubt, be reported from any other large town in the kingdom.

He agreed that the number of registered women had greatly diminished in the last few years, but believed that there were very many prostitutes who carried on their trade in so cunning a fashion, that the police were unable to obtain a case against them. He thought that such women as these should be summoned before a magistrate, and, if unable to prove themselves not to be prostitutes, they should be put on the register. Happily, however, such proceedings as this are not sanctioned by the Contagious Diseases Acts; and practically, Mr. Rimbault's objection to them is on the score of their too great leniency.

The examination of registered women in Maidstone, the witness said, was conducted with order and propriety, and he had never heard any complaint of indecent behaviour among the women going to and from it. Against the action of the special police in his town, he had no complaint to make. On the contrary, the present acting constable was a most respectable man, who did his duty with tact and care, though the witness was inclined to think him over cautious.

Mr. Rimbault discussed the principles of the Acts at great length; but he had very few facts to bring forward; and, however earnestly held his opinions and theories may be, they are scarcely entitled to more consideration than those of many other more competent witnesses.

THE ADVANCEMENT OF SCIENTIFIC MEDICINE BY RESEARCH.

AT the first meeting of the executive committee of the new association, the treasurer, Dr. Wilks, announced subscriptions amounting to over £1,000. We are also informed that sub-committees were appointed to report—1, on the present hindrances to research due to the working of the Vivisection Act; 2, to report on the best ways in which exact researches in medical science can be encouraged; 3, to prepare a list of papers to be reprinted and circulated for the use of the profession, and through their means for the public; 4, to arrange for asking the help of those interested in the objects of the association as corresponding members in the principal towns of the kingdom.

ANTIVIVISECTION IN BIRMINGHAM.

AT a meeting of the Birmingham Philosophical Society, held at Mason's College on Thursday, April 20th, Mr. Lawson Tait read a paper on "Uselessness of Experiments on Animals as an Instrument of Scientific Research". The paper was intended to be a reply to Mr. Gamgee's pamphlet on "Vivisection and Human Surgery". Mr. Lawson Tait contended that the results of experiments on animals were so contradictory and had been so misleading, that more harm than good had resulted from their employment. He disputed the accuracy of several of Mr. Gamgee's historical statements. He denied that Harvey discovered the circulation of the blood; it was only our insular pride that made us say so; nor had he done so by vivisection. The experiments of John Hunter had nothing to do with the development of subcutaneous surgery, and such an authority as Mr. Adams gave no support to such a view. Syme had discovered no more than Duhamel had taught a hundred years before, and his experiments were useless and brutal. Transfusion was not introduced in consequence of experiments on animals having been known to the alchemists, but if it were, it was an useless and almost invariably fatal operation which he would never sanction. Much had been made of the value of experiments on animals in toxicology, but to his mind the deficiency in proper chemical tests was a disgrace to chemists, and were they compelled to rely on these, they would soon be discovered. Very soon after the trial of Palmer, when the experts failed to detect strychnia, a method was invented by which the one-half millionth of a grain of strychnia could be detected.

Dr. SAUNDBY, in opening the discussion, pointed out that Mr. Tait had utterly failed to support the proposition contained in the title of his paper, as he had not alluded to the large domains of physiology and pathology, which were largely indebted to experiments on animals for their present advanced state. Mr. Tait had objected to experiments on animals, because they were contradictory; but were not all experiments open to the same objection? The history of any science was a history of controversies, and apparent contradictions were necessary phases of the growth of knowledge. Mr. Tait's attack was far too sweeping; it involved the entire inductive method.

Mr. FURNEAUX JORDAN regretted that the discussion was confined to the strictly scientific aspect of vivisection. Speaking for himself, he regarded vivisection as the essential means of progress in biological knowledge, and he looked forward to the time when it would be used extensively as a means of teaching. On the one side of this controversy, there was every eminent living scientific authority; on the other, Mr. Lawson Tait and such people as Mrs. Anna Kingsford, a spiritualist.

Mrs. ANNA KINGSFORD said she had not come with the intention of speaking; but, having been attacked, she would defend herself. Dr. Carpenter had attacked her very unfairly, and she had been refused an opportunity to reply in the pages of the *Fortnightly Review*. She had also been refused admission to the columns of one of the medical papers. With reference to Lamson's case, she did not see what the experts wished to discover by experiments on animals; and she did not know how, by physiological symptoms alone, they could distinguish between atropine, aconite, hyoscyamine, the poisonous principle of mushrooms, and stramonium.

On the motion of Dr. CARTER, the meeting was adjourned to the following Thursday evening (April 27th). It was accordingly resumed on that day.

Dr. CARTER said he applied to Mr. Tait for permission to see his manuscript, so that he might know exactly the precise statements he had to deal with, but this had been refused; he must therefore rely upon his own memory and that of the audience for the correctness of his impressions of Mr. Tait's paper. It would be remembered that Mr. Tait had said that this was a question on which every intelligent man or woman could form an opinion; and he had appealed to that audience not to be deterred from trying to do so by the statement that it was a matter for experts. Yet he held in his hand a copy of the *Birmingham Daily Mail* of April 24th, in which Mr. Tait had taken exception to Professor Tyndall's letter to the *Times*, on the ground that he was not an expert. Mr. Tait's letter contained the statement that the draining of Salisbury in accordance with the advice of Dr. Buchanan had "banished tubercle" from that town; whereas he was in a position to say that the deaths from phthisis had diminished by 49.1 per cent. This reduction was no doubt great, but this was not "banishing" the disease. Mr. Tait had confounded the predisposing and exciting causes. Dr. Carter proceeded to refer to Mr. Tait's criticisms of Mr. Gamgee's paper, and read quotations to show that Mr. Gamgee's historical facts were correct. He commented on Mr. Tait's avoidance of the subject of torsion. He had been unable to find anything in support of the statement made by Mr. Tait that, shortly after Palmer's trial, a test for strychnia had been introduced which would detect the one-five-hundred-thousandth of a grain. [Mr. TAIT here stated that his authority waDr. Alfred Swaine Taylor.]

Miss ECKHARDT, of the International Society for the Total Suppression of Vivisection, followed, and expressed her abhorrence of vivisection, and was more than once called to order by the Chair.

Professor TILDEN (Mason's College) said he rose simply to speak on the chemical part of the subject of Mr. Tait's paper. He wished to say that there was no ground for the accusation that chemists were apathetic in studying these alkaloid poisons. Most of them were at the present, and had been for a long time, the subjects of very special and careful investigation. With reference to Mr. Tait's statement about the detection of one-five-hundred-thousandth of a grain of strychnia, he would deny emphatically the possibility of detecting even the one-five-thousandth of a grain of strychnia in a complex organic fluid, such as the contents of the stomach or an extract from the viscera. If Dr. Taylor's book said so, it was wrong. He had looked up the reference given by Mr. Tait when reading his paper, and found that it related to the detection of strychnia in a pure solution — a very different matter. He would not accuse Mr. Tait of disingenuousness; but, looking at the way chemical facts had been treated in the paper, he was disposed to feel doubtful of his other matters.

Professor HAYCRAFT (Mason's College) read from Harvey extracts which refuted Mr. Tait's statement, that he did not vivisect; and from German, French, and American authorities, passages ascribing to Harvey the discovery of the circulation of the blood, in total opposition to Mr. Tait's statement, that it was only our insular pride that made us give this honour to Harvey.

Mr. EALES pointed out that Miss Anna Kingsford's question about the alkaloids admitted of a very simple answer. If by nothing else, its action on the pupil would seem to distinguish atropine from aconitine; and this was the question, as he believed, that the experts in the Lamson case had to decide. He pointed out that this sort of agitation might be with equal efficacy directed against anatomy and pathology, so far as these involved dissecting human bodies, as there could be no doubt the prejudices of the public were against us in both these matters.

Mr. LAWSON TAIT, in replying, said that he must put the authority of Dr. Taylor against that of Dr. Tilden. Dr. Tilden might be right. —Dr. TILDEN: It is not a matter of opinion; it is a matter of fact.— Dr. SAUNDBY: I am prepared, if the meeting wishes it, to explain the apparent discrepancy between Dr. Tilden and Dr. Alfred Taylor.— The PRESIDENT ruled that Mr. Tait should proceed.—Mr. TAIT, proceeding, admitted that Dr. Carter had made out a good case in some particulars. He desired to withdraw his own expression of brutal, as applied to Mr. Syme's experiments. He was in a minority, but he was

acting in accordance with what his conscience told him was right. It was not the first time he had been in a minority; and he lived to see several minorities to which he had belonged become eventually triumphant majorities; and he did not doubt that it would be so in this case also.

ASSOCIATION INTELLIGENCE.

BRANCH MEETINGS TO BE HELD.

YORKSHIRE BRANCH.—The spring meeting will be held in the Museum at York, on Wednesday, May 10th, at 3 P.M. Gentlemen intending to read papers, are requested to communicate at once with ARTHUR JACKSON, Sheffield.—April 25th, 1882.

STAFFORDSHIRE BRANCH.—The third general meeting of the present session will be held at the Bell Medical Library, Cleveland Road, Wolverhampton, on Thursday, May 26th, at 3 P.M.—VINCENT JACKSON, General Secretary, Wolverhampton.—April 24th, 1882.

SOUTH MIDLAND BRANCH.—*Preliminary Notice.*—The annual meeting of this Branch will be held in the Committee Room of the Northampton General Infirmary, on Thursday, June 1st, at 2.30 P.M. Gentlemen who are desirous of reading papers, or of exhibiting pathological specimens, are requested to communicate at once with the Honorary Secretary.—G. F. KIRBY SMITH, Honorary Secretary, Northampton.—April 24th, 1882.

SOUTH-EASTERN BRANCH: WEST SUSSEX DISTRICT.—The next meeting of this District will take place at the Infirmary, Worthing, on Wednesday, May 31st; Mr. W. J. Harris in the chair. Members intending to read papers, or bring forward subjects for discussion, are requested to send notice to G. B. COLLET, Honorary Secretary, 5, Steyne, Worthing.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of this District will take place at the Castle Hotel, Wellington Square, Hastings, on Wednesday, May 24th, at 3.30 P.M.; Dr. Trollope, of St. Leonard's, in the chair. Dinner at 5.30 P.M.; charge six shillings, exclusive of wine. Any notice of intended communications should be sent at once to the Honorary Secretary.—T. JENNER VERRALL, Honorary Secretary, 95, Western Road, Brighton.—May 1st, 1882.

LANCASHIRE AND CHESHIRE BRANCH.—An intermediate meeting will be held at Blackpool, on Wednesday, May 17th, and the annual meeting at Chester on Wednesday, June 28th. Gentlemen desiring to read papers at the Blackpool meeting are requested to send immediate notice to the Honorary Secretary, Dr. DAVIDSON, 2, Gambier Terrace, Liverpool.

WEST SOMERSET BRANCH: SPRING MEETING.

THE spring meeting of this Branch was held at the Railway Hotel, Taunton, on Thursday, March 30th, at five o'clock. There were present twenty members and one visitor; G. W. RIGDEN, Esq., President, in the chair.

New Member.—Mr. F. G. Hayes, of Dunster, was elected a member of the Branch.

Representatives of the Branch.—The following were elected as representatives of the Branch in the General Council for the ensuing year 1882-83:—G. W. Rigden, Esq.; H. P. Olivey, Esq.; and W. M. Kelly, M.D., honorary secretary.

Homœopathic Practitioners, and their Relations with the Association.—A letter from the South-Western Branch, forwarding a copy of resolutions passed on this subject at their meeting on the 31st December last (see BRITISH MEDICAL JOURNAL, p. 66), and requesting the attention of this Branch thereto, was read. After consideration, the meeting came to the conclusion that it was not desirable to take active steps in the matter.

Collective Investigation.—The Collective Investigation Committee of the Association having requested that a subcommittee of this Branch might be appointed to promote the work of collecting information in this district, the following gentlemen were elected to constitute a subcommittee accordingly:—H. J. Alford, M.D.; W. M. Kelly, M.D.; J. Meredith, M.D.; G. W. Rigden, Esq., and W. L. Winterbotham, Esq.

Petition.—A petition to the House of Commons in favour of the "Poor-law Officers' Superannuation (Ireland) Bill," prepared by the Parliamentary Bills Committee, was submitted and approved. The president and secretary signed it on behalf of the meeting.

Dinner.—The meeting adjourned for dinner at half-past five o'clock. At seven o'clock business was resumed, and, by a vote of the meeting, it was agreed that the communications should be taken before the question.

Communications.—The following were given by their several authors:—

1. Particulars of a case of Peritonitis from Rupture of an Ovarian Cyst, and a preparation of the parts shown. By Mr. WILLIAM HENSMAN.
2. On Relief by Spontaneous Bleeding in Pneumonia. By Dr. MEREDITH.
3. On some cases of Tracheotomy. By the PRESIDENT.
4. On a case of Ulceration and Stricture of the Œsophagus. By Mr. W. L. WINTERBOTHAM.

Question as Proposed by the Council.—The question, of which notice had been given, viz., "What is your experience of the Complications and Sequelæ of Scarlet Fever?" was discussed, and many interesting experiences were related. A written answer from Dr. CORDWENT was read by the secretary.

The meeting broke up shortly before ten o'clock, a very pleasant and instructive evening having been spent.

SOUTHERN BRANCH: DORSET DISTRICT.

A MEETING was held on Wednesday, April 5th, at the Criterion Hotel, Bournemouth; Dr. J. ROBERTS THOMSON, President, in the chair.

Vote of Thanks.—A vote of thanks was accorded to the retiring President, R. P. Simpson, Esq., for his services during the past year.

Vote of Condolence.—It was proposed by Dr. W. V. LUSH, seconded by Mr. W. D. HUSBAND, and carried unanimously—"That the members of the Dorset District of the British Medical Association express their deep sense of the loss the Association has sustained by the decease of Mr. William Douglas Hemming, and desire to convey to Mrs. Hemming their sympathy in her sad bereavement."

New Member.—Mr. A. G. S. Mahomed, of Bournemouth, was elected a member of the district.

Proposed New Branch.—It was resolved unanimously: "That it is desirable to form a new Branch of the Association, to comprise the county of Dorset, part of Hampshire, and adjacent districts, to be called the Dorset and West Hants Branch." Provisional rules were agreed upon, and officers provisionally elected.

Collective Investigation Committee.—Mr. HUSBAND drew attention to the object of this committee, and it was resolved to form a subcommittee, for the purpose of affording assistance.

Papers.—The following papers were read:

1. Mr. BLAKE: The Removal by Incision through the Walls of the Chest of a Needle which had been swallowed six days previously.
2. Mr. DECIMUS CURME: Unusual Case of Strangulated Hernia.
3. Mr. GRAHAM: Case of Complicated Stricture.
4. A Case of Paresis after Acute Rheumatism was shown for Mr. PARKINSON.

Next Meeting.—It was decided that the next meeting should be held at Blandford.

Dinner.—The members dined together at the hotel.

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

THE fifth ordinary meeting of the session was held at the Grand Pump Room Hotel, Bath, on Thursday, April 13th. In the unavoidable absence of the President (D. Davies, Esq.), ALEXANDER WAUGH, Esq., presided. There were also present twenty-six members.

New Members.—Messrs. Reader of Marshfield, Beaven of Avonmouth, Murray (M.B.) of Staple Hill, Fraser of Weston-super-Mare, and Stansfeld of Clifton, were duly elected members of the Association and of the Branch.

The Collective Investigation Committee.—The following members of this Branch were elected a local subcommittee to carry out the suggestions of the Committee. *For Bath:* Drs. Cole, Field, A. W. Fox, and Spender; Messrs. Fowler, F. Parsons, Scott, and Waugh. *For Bristol:* Drs. Long Fox, Harrison, Rossiter, Shingleton Smith, and E. Markham Skerritt; Messrs. D. Davies, Dobson, Harsant, and Greig Smith.

Papers.—The following were read:

1. Dr. A. W. FOX read an account of a case of Bilateral Paralysis of the Posterior Crico-Arytenoidei Muscles, with Microscopical Sections. Mr. J. S. Bartrum and Dr. Goodridge made some remarks.
2. Dr. COLE read a Case of Scrofulous Kidney, in relation to Nephrectomy.
3. Dr. GOODRIDGE narrated a case bearing on the same subject, which led to a discussion, in which Dr. Markham Skerritt, J. S. Bartrum, and Alexander Waugh took part; after which Dr. Goodridge replied.
4. Mr. RICHARDSON CROSS gave some Cases of Unusual Syphilitic Diseases of the Eye, on which Messrs. G. Thompson and F. Mason made some remarks.

CORRESPONDENCE.

THE ASSOCIATION FOR THE ADVANCEMENT OF MEDICINE BY RESEARCH.

SIR,—The following sums, amounting altogether to more than one thousand pounds, have been already subscribed to the general purposes of the Association for the Advancement of Medical Science by Means of Research. The first expenditure will be in reprinting and circulating the numerous expository and instructive statements which have appeared on the methods and objects of scientific medicine. We must also have sufficient funds in hand to meet promptly any attack from outside upon the invaluable labours of competent investigators; and, thirdly, we hope to be able to assist such researches by the material aid, as well as by the moral support, of the united profession. Subscriptions may be forwarded to me, or to the hon. secretary, Dr. Pye-Smith.

Thanking you for the welcome with which you have received the new Association,—I am, your obedient servant,

72, Grosvenor-street, May 3rd. SAMUEL WILKS, Treasurer.

	£	s.	d.
The late Ch. Darwin	100	0	0
Mr. Bowman	105	0	0
Mr. Hawksley (C.E.)	10	10	0
Dr. Brunton	21	0	0
Sir William Gull	100	0	0
Dr. Ord	10	10	0
Mr. Durham	26	5	0
Dr. Matthews Duncan	50	0	0
Mr. N. Montefiore	20	0	0
Sir Thomas Watson	10	10	0
Dr. Marion Sims	1	1	0
Dr. W. M. Brace	1	1	0
Mr. Saunders	10	10	0
Dr. Maclean (Netley)	1	1	0
Dr. Herbert (Paris)	5	0	0
Dr. S. Ringer	10	10	0
Dr. Andrew	10	0	0
Mr. Clover	1	1	0
Dr. Stevenson	1	1	0
Mr. Spencer Wells	52	10	0
Sir George Burrows	25	0	0
Dr. Brett (Watford)	1	1	0
Mr. Morton Smale	1	1	0
Mr. Josh. Clarke	0	10	0
Dr. Wilks	25	0	0
Mr. Spottiswoode, P.R.S.	10	0	0
Mr. Bryant	5	5	0
Dr. Owen Rees	10	10	0
Mr. Cooper Forster	20	0	0
Dr. George Johnson	10	10	0
Dr. Pavy	10	10	0
Sir Joseph Fayrer	5	5	0
Sir William Jenner	52	10	0
Sir James Paget	52	10	0
Dr. Pye-Smith	10	10	0
Mr. Green (Sandown)	2	2	0
Dr. Urban Pritchard	3	3	0
Mr. Wright (Leeds)	1	1	0
Dr. Curnow	5	5	0
Dr. Caton (Liverpool)	10	10	0
Messrs. Macmillan	10	10	0
Dr. Theodore Williams	1	1	0
Dr. Quain	21	0	0
Dr. Weber	25	0	0
Sir Erasmus Wilson	100	0	0
Mr. J. Hutchinson	10	10	0
Sir William Mac Cormac	5	5	0
Sir Henry Thompson	50	0	0
Dr. Haldane	5	5	0
Mr. Lister	50	0	0
Dr. Gerald Yeo	25	0	0
Dr. Acland	25	0	0

SIR,—The apologists for the peculiar constitution of the new Association for the Advancement of Medicine by Research assert that it will secure harmony, but it has not been sufficiently insisted on, even by Dr. Barnes, in the recent correspondence on this subject, that there is more risk of dissension in a council composed of the occupants for the time being of certain posts quite unconnected with the question of research than in a representative council. I believe the members of the first council hold the views of the profession, and, so far as that goes, they represent them; but this may not be always the case. Any one of the future *ex officio* members may, for instance, be opposed to experiments on animals. Thus, it has happened, in our time, that even a President of the Royal College of Surgeons, who, if he were in office now, would be the very pivot of the new association, has publicly thrown doubts on the usefulness of vivisection, and the same thing might happen again. It seems to me that the usefulness of the association would be destroyed if such disagreement on essential points occurred in the Council. The only preventive against this danger would be the adoption of a true representative constitution, including the mass of the profession, either on the lines suggested by Dr. Barnes or otherwise. I am sure the confidence would not be misplaced. I should be much surprised if any of the registered medical practitioners, who are among the opponents of experiments on animals, ever obtained a seat on a really representative Council, to sow discord there. Such a representative Council would speak to the country with an authority which, in its self-elected form, it can never wield.

It is true that the general practitioners, who form the bulk of the profession, are not themselves general experimenters, although, from the days of Edward Jenner to our contemporary Koch, they can claim some who have extended the science of medicine; but they have a deep interest in research, which it would be graceful and politic to recognise. It is impossible to overrate the influence of general practitioners in forming public opinion on the question of research, by taking part in local discussions, to which you allude in a recent editorial note, and by their private influence. The public join in the cry against vivisection, because it is practised by "scientists", only known to them by their names being held up to obloquy; but if they saw their family doctor, whom they know to be humane and kind, identifying himself with the vivisection movement, they would come to recognise the necessity of that method of research; and it is because I fear lest this valuable co-operation of the body of the profession may be weakened or lost by their practical exclusion from the constitution before us, that I have ventured here to supplement Dr. Barnes's powerful appeal for a more representative constitution.—I am, sir, your obedient servant,

J. FORD ANDERSON.

Belsize Park, N.W., May 3rd, 1882.

MORPHIA AND ATROPIA.

SIR,—In the elaborate account published in the daily papers of Lamson's experience of the effects produced by the use of morphia and atropia (an account which of course must be received for what it is worth), he stated that he used both drugs because he thought the atropia increased the effects of the morphia, but also because it quite, or nearly quite, overcame the sickness caused by the morphia. I believe the latter remark to be correct. The symptoms produced by the one poison are arrested by the other; and, in proof of this, I refer to the successful treatment of opium-poisoning in China by hypodermic injections of atropia. In November 1875, I was at Shanghai on a visit to my friend Dr. Johnstone. Just as we were sitting down to dinner, he was summoned to see, at the Chinese Hospital, an adult male, who, with suicidal intent, had swallowed three drachms and a half of the watery extract of opium, ordinarily used for smoking. The usual treatment of emetics, coffee, etc., had been employed. On our arrival, stertor was present, with loss of muscular power and sensibility; the pupils were like pinhole points, and did not respond to stimulus. I thought the case hopeless. Hypodermic injection of one-sixth of a grain of atropia in solution was followed by dilatation of the pupils and signs of intoxication from belladonna, and finally by complete recovery from the effects of both poisons.

Dr. Harley's experiments, reported in the *Pharmaceutical Journal* (1868, p. 471), had made me sceptical, but they were not on the human subject; and it is clear the question can be settled only by observations made on man.

At the late International Medical Congress, Dr. Dujardin-Beaumetz of Paris said that, since the remarkable experiments performed in England, the doctrine that opium and belladonna are naturally antagonistic had been abandoned in France.

From what I saw during my service in China I could never think of omitting to use atropia in cases of opium-poisoning. Dr. Johnstone's field of observation is a large one, and he assured me that the number of successful cases following the use of atropia, after evacuation in the quickest way of as much as possible of the contents of the stomach, had left in his mind no room for doubt on the matter.—I have the honour to be, sir, your obedient servant, F. W. DAVIS,

Deputy Inspector-General, R.N.

THE PROPOSED HOSPITAL FOR NORTH LONDON.

SIR,—In last week's JOURNAL there is a notice of a meeting held at the Athenæum, Camden Road, to consider the advisability of establishing a new hospital for North London. At this meeting, mention was made of the Great Northern Hospital, but I do not think that justice was done to the work that has been, and is, carried on within it. It is true that the Great Northern has comparatively few beds, but these beds are always full, and it has, besides, a very large out-patient department, so that it has really been doing good work for North London.

Moreover, I think it should also be stated that the committee of the Great Northern has been for some time fully alive to the wants of the district. Already plans have been laid before the executive for a considerable extension of the hospital, and the question of building on the present site, or of obtaining a site further north, is also engaging the attention of the committee. As to the "new scheme" of management set forth, all the desiderata mentioned at the meeting on April 26th are already embodied in the constitution of the Great Northern, except that of paying-patients and part-payments.

It seems to me that the proposal to establish a new hospital is directly contrary to the well-recognised principle in hospital management that subdivision produces more expense, more difficulty in working, and less satisfactory results.—I am, faithfully yours, R. W. BURNET,

May 3rd, 1882. Physician to the Great Northern Hospital.

DR. BYRNE, Professor of Obstetrics and Gynæcology in the Medical School of the Catholic University of Ireland, has been appointed Examiner in Obstetrics in the Royal University of Ireland.

RESPONSIBILITIES OF PRISON SURGEONS.

SIR,—The medical officers of Her Majesty's Prisons will have read with much satisfaction the able article on the subject of their responsibilities in the JOURNAL of April 22nd.

It is somewhat interesting to compare your very full account of the facts of the case which recently occurred at Chester, and your remarks thereon, with the story that appeared in the daily papers under the sensational heading "Censure of a Prison Doctor".

None but those who have had some experience of the unfed and intemperate, and of what I may call the physical type of criminals generally, can realise, not only how often cases of this kind are liable to happen, but also how often, under similar circumstances to those at Chester, a fatal termination is averted by the medical safeguards thrown around prisoners sentenced to hard labour. I fancy that the bench, and indeed the public too, would be a little astonished to find what a large proportion of hard labour sentences are remitted on medical recommendation, and to learn how the sting is removed from such sentences, even for the most abandoned criminals, if they be only the lucky possessors of such a trifling defect as a varicose saphena vein.

It were well, then, that coroners and juries should look very closely into facts, and think twice before thus lightly attaching blame, that may be attended with irreparable injury, to a conscientious medical man—blame founded on a single case not fully investigated.

The occurrence at Chester affords a good illustration of the responsibilities of prison surgeons, and has a direct bearing on a very common class of prisoners with whom the medical officer finds it rather difficult to deal. Men with organic diseases and men in delicate health are repeatedly returning to prison on short sentences of hard labour, which are invariably lightened for them. On discharge, their state of health, which is generally improved during imprisonment, enables them to pursue their ordinary occupation of begging, or to indulge in a drinking bout, which brings them under the notice of the police, and so again to prison. On reception, they appear to be in their usual health, although they may be known to have organic disease of a chronic character. The question is, Are such men to be admitted to hospital at once? Prison has for them already many attractions; and if to these there be added hospital treatment, with its generous fare and association with others of their class, loss of liberty ceases to be deterrent, direct encouragement is given to commit graver crimes, with the longer terms of incarceration they involve, and the prison before long becomes a large hospital.

But, on the other hand, is it either unfair or inhumane to place such men in well-warmed well-ventilated cells, where they get plain but wholesome food with light work? I think not; but in these days there is much maudlin sentiment abroad in reference to criminals, and this pervades largely that class from which coroners' juries are generally drawn. The popular interest, indeed, that attaches to the felon not engaged in his employment is so great, and so vastly superior to that accruing to his colleague in distress, the honest pauper, that prisons are fast becoming more comfortable homes than workhouses, and prisoners generally are likely to have, ere long, a better time of it than the officials charged with their care and keeping.

The prisoner in this Chester case was dealt with in this latter way. He was received with heart-disease, was excused from hard labour, was admitted to hospital, and, although he was able to move about on the day of his discharge, was sent to the workhouse in a cab, after the administration of a stimulant.

I entirely agree with you, sir, that it is very surprising any sort of charge should be founded on such facts. The case is only paralleled by the one in which an attempt was lately made to attach blame to the authorities of Strangeways Prison, Manchester, because a man died of typhoid fever a week after his discharge from that establishment.—I am, sir, your obedient servant, A SYMPATHISER.

SIR,—I think the subject—responsibilities of prison surgeons—which you have so ably discussed in the last JOURNAL (April 22nd) should not be allowed to drop. Gradually, year by year, their work is increasing, and the responsibility of the acts of the executive is being shifted to their shoulders, and this without any acknowledgment, other than an endeavour to turn every error of judgment into a crime. I can foresee but one result: medical officers of prisons, in order to protect themselves, will refuse to certify to fitness for any punishment, or will only certify to the best of their judgment, but not accept the responsibility of the results. As matters stand, a prisoner is intentionally subjected to treatment which tends to injure his health, the medical officer being supposed to look on, and only interfere when there are indications that the health has begun to suffer. Such interference may be too late; and the medical officer is then held responsible, not that he did not interfere and prevent the punishment, but that he did not interfere at the right moment.—Yours obediently, RETIRED.

SUPERINTENDENTS OF IMBECILE ASYLUMS.

SIR,—As far as I am personally concerned, I might be content to leave the letters of Mr. Beach and Dr. Shuttleworth, which appear in your issue of April 15th, unanswered. The question, however, is more than a personal one, and concerns the interests of a valuable class of institutions, which we all hope to see increase in numbers, and in the management of which the strictest economy consistent with efficiency is, therefore, essential.

My contention was that, where an efficient teacher and a resident physician could not both, from want of funds, be provided, it was better to have the competent teacher with a visiting physician; a statement which was traversed by Mr. Beach and Dr. Shuttleworth, on the ground that the state of health of the inmates rendered the constant presence of a medical man essential; and Mr. Beach alleged the number of epileptics in such an institution as a reason for this. To this, I replied that the presence of a doctor during an epileptic fit was unnecessary, as he could do no more then than a skilled attendant. Mr. Beach, in his last letter, fails to meet this by saying what his argument demanded, viz.: "I never allow an epileptic fit to take place without being summoned, and remaining with the patient until it is over." No, he dare not allege this, for he says, "A third of the patients here are subject to epileptic fits, and many have twenty and sometimes more during the day, besides the *status epilepticus* into which many of them fall; so that I am frequently called to the wards for epileptics." And so would the visiting doctor be. But, more than this, he adds, "It is the custom here for the attendants to summon me when a patient not known to be an epileptic has a fit." So, in point of fact, it is admitted that, although living in the house, Mr. Beach is not summoned to the numerous ordinary epileptic fits constantly occurring; and he thus answers completely the argument of his first letter, that the fact of epileptic cases being admitted rendered the residence of a medical man indispensable. Mr. Beach, of course, "does not think that any trained attendant should be entrusted with the responsibility of attending to such cases, without due medical supervision." Neither do I. The whole question is, what is "due" supervision? and the onus is thrown on Mr. Beach of proving that a medical man cannot supervise such a patient unless residing in the house with him, a doctrine which every family physician in large practice continually disproves by professing to take charge of such cases.

If, although residing in the house, Mr. Beach does not consider it necessary to be called from his slumbers, or from penning "contributions to medical literature", to supervise the vast majority of such cases, in what respect are they worse off than if the supervision was entrusted to a non-resident physician liable to be summoned when required?

I turn now from this letter to the one of Dr. Shuttleworth, and with much that he says I cordially concur. His argument would be unanswerable if physiological knowledge were necessarily confined to medical men. But, fortunately, a knowledge of physiology, so valuable to all, so essential to those having the care of youth, so indispensable to those taking charge of the inmates of such institutions, is not confined to our profession. Take the case of institutions for deaf-mutes. Is not the whole system of training to which they are subjected founded on physiological knowledge? and yet it is not considered essential to have them taught by medical men. But, lest a disingenuous opponent (which Dr. Shuttleworth is not) should stretch this argument further than it is intended, I must add that it has reference only to the physiological teaching of the deaf-mutes, as compared with that of idiots. I quite admit that more can be said in favour of a resident medical officer for purely medical purposes in such an asylum, than in one for deaf-mutes.

Finally, let me recall the issues raised in this speech of mine which has been so severely criticised. Given an asylum of limited pecuniary resources, which evidently could not afford to have both a first-rate resident physician and a first-rate resident superintendent and teacher, which should it prefer? Such was the problem which the directors had to solve; and I said, and still say, that they solved it rightly by leaving the care of the health to a non-resident physician, and placing the charge of the material comforts and the moral and religious training of the inmates under one of whose qualifications for such a task there could be no doubt, and who had shown himself an enthusiast in such work. I understand every day's experience is bearing testimony to the wisdom of the arrangement made.

I pointed out to the subscribers the difference between a lunatic asylum and an asylum for idiots in this respect, inasmuch as many of

e inmates of the one suffer from acute diseases, liable to sudden and nexpected changes, while the complaints of the other are chiefly ronic, where the alterations are usually slow, and such emergencies mparatively unfrequent. I believe I express the opinion of most ecialists in lunacy when I say, that, the more closely the condition of lunatic approximates to that of an idiot, the less is his detention in asylum considered to be necessary.

I can suppose a case where a doctor of high mental gifts, cultivated study, and capable of making "contributions to medical literature" hich might prove instructive even to Mr. Fletcher Beach, should yet ot be by nature qualified to attend to those petty details of manage-ent, on which the comfort and even the health of the inmates of such institution depend so much more than on actual medical treatment. can suppose that, under his charge, the management of the institu-on might degenerate. I can further conceive that the directors might e no means of arresting this deterioration but by placing the unhappy mates under the constant superintendence of an anxious, careful lover f his real work, acting with the advice and under the superintendence f a visiting physician of intelligence and capacity. I can further con-eive that the jealousy of some medical men (and specialists are pe-uliarly liable to suffer from jealousy) might be roused to consider this slur on the profession, and a dangerous experiment. I can conceive, say, all this; but I cannot conceive that the public, by whom such nstitutions are supported, should either sympathise with or endorse neir protest. I can, however, conceive the subscribers being unscien-fic enough to believe that the *raison d'être* of such an institution was ot so much to establish a field for scientific investigation, or to furnish aterial for "contributions to medical literature", as to promote the aterial comfort and the moral and mental improvement of the in-ates; and, if they found a medical superintendent neglecting the atter that he might attend to the former, rebuking him with the words, 'this ought you to have done, and not to have left the other undone."

—I am, etc.,
ALEX. WOOD.

Edinburgh, April 17th, 1882.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE DERBY COUNTY ASYLUM.

THE Derby County Asylum contained at the close of last year 430 patients; the admissions during 1881 having numbered 151. Of the patients admitted 21 were epileptics, and the total number of inmates of the asylum subject to epilepsy was thus raised to 86. Dr. Murray Lindsay points out that epileptic lunatics are frequently dangerous and troublesome, and that asylums in which they are numerous must con-trast unfavourably as regards recoveries, deaths, and casualties with asylums in which they are but a small proportion of the population. Dr. Lindsay calls attention to what appears to be the increasing tend-ency on the part of relatives and parish authorities to make use of the county asylum, not so much as an hospital with a view to cure, as for the purpose of a refuge and place of detention, or sometimes even as a last resting place. In reply to questions put by the Asylum Medi-cal Officers as to the reason for delay in sending patients to the asylum, the answers returned are often to the following effect: "We kept him at home as long as we could, till we could manage him no longer. We waited to see whether he would get better, but he got worse and so we cannot do with him now." "I kept her for two years, but I am out of work now and cannot afford to keep her any longer." Fre-quent applications continue to be made for the admission of private patients: these, however, cannot be met. as there is no separate ac-commodation for this class in the Derby County Asylum. These applications show that there is a want of suitable accommodation for lunatics of the lower middle class, whose friends are able and willing to pay a moderate sum for their maintenance, but cannot meet the charges of private asylums.

BROOKWOOD ASYLUM.

DR. BRUSHFIELD, who has just retired from the office of Medical Superintendent of the Surrey County Asylum at Brookwood, on a pension of £200 a year, is complimented by the Committee of Visiting Justices in their annual report on the state of efficiency in which he leaves the institution which he organised in the first instance, and which he has ably supervised for sixteen years. The asylum contained 1,028 patients on the 31st of December last, and 1,294 patients had been under treatment in its wards during 1881. Of these, 113 were discharged recovered and 88 died. For the first time in the history of the asylum, the deaths of females outnumbered those of males, 50 women having died and only 38 men. This is attributed to an unusually small proportion of deaths during 1881 from general paralysis, which is about three times more fatal to men than to women, and to the great age of many of the females admitted. On reviewing the mortality during his term of office, Dr. Brushfield finds that of 1,188 deaths 376 or 31.6 were due to general paralysis, and that of these 376 deaths attributable to general paralysis, 307 occurred in the male and 67 in the female department of the hospital. In connexion with this subject, Dr. Brushfield points out how futile and misleading comparison between the rates of mortality in different asylums must prove, unless allowance be made for the different degrees of prevalence of general paralysis in different districts of the country. This malady is invariably much more common in urban than in rural districts. Dr. Barton, the senior assistant medical officer at Brookwood, has been appointed to succeed Dr. Brushfield.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

THE DEGREE OF BACHELOR OF SURGERY.—The Board of Medical Studies have had under consideration what arrangements shall be made for carrying into effect the provision of the new University statute authorising the conferring of the degree of Bachelor of Surgery. They are of opinion that candidates for this degree should be required to produce certain certificates of study and pass an examination in surgery, in addition to what is already required for the degree of Bachelor of Medicine. Candidates to be admissible to the examination for Bachelor of Surgery at any time after they have passed the first part of the third examination for the M.B. degree. But, having regard to the circumstances that under the Medical Act a graduate in surgery can by registration become a legally qualified medical practitioner (although he may have given no proof of his knowledge of medicine), the board think that the degree should not be conferred until the candidate shall have also passed the second part of the third examination for the M.B. degree. The board, therefore, recommend that the examination for the degree of Bachelor of Surgery shall be held twice in each year, to which candidates qualified as above shall be admitted, each candidate to pay a fee of £2 2s. to the University chest and to produce certificates—1. Of having attended the surgical practice of a recognised hospital during two years at least, and of having acted as dresser or house-surgeon for six months; 2. Of having gone through a course of instruction in practical surgery. The subjects of the examination shall be—(1) Surgical operations and the application of surgical apparatus. (2) The examination of surgical patients. The examination shall be partly written, partly oral, and partly practical.

OBITUARY.

FIFE JAMIESON, M.A., M.B.

THE students of anatomy in Aberdeen who have just left their studies will receive a shock, on learning that one whom they saw in fair health at the end of the present winter session should have succumbed within a few weeks. Dr. Fife Jamieson had been ailing for several weeks before the close of the session, and, for two or three weeks, he had suffered from jaundice, which did not prevent him from finishing the work of the session, although anyone might have seen that it was only his strong determination which enabled him to conquer his physical weakness. At the close of the session, he went to Forres to recruit for the summer session, but feeling weaker, he resolved to return home on Saturday, April 15th; but he seems to have lost consciousness during the return journey; and it was only by chance that he was recognised and taken to his father's house in Old Aberdeen, where he died on April 18th. The immediate cause of death seems to have been acute yellow atrophy of the liver.

Dr. Jamieson was born in 1854, so that he was just twenty-eight years of age when he died; but within this brief period he had shown that he was capable of doing much good work, had he been spared. He took the degree of M.A. in Aberdeen in 1873, and for some time thereafter he held several important appointments as electrician in connection with the laying of various Atlantic cables. These duties he performed until 1875, when, owing to ill-health, he resolved to devote his attention to medicine. He began his medical studies in Aberdeen in 1876, and in 1880 he received his degrees in medicine and surgery with honourable distinction. For a year after graduating, he acted as house-

surgeon, when, on account of his aptitude for anatomical work, he was selected by Professor Struthers, in May 1880, to fill the post of senior demonstrator of anatomy. As a demonstrator, Dr. Jamieson was beloved by the students on account of his many sterling qualities, his great ability, his strict integrity, his painstaking method of imparting knowledge, and his gentle, amiable, and unassuming disposition. By all the good qualities that characterise a man, Dr. Jamieson obtained a firm hold on the affections of the students, and many of them who parted within a few short weeks ago will mourn his untimely end.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—Admitted Licentiates, April 27th, 1882.

Booth, Edward Hargrave, Guy's Hospital, S.E.
Butler, William John, 168, Holland Road, W.
Cock, John, Guy's Hospital, S.E.
Daunt, Elliot, Ditchling, Hurstpierpoint.
Giles, Oswald, St. George's Hospital, S.W.
Hamilton, John Harry, 27, Hollywood Road, S.W.
Heelis, Robert, North Lonsdale Hospital, Barrow-in-Furness.
Hunt, Robert, Preston.
Jackson, John Charles, 51, Wellington Road, N.W.
Jones, Albert Edward, Eglevysdan Vicarage, Pontypridd.
Karanjia, Merwanji Dhunjibhai, Surrey Lodge, Herne Hill, S.E.
Linney, William Wyckliffe, 83, Queen's Crescent, N.W.
Macnamara, Hugh Winckworth, Westminster Hospital, S.W.
Marras, Ernest Adrian, 3, Halsey Street, S.W.
Mudge, Thomas, 21, Claremont Square, N.
Muriel, Cecil Jeffery, St. Bartholomew's Hospital, E.C.
Nicholls, John Michael, Yeovil.
Owen, John Morgan, Fishguard, Pembroke.
Perks, Robert Howell, Guy's Hospital, S.E.
Petherick, Wallace, 16, Brompton Crescent, S.W.
Rushworth, Norman, 32, Bernard Street, W.C.
Scott, Alfred, 18, Lower Rock Gardens, Brighton.
Stokes, Lennard, Blackheath, S.E.
Stretton, John Lionel, St. Bartholomew's Hospital, E.C.
Sutton, John Bland, Middlesex Hospital, W.
Walker, Francis John, Spilsby.
Waller, Theodore Harry, 62, Guildford Street, W.C.

Admitted Members.

Batho, Robert, Plymouth.
Chattopadhya, Aughorechunder, 89, Camden Street, N.W.
Hebb, Richard Grainger, M.D.Cambridge, 24, Hart Street, W.C.
Myers, Arthur Thomas, M.D.Cambridge, 12, Hereford Gardens, W.
White, William Henry, M.D.Dublin, 43, Weymouth Street, W.

The Murchison Scholarship was awarded to Charles F. Coxwell, M.B., of St. Thomas's Hospital. The essay of Sidney H. C. Martin, University, College was specially commended.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in Anatomy and Physiology, at a meeting of the Board of Examiners, on the 27th ultimo, and when eligible will be admitted to the pass examination.

Messrs. George B. Hoffmeister, James E. Williams, Edwin Gill, John G. Wilson, Herbert Williams, and James J. W. Stevens, students of St. Bartholomew's Hospital; George Lewis Rugg, Charles G. Lermitte, George A. F. Inman, and Lewis Way, of King's College; Thomas E. Dyson, Samuel H. Wilson, Thomas S. Lawry, and James H. L. Allott, of the Edinburgh School; George J. A. Tuke, Thomas W. Thomas, and George H. Hunter, of University College; Joseph G. Harsant, of Guy's Hospital; Richard Lake, of St. Thomas's Hospital; William E. Thomas, of the London Hospital; and John K. Frost, of the Middlesex Hospital.

Three candidates were rejected.

The following gentlemen passed on the 28th ultimo.

Messrs. Norman H. Walker, Edwin A. Chill, James Craig, James McLeod, and Richard Vassie, of the Edinburgh School; H. Victor Walker, Walter F. Moore, G. Palmerston Newbolt, and Sydney J. Palmer, of St. Bartholomew's Hospital; Thomas A. Helme, Francis W. H. Day, and Julius Schade, of University College; Charles E. Humphreys and William A. Wetwan, of the London Hospital; J. Pratt Brooks, and Arthur E. Parr, of King's College; Charles A. Lucas, of St. Thomas's Hospital; Herbert A. Kent, of St. George's Hospital; and Walter S. Thomson, of the Middlesex Hospital.

Five candidates were rejected, including two for six months.

The following gentlemen passed on the 1st instant.

Messrs. James H. Ferguson, Archibald Donald, Lloyd G. Smith, Henry S. Lloyd, and Chisholm Ross, of the Edinburgh School; Robert Wrigley, Samuel K. Alcock, Edward V. Brown, and Henry W. Gill, of St. Bartholomew's Hospital; Edward K. O'Connor, John B. Fowler, and Joseph R. Adie, of University College; Obadiah Johnson, Augustus F. Dimmock, and Robert L. Hildyard, of King's College; Robert J. Kirby, of Guy's Hospital; and Leonard Roberts, of St. Mary's Hospital.

Seven candidates were rejected.

The following gentlemen passed on the 2nd instant.

Messrs. Reginald Pollard, Thomas W. B. Burn, Frank E. Matthews, and Herbert W. Austin, of St. Bartholomew's Hospital; Allan Macfadyen, W. D. Brydone-Jack, and Theodore H. Barker, of the Edinburgh School; Wesley Curnock and Percy E. Jackson, of the London Hospital; Ernest E. Batt and Philip D. Turner, of University College; Lansdown M. Guilding, Henry G. Nicholson, and Edmund W. Paul, of the Middlesex Hospital; James Wilding and Joseph T. Boyd, of the Westminster Hospital; George H. Johnson and Maughan Mercer-Adam, of St. George's Hospital; George Benty, of St. Thomas's Hospital; William K. Dale, of King's College; and Clarence E. L. Gilbert, of St. Mary's Hospital.

Three candidates were rejected.

The following gentlemen passed on the 3rd instant.

Messrs. Arthur Fuller, William L. Price, John S. Haldane, Gerrit Nienwoudt, and S. Brougham Burns, of the Edinburgh School; James H. Sellick, John H. Blight, Frank W. Langridge, and Samuel E. Pratt, of Guy's Hospital; Thomas H. R. Crowle, William T. Cocking, and William Lees, of University College; Norman H. Forbes, Charles E. Dumbleton, B.A.Cantab., and Edmund J. Penny, of the Middlesex Hospital; William H. Cundell, of St. Mary's Hospital; Percy G. Lewis, of King's College; Ernest C. Freeman, of St. Thomas's Hospital; and Raymond Courteen, of the Westminster Hospital.

Five candidates were rejected.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, April 27th, 1882.

Blampied, John William, Jersey.
Brown, Richard, Blaydon-on-Tyne.
Hart, Herbert Wheatley, 77, Upper Richmond Road, Putney.
Smith, William Arthur Winwood, Kensington Gardens Square, W.

The following gentlemen also on the same day passed their Primary Professional Examination.

Bean, William Henry, Charing Cross Hospital.
Carvell, John M., London Hospital.
Doyne, Robert W., St. George's Hospital.
Holdsworth, William, Leeds Hospital.
Peskett, Alfred F., London Hospital.
Pittard, Marmaduke, Charing Cross Hospital.

At the Preliminary Examination in Arts, held at the Hall of the Society, on the 20th and 21st of April, 1882, one hundred and thirty-four candidates presented themselves, of whom sixty-two were rejected, and the following seventy-two passed and received certificates of proficiency in general education.

In the First Class in order of merit.

R. M. M. Hicks-Beach, and J. G. Carter.

In the Second Class, in alphabetical order.

A. E. Barlow, N. D. Best, W. G. Beyts, S. Bingham, E. H. Blake, R. T. H. Bodilly, R. J. Braye, H. E. D. Brockman, R. P. Brooks, Charles Brown, Edgar Cane, Wm. H. Charles, H. Cockerton, T. S. Coghlan, H. A. Debenham, J. Dellewy, H. B. Densham, R. W. Dickinson, R. J. Douglas, C. A. Ducket, W. R. Duncker, Edw. Price Furber, J. A. W. Gentles, F. Gilpin, A. E. Gresham, G. P. V. Grey, H. O. W. Harris, C. Williams Hayward, G. L. Hill, R. Hitchings, A. H. Hoffman, C. W. Hogarth, N. R. House, H. Ingle, W. M. M. Jackson, C. Henry James, J. F. W. Jewel, W. H. Lewis, F. H. Lowe, W. A. Loxton, W. L. Mathias, H. Meggett, E. W. Morris, J. Naylor, F. A. W. Nicholas, J. Nixon, A. H. Nott, C. P. O'Connor, G. S. Olivey, T. E. Pallett, C. O. Parsons, E. F. Pratt, H. N. Pullan, W. G. Reily, E. S. Robinson, L. Salter, H. F. S. Sandifer, R. Shannon, E. C. Stabb, W. E. Sturge-Jones, A. M. Sturges, R. F. Thomas, S. A. Tidy, F. W. Toms, A. H. Vernon, A. H. Ward, J. K. Warry, A. F. Wilson, J. A. Wood, and G. C. W Wright.

The following were also approved in Elementary Mechanics.

R. P. Brooks, J. C. Carter, W. R. Duncker, C. W. Hayward, A. H. Vernon, J. K. Warry, and Ralph Hodgson.

UNIVERSITY OF EDINBURGH.—The following degrees were conferred on April 21st.

Degree of M.D.—Thomas Nicholas German Te Water (B.A.Cape of Good Hope), M.B. and C.M., 1879.
Degrees of M.B. and C.M.—John Macpherson, Scotland; David R. Dobie Scotland.
Degree of C.M.—Archibald C. Munro, M.B., Scotland.
Degree of Doctor of Science in the Department of Public Health.—Robert C Smith, M.D., B.Sc.
Degree of Bachelor of Science in the Department of Natural Sciences.—Frederick W. Reid, M.B.
Degree of Bachelor of Science in the Department of Public Health.—D. M Cassidy, M.D.; Robert Moodie, M.D.; A. C. Munro, M.B.; Henry Welch M.B.; C. H. Willey, M.B.

UNIVERSITY OF ST. ANDREW'S.—The following practitioners, having passed the required examination, received the degree of Doctor of Medicine on April 22nd.

Bowles, Robert Leamon, M.D., Folkestone.
Gover, Robert Mundy, M.R.C.P., London.
Jacques, Edwin, M.R.C.S., London.
Jenner, William, M.R.C.S., Baldock.
Johnson, Thomas S., M.R.C.S., Canterbury.
Masters, William H., M.R.C.S., Thrapstone.
Moffat, Robert M., M.B., Manchester.
Roberts, Griffith W., L.R.C.P.Ed., Denbigh.
Sutton, Henry G., M.R.C.S.Eng., Sittingbourne
Woodman, John, F.R.C.S.Eng., Exeter.
Wynne, John Kendrick, M.R.C.S.Eng., Eccleshall.

At the same time, the following gentlemen had the degree of M.B and C.M. conferred on them after examination.

Bowie, Alexander, L.R.C.P.&S.Ed., Edinburgh.
Redpath, Robert K. W., L.R.C.P.&S.Ed., Edinburgh.

UNIVERSITY OF ABERDEEN.—At the late Medical Graduation term, he following candidates, after the usual examinations, received degrees n Medicine and Surgery.

Degree of M.D.—George Ackroyd, M.B., C.M., Streatham; Arthur G. Blomfield, M.B., Exeter; Alexander Boswell, M.B., Ashbourne; Peter Burgess, M.B., C.M., Ballindalloch; Colin M'Iver Campbell, M.B., C.M., Durham; Rashell T. Davison, M.B., Battle; John Davy, M.B., C.M., Halifax; Frederic H. Elliott, M.B., C.M., Andover; John G. Hall, M.B., C.M., Aberdeen; John Harris, M.B., C.M., Newcastle, New South Wales; Coll R. Macdonald, M.B., C.M., Beith, Ayrshire; William Macdonald, M.B., C.M., Inverness; Satish Chandra Mukhopadhyáy, M.B., C.M., Calcutta; Arthur Purkiss, M.B., C.M., London; John Thomson, M.B., C.M., Kendal; William E. Webb, M.B., C.M., Burnley.

Degrees of M.B. and C.M.—John Barrett, P. and O. Service; James Bremner, Grange, Keith; John W. Collie, Aberdeen; Robert J. Collie, Aberdeen; Alexander Cran, Cabrach, Banffshire; Arthur W. Eddie, Aberdeen; Thomas W. Griffith, Aberdeen; David Henderson, Watten; Joseph W. Hodgson, Brighton; William R. Holmes, Aberdeen; John Jenkyns, Aberdeen; George D. Knight, Skene; James A. Macdonell, Dufftown; Alfred A. Mackie, Aberdeen; Charles M. Maxwell, Hobart, Tasmania; Alexander M'Lean, M.A., Coull, Aberdeenshire; James Middleton, Auchindoir; James R. Nicoll, M.A., Rhynie; Henry A. Phillips, London; John M. Rattray, M.A., Aberdeen; John Reid, M.A., Portsoy; Charles S. A. Rigby, Preston; William P. Ross, M.A., Aberdeen; Carrapiet J. Sarkies, Calcutta; William Sinclair, Nigg; John Taylor, Stonehaven; Thomas P. Thomson, Gartly; John Walker, St. Vincent, West Indies; Richard R. Weir, Elgin; James Wilson, M.A., Rhynie; John H. Wilson, Warwick; Martensz James Wright, Colombo.

Of the above-named candidates, T. W. Griffith and G. D. Knight received their Degrees in Medicine and Surgery with highest Academical Honours; and James Bremner, Alexander Cran, John Taylor, and James Wilson, M.A., received their Degrees in Medicine and Surgery with Honourable Distinction.

The John Murray Medal and Scholarship was awarded to T. W. Griffith as the most distinguished graduate of his year.

At the same time, Henry H. Brown, Francis J. Hudson, John T. W. Leslie, David R. M'Kinnon, and Arthur Rannie, were certified as having passed all the examinations, but did not graduate.

The following candidates passed the First Division of the First Professional Examination.

Frank H. Cantlie, James F. Craig, George B. Currie, David A. F. Kydd, Henry G. Laskey, Robert H. Mackay, James C. Mackintosh, John Maclean, Alexander S. Manson, James Murray, William G. Stott, Andrew Whyte.

The following candidates completed the First Professional Examination.

Henry M'K. Adamson, Joseph Anderson, Christopher G. Battiscombe, Robert M. Beaton, Charles G. Bennett, Francis A. Bennet, Andrew H. Cowan, Alexander M. Cowie, William C. Crowe, Henry M. C. Dalton, George Duffus, Alexander G. Duguid, Walter A. Elmslie, Henry Gibbons, John Gordon, Alexander Gregory, James D. Hendry, John W. Hutcheon, Arthur S. Inglis, Louis Joseph, Stuart Macdonald, Frank I. Mackintosh, Alexander L. Mather, George Milne, James Mitchell, Arthur A. Morrison, Alexander Murchison, David Prain, Robert D. Presslie, Alexander Reid, Alexander Rennie, James A. Ross, James Savege, William B. Skinner, John H. Stenhouse, Herman Thiele, Leslie F. Walker, John E. Webb, Arthur M. Whitehead.

The following candidates passed the Second Professional Examination.

John H. Anderson, Walter H. Atherstone, Albert H. Barrett, George Buchan, Charles A. Butchart, Arthur G. Cunningham, George F. A. Da Costa, James M'K. Davidson, Charles A. Faulkner, John Gerard, John Gordon, Andrew Grant, John W. Harrison, Andrew Hosie, David Ireland, Charles Jeffrey, George Johnston, Thomas M. Johnstone, John B. Kerr, John M'Combie, James F. Macdonald, Cyril J. Mansfield, John Matheson, Grenville E. Moffet, John D. Moir, Arthur A. Morrison, David Petty, David Prain, John M. Rattray, James R. Reid, Richard Rees, James T. Robb, William L. Ruxton, William Scott, Alexander G. Smith, Arthur G. Smith, James L. Smith, William A. Stewart, George C. Still, John Turner, George Vincent, John Walker, John K. Will.

Ths next Professional Examination for Degrees in Medicine commences on Saturday, July 22nd, 1882.

MEDICAL VACANCIES.

The following vacancies are announced :—

ALNWICK INFIRMARY—House-Surgeon. Salary, £100 per annum. Applications by May 6th.

BRISTOL FORESTERS' DISPENSARY.—Qualified Medical Practitioner. Salary, £120 per annum. Applications to E. L. Burgess, 34, Horfield Road, Kingsdown, Bristol, by the 29th instant.

CHARING CROSS HOSPITAL, West Strand, W.C.—Assistant Surgeon. Applications by 15th May.

CITY OF LONDON LUNATIC ASYLUM, Stone, near Dartford, Kent.—Assistant Medical Officer. Salary, £120 per annum. Applications by the 17th instant.

COTTAGE HOSPITAL, Scotland.—House-Surgeon. Salary, £30 per annum. Applications to No. 161A, BRITISH MEDICAL JOURNAL Office, 161A, Strand.

DURHAM COUNTY ASYLUM, Sedgefield, Ferryhill.—Junior Assistant Medical Officer and Pathologist. Applications to Dr. Smith.

EBBW VALE WORKS.—Surgeon to attend the workmen and their families. Applications to Mr. W. Dayson, Ebbw Vale Works, Mon.

ENNIS UNION—Second Medical Officer and Apothecary to the Workhouse, at a salary of £75 per annum.

ESTATE OF NORTH UIST—Medical Officer, with two other appointments. Salaries, Estate £100, Parochial £65, £21, £20. Applications, etc., to J. McDonald, Esq., Newton, Lochmaddy, Inverness-shire.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge Road, S.E.—Registrar and Chloroformist. Salary, £30 per annum. Applications by the 15th May.

GORT UNION—Medical Officer for Ardrahan Dispensary District. Salary, £140 per annum, with £10 per annum as Medical Officer of Health, registration and vaccination fees. Election on the 12th instant.

GOVERNMENT RAILWAY SERVICE, at the Cape of Good Hope.—Medical Officer. Salary, £25 a month. Applications by May 17th.

HANTS COUNTY HOSPITAL.—House-Surgeon. Salary, £100 per annum. Applications by May 6th.

HARTLEPOOL UNION—Medical Officer for the District. Salary, £50 per annum. Applications to the Clerk by May 17th.

HARTLEPOOL UNION—Medical Officer for the Workhouse. Salary, £65 per annum. Applications to the Clerk by May 17th.

LANCASTER INFIRMARY.—Dispenser and General Assistant. Salary, £80 per annum. Applications by May 15th.

MEDICAL MISSION TO CENTRAL AFRICA—Fully qualified Practitioner, Salary, £200 per annum. Applications to M. Smale, Esq., Secretary, G. S. L., 89, Seymour Street, Connaught Square, W.

PARISHES OF GLENLIVET AND KIRKMICHAEL.—Medical Officer. Salary, £100 per annum. Applications to Mr. J. Hay, Inspector of Poor, Inveraven, Ballindulloch, by the 15th instant.

PORTSMOUTH LUNATIC ASYLUM—Assistant Medical Officer. Salary, £120 per annum. Applications by the 8th instant.

ROTHERHAM HOSPITAL AND DISPENSARY—Assistant House-Surgeon. Applications to John Barras, Honorary Secretary.

ROYAL HANTS COUNTY HOSPITAL—House-Surgeon. Salary, £100 per annum. Applications by May 6th.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL, St. George's Circus, Southwark.—Clinical Assistant, three days per week. Salary, £25 per annum. Applications by May 6th.

SOUTH YORKSHIRE COUNTY LUNATIC ASYLUM, Wadsley, near Sheffield.—Third Assistant Medical Officer. Salary, £100 per annum. Applications to Dr. Mitchell by the 8th May.

ST. GEORGE'S HOSPITAL.—Physician. Applications by the 11th May.

ST. GEORGE'S HOSPITAL.—Assistant-Physician. Applications by the 11th May.

TORBAY HOSPITAL AND PROVIDENT DISPENSARY, Torquay.—Junior House-Surgeon and Dispenser. Salary, £90 per annum. Applications by May 22nd.

UNIVERSITY COLLEGE, W.C.—Jodrell Professorship of Zoology. Salary, £288 per annum. Applications by the 8th May.

VICTORIA DOCK DISTRICT DISPENSARY—Assistant Resident Medical Officer. Salary, £150 per annum. Applications to Mr. J. Phillips, Boyd Institute, Victoria Docks, E.

WEST DERBY UNION.—Two Resident Medical Officers for the Workhouse, Walton-on-the-Hill. Salary, £100 per annum. Applications by May 16th.

WEST DERBY UNION.—Two Resident Medical Officers for the Workhouse for Sick Poor at Mill Road, Everton. Salary, £100 per annum. Applications by the 16th instant.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Surgeon. Salary, £80 per annum. Applications by May 6th.

WEST RIDING LUNATIC ASYLUM, Wakefield.—Resident Clinical Assistant. Applications to Dr. Herbert Major, Medical Superintendent.

WILTS COUNTY ASYLUM—Assistant Medical Officer. Salary, £120 per annum. Applications by 17th May.

MEDICAL APPOINTMENTS.

BENSON, E. W., M.R.C.S., appointed Assistant House-Surgeon to King's College Hospital.

BOOBBYER, P., M.R.C.S., appointed House-Accoucheur to King's College Hospital.

CONNER, William, L.R.C.S.I., L.R.C.P.Ed., appointed Medical Officer and Public Vaccinator to the Ardleigh and Great Bromly District, Tendring Union, and Medical Attendant to the Brunswick House Asylum, Mistley branch to County Asylum, *vice* J. W. Cook, M.D., resigned.

CROOKSHANK, E. M., M.R.C.S., appointed House-Surgeon to King's College Hospital.

GREEN, H., M.R.C.S., appointed Resident Surgeon to the Birmingham General Dispensary, *vice* A. O. Holbeche, resigned.

HYNES, W. H., M.D., appointed Second Medical Officer and Apothecary to the Ennis Union, *vice* Michael Greene, M.D., deceased.

MCKINNON, David R., M.B., C.M., appointed House-Physician to the Aberdeen Infirmary and Dispensary.

MCGREGOR, A., M.B., appointed Physician to the Aberdeen Dispensary.

MILLAR, A., M.B., appointed Junior Assistant Medical Officer to the Warwick County Lunatic Asylum, *vice* T. F. Tannahill, M.B., resigned.

OAKSHOTT, J. A., M.D., C.M., appointed Assistant Resident Medical Superintendent to the Cork District Lunatic Asylum, *vice* L. J. N. Tanner, L.R.C.S. & P. Edin.

POLLARD, J., M.R.C.S., appointed House-Surgeon to King's College Hospital.

RABBETH, S., L.S.A., appointed House-Physician to King's College Hospital.

SINCLAIR, William, M.B., C.M., appointed House-Surgeon to the Aberdeen Infirmary and Dispensary.

SMITH, W. B., F.R.C.S., late Honorary Surgeon to the Stockton-on-Tees Hospital, appointed Deputy Medical Superintendent to the Ararat Asylum, Victoria.

STEVENS. B. H. L., M.R.C.S., appointed Assistant House-Accoucheur to King's College Hospital.

STEWART, James, L.R.C.P.Ed., L.F.P.S. Glas., and L.M., appointed Resident Medical Officer to the Scarborough Friendly Societies' Association, *vice* Parker Smith, M.D., resigned.

THOMSON, S. C., M.R.C.S., appointed Assistant House-Physician to King's College Hospital.

WALSH, J. H. T., M.R.C.S., appointed House-Surgeon to the Westminster Hospital.

WARREN, Thomas, M.R.C.S.Eng., appointed Medical Officer of Health for the Aylesbury Rural Sanitary District.

WATTS, E. C., M.R.C.S., appointed Medical Officer to the Wolverhampton Union Workhouse.

WINDLE, Bertram C. A., A.B., M.B., appointed Surgical Registrar to the Adelaide Hospital, Dublin.
WOAKES, Edward, M.D., appointed Senior Aural Surgeon to the London Hospital.
WORTS, E., M.R.C.S., appointed Member of Surgical Staff to the Essex and Colchester General Hospital, *vice* R. S. Nunn, M.R.C.S., deceased.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., *which should be forwarded in stamps with the announcements.*

MARRIAGES.

MICKLE—ESMOND.—On December 6th, at Northcote, Papanui, Christchurch, New Zealand, by the Rev. T. R. Cairns, M.A., Adam Frederick John Mickle, M.A., M.D., F.R.C.S.E., third son of Dr. Mickle, of Kirklington, Ripon, to Abigail Meredith Esmond, third daughter of Thomas Esmond, Esq., late of Montrose, Scotland.

SAVAGE—SUTTON.—On the 3rd instant, at St. Mary's Kippington, Dr. Savage, Bethlem Hospital, to Adelaide Mary, eldest surviving daughter of Dr. Sutton, of Finsbury Square and Sevenoaks.

TWINING—HOUNSHAM.—On the 27th instant, at St. Philip's, Dalston, by the Rev. F. Cox, M.A., assisted by the Rev. J. H. Twining, B.A., brother of the bridegroom, Alfred Hughes Twining, M.R.C.S., Salcombe, South Devon, fifth son of Edward Twining, Esq., M.R.C.S., The Chesnuts, Walthamstow, to Georgiana Edith, third daughter of the late J. B. Hounsham, Esq., of Ipswich.

THE University of Edinburgh has conferred the degree of Bachelor of Science on Dr. Robert Moodie, one of the medical officers attached to Sir Frederick Roberts's command to the Kurrum Valley, and the author of an essay "On the Outbreak of Scurvy in the Kurrum Valley Field Force," for which the University recently awarded him a gold medal.

PRESENTATION.—On May 1st a presentation was made to Dr. Savage, Medical Superintendent of Bethlem Royal Hospital, by the attendants and servants of the institution on the occasion of his marriage. This consisted of a very handsome dining-room clock and sidepieces, a drawing-room clock of copper with sidepieces of the same, besides two brass girondelles and other ornaments.

LIFE-SAVING APPARATUS.—The prize of one hundred guineas for the best means of saving life in cases of shipwreck, offered in connection with the late naval exhibition at the Agricultural Hall, has been awarded to Mr. R. Roper for his "bridge raft", as affording the readiest means of saving, in case of shipwreck, a large number of persons and supporting them above water for a lengthened period. The fifty guinea prize has been awarded to Messrs. J. and A. W. Burt, for their contrivances of cork mattresses, cushions, etc., for supporting persons under water until assistance arrives.

HEALTH OF FOREIGN CITIES.—The following facts and figures, derived from a table in the Registrar-General's last weekly return, afford trustworthy indications of the recent health and sanitary condition of various foreign and colonial cities. According to the most recently received official week's returns, the annual death-rate averaged 29.5 in the three principal Indian cities, and was equal to 27.2 in Calcutta, 25.0 in Bombay, and 34.6 in Madras; cholera caused 33 deaths in Calcutta and 21 in Madras, measles 42 in Bombay, and small-pox 10 in Madras. No returns have been received from Alexandria since the end of March. In twenty-one European cities, the death-rate averaged 32.7, and exceeded by no less than 11 per 1000 the average rate prevailing last week in the twenty-eight large English towns. The death-rate in St. Petersburg further rose to 62.8; the 806 deaths included 55 from typhus and typhoid fevers, and 27 from scarlet fever. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate averaged 27.6; measles caused 10 more deaths in Copenhagen, and 3 deaths from diphtheria occurred in Stockholm. The death-rate in Paris further rose to 31.3, and the 1341 deaths included 69 from diphtheria and croup, 44 from typhoid fever, and 19 from small-pox. The Brussels death-rate also increased to 26.7, whooping-cough and measles showing greater fatality. The rate in Geneva declined to 21.8. In the three principal Dutch cities, the death-rate averaged 26.7; measles caused 9 deaths in Amsterdam. The Registrar-General's table includes returns from nine German and Austrian cities, in which the death-rate averaged 31.3, ranging from 24.4 and 28.2 in Berlin and Hamburg, to 38.7 and 40.0 in Vienna and Buda-Pesth. Small-pox caused 28 more deaths in Vienna, 8 in Buda-Pesth, and 2 in Prague; diphtheria showed fatal prevalence in Berlin and Dresden. The death-rate was equal to 27.7 in Turin and 26.6 in Venice; the 128 deaths in Turin included 6 from measles and 5 from diphtheria. No recent returns have been received either from Rome or Naples. The annual death-rate in four of the largest American cities averaged 29.0, and ranged from 23.6 in Baltimore to 36.5 in New York. Small-pox caused 12 deaths in New York and 11 in Philadelphia; and scarlet fever showed fatal prevalence in New York and Brooklyn. Measles also caused 44 deaths in New York, and typhoid fever 16 in Philadelphia.

OPERATION DAYS AT THE HOSPITALS.

MONDAY..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1. P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M. London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Ski M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Ey M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, T Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; E Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dent Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Laryn W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o. Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopæd W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu.F., 9.30; o.p., T F., 2; Eye, Tu.F., 9.15; Ear, M. Th., 2; Skin, Tu.Th., 1.30; Throat, M. Th., 1.4 Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.3 Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.1 Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical daily, 1.30; Obstetric, Tu. F., 3; Eye, Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Dr. Makuna: the Ectrotic Treatment of Varioles in Small-Pox. Mr. W. J. Tivy (Clifton On Double Inguinal Hernia treated by Wood's Radical Cure.

THURSDAY.—Ophthalmological Society of the United Kingdom, 8.30 P.M. Brailey: 1. Microscopical specimens from Mr. Mason's Sclero-corneal Tumo 2. Specimen of Disease of Optic Nerve in Retinal Detachment. Mr. Sne Case of Sympathetic Ophthalmitis following Enucleation. Mr. Adams Fros Case of Sympathetic Ophthalmitis following Enucleation. Mr. Anders Critchett: Case of Bony Tumour of Conjunctiva. Mr. Oglesby: Mine Nystagmus. Mr. Swanzy: 1. Detachment of Vitreous Tumour causing Blin ness; 2. Case of Primary Tubercle of Iris. Mr. Mules: Case of Tubercul Inflammation of Eyeball. Mr. Adams Frost: Case of Intraocular Hæmorrha after External Injury of Eye. Mr. Lang and Dr. W. A. Fitzgerald: 1. T Movements of the Eyelids in relation to the Movements of the Eyes; 2. Ca of Homonymous Insular Scotomata. Mr. C. E. Fitzgerald: Ophthalmologi Notes. Mr. Juler: A Refraction Ophthalmoscope (card). Mr. A. H. Bens Extreme Tortuosity of Retinal Vessels without Disease (card). Living spe mens, 8 P.M. Dr. Sansom: Exophthalmos without Thyroid or Cardiac Sy ptoms. Mr. McHardy: 1. Case of Transportation of Skin two months af Operation; Case of Black Cataract. Mr. Mackinlay: Case of Teale's Ope tion for Symblepharon.—Harveian Society of London, 8 P.M. Dr. John W liams: A Fatal Case of Oöphorectomy. Mr. Noble Smith: The Treatm of Caries of the Vertebræ.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT the pass examination for the diploma of membership of the Royal College of Surgeons on the 14th April, sixty candidates presented themselves, against seventy-seven in the corresponding period last year. The following were the questions in Surgical Anatomy and the Principles and Practice of Surgery, Midwifery and the Diseases of Women, and Medicine, submitted to the candidates. *Surgical Anatomy and the Principles and Practice of Surgery* (at least four questions to be answered, including one of the first two). 1. Describe the Antrum of Highmore, and mention the Diseases to which it is liable. 2. Describe the Knee-Joint, and mention those Structures which are in immediate relation with it. 3. What are the diagnostic signs and symptoms of an Obturator Hernia? and what Treatment would you adopt under the various conditions it may present? 4. Mention the conditions under which the operation of tapping the Abdomen may be required; how these are to be clinically distinguished; how and in which situations the puncture is usually made. To what risks is the Patient exposed during the performance of the operation and afterwards, and how may these be avoided? 5. Describe Fracture of the Clavicle about its Middle, the variations which may be found in the displacement, the complications which may attend the injury, the Treatment to be pursued, and the Result which may be anticipated. 6. Describe the course of Sympathetic Ophthalmia, and state the measures required for its Prevention and Treatment.—*Midwifery and Diseases of Women*. 1. Describe the Mechanism of Labour with the face presenting, and the chin forward and to the left. 2. What are the dangers attending retroversion of the Gravid Uterus? How would you treat this condition? 3. Describe the usual course of Phlegmasia Alba Dolens. 4. Describe the treatment of *Post Partum* Hæmorrhage.—*Principles and Practice of Medicine* (three questions to be answered, including No. 4). 1. What are the Clinical Phenomena of Locomotor Ataxy; and what are the lesions discoverable after death from this disease? 2. What diseases may lead to considerable enlargement of the Spleen? and what are their distinctive characters? 3. Discuss the signs and symptoms of Thoracic Aneurysms, and the several modes in which they may prove fatal. 4. State the effects, uses, and doses of the following drugs; Tartarated Antimony, Arsenious Acid, Bicarbonate of Potash, Tincture of Hemlock, Tannic Acid, Tincture of Indian Hemp, Rhubarb, Compound Powder of Catechu, Opium, Chloral-Hydrate, Antimonial Wine, Liquor Arsenicalis, Effervescing Solution of Potash, Juice of Hemlock, Glycerine of Tannic Acid, Extract of Indian Hemp, Tincture of Rhubarb, Tincture of Catechu, Tincture of Opium, Syrup of Chloral.

The following were the questions on Anatomy and Physiology proposed to the 220 candidates at the primary examination.—*Anatomy* (four questions only to be answered). 1. Describe the Muscles which connect the Hyoid Bone with the bones of the Head. Give the Nerve-Supply to each Muscle. 2. Give the dissection required to expose the triangle at the Bend of the Elbow, and describe the contents of that space in their relative positions. 3. Describe the course and relations of the Vas Deferens from its commencement to its termination. 4. Describe the attachments and the relations of the left Psoas Magnus Muscle. 5. Describe the origin, course, and distribution of the Superior Intercostal Artery and its Branches. 6. Describe the arrangements by which the tendons of the Flexors and Extensors of the Toes are attached to the Phalanges.—*Physiology*. 1. In what manner are Bread, Meat, Butter, and Potatoes digested? With such a diet, what would be the composition of the Fæces? 2. Describe the termination of Nerve-Fibres in Striated Muscle. What changes does Muscle undergo when permanently separated from nervous control? 3. Describe the minute structure of the Trachea, and state the functions fulfilled by its several tissues. 4. In what tissues of the body is Glycogen found? How may it be separated, and what are its characters? 5. What is understood by the term Blood-Pressure? What are the circumstances by which it is modified? 6. What is meant by the term "Vaso-motor Nerve"? Give examples of such nerves. Explain how active dilatation may be produced by Nerve-Stimulation.

INSURANCE FEES.

SIR,—In December last, I was asked to examine a man for a large insurance office. On the form sent to me, there was a marginal note to the effect that the fee would be remitted at the end of the month. When the time came, I duly received a guinea. Subsequently, I was asked to report on two others on similar forms; I did so, and had sent, not two, but one guinea. I scored out one of the names on the receipt-form sent for my signature, and returned it, with a request for the other guinea. The manager replied that the lives were insured for £100 and £200 respectively; that their scale of fees was half a guinea when the policy fell short of £500, one guinea if not; and that "medical men of the highest standing in all parts of the country were satisfied with this scale." I replied, refusing to accept such a scale of fees, denying that medical men generally were satisfied with it, and renewing my request. No notice was taken of this letter, so I informed the manager that, unless the fee were paid within three days, I should place the matter in the hands of my solicitors. I received the guinea by return of post.

Doubtless, medical men have themselves or their brethren to thank for the prevalence of such a scale of fees, but the remedy lies in their own hands by refusing to report under any such condition as the regulation of the fee by the amount of the policy, and only insuring in such offices as adopt the principle of giving a fee for a report, be the policy what it may, we may force them into submission.—Yours, etc.,

M.B.

MILITIA SURGEONS.—It is earnestly requested that those militia surgeons who have not yet signed the petition will do so at once, and forward the slips of parchment sent to them to Surgeon-Major Smith, Great Yarmouth, Norfolk, and also a subscription towards the expenses attendant on this important matter.

MEDICAL ETIQUETTE.

A RESPECTED correspondent calls our attention to the answer to "C. W. G." in last week's JOURNAL (page 644, column 2), and expresses the opinion that it is not in accordance with the rule laid down in the *Code of Medical Ethics*, wherein it is distinctly set forth that—"When a practitioner is called in to, or consulted by, a patient who has recently been, or still may be, under the care of another, he should on no account interfere in the case, except in an emergency, but request a consultation with the gentleman in previous attendance," etc. This rule is certainly one which ought to be attended to; but, in the instance to which we referred, there was an apparent emergency.

SIR,—A., who is absent on duty, is sent for to see a patient at once, the nature of illness not being stated. On returning, two hours afterwards, having other duties to attend to, he sends his qualified assistant, B. Meantime, the patient has sent for another doctor, C., who arrives some time after B. The case is one of premature labour, and the patient is on a visit to her sister, in a house where A. is regular attendant, but is not herself previously known to A. The patient raises objection to the assistant, B., on account of his youth, and C. is understood to offer to attend for A. Afterwards, but before leaving, the patient expresses a wish that he should attend through the whole illness, and this C. consents to do. A., on hearing from his assistant, B., that C. is attending for him, goes at once to the house, and finds the case over, and is told that C. had consented to continue the case, on being asked to do so. A. calls on C., and is told that the above is quite true, and that he, C., could not refuse to attend, as the patient expressed her preference that he should do so.

A. feels aggrieved on the score that he was regular attendant at the house, that he was first sent for, and that he was represented by his assistant on C.'s arrival. Should C. have consented to attend the case?—I am, etc., ENQUIRER.

*** C. should, in our opinion, under circumstances as stated, have declined to take charge of the case, and have acted in accordance with the principle laid down in the following well known rule of the profession, viz.: "When a practitioner is called to an urgent case in a family usually attended by another, he should (unless his assistance in consultation be desired), when the emergency is provided for, or on the arrival of the attendant in ordinary, resign the case to the latter; but he is entitled to charge the family for his services."

A MEMBER B.M.A.—We have little doubt that, if our correspondent would write to the Home Secretary, Whitehall, S.W., giving him a brief statement of the case, he would order an examination of the body of the deceased woman.

ERRATA.—At page 611 of last week's JOURNAL, column i, line 21, *for* "hyo-mandibular" *read* "hypomandibular". On page 636, column ii, line 30 from bottom, *for* "1830" *read* "1825".

TRICYCLES.

SIR,—To answer "Country Doctor's" inquiry about the above, satisfactorily, it is necessary to have had a good trial of tricycle riding. I am glad to say that I have possessed a tricycle for the last year and a half, during which time I have ridden nearly 5,000 miles. The general rate of travelling is about ten miles an hour, but this can be easily exceeded; for to test the speed of my machine, I rode on one occasion two and a half miles in nine minutes. I can testify to the great utility of tricycles, the very great saving of expense, and the little or no trouble; and for night-work they are, I think, superior to a horse, providing that first-rate lamps are employed. The cost of my "Salvo" was just under £20 for cash; but in about nine months, the expenditure was cancelled. My repairs, after eighteen months' daily use, amount to only thirty shillings. It requires about a month's hard practice to become perfectly at home on a tricycle; and after that, if constantly and daily used, it will be found invaluable.—I am, sir, yours faithfully,

ANOTHER COUNTRY DOCTOR.

SIR,—As the introducer of a quadricycle about three years ago for the purpose of medical men, I may perhaps be permitted to reply to the query of "Country Doctor", and give him, as he asks for it, the result of my three years' additional experience. When I wrote before, the tricycle was comparatively new to me, yet I had tested it fully to prove its power and capability. Since then, I have had it in constant use for upwards of three years. I have travelled over distances which, in the aggregate, cannot be much less than 10,000 miles, without a single accident; been out at all hours of the day and night, frequently for six hours at a time in constant motion: have returned home without the slightest feeling of fatigue; and, after a meal, could have done as much again. I have travelled as fast as I could have done with a good cob or pony, generally with greater safety, and upon a good road with a more steady and even motion. The danger of falls, running away, shying, and the need of an attendant—the inevitable result of horses—never trouble me, and the work in connection with the horse upon arrival at home, as rubbing down, washing, bedding and feeding, grooming, are all entirely abolished. During a great part of the time, I have been entirely without a horse, have worked a large practice solely with the tricycle, have saved probably in stable expenses £200 to £300—which, in these times of keen competition, is an immense boon—have capitalised the amount, and have got therefrom an income of £8 to £12 per year instead of nothing but annoyance, which I should have had if I had spent the amount upon horses. One professional brother, who looked shy at me at first, and thought the tricycle "beneath the dignity of a professional man", is now wishing for one himself. But this is the usual result of any useful innovation. The representative of a neighbouring nobleman came down to see my tricycle, and so pleased was he that he immediately ordered one like it. here

A splendid exhibition of tricycles has just been held in Birmingham; and t the Messrs. Starley's machines, I consider, more than held their own amidst all competition and improvements of the last few years.

As a means of rapid locomotion with perfect safety, no trouble, no expense, and no annoyance, I feel sure that the better class of tricycles will assuredly make their way in the future, as they are evidently doing in the present. Many small practices that will not pay their way with keeping horses will do so with a tricycle, and may be made to do as well as larger ones where horses have to be kept. Even if a horse be kept from necessity or pleasure, a machine will very soon pay its cost in collateral work, afternoon or evening work, or in saving a second horse. In one of your advertisements lately for an assistant, I saw "no one was to apply who was not prepared to work the practice upon a tricycle or bicycle".—I am, sir, your obedient servant, VACUUS VIATOR CANTABIT CORAM LATRONIBUS.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

THE DUBLIN COLLEGES AND THE TITLE OF DOCTOR.

SIR,—I would be much obliged by your letting me know if I am entitled to put "Doctor" before my name (on visiting cards, etc.), being a L.R.C.S.I. and L.K.Q.C.P.I.—Yours faithfully, E. R. MULOCK, Surgeon R.N.

*** The following is a copy of the official reply of the King and Queen's College of Physicians to all questions similar to that made by our correspondent:

"College Hall, Kildare Street, Dublin. Sir,—In reply to your queries, I beg to inform you that, in the opinion of the College, a licentiate is not entitled, legally, to call himself 'Doctor', or to use the letters 'M.D.' in virtue of being a licentiate of this College.—I am, sir, your obedient servant, J. MAGEE FINNY, M.D., Fellow and Registrar."

CONVALESCENT HOMES FOR SCARLET FEVER.

SIR,—May I be allowed to point out that, in his remarks on the above subject in the JOURNAL of April 22nd, Mr. Hume has gone somewhat wide of the mark? In London, at any rate, the "wants of the poorer classes" in respect of hospital accommodation for "fever" patients, are already fairly well provided for; and the "child of a working man", to whose case Mr. Hume refers, might have been removed to hospital, and probably would have been, had the illness been reported to the district medical officer of health. What is wanted is, a workable system of "notification of infectious diseases", backed by increased powers of compulsory removal to hospital, where the patient cannot be properly isolated at home. Had Mr. Hume's first patient been removed to hospital, prompt disinfection might have preserved the others from attack; but there is nothing in his communication to indicate that the illness has ever come to the knowledge of the sanitary authority. In any event, however, I take it that "convalescent homes" are not intended for such cases as the above; and, therefore, Mr. Hume's illustration is scarcely *à propos*. —I am, sir, yours faithfully, T. ORME DUDFIELD, M.D.

Town Hall, Kensington, April 22nd, 1882.

NEPHROTOMY AND NEPHRECTOMY.

SIR,—Permit me to correct an error which occurs in your report of some remarks I made upon this subject at the recent meeting of the Clinical Society. I am described as "struck with the extreme harmlessness of nephrectomy and nephrotomy". This is very far from true. The report would have correctly described my meaning if it had read, "the extreme harmlessness of nephrotomy as compared with nephrectomy". I ventured to point out the unnecessary risk entailed in subjecting a patient to so severe an operation as excision of the kidney, without previously giving the chance of recovery by such a comparatively harmless procedure as incision into the diseased organ.—Yours faithfully, F. A. MAHOMED.

CONSULTATIONS WITH HOMŒOPATHS.

SIR,—Can you allow me a small space in your valuable JOURNAL to ask a question concerning consultations with medical men practising homœopathy? In the JOURNAL of April 22nd (page 597), it is stated that "Dr. Rees Philipps then placed before the Committee of Council the views of the South-Western Branch on homœopathy. It was moved and seconded 'that, as it has been resolved by the annual meeting of 1852, and reaffirmed by the annual meetings of 1858 and 1861, that "there are three classes of practitioners who ought not to be members of the Association viz.: (1) real homœopathic practitioners; (2) those who practise homœopathy in combination with other systems of treatment; (3) those who, under various pretences, meet in consultation or hold professional intercourse with those who practise homœopathy;" it be an instruction to the Committee of Council to request [a member stated to be practising homœopathy at Plymouth] to withdraw his name from the list of members of the Association.'"

It is with regard to the third of the above mentioned classes that I wish to ask a question.

On July 10th, 1873, I was called in by a solicitor, to examine a Mr. A., a gentleman who possessed considerable property, with a view to ascertaining whether he was or was not mentally capable of making a will. I visited the patient three times. On the first occasion, I met a medical man practising homœopathy in the East End of London, who was the patient's family physician. I had a long consultation with this gentleman concerning the state of mind of our patient; but neither of us made any allusion to the bodily condition of the patient, nor to the medical treatment which was being pursued in his case. I was much assisted in my diagnosis by the medical man in question, who had been for some years attending the patient.

I at that time expressed an opinion in writing that the patient was capable of making a will. In 1875, this gentleman died, leaving his property to a Mrs. B., the landlady of his lodgings, who had acted as sick nurse to him during the last few years of his life, to the exclusion of his wife. On November 26th, 1875, Mrs. A. disputed this will, and the case was compromised, two-thirds of the property going to the landlady, and one-third to the wife.

I wish to ascertain (1) whether or no I was justified in entering into a consultation with a homœopath, such consultation relating only to the mental condition and legal aspect of the case, and not to the medical treatment; and (2) if a similar case should present itself, whether or no I should be justified in again entering into such a consultation, provided that no question of treatment be touched upon, and that only the psychological and medico-legal points of the case are brought under discussion. I ought, perhaps, to mention that I found out subsequently that the homœopathic physician was treating the patient with gum-arabic for diarrhœa.—Apologising for the length of this letter, I am, your obedient servant,

Richmond Terrace, Whitehall. HENRY SUTHERLAND.

USE OF STEAM FOR HEATING HOSPITAL WARDS.

SIR,—Permit me to correct a statement made by Dr. Jacob in your last issue, relative to our new steam-boilers. It is quite true we erected two steam-boilers and one hot-water boiler at the period which he names, but they were to replace others worn out. We have always done our washing, drying, mangling, and a portion of the cooking, with steam. The boilers were made a little larger, with a view of introducing steam for heating purposes instead of hot water. We only work one steam-boiler at a time, excepting in very cold weather. I need scarcely say that a steam-boiler does not require any greater skill in stoking than that of an ordinary hot-water boiler.

If we were to heat the same surface with hot water, we should spend at least £150 a year more in coal and wages, and the result would then be unsatisfactory. —I am, sir, your obedient servant, THOMAS BLAIR, General Manager.

The General Infirmary at Leeds, April 18th, 1882.

SPASM.

SIR,—In the JOURNAL for April 1st, "Spasm" says his patient has muscular cramps and loss of sexual power. He says he has inquired into every function, but allow me to suggest that he has to deal with a case of albuminuria. Should he find it so, he will oblige by communicating that fact to the JOURNAL, or to yours sincerely, CLIPSON WRAY, M.D., M.R.C.S.

Skegness, Lincolnshire.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. Tripe, London; Dr. Ogston, Aberdeen; Dr. Patterson, Glasgow; Dr. H. H. Kane, New York; Mr. G. R. Moore, Dursley; Mr. Wagstaffe, Bournemouth; Our Birmingham Correspondent; Mr. J. R. Leonard, Portsmouth; Mr. W. Moorman, St. Columb; Dr. J. Ramsay, York; Dr. Styrap, Shrewsbury; Mr. Harrison Cripps, London; Mr. W. Donovan, Whitwick; Dr. Saundby, Birmingham; Mr. F. St. George Mivart, London; Messrs. D. D. Grigsby and H. Grinsted, Hurstpierpoint; Mr. E. A. Jones, London; Dr. H. F. White, Caxton; Dr. W. S. Paget, Great Crosby; Mr. Malcolm Morris, London; Dr. Ransome, Bowdon; Mr. T. J. Verrall, Brighton; Dr. J. St. J. G. Parsons, Bristol; Dr. A. Hughes Bennett, London; Mr. D. Turner, London; Mr. C. Sibthorpe, London: Mr. A. P. Fiddian, Cardiff; Mr. R. D. R. Sweeting, Fulham; Dr. C. Holman, Reigate; The Dean of the Faculty of Medicine, Edinburgh; Mr. R. Jeffreys, Chesterfield; Dr. T. Laffan, Cashel; Dr. Orton, Newcastle-under-Lyme; Mr. R. Jesse, Henbury, Macclesfield; Dr. Stevenson, London; Mr. W. H. Hallam, Newcastle-under-Lyme; Dr. McKendrick, North Berwick; Mr. Percy Flemming, London; Mr. E. W. Wallis, London; Mr. H. Vevers, Hereford; Mr. H. Truman Wood, London; Dr. R. F. Quinton, Manchester; Dr. P. H. Pye-Smith, London; Mr. W. K. Parker, London; Mr. E. J. Hutchings, Southborough; Dr. R. L. Bailey, Stourbridge; Mr. A. Creswell Rich, Liverpool; Dr. Mahomed, London; Dr. Clipson Wray, Skegness; Dr. Danford Thomas, London; Dr. G. W. Potter, London; Our Edinburgh Correspondent; Dr. Whitelaw, Cupar, Fife; Dr. T. M. Madden, Dublin; Mr. Vincent Jackson, Wolverhampton; Mr. D. B. Balding, Royston; Mr. J. Porter, London; Mr. E. Owen, London; Mr. Shirley F. Murphy, London; Mr. George Eastes, London; Mr, G. W. Wigner, London; Mr. Nelson Hardy, London; Dr. de Chaumont, Netley; Dr. James Eames, Eglinton, Cork; Dr. Henry Bennet, Mentone; Mr. H. Campbell Bannerman, London; Mr. R. J. W. Oswald, London; Mr. P. T. Duncan, London; Mr. F. R. Cross, Clifton; Dr. T. F. Chavasse, Birmingham; Mr. Thomas Blair, Leeds; Mr. Bennett May, Birmingham; Dr. Andrew Spearing, Shaw; Mr. W. G. Lacy, Wandsworth; Mr. B. L. Pollard, Torquay; Dr. M. T. Sadler, Barnsley; The Secretary of Charing Cross Hospital; Mr. T. E. Burton, Liverpool; Mr. J. H. Anderson, H.M.S. *Salamis*; Mr. F. W. Mott, Vienna; Dr. L. H. J. Hayne, Woolwich; Messrs. G. Street and Co., London; Dr. G. Gregory, Bolton; Mr. Oakley Coles, London; Dr. R. J. Roulston, Axim, Africa; Mr. E. Wood Forster, Darlington; Mr. George Scudamore, London; Messrs. L. and J. Milligan, Edinburgh; Mr. R. McDougall, Murrumburrah; Mr. G. Shermann Bigg, Allahabad; Mr. E. Owen, London; Dr. Tilt, London; Mr. S. Bagley, Stockport; Mr. Nettleship, London; Mr. H. W. Hunt, London; Dr. Goodhart, London; Dr. Savill, Croydon; Mr. Vores, Great Yarmouth; Mr. W. W. Reeves, London; Our Aberdeen Correspondent; Dr. Sawyer, Birmingham; Mr. Albert Napper, Guildford; Our Glasgow Correspondent; Dr. Craig, Kilmichael; Dr. Rayner, Hanwell; Mr. James Hay, Inveravon, N. B.; Our Dublin Correspondent; Dr. S. Rees-Philipps, Exeter; Mr. Barnett, jun., London: Mr. H. Davenport, London; Dr. Stevenson, London; Mr. J. H. Palmer, Solihull; Mr. Jones Morris, Portmadoc; Lecturer, Edinburgh; Dr. G. Pery, Bordeaux; etc.

BOOKS, ETC., RECEIVED.

Notes on Surgical Treatment. By T. F. Hopgood. London: Baillière, Tindall, and Cox. 1882.

A Study of the Tumours of the Bladder. By Alex. W. Stein, M.D. New York: Wm. Wood and Co. 1881.

A Hand-Book of House-Sanitation. By E. F. Bailey-Denton, C.E., B.A.Oxon London: E. and F. N. Spon. 1882.

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REMARKS
ON THE
CHOICE OF MECHANICAL TREATMENT IN SPINAL DISEASE: WITH REMARKS ON AFTER-TREATMENT AND PROGNOSIS.

By C. H. GOLDING-BIRD, M.B., F.R.C.S.,
Assistant-Surgeon to Guy's Hospital.

Given a case of spinal disease; is any mechanical treatment to be adopted; and, if so, what form is it to take? This is a most common question, the answer to which must mainly come from the practitioner's general experience of the diseases which deform the spine; yet rules may be formulated to serve as a broad guide in most cases.

Omitting mention of drugs or of operation, *e.g.*, opening of abscesses, and confining the remarks now to be offered to cases of caries and of general curvature, the following rules or guides for a choice of mechanical treatment may be laid down. No description of treatment is offered. The old mechanical appliances or "spinals", and their use, will be found in works on orthopædic surgery. Sayre's method is described in his book on *Spinal Curvature*, and in the British Medical Journal for September 1878 and October 1879.

A. Uncomplicated Caries of the Spine.

This may be chronic in character, or not very acute; there may be slight deformity, or none at all. There is no abscess, no sinus, nor paraplegia.

a. Of Atlas or Axis.—In the early stage, rest in the recumbent position, with the head between sand-bags, absolutely fixed, is required; and ignorance of the extent and exact situation of the disease render mechanical appliances inadmissible at first. On the subsidence of subjective symptoms, the head must be supported as under class *b*.

b. From Third Cervical to Sixth Dorsal Vertebra.—The deformity being mostly from the weight of the head, support must be given to it. This is attained (1) by a chin and occiput rest, acting crutch-like from a suitable leather corset below; (2) by a chin and occiput band, acting as a suspender, from a steel spring rod arched over the head, and rising from a plaster-of-Paris corset (this is Sayre's jury-mast). The former is a dead push up, and prevents rotation of the head on the spine; the latter gives elastic constant extension, and permits rotation; it is, therefore, the better of the two.

Note.—Disease as high as the third dorsal vertebra may be treated without the jury-mast, as under class *c*. The downward weight of the head is not obviated, but the spine is kept still by the fixation of the upper ribs by means of the jacket.

c. From Sixth Dorsal Vertebra Downwards.—A closely fitting corset of plaster-of-Paris or of poroplastic felt is required. The former (Sayre's jacket) is much better, as being more perfectly moulded to the form, more closely fitting, and therefore not felt to be present by the wearer, save by its stiffness; it is more durable, and immovable by its entirety. When this latter advantage has to be sacrificed to a patient's whims or the surgeon's wish, then the poroplastic felt which laces on can be employed; or the original plaster-jacket can be cut up the side, and made to lace on; but either way, there is a therapeutic loss. In applying the jacket to cases in class *b*, just enough extension should be employed to open up the chest as in full inspiration. In class *c*, this should be carried out to the full, just short of producing pain in the diseased spine. Extension is obtained either from the arms and head in Sayre's tripod, or by the horizontal position simply, which is second best; full room is allowed for the play of the lungs, etc., by either, and the diseased vertebræ are relieved from downward pressure.

Note.—Although the alternative of the poroplastic felt jacket is offered, yet an unprejudiced trial of it makes me condemn it, as a curative agent, in the strongest terms. As a pair of stiff stays, it is useful enough in after-treatment; though even here a thin plaster-jacket, cut down and made to lace on, is far more comfortable for the patient, more efficient, and more durable.

B. Caries of the Spine with Complications.

a. Acute Caries with Pyrexia: Excessive Sensibility: Patient positively ill, or with Acute Abscess.—Absolute rest in bed is required, with general medicinal remedies; and mechanical treatment, according to position, should be used only on the subsidence of the acute symptoms.

b. Chronic Abscess.—This is treated as though the abscess were not present, only protecting it from the support employed by a layer of cotton-wool. The abscess may even, though very large, disappear.

c. Abscess discharging: Sinus.—Support should be applied, but a "window" should be cut over the wound. If this be very low down, the jacket may be cut away to accommodate it. This must never be done just above the anterior iliac spines, or the support will not be bearable. In cases of abscess discharging, the movable jacket may be used with advantage; for the "window" is always hard to manage and to keep clean.

d. Sores from Pressure: Bedsores.—These must be allowed to heal, and the cicatrices afterwards protected with cotton-wool under the support, and outside the woven vest.

e. Paraplegia.—In children, the plaster-jacket must be employed; or the jury-mast, according to position. They then can be carried about, and propped up in a chair. In adults—especially if heavy—the plaster cannot be worn lying down; pressure-sores soon form. They must be kept in bed until able to balance themselves on crutches, then the entire plaster-of-Paris jacket should be worn. Paraplegic cases are better in bed without any appliance, than up with a movable laced support, either of plaster or of poroplastic felt.

f. Caries with much or little Deformity, of long standing: no Subjective Spinal Symptoms: Ankylosis probably completed.—Though such cases are really cured already, yet, at times, oppressed action of the thoracic organs, mechanical indigestion, and pain across the pit of the stomach, remain as causes of invalidism. A twelve months' use of the plaster jacket, with the fullest extension, gives marked relief. Projecting breast-bones from angular curvature improve wonderfully, though in the boss behind there may be no apparent change. The poroplastic jacket may be employed after the plaster, but cannot, in these cases, be substituted for it from the first.

Prognosis in Caries: After-Treatment.—The rules of repair generally must be intelligently applied to spinal caries. It being a question of repair, no limits can be fixed to this; "it is never too late to mend". Saving the presence of amyloid disease, prolonged exhaustive suppuration, or other intercurrent malady, by far the greater number of cases may be viewed hopefully. Other things being equal, the earlier seen and treated, the better the chance of cure. In practice, from two to four years will be found an average time for continuing necessary mechanical treatment.

When the plaster-jacket is used, after a subsidence of every subjective symptom (tested for when changing it), during six months, it may, as a rule, begin to be discontinued. Except in quite young children, its discontinuance must be gradual; the jacket must be made movable, or of poroplastic felt; or stays can be substituted; or even the old time-honoured "spinal support", if the patient have one already by him. Thus he is weaned from the full support of the entire plaster. He should be under observation after his "cure" fully another six months, for fear of relapse.

C. Lateral or "General" Curvature.

The choice lies between the reclining board, the old "spinal supports", and Sayre's calisthenic exercise, with or without the jacket. The first is damaging to the general health; the second, curatively of little worth, and now obsolete; the last is the best mechanical mode at present known. In selecting mechanical treatment here, the stage of the disease, rather than the patient's age, or the position of the curvature, must be considered; and no such treatment should be undertaken without due attention to general health.

a. Antero-posterior General Curvature in Neck and Upper Dorsal Region, causing Poking of Head and Slouchy Appearance.—The treatment should consist of the daily use of Sayre's calisthenic exercise.

b. Outgrowing Shoulder.—This is very commonly disregarded, and masked by the dressmaker with "padding". The treatment is just as in *a.*, with the addition of a well-made but ordinary corset. Over-support, taking all the work from the patient's muscles, is in these cases to be as strongly deprecated as their total neglect.

c. Curvature and Rotation present, but slight: Spine straightens in the Tripod Swing (Sayre's): Deformity augmenting: Case not over a Year's Standing.—Here the plaster-jacket (entire, not laced on, nor the poroplastic) is to be used, together with Sayre's calisthenic exercise.

d. Curvature, and especially Rotation, well marked; the latter, at least, not vanishing on Extension: Over a year's duration, and still augmenting.—The treatment is just as in the last case, as long as any improvement is to be gained.

e. As Class d., or even worse; not augmenting: no Oppression of Abdominal or Thoracic Organs felt: Patient an useful member of society.—There is no treatment; or at most calisthenic exercise, to develop the muscles and expand the chest. If support (*i.e.*, the jacket) be given, no permanent good result is obtained, save a temporary bolstering up, which the patient most distressingly misses when removed. It is true,

this may be avoided by the continued use of mechanical means. But why should a treatment be commenced which must be continued perhaps for a lifetime, where, but for the surgeon's interference at first, the patient would have gone on happily through life unaided and independent?

f. As Class e., but with oppressed Breathing and Circulation: Anæmia: Intercostal Neuralgia. Thorough Invalids, and useless in society.—Temperament and social surroundings being considered first, the gradual use of Sayre's exercise should be ordered; then a support, either of plaster-of-Paris or of felt. Outdoor exercise should be tried and encouraged, the patient being thus supported. This treatment should be persevered in till a cessation in improvement appears: the patient will be left better than she was found. A permanent support of felt can be ordered if requisite.

Prognosis in General Curvature: After-Treatment.—In classes *a.*, *b.*, and *c.*, a cure may be expected. It is astonishing in *b* how soon—three months—complete cure may be accomplished. In *c.*, the treatment on an average will last two years. In classes *c.* and *d.*, weaning from the plaster support must be carried out as in caries; while in *d.*, amelioration, and not cure, must generally be expected. The after-treatment in *c.* and *d.* consists in the "weaning" process, and the continuance of the swing exercise at least three months after all support has been stopped. Relapse in all these cases is very likely from any failure of the general health; they should be carefully watched for some months. Classes *e.* and *f.* are essentially examples of "after-treatment" from the first; the greatest gain expected in *f.* is the loss of subjective symptoms, and breaking the neck of invalidism. Cases of the class *d.* had better at once know what *e.* and *f.* already well have learnt, that some deformity, little or much, must be to them a "condition of life". This may be thought by some a pessimist's view of the matter; but, call it by whatever name one will, an appeal to everyday experience cannot but confirm it.

THE TREATMENT OF CARIES OF THE SPINE.

By E. NOBLE SMITH, F.R.C.S.Ed.,
Surgeon to the Farringdon Dispensary.

In discussing the etiology of this disease,* I expressed my reasons for agreeing with those pathologists who consider that caries is not *necessarily* a scrofulous or tuberculous affection. I there suggested how caries might occur in a healthy individual, as the consequence of continued irritation of traumatically injured tissues; and I also remarked that, although the disease might thus occur without a predisposing cause, it was much more likely to happen when the vital powers of the patient were depressed either by tuberculous or other constitutional disease.

These observations upon the etiology of the disease are here made for the purpose of drawing attention to the fact, that caries must be dealt with chiefly as a local affection. The general health in all cases, without doubt, requires to be carefully treated; and, when symptoms of scrofula or tubercle are present, the administration of the appropriate remedies for these constitutional conditions will of course be required; but at the same time the fact must be recognised, that the disease of the spinal column cannot be cured by general treatment alone. Local rest of the diseased parts is the only treatment that will give relief or effect a cure.

Fig. 1.—Drawn from a Preparation in St. Mary's Hospital Museum, being a typical specimen of Caries of the Vertebræ.

The question next arises, How should this rest to the diseased vertebræ be given?

In order to answer this question, it is necessary for us to consider the alterations which take place in the spine during the progress of the disease, although these changes are probably well known to the reader. The ulcerative process usually commences at the anterior part of the vertebræ or intervertebral substances. It extends backwards, *but seldom attacks the arches of the vertebræ*. The usual result of the loss of substance from the ulceration is the production of a wedge-shaped excavation, the base of which presents anteriorly, and the apex posteriorly. This excavation does not generally exist as a space, because the bones above and below the seat of disease come together as the caries progresses. Thus there are a falling forwards of the part of the spine above, an incurvation of the part below the disease, and a projection of the spinous processes in the back. Occasionally, but rarely, the disease attacks the same structures laterally, or even at the posterior part of the bodies of the vertebræ.

Fig. 2.—Very severe case of Caries, drawn from a Preparation in St. Mary's Hospital Museum, showing that even in so bad a case the Arches of the Vertebræ remain sound.

As the upper portion of the body falls forwards, the equilibrium is upset, and the superincumbent weight is not supported equally upon the vertebræ, but falls chiefly upon the anterior diseased portions of the column. Partly to relieve the pain caused by pressure of the diseased parts upon one another, and partly to restore the equilibrium and to raise the head to a more natural position, the patient supports or raises the upper part of the trunk by means of his arms, placed either upon his thighs or upon a table or chair, etc. He also uses the muscles of the back for the same purpose. Although the patient may sometimes relieve the pain by raising his body as described, yet he fails to relieve it for long; because, as the vertebræ above the disease are brought backwards, the vertebræ below the seat of disease accommodate themselves to the alteration of form—an apparent incurvation of these vertebræ taking place; and thus the superincumbent weight continues to be transmitted chiefly through the anterior diseased part of the vertebræ. The following diagrams show these conditions (Figs. 3, 4, 5, 6).

In Percival Pott's time (he wrote in 1779), violent attempts to straighten the spine used to be made, and Pott recognised the evil of such treatment. He pointed out that to draw the carious bones asunder could not be beneficial, as it would interfere with the natural mode of cure, which takes place by junction and coalescence of the diseased bones. This opinion was founded upon sound surgical principles, and holds good to the present day. Bonnet of Lyons has also deprecated all violent attempts at extension. "But," says he, "if we must not extend (*redresser*) the parts,.....is it not desirable to diminish the pressure of the upper parts of the body, and to immobilise as much as possible the parts which have been separated by the caries?" To this question I would answer "Yes". And, in order to effect this diminution of pressure upon the diseased parts, the object of treatment should be to place the spine in a position which allows the superincumbent weight to be supported by the posterior sound parts of the bodies and by the arches of the vertebræ, and, above all, *to retain the spine in one fixed position*. In fulfilling this object, no force whatever should be used.

When the patient lies perfectly recumbent (prone or supine), the spine assumes the desired position—*i. e.*, the diseased parts are relieved from undue pressure; and, if we can then succeed in fixing the spine, the objects so well expressed by Bonnet will be effected.

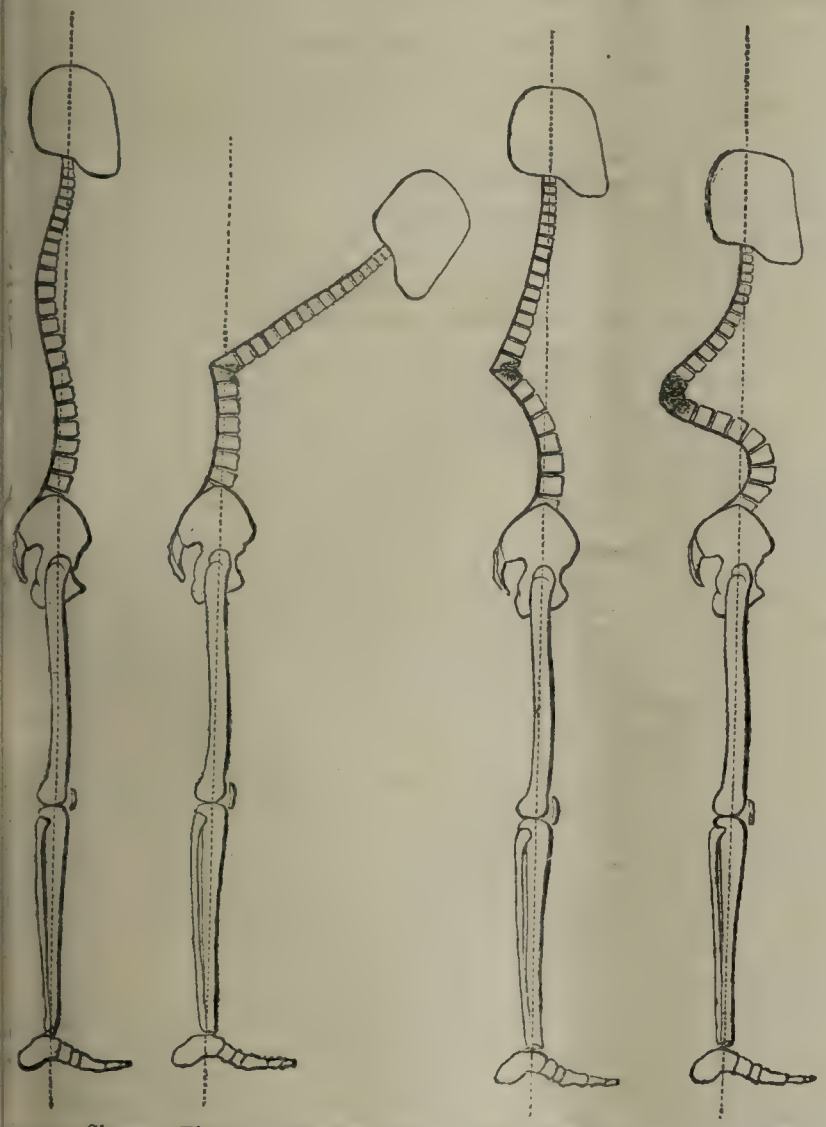
In order to maintain the spine in the good position which it has assumed by recumbency, it is necessary not only to preserve the extended position of the portion of the spine *above* the disease, but also to prevent the part *below* the disease from arching backwards.

The means of treatment at our disposal are the following: 1. Recumbency: *a*, in the supine position; *b*, in the prone position; 2. Spinal supports: back-splints, etc., in conjunction with recumbency; 3. Plaster-of-Paris, felt, and other jackets, without recumbency.

It has been asserted that, by confining the patient to the recumbent posture, especially in scrofulous cases, the general health will suffer. Experience, however, proves the fallacy of this opinion; for, if recumbency be thoroughly carried out, and the spine also fixed in a good position, the health of the patient immediately and rapidly improves. That the patient should be able to take exercise in the open air, and

* Paper read at the annual meeting of the British Medical Association at Cambridge, August 1880, and reprinted in the JOURNAL for June 25th, 1881.

hat most of the inconveniences, troubles, and expenses of the sick-oom should be done away with, are the points urged in favour of reatment without recumbency. But if, to gain these advantages, we in the risk of interfering with the progress of the disease towards re-overy, ought we not to hesitate before adopting such a mode of reatment? Fresh air and exercise are very valuable adjuncts to the reatment of delicate subjects. Fresh air can and should be afforded o patients with diseased vertebræ; but exercise, if it moves the dis-ased structures, is surely contraindicated in the acute stage of this isease.



g. 3. — Showing the natural Curves of the Spine.

Fig. 4. — Showing the disturbance of Equilibrium from Caries.

Fig. 5.—Showing the usual position of the curves in a case of Caries when the Body is held erect.

Fig. 6. — Showing the position of the Curves in a more severe form of Caries than in Fig. 5.

Although urging the desirability of recumbency in these cases, am well aware that, in a large number of instances among the oor, absolute recumbency cannot or will not be carried out; id then the surgeon must content himself with fixing the spine thoroughly as possible. But fixation of the spine, combined ith recumbency, is probably the best mode of treatment which we in adopt.

The plan of treatment for fixing the spine which is most popular in e present day is, as the reader knows, Sayre's plaster-of-Paris jacket. nce the introduction of this treatment, a large number of children roughout the country, who before that time had received no remedy all, have been greatly benefited (temporarily at least) by this means treatment; and there can be no doubt but that this plan, or some odification of it, will yet be the means of curing some cases, and of mporarily benefiting many others. Nevertheless, I do not believe it is e best plan which can be employed; and I shall now point out some the disadvantages which belong to it.

1. The surgeon is unable to watch the progress of the disease; id, therefore, the angle may increase (from extension of the ries), abscesses may form, and ulcerations occur without his or e patient's knowledge;* and, as the progress of the disease cannot be watched, the surgeon has no indication for the readjustment of the bandages.

2. Perspiration is checked, and, among the poor, vermin may congregate beneath the casing.

3. It interferes with, or prevents, thoracic respiration, and so favours collapse of the thoracic walls.

4. It retards the growth of the whole trunk, and especially of the thorax, and may thus cause considerable mischief when worn for three, six, or even sixteen to twenty months, without removal.*

5. Suspension is dangerous, and the position which it produces is not maintained by the bandage.

In fact, although the support given by the jacket may be sufficient to relieve the patient from much pain, and allow him to run about, it is not sufficient to prevent enough movement of the spine to cause irritation of the diseased bones.

The use of the plaster-of-Paris jacket, when compared with no treatment at all, or when compared with that very inefficient mode of treatment—recumbency in bed, without any special means for fixation of the spine—appears in many cases at first remarkably satisfactory; but at the same time it is not perfect, and is not the best means of treatment which we have at our disposal.

The majority of the old-fashioned spinal instruments are very cumbrous, very complicated, very expensive, and are inefficient as spinal supports. They are nearly all formed upon the principle of propping up the body by means of crutches beneath the arms, a plan which never thoroughly succeeds, because the arms allow of so much perpendicular movement that fixed points are not obtained.

Back-splints of leather and other materials, moulded to the body, may, with great care and attention, serve every purpose that is required; but the apparatus which best fulfils all the requirements of these cases is that invented and used by Mr. E. J. Chance, at the City Orthopædic Hospital, and which I have named the "Skeleton Adaptable Metal Splint." It consists of two light metal bars passing from a pelvic belt upwards, one upon each side of the spinous processes of the vertebræ. These bars are bent to accord with the angle

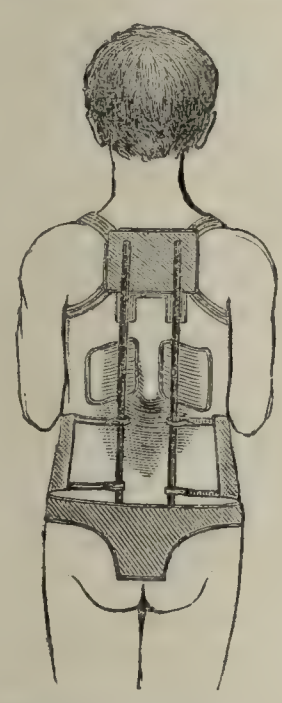


Fig. 7.—Posterior View of the Splint in Position.

Fig. 8.—Postero-lateral View.

of deformity, and they reach as high as the second or third dorsal vertebra. Fixed to the upper ends of the bars is a pad, to which is attached shoulder-straps. At the angle of deformity, each bar is separated from the back by a pad. Between the angle and the pelvic belt is another pad, to which is attached straps, which extend to an abdominal belt. Between the projecting portion of the spine and the pelvic belt, the bars do not fit into the curve of the back, as it is not desirable to perpetuate that curve, but, upon the contrary, it is of advantage to control the tendency to curvation, and the abdominal belt acts in such manner (Figs. 7, 8).

The effects of this splint are as follows. 1. It fixes the spine in a good

* I have seen instances of each of these occurrences.

† Even if the jacket be removed and reapplied frequently, still, growth is not permitted to proceed, because the evil is kept up by the reapplication of the jacket.

position; the mechanical bearings being shown by the arrows in the figure (9). 2. It favours thoracic respiration (a very important point in severe cases). 3. It can be accurately adjusted and readjusted by the surgeon himself. No other apparatus that has yet been made generally known possesses these qualities, and all others have disadvantages which do not belong to this one.

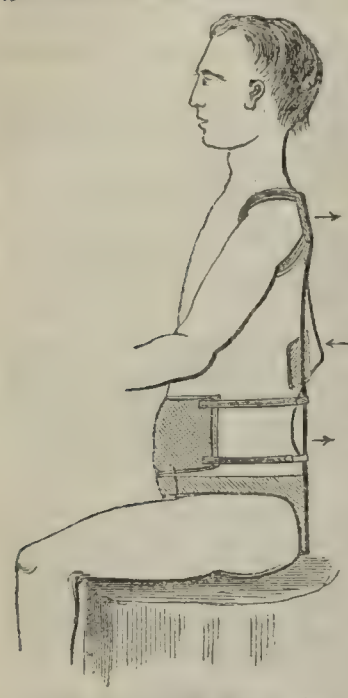


Fig. 9.—Lateral view of the Splint in Position.

With regard to the adjustability of this splint, it may be observed that, although the spine may be fixed in a good position upon one day, it does not necessarily follow that it will be desirable to attempt to maintain it in that position until the disease has ceased, and the bones have become ankylosed. On the contrary, resolution is almost sure to be accompanied by a slight and gradual alteration of the position of the bones; and it is for the frequent adaptation of the splint to these alterations of the diseased spine that the skill and ingenuity of the surgeon are required.

Good results, as the reader well knows, are often obtained when the spine is fixed by other forms of apparatus than that which I have described, and in all cases a good result doubtless depends chiefly upon the care and attention which is bestowed upon the case, both in the surgical treatment and in the nursing; but at the same time the more efficient the mechanical apparatus the greater chance will there be of a cure resulting, and, practically as well as theoretically, the splint described in this paper is, I believe, by far the best which we have at our disposal.

Dr. C. F. Taylor's antero-posterior support somewhat resembles in appearance the splint described above; but it differs from it in many important points. Dr. Shaffer's modification of Dr. Taylor's splint appears more likely to prove useful for controlling the spine; but both Dr. Taylor's and Dr. Shaffer's instruments are very inferior to the apparatus which is advocated in this paper. So long as the disease remains in an active condition, the patient ought to be kept constantly in a recumbent position.

The superiority of the prone position over any other was long ago shown practically by Verrall.

Mr. Chance has carried out this plan of recumbency ever since Verrall's time, and Mr. Erichsen has for many years recognised its value. The best proof which I can offer as to the superiority of this plan, is the fact that the patients almost invariably experience much more comfort in the prone than in any other position, especially if they be placed upon a suitably made prone couch. And at the present time I have a patient with a very severe degree of caries, who, when I first saw him, was resting upon his elbows and knees, and who had remained in that attitude (which he had assumed voluntarily) for more than six months.

THE EARLY DETECTION AND TREATMENT OF SPINAL CARIES.

By EDMUND OWEN, F.R.C.S.,

Surgeon to St. Mary's Hospital; Senior Assistant-Surgeon to the Hospital for Sick Children, Great Ormond Street.

An affected spine too frequently receives no offer of therapeutic aid until its pathological bankruptcy is declared; whereas, judicious assistance, afforded at the proper time, might have spared a shameful collapse. In the early and comparatively obscure stage of spinal disease, the surgeon is too apt to assume a hopeful attitude, or to temporise; and then, later on, when a projecting spinous process appears, to say: "'Tis as I feared; there is disease of the spine." So angular curvature has come to express spinal disease; and spinal disease is expected to manifest itself by angular deformity. Such an association of ideas is most unfortunate. Surely, the angular deformity is the one sign of spinal disease which our treatment itself should aim at precluding.

Let me give a parallel instance of a disease and diagnostic sign, with a similarly unhappy association. One's opinion is asked as regards the practicability of operative interference in mammary scirrhus, which has advanced so far that the mass adheres to the chest-walls, or the skin is bound down to the ribs. On suggesting that the case is past all surgery, one is told that the enlargement of the axillary glands—that confirmation of the diagnosis of malignant disease—has only recently taken place. Unfortunately, the attendant has waited for the lymphatic invasion before deciding on the malignant nature of the breast-tumour: just as he might have waited for the angular curvature before diagnosing with certainty the spinal caries.

And I will now venture to institute another comparison—viz., between the spinal column and the knee-joint. In the latter cases, we have a short series of bony segments with intervening layers of cartilage; in the former, a long series. I will grant that the knee-joint is much more accessible, both for the purpose of examination and treatment, than are the spine-joints: for, in the lumbar and dorsal regions, the joint-segments lie well within the ventral and thoracic cavities, the better to support the superimposed weight; indeed, one can only just get at the tips of the spinous processes between the masses of the erector spinæ. Side by side let us trace through the various stages, from their very beginning, a case of knee-joint disease and one of spine-disease.

The two children, who are the subjects of them, may have been healthy; they may have been strumous; but, some months ago, one of them fell from a cart: that is the spine case. A few days ago, a boy was pushed down and hurt his knee. Let us watch this patient. He does not run about as he used to do, because his leg (not necessarily his knee) aches. He does not know exactly where the chief trouble is; children are not clever at locating pain; but, when he stands, he bears all his weight upon the other leg. The boy with the traumatic inflammation of the spine also complains of obscure aches and pains, which are very probably ascribed by his parents to "rheumatism", and perhaps even treated as such. It may be that the pains are referred to the chest, belly, or limbs, from irritation of the trunks of the nerves as they are passing out from the spinal cord. He does not care to run about, but complains of feeling tired, and lies near his mother, or on the hearth-rug. When he stands, he eases the inflamed joints by resting his arms over a chair, or anything else that may support him; and when he sits at meals, regardless of manners, he plants his elbows on the table, and supports his chin on his hands. If he be a little mite, he hooks his chin over the edge of the table. Very likely he cries when he is lifted off his chair or taken out of his bath. As he stands, he props himself up by grasping the thighs, just above the knees. But, as yet, there is no definite spinal projection.

Let us now return to the knee. Later on, its function becomes impaired. It refuses to work during progression, remaining always slightly bent, so as to save pain and jarring—and the patient limps along on the tips of his toes. Effusion has taken place; and the flexor muscles are assuming a condition of permanent contraction, partly because the flexed state of the joint minimises the intra-articular pressure, partly that there may be the least chance of a jarring together of the inflamed synovial or osseous surfaces.

So also with the spine, does flexion eventually come on: partly from muscular action, partly as the result of disintegration of the vertebral segments. But the definite angular deformity, as in the case of the diseased knee, is but a late sign of the occurrence of inflammatory changes. Now, what should we think of a student who was unable to diagnose knee-disease before the joint had permanently assumed the appearance of a fiddler's elbow?

If still we have not made up our mind as to the presence of the spine-disease, let us watch the little patient come down stairs, noticing how he eases himself down by the rails; let us see if he will jump from the bottom stair, or if he can touch his toes without bending his knees. Or, let us find out what has become of his hoop, top, or marbles, according to the season of the year: for children's out-door games succeed each other in regular chronological order. He has not lost his active appreciation of boyish delights, simply because he has "growing pains" or "rheumatism". Indeed, when he is eventually placed on his back in bed, he will have his whip or top put where he can watch it.

It may possibly be thought by some that much of this which I am now detailing is irrelevant to the subject of the early detection of spinal disease, or, at least, of so trivial a nature as to be unworthy of serious attention. I must, however, insist upon the urgent necessity of giving heed to these little matters. They are the straws which show the direction of the on-coming breeze; when the pathological storm is raging almost any one can read the weather. To those who interest themselves in the ways of healthy as well as of sick children, these little matters are full of indications and suggestions. Unlike adults, children cannot often afford the surgeon much direct aid in making a diagnosis; but they are not, on the other hand, malingerers. The art of shamming illness does not usually manifest itself before they begin to experience the obstruction of the fifth proposition of the first Book of Euclid; or until, in some way, their little educational burden is becoming intolerable. Therefore we must never refuse to listen to, and search out the cause of their oft-repeated complaint: "Oh, mammy, my belly does ache!"

"My neck is so sore." Such phrases should rather make the mother, or at any rate the surgeon, apprehensive; and the child should be stripped stark naked and thoroughly examined, on several occasions if necessary; for, as Howard Marsh says, although angular curvature may not be detected in a suspected case, still it must not be concluded that the spine is sound.

On hearing that a child has slight and obscure pains, which we may attribute to the result of an injury to the spine, one must be particularly careful not to treat the case lightly. One is inclined to say to the mother: "I do not think it serious." But, often, rest is as necessary as if one could see with the naked eye incipient osseous changes.

The earlier the treatment is begun, the better. Better even that two boys should be treated for spinal disease, where, after all, no disease existed, than that treatment should be delayed for a third boy, because the symptoms of the disease were not unequivocal.

And now a few words as regards treatment. In my opinion, the best method consists in placing the child at once on his back, on a firm flat horse-hair mattress, without a pillow. And there he must be kept, lying in absolute rest—by means of armlets, if necessary—for an indefinite time. If the disease be taken at the onset, that is, in the stage of inflammatory osteitis, a few weeks' rest may have the effect of causing the surgeon to wonder if his original and early opinion was, after all, correct. So much the better. But, if it be a matter of months, the small mattress may be carried out into the garden as a litter, or put upon an easily going wheel-chair. Later on, a plaster-of-Paris jacket should be carefully moulded over the trunk, from just above the great trochanters high up into the arm-pits; but no suspension need be used.

There is, in my opinion, no better splinting that that afforded by a Sayre's jacket, though that may be a matter for discussion. But I will insist on this: that, if a jacket be put on the child with early spinal disease, the patient must still be kept in bed, or else we are not obtaining for it that near approach to absolute rest of which we all talk so much. Little children do not fret, or become thin, because they are kept in bed; they are, when well managed, as patient as those of maturer years. The head of the bed may be raised by blocks beneath the legs, so that the inmate may get a better view of what is going on around him.

The treatment of the later stage of spinal disease, I do not here discuss. Indeed, if the early stage receive its proper attention, its discussion will haply include also that of the later stage.

I may go so far, perhaps, as to deal with the disease when the little spinal boss is making its earliest appearance, but no further. Of a permanent angle produced by caries, I will say nothing. It is not found in the early stage. I have heard disciples of my friend, Professor Sayre, lay claim to an ability to straighten such an angle; but I could never admit that even the enthusiasm which they displayed in the question was sufficient palliation for their pretentious and misleading assertion. Hence, at the meeting of the International Medical Congress in London, it afforded me the sincerest satisfaction to hear Dr. Sayre deliberately refuse to entertain the notion, as it also did to hear him admit that suspension is not an essential part of his method.

For the future, let us all recognise this fact—when we are encasing the body of a child whose spine is inflamed or carious—that we are simply treating the diseased vertebræ as we should treat the tarsal or carpal segments when similarly affected, viz., by securing for them the nearest approach to that absolute physiological rest of which our Hilton was the High Priest. And let us stretch our hand across an Atlantic ocean, which, under the influence of science and scientific gatherings, is yearly becoming less worthy of the adjective "wide", to give fraternal greetings to Professor Sayre—a fellow-workman, who has systematised and has brought to us a practical means of helping those countless children whom we had almost begun to regard as surgical outcasts.

THE TREATMENT OF LATERAL CURVATURE OF THE SPINE.*

By BERNARD ROTH, F.R.C.S.Eng.

A MOTHER notices that a shoulder or a hip is beginning to grow out in a child, generally a girl at the onset of puberty. The family doctor is called in; the patient is stripped, and the trunk flexed. If there be no decided or marked irregularity in the bent spine, the parent is assured that the patient "will grow out of it"; and that nothing special need be done, except, perhaps, lying down daily for a short time. I have heard this story frequently when examining a case of incurable spinal curvature which had developed in the course, of one, two, or more years. It is, however, precisely at the time when there is no decided or marked osseous deformity, that complete cure is possible. Before pronounced osseous lateral curvature can occur, it must gradually pass through many intermediate stages from the time when the patient first began to assume a temporary vicious position of the trunk. The position of writing, as generally practised, is, more frequently than anything else, an initial cause of lateral and other curvatures not due to caries. The much larger proportion of girls than of boys affected, is due to the fact that girls do not enjoy, as a rule, one-fourth of the usual amount of physical exercise allowed to boys. Their muscles become weak; and, although they sit no worse than boys at their lessons, they have not sufficient strength to hold themselves erect, and to restore the balance of their curved backs out of school-hours.

After a careful examination, before the patient is allowed to dress, it is essential to ascertain to what extent the spine can be restored to its normal position, by a voluntary effort with the help of the surgeon. Although attention is first directed to the improvement of the lumbar curvature, any position that increases the upper lateral curve, if present, should be avoided. One arm directed and held upwards or outwards at a higher level than the other, is very frequently useful in helping to restore the symmetry of the trunk. Sometimes the best result is obtained by both arms being raised vertically by the side of the head, while avoiding undue elevation of the scapulæ. This best position of the patient's trunk and arms for improving the spine, is the "key-note" of the exercises to be practised during treatment. It is extremely important to note whether any article of dress is too tight across the front of the chest, when the patient is holding himself in an improved position; the stoop of a scoliotic patient is often confirmed by closely fitting garments. This remark applies not only to the clothes worn by girls and women, but also to the shirt-collars, waistcoats, braces, buttoned coats, and overcoats of boys and men.

The treatment of lateral curvature should embrace the following points. *a*. The spinal muscles should be sufficiently strengthened, so that the patient can maintain an erect or improved position for an indefinite time, whenever required, without extra effort. *b*. The thorax should be developed by systematic breathing and methodical exercise acting directly on the ribs. *c*. All causes increasing or perpetuating the spinal curvature must be removed; that is, bad positions must be avoided, and good ones prescribed. *d*. The general health should be improved by attention to diet, by a daily morning bath, by tonics if necessary, and by as much open-air living as possible. The spinal muscles are strengthened by means of "medical gymnastics" (Swedish movements)—a scientific system of gymnastics based on anatomy and physiology. By them it is possible to bring any desired group of voluntary muscles of the trunk and limbs into regulated contraction, as slight or as severe as may be required. In many of these exercises, the position of the limb or of the trunk assures a sufficient amount of resistance to be overcome by the contracting muscle; while in others the resistance is given by the surgeon. The erectores spinæ muscles can be easily and thoroughly brought into action while the patient is either lying, sitting, or standing. Space does not permit me to describe more than two or three such exercises in detail. Let a patient lie prone, with the pelvis and legs supported, and the heels fixed on a padded table, while the head and trunk to the level of the iliac crests project beyond the edge of the table. The back-muscles must contract forcibly to enable a patient in this position to slowly raise his trunk into the same horizontal plane as his legs and pelvis, and to maintain that position for ten or twenty seconds, and then as slowly to allow his trunk to be flexed again by its own weight. The surgeon can easily increase the exertion, if required, by more or less pressure with one hand at the back of the patient's head or neck. During this exercise, which is repeated from four to eight times, the trunk and arms may be in any required posture. A less severe exercise for the erectores spinæ muscles is for the patient to lie prone on the floor or on a table, and, while the trunk is immovable, to describe slowly a circumduction, first of one hip and then of the other, while the knee is kept fully extended. The contraction of the erectores spinæ can be felt by placing the finger on them; they are forced to contract to steady the pelvis. The amount of exertion can be increased by a pressure of the surgeon's hand on the heel. If the back-muscles be very weak, and the weight of the leg be too great, the surgeon can partially support the limb during the circumduction. A third exercise for the same muscles is for the patient to sit erect, astride a narrow table. The surgeon, with one hand against the back of the patient's head, gently presses him forwards, he having been previously requested to yield gradually in the lumbar vertebræ. As soon as the trunk is flexed at an angle of 50° or 60°, the patient stops, and then returns slowly to the previous erect posture; the surgeon in his turn gently resisting with the hand at the back of the patient's head.

The following is a prescription of exercises, which, with a few modi-

* Portion of a paper read at a conjoint meeting of the East and West Sussex Districts of the South-Eastern Branch.

fications according to circumstances, is used at the commencement of the treatment of all cases of spinal curvature not due to caries. It consists of twelve exercises, between each of which the patient has to rest for a minute or two on a couch with movable back, of which I gave a description with an illustration in the JOURNAL of March 5th, 1881. It has a wedge-shaped cushion, the lower end of which fits the hollow of the back.

"1. Lying on back, arms by the sides of the body, hands supinated; very slow deep inspiration by the nose; expiration by the mouth. (Repeated four times.)

"2. Similar exercise, with the arms extended upwards by the sides of the head.

"3. Same position as (1); head-rotation on axis to right and left alternately; also lateral flexion of head to right and left alternately. (Repeated four times.)

"4. Lying on back; simultaneous circumduction of both shoulder-joints from before backwards; elbows and wrists kept extended. (Repeated twelve times.)

"5. Lying on back; one hip-circumduction both ways; knees kept extended. (Repeated ten times.)

"6. Lying on back; simultaneous extension of arms upwards, outwards, and downwards, from a position of the elbows flexed and close to the trunk. (Repeated four times.)

"7. Lying prone; one hip circumduction both ways; knee kept extended. (Repeated ten times.)

"8. Sitting on couch, with back at an angle of 45°; ankle-circumduction down, in, up, and out, while the toes are directed inwards the whole time. (Repeated thirty times.) (For flat-foot.)

"9. Lying on back, with arms extended upwards by the sides of the head; flexion of both arms (surgeon resisting), followed by extension (patient resisting). (Repeated six to eight times.) (The patient's knees, flexed over the end of the table, fix his trunk.)

"10. Patient astride a narrow table, with arms down and hands supinated; trunk-flexion at lumbar vertebræ (patient resisting), followed by trunk-extension (surgeon resisting). (Repeated six to eight times.) (Already described in detail.)

"11. Patient, with arms extended upwards, leans against a vertical post with pegs on each side; these he grasps. The surgeon gently pulls the patient's pelvis forwards by his hands on the sacrum (patient resisting); and then the patient returns the pelvis to the mast (surgeon resisting). Also pelvis-rotation on its axis to right and left alternately (surgeon resisting with his hands on each side of the pelvis). (Repeated six to eight times.)

"12. Lying on back, with head and neck projecting beyond the end of the table; the head is gently flexed by the surgeon's hand on the occiput (patient resisting), followed by head-extension (surgeon resisting). (Repeated eight times.)"

The last four exercises are personally carried out by the surgeon, while trained female assistants do the remaining eight under his supervision. Six to twelve firm longitudinal strokings, from above down, of the patient's back by the assistant's two palms generally remove any aching caused by the exercises. These strokings are also usefully employed at home to relieve backache. The prescription requires about an hour, after which the patient rests a few minutes before leaving. Several of the simpler exercises have to be practised at home for about fifteen minutes twice daily.

The removal of all causes perpetuating or aggravating the spinal curvature is most important. For reading and writing, a high-backed chair, with the back reaching to opposite the shoulder-blades and slightly moulded to the trunk, is required. The patient should sit with the sacrum as well as the scapulæ in contact with the back of the chair; the spine can thus be kept in an erect position with slight effort. The desk or table, sloping at an angle of 15° for writing and of 40° for reading, should be movable in a horizontal plane, so as to be brought over the patient's thighs. A Glendenning's adjustable modern school-desk, manufactured by a Darlington company, satisfies all the above requirements. In sitting, the thighs should be evenly placed on the seat of the chair, and never be crossed, as this throws the centre of gravity of the trunk to one side, and aggravates any curvature present. For severe cases of curvature, the couch with movable back already mentioned is to be preferred. Scoliotic patients should not stand more than is absolutely unavoidable, and then with the feet at least six or more inches apart. Walking, short of a fatigue which cannot be completely recovered from, after fifteen to thirty minutes' rest, is beneficial, as the back-muscles are being constantly brought into action while it lasts. If there be any relaxation or falling-in of the arch of the foot, anatomically shaped laced boots, with felt valgus pads, and with no heels, or only low broad ones, are necessary. Out of fifty consecutive cases of lateral curvature in private practice, I found that thirty-two had relaxed feet, some very severely.

More or less difficulty is experienced in convincing the patient that his habitually crooked position, with the head poking and on one side, and his trunk twisted and curved, is wrong, although natural and comfortable to him. It is still more difficult, and great perseverance is necessary, to convince him that the improved position which he is shown, is really an improvement; because, if he trusts to his own sensation, he is at first under the impression that he is more crooked than before. In these cases, I find a looking-glass frequently of much service.

I have not said anything about the mechanical treatment of lateral curvature, because no steel or plaster or poroplastic support should be prescribed, as long as there is any possibility of placing the patient in an improved position, and of his maintaining this by a voluntary muscular effort for even a few seconds. A spinal support must interfere with the natural expansion of the thorax in respiration, if efficient pressure is to be exerted in attempting to replace a spinal curvature. The following remarks, published in the *Transactions* of the late International Medical Congress (vol. iv, p. 171), express my views of Sayre's treatment. "I cordially agree with everything that has been said in favour of Dr. Sayre's plaster jacket for the treatment of spinal caries. .....With reference to lateral curvature of the spine,.....it is very difficult, from what has been both written and spoken by Dr. Sayre, to understand to which stages of lateral curvature he refers. I constantly examine cases of lateral curvature which, at the first glance, appear very badly deformed.....yet.....it was quite possible to restore the apparently deformed spine back into a perfectly normal shape, and for the patient to retain this position for a few seconds; the fact being that there was no real osseous deformity, only a relaxed vicious position of the bones, ligaments, and muscles. I challenge Dr. Sayre or any of his disciples to exhibit, at a London medical society, a case of lateral curvature with osseous deformity of the vertebræ and ribs, even to a very moderate amount—but it must be there—and then to exhibit the case again within six or twelve months, as being cured by his treatment. Daily suspension by the head does not strengthen or exercise the muscles, as maintained by Dr. Sayre; it is against common sense. If you wished to strengthen a weak or flabby biceps muscle, surely you would not put the arm in a plaster bandage with the elbow fully extended, and then hang the patient repeatedly daily by the hand of the imprisoned limb. I have seen several patients with osseous lateral curvature who have been daily suspended by the head for months; and, if Dr. Sayre's theory were true, at all events the neck-muscles should have been strengthened, as they are most severely acted upon by the extension from the weight of the body; but nearly all poked their head as much as ever.....Sayre's jacket is only of use in lateral curvature in cases of extreme osseous deformity, in supporting and giving relief to the patient, and in preventing the deformity becoming worse; also in cases of paralytic lateral curvature."

In the JOURNAL of December 6th, 1879, is an article on "the Influence of Sayre's Treatment on the Spinal Muscles", in which I maintained that the muscles waste from want of exercise. Dr. Sayre soon after published a lecture criticising this opinion, and proposing a still worse modification of his treatment. After a patient with lateral curvature had worn the plaster jacket for some weeks, till it became loose (in his opinion, because the spine was straighter; in my opinion, because the ribs were more compressed), he advised the jacket not to be removed, but a wedge-shaped piece to be cut out over the prominent ribs behind, and the two sides of the vacant space to be forced together by a fresh bandage tightly applied, and this process to be repeated two or three times at intervals. It seems strange how such a treatment could be advised, as it is only another form of tight lacing applied to a deformed trunk.

To return to the treatment I have recommended, and its results. More or less decided improvement is nearly always obtained within a month of daily treatment. Cases without osseous deformity are sometimes even quite restored in this time, but every care must be taken to avoid injurious positions, and prescribed exercises must be practised at home for some months afterwards, to prevent relapse. In cases with a moderate amount of osseous deformity, about three months' daily treatment will, on an average, give a satisfactory result, but complete cure here is not possible.

To sum up, the points I insist upon in this paper are these.

1. A more careful description of the stage of lateral curvature is required, including the mention of any osseous deformity if present, and whether the patient can be at once restored to the normal position, or, if not, to what extent.

2. If osseous deformity be present, even to a slight extent, complete cure is impossible.

3. Many cases of apparently severe lateral curvature have no osseous deformity, and can be at once restored temporarily to a normal position.

4. A patient with confirmed lateral curvature, with or without osseous deformity, is so habituated to the vicious position, that attempts on his part to improve the spine, except with the help of the surgeon's instructions, generally increase the deformity.

5. Exercises of the spinal muscles, with and without resistance, by the surgeon or an assistant, while the patient is in an improved position, are absolutely necessary to the rational treatment of spinal curvatures not due to caries.

6. Good positions should be always assumed, not only at meals and at lessons, but whenever otherwise occupied. This is practicable in slight cases, even with ordinary backed chairs; in some cases, a couch, with horizontal seat and movable and moulded back, is necessary.

7. A moderate amount of walking, short of much fatigue, is beneficial.

8. Lying prone or supine does not tend to cure lateral curvature, as it does not strengthen the spinal muscles. Lying for a quarter or half an hour is useful when it rests the patient; but, if it be continued for several hours daily, only harm results from the physiological activity of the spinal muscles being prevented.

9. Sayre's plaster-jacket and other spinal instruments are injurious in all cases not due to caries, where the patient by an effort can maintain an improved position of the spine, even for a few seconds only. Sayre's jacket is only permissible when the sole object is to prevent further increase of extreme osseous deformity.

10. Swinging by the head does not strengthen the spinal muscles, and dates back to the time of Dr. Glisson, more than two hundred years ago. In Germany, "Glisson's swing" has been known and used for many years (see JOURNAL, July 26th, 1879).

11. By all vicious positions being avoided, good ones shown and maintained, and suitably prescribed exercises carefully carried out, better and quicker results are obtained in cases of lateral spinal curvature, than by any other treatment hitherto practised.

I intend publishing shortly an abstract of fifty cases of lateral and antero-posterior curvature treated by me in private practice since January 1st, 1881.

THE TREATMENT OF SPINAL CURVATURE BY MEANS OF THE CUIRASS.

By NICHOLAS GRATTAN, L.R.C.P. & S.Ed.,
Senior Surgeon to the County and City of Cork Hospital for Women and Children.

FOUR years have elapsed since Dr. Sayre's remarkable demonstration on the Treatment of Spinal Curvature by means of Suspension and the use of the Plaster-of-Paris bandage. As he has already written fully on the subject, it may seem presumptuous in me to make any further remarks. It is only, however, after the lapse of some time, that the true value of a remedy can be ascertained. When it is first discovered, those who have faith in it are apt to look on it as the remedy of the age, and to use it on every possible occasion, too often rashly and unwisely; whilst those who do not understand or appreciate it, and who have seen its bad results when it was injudiciously applied, are inclined to deny its value altogether.

Perhaps the man of genius who first discovers a really valuable remedy, and whose intuitive skill will save him from some of the blunders of his less gifted brethren, is not so capable of judging how far it is likely to be successful in general practice, or of seeing the dangers which may attend its indiscriminate use, as the man of ordinary ability who has carefully studied his own and his fellow practitioner's failures and successes. Surgeons all over the world are now called on every day to decide whether they will or will not use Sayre's plaster-jacket, in cases of spinal disease; both surgeons and patients have in many cases a strong prejudice against it.

Having employed this method of treatment both in hospital and in private practice, since Dr. Sayre's visit to Cork in 1877, with considerable success, I venture to make the following remarks as the result of my experience on the subject. I believe the prejudice to which I alluded, is caused by the fact that at first too much was expected from the use of the jacket, by practitioners who had not carefully studied Dr. Sayre's book. Unhappy results have certainly attended its use. These results have followed too severe extension of the spine in cases of caries, especially where ankylosis had already commenced. Serious injury has also arisen in cases of lateral curvature, from a too long continued use of the jacket, which produced atrophy of the spinal muscles, and consequent weakness, owing to the want of proper exercise.

The general impression of all surgeons with whom I conversed on the subject (an impression which I shared for some time), was that Dr. Sayre directed that the patient should be suspended until only his toes touched the ground. Now he does unfortunately say in page 17, "The patient is to be gradually drawn up until the feet swing just clear of the floor", but he proceeds to add most emphatically a little further on, "Do not attempt the impossible: do not try to straighten curved spines, the result of caries, that have become partially or completely consolidated; do not break them up; but simply extend the patient very slowly, until the patient says he feels comfortable; and never extend beyond this point." This caution, more than once repeated, cannot be neglected without the most disastrous results ensuing.

It is an easy matter, in the case of an adult, to extend "until the patient says that he feels comfortable"; but with a young and often frightened child, it is extremely difficult to find whether his comfort is increased or not, except in cases of advanced spinal disease. I would suggest to the surgeon to use his own judgment, while extending, to watch the patient carefully, and to extend *just to the degree which* (when the jacket is applied) *will relieve the spine of the burden it has to bear, and no more.* I believe, as this advice is carefully followed, so will the patient be relieved, without any danger of producing an aggravation of his spinal mischief.

A young delicate child may be often best extended by having his hands held up, so that his elbows are level with the top of his head. The assistant who holds him up can keep the spine steadily extended in this manner while the bandages are being applied, if his own hands be supported by passing them through the axillary supports of the extension apparatus.

The extension apparatus which I prefer, is that manufactured by Cocking. The neck appliance, being of soft felt, does not hurt, and the head and the axillary supports can be regulated with the greatest nicety and ease.

At the Children's Hospital, we occasionally extend the children over the backs of two chairs, a pillow being placed under the child's shoulders and hips; the chairs are slowly separated to the required extent, and the bandages are easily applied. Hammock-extension I have found satisfactory with children; I had, however, the misfortune to injure an adult by its use; while in the hammock, he suffered so much pain from over-extention that he had to be at once lowered. I suspended him according to Sayre's method the following day, and applied a jacket. This gentleman is now quite well, having constantly worn a cuirass for eighteen months. With any weight such as that of an adult, there is a tendency in the hammock to sag in the centre; owing to this, I do not see how the danger of over-extension with this appliance can be avoided.

Whilst prolonged rest to the spine, procured by the continued use of the plaster-jacket, is essential for the successful treatment of Pott's disease, I hold that the long continued use of any jacket in cases of lateral curvature, (where caries does not exist), is injurious. Very many of these cases are best treated by means of self-extension without the aid of any mechanical appliance; but when the curvature is severe, in order to enable the patient to exercise in the open air without pain, some external support must be worn during the day. In treating these cases, I have found Cocking's felt jacket, or the plaster-jacket with a lacing arrangement, of great service. It is necessary to impress on patients suffering from lateral curvature the importance of suspending themselves as frequently as possible, and never less than three times a day. Before retiring to rest, the jacket should be taken off, and reapplied each morning, while the patient is suspended. This treatment, with fresh air and attention to the health, has always proved beneficial. With regard to extension, I have found it nearly impossible, on account of the trouble and expense involved, to make many of my patients use a neck suspension-apparatus, as recommended by Dr. Sayre; they will not take the trouble. I am more successful when I desire them to procure a piece of round timber suspended from the ceiling by a rope, just like a trapeze, from which to swing by the hands several times a day; this I can get them to do. They enjoy the exercise; but nearly all, more especially children, object to use the neck-piece. Nevertheless, where the curve is high up, I insist on the neck-piece being used, and self-suspension practised, strictly according to Dr. Sayre's directions. With regard to the jackets, I believe that Cocking's felt jacket, if worn at night, becomes soft.

The plaster-of-Paris jackets, whether used for caries of the spine, or for lateral curvature, I generally cut down and lace, according to the method described by me in the *Lancet* of November 20th, 1880; by so doing, I can more readily arrange the pads, or remove any portion I think likely to press upon projecting parts. Jackets laced in this manner will be found even stronger than before they were cut, and they can be removed at intervals for the purpose of cleaning the patient. I seldom use a dinner-pad, but make my patients have a good meal before operating. I believe the hips are best padded by sewing two or more layers of thick flannel outside the skin-fitting vest; but I find that the less I pad my patients, the better their jackets fit. I have had much loss of time and disappointment with my plaster bandages. Sometimes a

jacket would harden properly; sometimes, when I was most anxious to have matters all right, I found them to fail. At first I ascribed it to the dampness of our climate affecting the plaster-of-Paris, but no amount of care, with regard to keeping the plaster dry, appeared to improve matters. A short time ago, I came to the conclusion that the cause of the trouble existed in the bandage muslin. I had the muslin boiled, washed, and dried before I cut it into strips, in order to remove the dressing: the plaster-of-Paris was then well rubbed into it. It became very hard when wet, and made an unusually excellent jacket. I am happy to say I have had no disappointment since, with any of the bandages prepared in this manner.

I have been so often annoyed with jackets failing to harden properly, that I adopted the plan of making a miniature test-jacket before operating. This can be done by rolling ten or twelve layers of wet plaster bandage round a pint bottle; when it has set, it is cut down longitudinally. In half an hour it will have hardened, and it will be known if the other bandages similarly prepared will give satisfaction or not. It may be well for me to add that the plaster-of-Paris, which adheres so persistently to the hands and nails, can be easily removed by rubbing them with a little moist sugar.

ABSTRACT OF LECTURES
ON THE
ANATOMY, PHYSIOLOGY, AND ZOOLOGY OF THE EDENTATA.

Delivered at the Royal College of Surgeons of England.

By W. H. FLOWER, F.R.S., LL.D.,
Hunterian Professor of Comparative Anatomy.

Lecture II.—Anatomy of the Bradypodidæ.

In studying the anatomy of the Sloths, it is extremely important to bear in mind the distinction between the two genera indicated in the last lecture, as it is not only in the number of toes of the fore-feet, but throughout their internal structure, that important differences are to be found.

The skull of the three-toed Sloth (*Bradypus*) is high and compressed, with an extremely short face. The cranial cavity is oblong, elevated, and narrow. The olfactory fossæ are large. The plane of the occiput is vertical, or slightly sloping forwards and upwards. The frontal region is dilated with air-sinuses. The lacrymal is very small, and the canal is external to the margin of the orbit. The malar is attached to the frontal, lacrymal, and maxilla in front, curves downwards and outwards, and then divides into a descending and a high ascending branch; but neither of them joins the straight zygomatic process of the squamosal, the arch being thus incomplete. The nasals are short and wide. The anterior nares are nearly vertical, or rather inclining downwards. The premaxillæ are exceedingly rudimentary, only the palatal portion being present, without any ascending process; they unite with each other across the middle line, but not with the maxillæ, hence they are generally lost in macerated skulls. The palate is narrow, especially posteriorly, and not produced behind the molar teeth. The pterygoids form large plates with prominent rounded branches, compressed in some and inflated in other species. The glenoid fossa is narrow from side to side. The tympanic, squamosal, and periotic are ankylosed together, the former dilated into a bulla, but not forming a tubular meatus.

The skull of the two-toed sloth (*Cholœpus*), though generally similar, presents some marked deviations. Even in aged specimens, in which almost all the sutures are obliterated, the tympanic is a mere ring, incomplete at the upper margin, and but slightly connected with the bones around. The premaxillæ are more developed, and become ultimately ankylosed into the maxillæ. The upper margin of the mandible is produced anteriorly with a spout-like process.

The vertebral column presents many peculiarities in both genera. As is well known, in almost all mammals, the number of vertebræ in the region of the neck is seven; but, in all known species of three-toed Sloths (*Bradypus*), there are nine, *i.e.*, nine vertebræ in front of the one which bears the first thoracic rib (or first rib connected with the sternum, and corresponding in its general relations with the first rib of other mammals); but the ninth, and sometimes the eighth, have a pair of short movable ribs. The eighth is perforated by the vertebro-arterial canal, but not the ninth. The common two-toed Sloth (*Cholœpus didactylus*) has seven cervical vertebræ, but a closely allied species (*C. Hoffmanni*) only six. Thus, within this small group, we have examples of the ordinary number, and of two distinct deviations from it, one in the direction of excess, and the other of deficiency in the vertebræ of the cervical region. The trunk vertebræ are numerous, especially those bearing ribs, the lumbar region being short. *Bradypus* has twenty altogether, of which from fifteen to seventeen are dorsal. *Cholœpus*, twenty-seven, of which twenty four may bear ribs, the numbers varying slightly in different individuals. The vertebral column generally is remarkable for the extremely broad flat laminæ and very short neural spines, lying backwards on the next succeeding vertebræ throughout the whole column down to the sacrum. The shortness of all the processes is in relation to the absence of function of the dorsal and lumbar muscles; the Sloth never running, jumping, or propelling itself with its hinder extremities, but merely hanging with its back downwards, below the boughs of trees, locomotion being chiefly effected by dragging itself forward by its fore-limbs. A character which does not appear to be adaptive, and is therefore more significant of affinities with animals to be spoken of hereafter, is a small backward projecting process (anapophysis) on the laminæ of the lumbar vertebræ (best seen in *Bradypus*), which has a synovial articulation with the succeeding vertebræ, a sort of accessory articulation in addition to the normal zygapophysis. The sacrum is elongated by the incorporation of many of the caudal vertebræ, with which the innominate bones contract second union in the ischial region. The free caudal vertebræ are very few: four to six in *Cholœpus*, and ten or twelve in *Bradypus*.

The skeleton of the limbs presents many points worthy of attention. In the young of both genera, the acromion is a long strip of cartilage connecting the spine with the end of the coracoid, while the coracoid border of the scapula and the coracoid bone join each other in front, converting the coraco-scapular notch into a small oval foramen. The acromion and coracoid remain united at their extremities in *Cholœpus*, but in *Bradypus* the acromion gradually becomes reduced in size, losing its connection with the coracoid, and finally remains a mere styliform or slightly flattened process. The clavicle is well developed in *Cholœpus*, attached externally to the loop of bone on the scapula formed by the united extremities of the acromion and coracoid, and internally by the intervention of a ligamentous band to the manubrium sterni. In *Bradypus*, the clavicle is very small, and separated by a long interval from the sternum. It originally articulates at its scapular end, as in *Cholœpus;* but, in consequence of the atrophy of the acromion, it is left attached to the end of the coracoid, in which unusual situation it remains through adult life. It can have no functional effect in steadying the shoulder, which in a climbing animal is rather remarkable; but the action of the Sloth's arm is probably principally directly backwards and forwards. The humerus is long and straight, slender, and cylindrical in the greater part, but flattened and laterally expanded at the lower end. In the two-toed Sloths, it is shorter and broader than in *Bradypus*, and has a large supracondylar perforation, which is wanting in the latter genus. The radius and ulna are long and distinct, and possess a certain amount of power of rotation. The hand is long, very narrow, habitually curved, and terminates in two or three large pointed curved claws, in close apposition with each other—incapable, in fact, of being divaricated; so that it is reduced to the condition of a hook, by which the animal suspends itself to the boughs of the trees among which it lives. The carpus is small, and articulates by a smooth rounded surface with the lower end of the radius. In *Bradypus*, it consists of distinct scaphoid, lunar, and cuneiform bones in the first row, but usually of only two bones in the second row—the cuneiform and a connate magnum and trapezoid, the trapezium being generally ankylosed to the rudimentary first metacarpal. There is also a small rounded pisiform. The first and fifth metacarpals are present in a rudimentary condition, but bear no phalanges. The three middle digits are nearly equally developed. The proximal phalanges are extremely short, and become soon ankylosed to the ends of the metacarpals, so that in adult animals one of the usual bones of the digits appear to be entirely wanting. The middle phalanges are long and compressed; the ungual phalanges are also long, much compressed, gently curved and pointed. Bony laminæ reflected from their bases encase and support the roots of the claws. In *Cholœpus*, the os magnum and trapezoid are distinct. The functional digits are the second and third, and there are rudiments of the first and fourth metacarpals, but not of the fifth. The proximal phalanges are extremely short, as in *Bradypus*, but do not ankylose into the metacarpals. The ungual phalanges are not so long as in *Bradypus*.

In both genera of Sloths, the pelvis is very short and wide, with tolerably broad flattened ilia, and slender pubes and ischia, enclosing a large oval thyroid foramen, the inferior boundary of which, and the extremely narrow and pointed symphysis, are formed by the pubis alone

he spine of the ischium is produced backwards to unite with the ansverse processes of some of the pseudosacral vertebræ, enclosing a .cro-sciatic foramen. The sacro-iliac articulation is commonly anky- sed. The femur is long, slender, and flattened from before back- ards. There is no third trochanter; the head is large and globular, ıd placed near the middle of the proximal end of the shaft, with the ĸis of which it more nearly coincides than in most mammals. The tibia and bula are complete, and more nearly equal in size than in most mammals. 'hey are both curved, so as to be separated considerably, in the middle art of the leg. The ankle-joint differs from that of any other known ıimal, the lower end of the fibula having a conical prominence which ırns inwards, and fits into a deep cup-shaped depression on the outer de of the articular surface of the astragalus, as a pivot into a socket. 'he foot much resembles the hand in its general characters, being long, ery narrow, and curved, terminating in strong, pointed, compressed, ngual phalanges, supporting hook-like claws.

The appellation "two-toed" applied to the genus *Cholœpus*, refers aly to the anterior limb, for, in the hind foot, the three middle toes are ınctionally developed, and of nearly equal size in both the genera of ıe family. In *Bradypus*, the tuber calcanei is long, compressed, and idened at the extremity. The tarsal bones have a great tendency to ankylosis. The first and fifth metatarsals are very rudimentary, and ıpport no phalanges. The proximal phalanges of the three middle igits are very short, and coalesce very early with the metatarsals, as ı the corresponding part of the upper extremity. In *Cholœpus*, the ıberosity of the calcaneum is very small. The tarsal bones remain istinct from one another. The proximal phalanges of the three middle igits are extremely short, but not ankylosed with the metatarsals. 'he first and fifth metatarsals are about three-fourths of the length of ıe others, flattened, and gradually diminishing in size to their free ıds.

OBSTETRIC MEMORANDA.

CASE OF EXTRA-UTERINE GESTATION: HÆMORRHAGE: DEATH.

'HE following case will, doubtless, be interesting to obstetric readers.)n the evening of June 8th, last year, I was summoned to see a young ıarried lady, who had been taken suddenly ill in the afternoon with evere abdominal pain and faintness. Dr. Wylie, who resided in the ınmediate neighbourhood, had been sent for at the time. On my rrival, at seven o'clock, we had the opportunity of seeing the patient ogether. The history of the case was as follows. The lady had been ıarried about a year; she had enjoyed good health, although the men- trual periods had always been somewhat irregular. Five weeks had lapsed since the last period; but as this had occurred on other occa- ions, the suspicion of pregnancy was not strongly aroused, especially .s there was a total absence of any other sign indicative of this con- lition. The sudden pain in the lower part of the abdomen occurred whilst the patient was standing upon a step-ladder, hanging up a cur- ain in her drawing-room; she became very faint almost immediately, ınd was assisted to bed by her servant. The condition, when we saw ıer, was one of extreme pallor and faintness, with a very feeble pulse, ndicating, apparently, some severe internal hæmorrhage. Her intellect was clear, she being able to reply to every question; but on the slightest ıttempt to raise the head, she became almost unconscious. There was ıot much pain on pressing the abdomen, but some dulness in the hypo- gastric and iliac regions, and a sense of fluctuation. Vaginal examina- ion revealed the uterus abnormally low, with an œdematous os; no tumour ;ould be felt in Douglas's pouch. A catheter was passed, but only a few lrops of urine were removed. Taking all the circumstances into consi- leration, we concluded that there was some grave internal hæmorrhage going on, possibly arising from the rupture of an extra-uterine gesta- ion, and ordered opiates, and the frequent administration of small quantities of nourishment and stimulants. We saw her again at mid- ıight, and her condition was much the same; she had taken nourish- ment freely, and had not vomited. Early next morning we met again, but she had grown rapidly worse just before our arrival, and was moribund when we saw her, dying shortly afterwards, twenty hours from the first symptoms. The following day we made a *post mortem* examination, with the full consent of the friends. Upon opening the abdomen, we found three or four quarts of fluid blood and coagula in the cavity; on further exploration, and removal of the uterus and appendages, we discovered a ruptured cyst about the middle of the left Fal- lopian tube, on its anterior aspect, about an inch in length, on its walls being the remnants of some torn vessels The embryo we were fortunate enough to discover subsequently; it had been baled out along with the liquid blood into a bucket, and escaped observation at the time, but was afterwards found floating on the surface, apparently about five or six weeks old. The corpus luteum was found in the left ovary, and the uterus somewhat enlarged, the sound passing over three inches. A case of this kind shows what a fatal state of things may be in existence without the least symptom of uneasiness, and how slight a cause, as in the present instance, may produce rupture at an early period of development, and how extensive may be the hæmorrhage from a comparatively insignificant origin, causing death in a very short period.

WILLIAM S. PAGET, M.D.Lond., Great Crosby.

POST PARTUM HÆMORRHAGE.

I WISH to add two cases to those in which the injection of perchloride of iron has saved life in *post partum* hæmorrhage. The first case was that of a multipara, who, after a tedious labour, from inertia uteri, was delivered with forceps. The second was that of a young primipara, who had a good natural labour. In both cases the placenta was removed, after waiting some moments, on account of copious hæmorrhage. In both, the uterus completely refused to contract, and poured out blood in such quantity that the patients' condition rapidly became one of extreme faintness and imminent danger. Extreme pressure, introduction of hand, and injection of cold water, were tried in both cases, failing to produce any contraction of the uterus, and only to be followed by another alarming gush of blood. The tincture of perchloride of iron, one part to about four of water, was then injected with Higginson's syringe. The cessation of hæmorrhage was immediate. In the first case, the uterus remained perfectly flaccid; in the second, a very feeble attempt at contraction took place. Recovery, though ultimately complete, was slow in the first case, as the loss of blood was so great that the woman was in a very anæmic condition. In the second case, recovery was rapid and complete, without a bad symptom.

In such cases as the above—which I believe to be, happily, rare—where uterine contraction is out of the question, and the patient's condition is one of immediate peril, it appears to me that the application of a styptic to the inner surface of the uterus gives the only chance of saving life.

HERBERT THOMPSON, M.R.C.S., Sevenoaks, Kent.

THERAPEUTIC MEMORANDA.

ON THE TREATMENT OF ECZEMA BY DIET.

THE treatment of eczema by a Banting's diet, as recommended by Mr. Balmanno Squire in the JOURNAL for April 8th, is by no means a new departure in the dietetic treatment of skin-disease. The plan has been in use here for several years. The extraordinarily rapid way in which cases of the most chronic kind recover by careful dieting on Banting's principles is very remarkable. The following is an example.

Richard O., aged 9, had suffered from general eczema ever since he was five months old. For this he had been under constant medical treatment, without any permanent good being effected. He came to the hospital on March 6th, where he has since regularly attended as a patient of Mr. Walker. He was ordered the rigid diet. After a fortnight's careful adherence to the diet ordered, an appreciable improvement was noted; in a month, he was rapidly improving, and now he is almost well. The only other treatment was an ointment of pitch and vaseline.

I could adduce other examples from private, as well as from hospital, practice. I have chosen the above, as it appeared to be an unusually hopeless case of chronic skin-disease. The best results of Bantingism are, no doubt, seen in lymphatic infants; but it is also applicable to the chronic eczema, local or general, of adults. Mr. Squire would apparently restrict the employment of this diet to eczema. As a matter of fact, the Banting diet is of great value in other skin-disorders, especially in the chronic skin-affections of stout free-living patients about fifty years of age.

As to the use of cod-liver oil, I am not disposed to concede that in every case this most valuable medicine and food-stuff must be excluded. In sallow phlegmatic children, provided the digestive powers be fairly good, I believe the oil, used in small doses, to be of the highest importance. It is well known that cod-liver oil aids digestion where it can be tolerated, and it is usually granted that it acts in this way by aiding the conversion of nitrogenous food. In some children, if all fatty material be forbidden, the digestion ultimately suffers, and the little patient becomes troubled with irregularity of the bowels, and also coldness of the feet and hands, with a tendency towards catarrhal affections of the respiratory tract. In these instances, a little cod-liver oil, while not supplying too much fat, yet provides enough for purposes of diges-

tion and proper maintenance of the heat of the body. Clinically, it is found that the oil answers best when given after the diet has been rigidly adhered to for at least three weeks or a month; that is, when the system begins to feel the deprivation of fatty materials. The presence of any of the symptoms or signs of lithæmia would, of course, at once negative the use of cod-liver oil.

I have now so frequently noticed improvement in cases of various kinds, not only skin-diseases, by the omission of milk and an excess of saccharine and starchy food from the diet, that I venture to think that "Bantingism" is not sufficiently made use of in these days.

A. CRESWELL RICH, M.B.Lond., Liverpool.

SURGICAL MEMORANDA.

ATTACHMENT OF SCROTUM AND PENIS.

As cases like the following are very seldom met with, I consider it worthy of publication, especially with regard to treatment.

On August 13th, 1881, Mrs. A. gave birth to a fine large healthy male child. The following day, I was sent for rather hurriedly, and was told that "something was wrong with the child's privates". On examination, I found the lower part of the penis, in its whole length, intimately attached to the exterior raphe of the scrotum, with an anterior convexity. On looking up Erichsen's *Science and Art of Surgery* (1872, vol. ii, p. 753), I found he had only met with one case of the kind in his necessarily large experience.* The malformation in itself is very simple, resembling that of tongue-tie or webbed fingers or toes. The remedy is to cut through the frænum; but this may be somewhat troublesome, depending on the loose nature of the parts. I operated as follows. I passed a No. 3 gum elastic catheter along the urethra to ascertain if the canal were perfectly straight. I then got an assistant to hold *in situ* the scrotum, and the catheter in the urethra. I proceeded to cut through the attachment with a strong pair of scissors. This I failed to do completely, on account of the toughness of the skin. Finally, I thrust a bistoury through about one inch backwards, and cut forward parallel with the catheter. Five months afterwards, I was compelled to circumcise, as the very small opening in the prepuce contracted to a mere pinhole. The mucous membrane was adherent throughout to the glans penis, and required dissecting off before stitching back. The child is now completely well.

RICHARD MCDOUGALL, M.B., Murramburrah, N.S.W.

CLINICAL MEMORANDA.

MILD SCARLATINA.

IN the JOURNAL of April 22nd, there is a paragraph remarking on mild epidemics of scarlet fever in Hastings and the Epping Rural District. All the cases mentioned in the reports presumably did not come under the personal notice of the medical officers who report on them, and I can conceive it to be quite possible that some of the cases so reported were not instances of scarlet fever. No one doubts that frequently scarlet fever runs a mild course; and it is conceivable that, with care, an epidemic even may occur with little or no fatality; but I believe it to be contrary to all tradition and teaching that upwards of seventy cases of scarlet fever should occur, with no precautions against exposure, as reported from the Epping Rural District, without inducing in any of them a complication, or a sequel of the nature of postscarlatinal nephritis and a fatal issue.

There has lately been, and is now, an epidemic in this neighbourhood, accompanied by a rash, which in many instances, especially if not seen at the outset, closely resembles an ill-defined eruption of scarlet fever; but, when seen at the commencement, bears more resemblance to the rash of measles, although much finer and more diffuse than is usual in that disease. There is very little constitutional disturbance, no sore-throat or catarrh, nor any desquamation. Adults are attacked as well as children; and four days is the average period from sickening to convalescence. Some of the children have gone to school with the eruption on them.

These cases I look upon as mild or spurious cases of measles, perhaps rötheln of some observers. I may mention that here and there a case has occurred with a slightly more pronounced rubeoloid eruption, that has materially assisted in the diagnosis. May not the epidemics of Hastings and Epping Rural District have included some cases of this kind?

A. R. BARNES, M.B.Ed., Boreham Street, near Hastings.

* A somewhat similar case, where the penis and testes were enclosed in one common sac of integument, is recorded in the BRITISH MEDICAL JOURNAL of March 18th, 1882, p. 398.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

NATIONAL HOSPITAL FOR THE PARALYSED AND THE EPILEPTIC.

EPILEPSY: AUDITORY AURA.

(Under the care of Dr. GOWERS).

THE student of nervous disease can never fail to meet with cases of a most instructive character in the out-patient rooms of this hospital. Dr. Gowers has on several occasions pointed out to us cases under his care, which were either rare and curious, or bore important evidence on some disputed or ill-understood points in neuro-pathology. Two cases of epilepsy presented instructive examples of an auditory aura. The first was a clerk, aged 20, who had been subject to fits only during the previous eighteen months. The aura was rather elaborate; he described it thus. First, he heard a noise in his left ear like the sound of a distant waterfall; then followed sharp pains in the ankle of the same side, which travelled upward to the knee; then he became very giddy, and finally "lost himself". He could not describe the fits, but believed that they lasted about five minutes. Sometimes, when the noise had begun in his ear, he had been able to stop the development of the subsequent phenomena by pushing his finger firmly into the ear. Since he had been under treatment, he had frequently heard the noise; but the fits had not come on. Dr. Gowers remarked that the noise in the ear and the accompanying giddiness made the case at first sight appear like one of auditory nerve vertigo. In that disease, as in epilepsy, there was a paroxysmal disturbance of unstable centres; and when, as in this case, the centre primarily affected in epilepsy was that of the auditory sensation, there might be a close resemblance between the symptoms of which the patient was conscious in the two conditions. In epilepsy, however, the discharge extended beyond these centres and gave rise to other symptoms. If there were such a loss of consciousness, and convulsion, the patient might be unaware of their occurrence and the diagnosis must then rest on the indirect evidence of their occurrence, such as tongue-biting, etc., or on the observation of attacks by others. In other cases, the wider discharge affected consciousness before this was lost; and the patient described, as part of the aura, other symptoms which are not part of the phenomena of auditory nerve vertigo. In this case, for instance, there was an extension of the discharge to the sensory centre for the leg, causing the pain at the ankle which passed up the limb—a symptom which proved the epileptic character of the discharge, and was confirmed by the character of the subsequent attack. The mode of arrest of the commencing aura by pressure of the finger into the ear was analogous to the arrest of a sensory aura referred to an extremity by a ligature around the limb.

In the next case, there was a similar association of auditory and sensory limb aura. Marion H., aged 43, was an interesting instance of a sensory aura followed by no motor discharge, but by paresis. The aura began by a loud ticking noise in the right ear; this was followed by a burning pain in the right shoulder, which ran down the right side of the trunk to the lower limb, and then affected the right hand and arm. No motor discharge occurred; but the patient found herself unable to speak, and felt weak on the right side. Dr. Gowers remarked that the weakness and loss of speech were analogous to that seen after epileptic fits. When these were slight, the loss could not be referred to exhaustion of the centres; it must be the expression of an inhibition of the motor centres by the discharge in the connected sensory centre. It was pointed out that in each of these cases the auditory sensation was referred to the ear on the same side as the sensation in the limbs, and must have been the result of a discharge on the opposite side of the brain. The auditory nuclei of the medulla were on the same side as the nerves. The decussation of the part from these nuclei to the hemisphere had not been traced anatomically, but was proved by pathological evidence, and also by such clinical facts as those presented by these patients.

CLINICAL HOSPITAL, MANCHESTER.

A CASE OF POSTHEMIPLEGIC HEMICHOREA, VARIETY ATHETOSIS.

(Reported by T. C. RAILTON, M.B.Lond., F.R.C.S.Eng., Assistant Medical Officer.)

MARY D., aged 9, was brought to the out-patient room of the hospital on October 20th, 1881, by her mother, who gave the following history of the girl's previous condition. At the age of eleven months, she was

apparently in a normal state of health, could walk a little by holding on to a chair, could use her hands in eating, and could say one or two childish words of one syllable. On arriving at that age, the child had a fit. She lay quite still for two hours, with her eyes wide open, noticing nothing, and giving no sign except an occasional hiccough. Her mother perceived her mouth to be drawn to the left side. For two days after this she slept almost continuously, and the distortion of the mouth disappeared. A few days subsequently, she suffered from an attack of a similar character; and after this second fit it was noticed that she could move neither the right arm nor leg; and that the right hand was kept constantly closed, with the thumb within the fingers. From this time, she never walked until she was three years old; nor did she talk properly during that period, although she could understand what was said to her. On reaching the age of four, the right hand was gradually opened—the little finger opening first, and the thumb last. Since the hand had been opened, the fingers and thumb had been noticed to be in an almost perpetual state of movement while she was awake. The motion was arrested during sleep. In this condition she remained without change for about three years, when she began to have fits of another kind, and these had gradually increased in frequency until, at the time of admission, she had as many as two or three in a week. They were said to last only for a minute or so; and, when they came on, she staggered and fell, if not supported. Occasionally, when she felt one of these attacks coming on, she would cry out that she was falling, and would then fall stiffly, with the right hand stretched out. This was not followed by any clonic spasms. On recovery, she seemed to feel a sensation of weakness and languor, and spoke thickly, so as to be rather unintelligible. She had never suffered from rheumatism.

On examination, the girl was found to be of fair mental capacity for her station in life. Her heart and lungs were normal. The pupils were equal, and there was no loss of sight. There was no tremor of the tongue, and no anæsthesia on the right side. The patellar reflex was greater on the right than on the left side. Her right hand was constantly in a state of slow involuntary movement, the fingers moving from extreme extension to partial flexion; at the same time separating from each other, and coming together again with a peculiar slow twisting action, reminding one of the writhing of a worm. The hand moved also on the wrist in slow alternate supination and pronation, together with extension and flexion, but with a manifest tendency to become rigid in a state of flexion, with the fingers and thumb strongly extended, and moving slightly in a lateral plane. At times, she could maintain the hand open in this position for a short period without any movement. The hand could be kept closed quite easily if she were allowed to rest it on a table; but, without that support, it appeared to require a great exertion of will to keep it so. The forearm was usually flexed at the elbow. These movements of the hand at times became, it was said, almost imperceptible when she was quiet at home; but they always increased if she were excited or particularly observed. There were no marked differences in the measurements of the corresponding parts of the limbs of the two sides. There was a halting with the right foot as she walked, a slight talipes equinus, and a little flattening of the nates and lowering of the gluteal curve on that side. There was no movement in the foot when she stood still, even when her hand was stretched out and the fingers were in full motion. When told to pick up any small object with the right hand, she seemed to have no power of co-ordination; the hand sprawled on the ground, with the fingers extended to the utmost; and only after repeated efforts could she succeed in grasping the object.

February 25th, 1882. After taking small doses of bromide of potassium for four months, the epileptiform fits almost ceased. Although the movements in the right hand were as characteristic as ever when she was excited, she had been observed to stand with the hand hanging down by her side perfectly quiescent. The grotesque movements of the fingers in her endeavours to pick up a penny were as marked as at the time of her admission.

REMARKS.—This case is an instance of a class of cases (probably not so rare as might be supposed) which are, perhaps, best classed provisionally under the name of posthemiplegic disorders of movement. No doubt, in some of the cases there is no definite hemiplegic attack; but, as Dr. Gowers pointed out in his paper on Athetosis (*Med.-Chir. Trans.*, 1876, p. 271 *et seq.*), if the symptoms be due, as is generally supposed, to some sclerosis or softening in the central cerebral ganglia, then it must be a question of position and extent of lesion, whether motor weakness does or does not accompany or precede the spasm; and the same remark would hold good if the lesion affected the cortical regions of the brain. In this case, there was a definite account of a hemiplegic attack, during which the symptoms were of very wide extent. This was followed by paralysis and contracture. Then, apparently, as the paralysis diminished, the contracture gave place to irregular movement; the fixed spasm yielded place to mobile spasm. The relation of such a case as this to the athetosis of Hammond is not clearly worked out. They differ in several important respects—in the character of the movements, which are slower, not increased by attention, and, according to Hammond, not present during sleep, in athetosis. On the other hand, they seem to have some connection with the so-called congenital chorea of imbecile children, which, however, is bilateral, and not always associated with imbecility. But few *post mortem* examinations have been made in cases of this kind. In three reported by M. Charcot, lesions were found in the posterior extremity of the optic thalamus, and in the posterior parts of the caudate nucleus and the corona radiata. In one case reported by Dr. Gowers (*loc. cit.*), in which there was no spontaneous spasm, the sclerosis was found extending across the optic thalamus; while, in two cases reported by Dr. Weir Mitchell, the corpus striatum was the site of the lesion.

ROYAL NAVAL HOSPITAL, GREAT YARMOUTH.

A CASE OF INSANITY, WITH HALLUCINATIONS OF HEARING, OF SEVEN YEARS' STANDING, DEPENDING ON DISEASE OF THE MIDDLE EAR: CURE.*

(Under the care of Dr. DUNCAN HILSTON, Fleet-Surgeon.)

[Reported by Dr. THOMAS BROWNE, Staff-Surgeon.]

THE subject of the following article has been an inmate of this hospital for seven years, labouring under hallucinations of hearing. As the hallucinations ceased after successful treatment for disease of the middle ear, the case is thought worth reporting.

J. B., aged 43, able seaman, a strong well-built man, was admitted on January 14th, 1875, having been invalided from the East Indies. In the report accompanying him, it was stated that his health had always been good till July 1874, when he suffered from "a severe attack of congestive headache, due to hyperæmia of the cerebro-meningeal vessels, caused by a change to colder weather than the man had been accustomed to for two years before."

In September of the same year, he complained of vertigo and debility, and his messmates observed a marked alteration in his manner. He became morose, obstinate, and taciturn, and would sit for an hour at a time talking to himself, and then suddenly jump up in an excited manner and want to fight with some one; shortly relapsing into a state of sullen indifference to all about him. When questioned, his replies were rational, and to the effect that he only suffered from vertigo and debility. It is further reported that he became absent and listless in manner, very forgetful of orders, and that his face assumed a vacant and stupid expression.

In November 1874, he was received into the Royal Naval Hospital, Haslar, on arrival from abroad, where it is noted he complained of slight pain in the middle of the sternum, and that he often sighed. He answered questions rationally, though in a querulous and rather insubordinate manner. "Says he was sent home for being wrong in his head, defective memory, and constant headache, and that he does not care to answer questions."

He was transferred to the Royal Naval Hospital, Yarmouth, on January 14th, 1875; and, on admission, replied rationally to most questions, but answered questions about himself in an uncertain way, so that his replies could not be depended on. He became taciturn and morose, and at times quarrelsome and violent. In February, he saw an inoffensive patient sitting in the water-closet, and was about to smash his head with a bucket, when the attendant prevented him; he then turned on the attendant, and attacked him with a stool. From this time, he often complained of being annoyed by people talking to and abusing him, especially when in bed at night. He asserted that people were calling to him from over the wall, but that he never could quite make out what was said. He gradually became more gentle and industrious, assisting the attendant or working in the washhouse. Once he attempted to escape by climbing over the wall.

There was little change in his hallucination for seven years. Sometimes he complained that the attendants whispered as they passed him; at other times, he asserted that he could speak without moving his tongue, and often did so, he said, hearing himself speak, but that he had no power either to produce or check such utterance. He frequently declared he was quite well, and demanded his discharge, threatening the medical officers for their alleged wrongful detention of him.

This was his condition on January 18th, 1882, seven years after his admission, when he complained of an uneasy feeling in his left ear.

* Communicated by the Director-General of the Medical Department of the Navy.

On examination, it was discovered that the hearing was very defective in that ear, the watch being heard in contact only. The auditory canal was full of black hardened wax, and there was some pain and swelling about the meatus auditorius. The wax was gently and patiently washed out with a warm solution of carbonate of soda, a Higginson's syringe being used for the purpose; or sometimes a piece of India-rubber tube acting as a siphon, from a can of the solution raised on a shelf, was found convenient. Eleven days were employed in this process, the last of the wax coming away on the 29th of January. There then appeared numerous granulations and superficial ulcers on the wall of the auditory canal, which prevented a good view of the drumhead being obtained. A solution of nitrate of silver, eighty grains to the ounce, brushed over the granulations, caused speedy healing. When the drumhead came into view, it was found sodden-looking and shrunken, the light spot being hardly perceptible. The handle of the malleus stood prominently outwards, while the membrane in front was much retracted, and seemed almost in contact with the promontory. No perforation was detected. The hearing was improved, and the watch, before heard only on contact, was now audible at four inches. An attempt was made to inflate the Eustachian tube and tympanum by means of Politzer's bag, but failed till after the introduction of the Eustachian catheter. So soon as air entered the tympanum, his hearing distance for the watch retreated to twenty-four inches, and on the following day he volunteered the information that the whispering and voices had ceased.

On February 10th, there was little alteration in the appearance of the drumhead. Siegle's tube with suction by the mouth was now applied every three days, followed by inflation by Politzer's method.

On February 22nd, the drumhead was less shrunken, the handle of the malleus was more injected and less prominent, and the light spot had become brighter and larger. The hearing power was now increased to $\frac{40}{60}$ in the left ear, that of the right being $\frac{60}{60}$. He said there had been no return of the whispering, and that he was not now able to talk without moving his tongue. He was still of opinion, however, that at one time he had the power to do so.

Since this report was forwarded, the man has been discharged cured, on April 27th, 1882. His hearing was equal, and good on both sides. He seemed well in every respect, and spoke with much gratitude of what had been done for him.

REMARKS BY DR. BROWNE.—In carefully studying this case, with the light thrown on it by the discovery of the disease of the middle ear, and the happy result of its successful treatment, I think we may venture to re-interpret the signs of its onset and its long history thus.

In July 1874, as above quoted, he is said to have suffered from congestive headache, due to hyperæmia of the cerebro-meningeal vessels caused by change to colder weather. On that occasion, he probably really suffered from catarrhal inflammation of his left Eustachian tube and tympanum. This condition of things remaining unrelieved, he soon suffered from the effects of pressure on the labyrinth, as shown by the vertigo which was added to his troubles. A change was observed in his manner, he imagined he heard people talking to him, etc. Thus, an aural sensation being misinterpreted, in a predisposed subject, an attack of insanity was induced and continued for seven years, till attention was called to his ear-disease; and, on the successful treatment of this, all his troubles quickly subsided.

Going back a little on the case, we find that, on the patient's admission to Haslar, in 1874, frequent sighing is mentioned amongst his other symptoms of distress. It has been well shown by Dr. Woakes that this symptom may, like vertigo, be often traced to disease of the auditory apparatus. It will be remembered that the labyrinth obtains its blood-supply from the vertebral artery. The vertebral artery receives its vaso-motor nerve-supply, shortly after its origin in the root of the neck, from the inferior cervical ganglion of the sympathetic, which also gives off the inferior cardiac nerve and sends numerous connecting twigs to the pneumogastric, thus establishing a wide circle of relations, fully accounting for the præcordial distress which found its expression in sighing in the case before us.

Shortly, then, the history of the man's trouble is as follows. 1. He had catarrhal inflammation of his left middle ear in July 1874, in which the Eustachian tube did not give exit to the mucous accumulation in the tympanum, giving rise to the symptoms attributed to cerebro-meningeal congestion, producing, in fact, pressure on the labrynth, as indicated by vertigo in September of the same year. At this time, there were great disturbance of the hearing apparatus and misinterpretation of aural sensations. The patient, being probably unusually susceptible, became insane in consequence. 2. While active inflammation of the middle ear was in progress, there was increased heat of the external auditory canal, which is in intimate vascular relation with the tympanum. This rise of temperature evaporated the more fluid part of the wax in the canal; the remainder adhered to the skin of the canal, and was the starting-point of the large accumulation found seve years afterwards, and removed with much difficulty. 3. At the perio of subsidence of the catarrh of the middle ear, the air shut up i the tympanum, the Eustachian tube being closed, was soon absorbe as was also the fluid part of the imprisoned mucus. The drumhea being unsupported, shrank inwards, and, by dragging on the handle the malleus, kept up the pressure on the labyrinth. This conditio remained, till relieved by treatment in 1882.

In dismissing this case, I desire to express the opinion that wax seldom found impacted in the auditory canal, unless there be, or hav been, some disease of the middle ear. A careful inspection of th drumhead will usually enable us to detect this, when the hearing perhaps as yet only slightly reduced, or when the patient is uncon scious of any loss till the fact is demonstrated to him. For the e amination of the drumhead, I have discarded all other modes of in spection for that by the laryngoscopic mirror with central aperture and a conical speculum in the ear. I give the preference to vulcanit specula, as by means of them the auditory canal is effectually straigh ened, a cone of light is thrown from the mirror on the membrane, whil there is less confusion from the rays falling on and being reflecte from the sides of the black vulcanite tube than is the case with brightly polished silver one. A very little practice makes one quit expert in this mode of examination. It also possesses the great advan tage of allowing us to carefully dry the membrane, or remove ever particle of pus, by means of the cotton carrier. We can make a application of any kind to the precise spot desired. There is here n probing in the dark, nor dangerous guess-work. The point to be su gically treated is clearly in view and well within reach, while we mak our application.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MAY 9TH, 1882.

JOHN MARSHALL, F.R.C.S., F.R.S., President, in the Chair.

On a Case of Double Inguinal Hernia treated by Wood's Radic Cure: with Remarks in favour of the Wire Operation in Reducib Hernia not easily retained by a Truss. By W. J. TIVY, F.R.C.S.Ed (Clifton).—T. W., aged 19, first came under Mr. Tivy's care in Febru ary 1878, with double scrotal ruptures, each of the size of an orang He had large hernial apertures on both sides, freely admitting thre fingers. Both ruptures were easily reducible; but a truss was useles as the hernia slipped down behind. On March 13th, Wood's oper tion was performed on both sides, twisted silver wire being used instea of plain copper, in order to produce, by the roughness, a more copiou exudation of lymph, and thus a more firm matting together of th parts. The patient, being perfectly anæsthetised, did not struggle and did well after the operation, his temperature never reaching 100° He had no peritoneal tenderness. There was slight double scrota swelling, and moderate discharge from the wounds. He slep well all through, and had a daily evacuation. On March 29th, sixtee days after the operation, the wires were easily removed, and good con solidation was found on both sides, so much so that on July 16th wit difficulty could the position of the rings be made out. He had con tinued cured up to the present time, wearing a truss when engaged a hard work. The patient was exhibited to the Society. The autho drew attention to some precautions necessary to ensure the success o the operation, particularly dwelling on the necessity for selectin healthy patients under thirty years of age. In the operation itself, h urged that the posterior wall of the canal must be carefully included i the parts operated upon, and the invaginating finger used with care t protect the peritoneum, epigastric vessels, iliac vessels, and bowe The sutures must be placed directly opposite the openings to be occluded and should not be drawn so tightly as to endanger sloughing. Mr Wood had performed his operation 310 times, in 167 of which th result was verified; viz., 119 cures after the lapse of from two t twenty-four years; in the remaining 48, the ruptures returned, but i no case to the same extent as prior to the operation. In 133 cases the patients were lost sight of. Three deaths occurred in the first 10 cases, from pyæmia, peritonitis, and erysipelas; in the latter 210 cases there was no death, and no bad symptom of any kind. Dr. Buchana of Glasgow had operated three times successfully in 1879; Mr. Thorn ley Stoker of Dublin, twice successfully, once in 1874, and again nin months ago (the latter case was of no value statistically); Dr. Perciva of Northampton, in two cases, both successful, in 1880; Mr. Spanto of Hanley, in three cases, some years ago, one successful, one partiall so, the third unsuccessful. The most important modifications o

Wood's operation were Spanton's screw-operation and the antiseptic stitching up of the neck of the sac with catgut or fishing-gut. Mr. Spanton had performed his operation twenty-five times between December 1877 and December 1879, with twenty-one successes; but, twenty of these cases having been done in 1879, sufficient time had hardly elapsed for a final judgment to be given; and it appeared, besides, that some of the cases had not been seen since December 1880. Spanton's operation possessed many requisites for success, and was easy of application; but its weak point seemed to be in not drawing the boundaries of the canal into sufficiently close contact. The author proposed to partially remedy this defect by having the screw made much smaller at the handle than at the point, and thus gradually drawing the pillars of the ring into closer apposition by rotating the screw. The stitching operation, of which there were four modifications at least (the best being ligature of the neck of the sac, with excision of the sac, and stitching together the margins of the abdominal opening), was held in favour by Sir W. Mac Cormac, Dr. P. H. Watson, Mr. Annandale, Mr. H. G. Croly and Mr. A. H. Corley of Dublin, Mr. Rushton Parker of Liverpool, and many others; and statistics of seventy-one cases, with fifty-eight cures and four deaths had been collected. The stitching operation was useful for cases of irreducible hernia, and for some cases of reducible or strangulated hernia in patients beyond the age of thirty, and for those in whom, owing to ill-health, it was not advisable to proceed to the major operation of Mr. Wood. It had many advantages, and, being not difficult of performance, was certain to be popular; but, owing to its neither affording as firm an invaginating material nor as copious an exudation of lymph and subsequent contraction of the openings, as Wood's operation, its effects could not be so permanent; and no patient after the stitching operation ought ever to be without a truss. The author, in conclusion, recommended Wood's operation in all cases of reducible hernia not easily retained by a truss, where the patient's age was under thirty, and his health good.—The PRESIDENT said that the operation for the radical cure of hernia had taken its place in surgery. He thought that the objection to Wood's operation was not founded on its danger; for it had been proved to be very safe. The real point to be considered in this (and in all similar operations) was, how far it was permanently successful. Some surgeons had performed the radical operation in cases of strangulated hernia; but this was a different thing from applying the operation to hernia at any time. That some of the patients were still obliged to wear a truss, was not sufficient evidence against the utility of the operation. In some cases, such as large scrotal herniæ, a truss was quite inefficient; and in these the operation, though not producing complete cure of the hernia, reduced the canal so much that a truss could be worn comfortably and successfully. He thought, however, that it should not be done in every case where a hernia could be kept up by means of a truss. He had operated with complete success in a lady who had an inguinal hernia, in the canal of Nuck, and who reported to him her condition regularly every year for thirteen or fourteen years.—Mr. TIVY showed the screw which he used. A year ago, when he brought the subject before a medical society in the country, only one surgeon among those present thought the operation justifiable.

Ectrotic Treatment of Varioles in Small-pox: Cauterisation by Carbolic Acid: Morbid Anatomy and Pathology of the Varioles. By MONTAGU D. MAKUNA, M.R.C.S. (Communicated by Sir JOSEPH FAYRER, K.C.S.I.)—The plan of cauterisation by carbolic acid was first suggested by Dr. Eade of Norwich in 1878, and the author of the paper had given it a trial, and had to report its success. The cases were seen by Dr. Klein and other medical men. After some general observations, the author described the pathology and morbid anatomy of the varioles, papules, vesicles, and pustules, following the rules of Dr. Tilbury Fox and Dr. Klein. This part of the paper was illustrated by twenty-four microscopic sections of the eruption, made by Dr. Klein. He described the method which he had followed, of cauterisation by carbolic acid on the first or second day of the vesicular stage, cutting open the vesicles, and dabbing their surface with carbolic lotion at the height of the vesicular stage. Velpeau's plan of using nitrate of silver was followed in a few cases. The author condemned the practice of darkened rooms, basing his arguments on the researches of Dr. Downes, Mr. Blunt, and Professor Tyndall, on the influence of light on bacteria and other animalcules. He also made some remarks on the mercurial preparations, iodine, cold compresses, gutta-percha, collodion, plasters, and ointments, which were more or less used by some and condemned by others. —The PRESIDENT asked if the author had read the writings of M. Lemaire and Dr. Sansom, who had recommended the local application of carbolic acid in small-pox. This fact did not detract from Mr. Makuna's merits, as he had demonstrated the value of the remedy.—Mr. GOUDE said that, at the Highgate Hospital, experiments were made by treating one side of the face with nitrate of silver, and leaving the other untouched; and the results in the latter were the better of the two.—Dr. WHARRY suggested that iodoform might be found useful.—Dr. THIN commented on the peculiarity of small-pox in forming pustules—*i. e.*, small abscesses in the rete mucosum; while this did not occur in scarlatina or measles. Why should these be produced in limited parts, though the cause was spread over a large area? He suggested that some of the exuded cells were charged with the variolous poison, which found in the part a condition in which it might act more energetically than in the blood.—Mr. TIVY had seen benzoated ointment of oxide of zinc used successfully in an epidemic of small-pox, in Ireland, twelve years ago.—Dr. A. W. MACFARLANE had had charge of cases of small-pox in Stirlingshire in 1872. A solution of carbolic acid in olive-oil (1 in 5) was applied; it gave much relief to the patients, and prevented pitting to a great extent.—Mr. SCRIVEN had, in India, been accustomed to keep the body covered with a solution of carbolic acid (1 in 12) from the first appearance of the symptoms of small-pox; and had certainly seen some cases of confluent small-pox recover without much pitting.—The PRESIDENT said that darkened rooms were recommended for the protection of the patient's eyes.—Mr. MAKUNA had not seen the writings of Lemaire and Sansom, to which the President referred. He had not used iodoform. The mixture of carbolic acid and olive-oil certainly relieved irritation; but it could not be described as acting as an ectrotic, if merely applied without preventing the suppuration. He had not met with many cases in which the eyes were affected; he kept them clean, and applied a little carbolic acid to the lids at night, to prevent them from adhering.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, MAY 2ND, 1882.

SAMUEL WILKS, M.D., F.R.S., President, in the Chair.

[*Concluded from page 660 of last number.*]

Lateral Asymmetry of Bones and Brain.—Mr. PEARCE GOULD showed several specimens illustrating the asymmetry of a woman, aged 24. The specimens were from the Westminster Hospital Museum, and no history of value was attached to them. They consisted of the skull, which was markedly larger on the left than the right side; the fossæ, sinuses, and foramina, were larger and the bones thicker on that side; further, the roof of the orbit, the root of the great wing of the sphenoid, and the tympanic plate were greatly thickened on the left side. There were two exostoses on the left side, one just above the nose, the other at the extremity of the alveolar process. On the inner surface of the left part of the dura mater, were several small rounded bony growths. The left side of the lower jaw was much larger and thicker than the right, and the tongue and hyoid bone were also larger on the left than on the right side. The bones of the upper extremity were larger on the right side, but there was unusual thickening of the lower end of the left humerus and the upper end of the left radius and ulna. The left femur was longer and much larger, and more nodular and irregular than the right. Attached to the left patella was a bony tumour of the size of an orange. The spine was very irregular, most of the vertebra being more or less deformed. There was a lateral curve in the neck, convex to the left, and another in the loins convex to the right, entirely produced by asymmetry of the bodies of the vertebræ. Some of the vertebræ were ankylosed together, and the uniting material was more abundant on the left than the right side. The left hemispheres of the cerebrum and cerebellum, and the corpus striatum, optic thalamus, and corpora quadrigeminæ were larger than the corresponding parts on the opposite side; but the right side of the medulla oblongata and the right olivary body were larger than the left. Mr. Pearce Gould pointed out that on the head the left side was characterised by increased size, by bony thickenings at certain points, and by exostoses; in the upper limbs, the bones on the right side were longer, but the tendency to bony thickening was found on the left side; in the lower limb there were again greater length, greater thickness of bone, and a bony tumour, all on the left side. In the spine, the deformity was very irregular. In reply to Mr. BUTLIN, Mr. GOULD said that he could not offer any satisfactory explanation of this condition, but he believed that it was due to hypertrophy of the one side which was manifestly deformed, and not to atrophy of the other.

Calcified Bronchocele.—Mr. JONATHAN HUTCHINSON showed a patient who presented a small sinus leading down to a calcified mass, evidently connected with the thyroid gland. He had been the subject of bronchocele from early youth, and the calcification occurred in middle life: a probe passed along the sinus grated against calcareous matter as hard as bone. Mr. Hutchinson had never seen a case o this kind before; he had met with calcification of a bronchocele, but had never before known the calcified tumour to necrose.

Aneurysm of Aorta causing Bilateral Paralysis of Vocal Cords.—Dr. WHIPHAM, who exhibited the specimen, said that the patient, a tailor, aged 55, was admitted into St. George's Hospital under his care on February 17th, 1882. There was a history of considerable alcoholic excess, but, as far as could be learned, the man had never suffered from syphilis. About two months before his admission, he was attacked by a constant hacking cough, which was paroxysmal, and was followed by copious watery expectoration. He also experienced aching pain in the thorax and epigastrium, but the position of the pain was ill defined. On admission, the patient was suffering from dyspnœa; his respirations were 20, laborious, and accompanied by a strident rattling noise in the throat; the cough was frequent and hard; the expectoration white and frothy. The lungs were emphysematous, and the area of cardiac dulness was inappreciable; loud wheezing and crepitant sounds were audible throughout the chest. No cardiac or other bruit was detected in front, but a systolic murmur was recognised between the scapulæ. The voice was fairly resonant. The laryngoscope showed complete paralysis of the abductors of both vocal cords; during ordinary inspiration, the cords approached one another, while in deep inspiration they came almost into contact. In phonation, they were normally adducted. After the patient had been in hospital for five or six hours, the dyspnœa became so urgent that tracheotomy was performed, but without any relief to the symptoms, and the patient died two hours later. At the *post mortem* examination, the lungs were found to be emphysematous, and in the apex of the right was a small cavity containing fœtid dark green pus, and disorganised lung tissue. The kidneys were congested, with diminished cortices. The heart was somewhat hypertrophied. The aorta was atheromatous. From the back of the descending portion of the arch arose an aneurysm about the size of the closed fist. The sac extended behind the trachea, and was adherent to the ribs on each side of the vertebral column. It pressed upon the trachealis muscle, and almost obliterated the channel of the windpipe just above its bifurcation. The left recurrent nerve was adherent to the sac, was flattened, and more or less atrophied. The right recurrent nerve was apparently natural, and lay at some considerable distance from the aneurysm; and, so far as could be made out, had not been in any degree subjected to pressure. The aneurysm, however, by its position behind the trachea, had caused that structure to compress the cardiac plexus, between it and the aorta. On the admission of the patient, the "brassy" cough suggested an examination with the laryngoscope; and it was then found that the abductors of the vocal cords were completely paralysed; and that, in deep inspiration, the cords approached one another. The voice was at this time resonant, and the laryngoscope showed that adduction was equally and efficiently performed on both sides. Later in the day, when the dyspnœa (from which the patient suffered when first admitted into hospital) had to some extent subsided, Dr. Myers, the medical registrar, examined him, and found that his voice had become very hoarse, from which it might be inferred that the adductors had then become involved in the paralysis. Two similar cases were recorded, in the Pathological Society's *Transactions*, by Drs. Bäumler and George Johnson (vols. xxiii and xxiv); but, in these cases, there was no note of any pressure on the cardiac plexus.—Mr. WALSHAM wished to know whether a careful search had been made for the laryngo-tracheal glands which had been recently described as lying between the larynx and trachea. Was Dr. Whipham quite certain that there were no glands pressing on the nerve?—Mr. SUTTON suggested that the paralysis might have been produced by transmission of some influence to the centres in the medulla.—Dr. WHIPHAM, in reply, said that no glands pressing on the right recurrent were found.

Disseminated Polypi of Rectum.—Mr. HARRISON CRIPPS showed microscopical sections from two cases of this disease. The patients were a brother and sister, aged 19, and 17 years respectively; in both cases the symptoms were first noticed at about 10 years of age; they consisted of hæmorrhage from the anus, and the protrusion of bleeding masses after defæcation. Examination of the rectum revealed numerous small, distinct, polypoid growths. Though polypus of the rectum was not at all a rare disease, yet instances of such wide dissemination of the disease had not been recorded in any of the standard works on disease of the rectum, and he only knew of one specimen in the London museums. Histologically, the polypi consisted of a central stalk of fibrous tissue (continuous with the submucous tissue) which divided and subdivided; its ultimate branches being covered by a single layer of columnar epithelial cells. This fibrous network contained in its meshes numerous lymphoid bodies, undistinguishable from bodies (nuclei) seen within the epithelial cells; and Mr. Cripps reiterated his opinion, expressed at a former meeting of the Society, that the lymphoid cells of the submucous tissue were in great measure derived from the columnar epithelial cells, that the lymphoid cells were in reality the young brood of the epithelium, resulting from the division of the nuclei.

Ulcerative Endocarditis.—Dr. STEPHEN MACKENZIE presented a remarkable specimen of ulceration, starting from the endocardium and extending through the whole muscular substance of the heart. Owing to the lateness of the hour, only the barest outline of the case could be given. It appeared that the patient, who only survived his admission into the London Hospital two days, had not been ill long; he presented symptoms of pericarditis, but no local or general symptoms which distinctly pointed to the condition found after death. At the *post mortem* examination, the cardiac valves were found free from disease, but in the pericardium was bloody fluid, and near the apex of the heart was a small aperture. On opening the heart, this was seen to be the extremity of a somewhat funnel-shaped ulceration near the apex. The endocardium near the ulcer appeared white and fibroid, and Dr. Mackenzie was inclined to suppose that the ulceration had taken place in the site of a fibroid thickening.

Ulceration of Large Intestine.—Dr. STEPHEN MACKENZIE said that the patient, from whom the specimen was removed, was a woman who had died from well-marked typhoid fever. The mucous membrane of the large intestine was ulcerated so extensively as to present a honeycombed appearance. This was produced, he supposed, by very extensive destruction of the solitary glands.

Cerebro-Spinal Meningitis.—Dr. CARRINGTON said that the patient was a child, who presented well marked symptoms of cerebral and spinal meningitis. The *post mortem* examination revealed a copious deposit of lymph over the convex aspect of the brain, and also at the base; there was no evidence of tubercle. He believed it to be a sporadic case of cerebro-spinal meningitis.—Dr. PAYNE would hesitate to call such cases as this epidemic cerebro-spinal meningitis, for the pathological conditions described as occurring in that disease differed as a whole from anything he had met with in such cases.—The PRESIDENT thought that cases of cerebro-spinal meningitis did occur which were quite peculiar. One case he particularly remembered, where the child was ill for several weeks, which was unlike non-specific meningitis, and where the eyeball was totally destroyed by suppuration; this was a symptom described as occurring in true epidemic cerebro-spinal meningitis; and altogether he had felt no hesitation in diagnosing that disease in this particular case.—Dr. STEPHEN MACKENZIE pointed out that the crucial test must be the communicability of the disease; and, though he had seen numerous cases of cerebro-spinal meningitis, he had never known the disease communicated.—Dr. DOUGLAS POWELL inquired whether there was any history resembling rheumatism. In one case of this kind which he had seen, the symptoms yielded to treatment directed against the rheumatic pains.—Dr. DICKINSON was familiar with a form of meningitis which was not tubercular disease, and which had for its most marked symptom retraction of the head; but he did not regard this as epidemic.—Mr. PARKER wished to know whether there was any injury in these cases.

Card Specimens.—Dr. LEDIARD: 1. Residual Abscess of Posterior Fossa of Base of Skull: 2. Old Partial Dislocation of the Ankle backwards.

Dr. SAMUEL WEST: 1. Contraction of Aortic Valves; 2. Obliteration of the Orifice of one Coronary Artery by Atheroma, and narrowing of the mouth of the other; 3. Calcification of two Aortic Valves, Rupture of the third; 4. Obliteration of Left Ureter by a Fibrous Band, with Secondary Atrophy of the Kidney.

Dr. HALE WHITE: 1. Suppuration around a Healthy Kidney following Stricture, and Abscess in the Prostate; 2. Œdema of the Vocal Cord secondary to Aneurysm of Ascending Arch of Aorta.

EPIDEMIOLOGICAL SOCIETY.

WEDNESDAY, APRIL 5TH, 1882.

GEORGE BUCHANAN, M.D., President, in the Chair.

The Policy and Practice of Glasgow in the Management of Epidemic Diseases.—Dr. JAMES B. RUSSELL, Medical Officer of Health for Glasgow, read a paper on this subject. Proper differentiation of function in the growth and development of the various organisations of a community was but slowly attained, especially as regards the care of the public health. The tendency was to try the Police, Poor-law, Charitable, and other departmental organisations, as the origin of this function, or to levy a little service upon each in the hope of meeting the entire round of sanitary requirement. Various stages were thus recognisable, and these were illustrated from the history of Glasgow with reference to epidemic diseases. The plague was encountered, according to the lights of the time, by the municipal authorities. The outbreaks of typhus, for which the city was notorious, were dealt with by certain corporate bodies who cared for the permanent poor, and by the magistrates, with the help of the charitable resources of the Royal Infirmary.

The Scotch Poor-law Act of 1845 introduced another body, but the epidemic of 1847 proved the essential weakness and inefficiency of a mixed system of parochial, charitable, and municipal treatment of epidemic disease. The Glasgow Police Act of 1862, renewed and amended in 1866, together with the Scotch Public Health Act of 1867, enabled the municipal authorities by degrees, educated by circumstances which were described, to develope their present policy and practice. They had now provided, from rates, hospitals of their own for fever and small-pox. Into these, anyone living within the area of the rates, was admitted free of charge. No person suffering from infectious disease had been treated as a pauper in a parochial hospital for ten years. Beyond the area twenty-five per cent. of the population lived under nine burghal jurisdictions, independent of that of Glasgow. But, by appealing to the Board of Supervision to compel these bodies to appoint medical officers and sanitary inspectors, and by procuring the exclusion of their cases from the Royal Infirmary, hospitals had been erected by five of these authorities, and the remainder sent their cases to the Glasgow municipal hospitals, at a charge which covered current expenditure and interest on capital. The special practice as applied to small-pox was fully detailed. The securing of the thorough primary vaccination of the population was deemed of such importance that although the Scotch Vaccination Act vested the enforcement of its provisions in parochial boards, the Glasgow municipal authorities had *ex gratia* assumed an additional supervision. Defaulters were traced with much more success and with little extra labour by the sanitary inspectors. As to re-vaccination, experience had shown that it would be accepted by the mass of the population only in the presence of small-pox. Under these circumstances, the method at first adopted was to cause the inspectors to make out lists of persons who would consent, and then to send a medical man to perform the operation; but this delay was fatal to the effective protection of any number. The majority refused to accept his services. The medical vaccinator in charge of the station for primary vaccination was therefore charged with the duty of selecting the lymph and teaching the epidemic inspectors. They always carried a stock with them, and on going to an infected house, at once offered their services in the house and in the locality. Few recalcitrants were encountered, and protection was there and then secured. Compulsory removal to hospital was rigorously enforced. In the ten years, 1871-80, there were 12,718 primary vaccinations by the medical vaccinator, and 9,614 re-vaccinations by the staff. Small-pox was epidemic during the four years, 1871-2-3-4, during which time 4,328 cases were known to exist, of which 74 per cent. were treated in hospitals; and 8,730 re-vaccinations were recorded. The total deaths in those years numbered 786, of which 67 per cent. occurred in hospitals. The death-rate was never higher than 4.3 per 10,000 inhabitants, and averaged 3.8. Since 1875, when small-pox caused only two deaths, it had been in entire abeyance, there having been only 25 deaths in seven years. The Scotch towns had all in recent years been very free of small-pox; but a more correct estimate of the comparative immunity was obtained by taking in each case the epidemic acme. In Glasgow this was passed with only 4.3 deaths per 10,000 inhabitants in 1873. It reached 46.7 per 10,000 in Leith in 1872; 35.3 in Edinburgh in 1872; 32 in Greenock in 1873; 24.2 in Dundee in 1872; 14.5 in Aberdeen in 1872; 12.5 in Paisley in 1874; and 6.5 in Perth in 1872. The special service applied to the suppression of typhus was the prevention of overcrowding by night-inspections of small houses, under local powers, averaging 41,000 per annum. This fever had been distinguished by the Registrar-General only since 1873. In the five years, 1876-80, the death-rate from typhus was scarcely 1 per 10,000. In 1881 it was only 682. The "fevers" as a whole had steadily diminished in fatality from 16 per 10,000 in 1871 to a minimum of 4.34 in 1881. In the ten years, 1871-80, they gave a mean death-rate of only 7 per 10,000, as compared with 20.24 in the preceding ten years. In the five years, 1837-41, they maintained a mean of less than 44½. The hospital treatment of the infectious diseases of children was encouraged by admitting mothers to nurse their own children. Disinfection and washing of clothing and bedding were applied to all these diseases. Contrasting the last ten years with the preceding, there was evidence of substantial improvement in all. In the death-rate from scarlet fever, there was a fall from 13 per 10,000 to 10; in measles from 8 to 7; in whooping-cough from 15 to 12½. In conclusion, it was pointed out that these results were obtained while this policy and practice were being thought out and slowly developed, so that they did not measure the full extent of the benefits which might be reasonably anticipated during the next ten years.—In the discussion which followed, the President, Dr. Thorne, Dr. Squire, and Surgeon-General Murray took part.

Observations on the Pre-eruptive Stage in Small-pox, with History of Cases.—A paper on this subject was then read by Mr. M. D. MAKUNA, late Medical Superintendent of Fulham Small-pox Hospital. The paper was based on observations made in about 1,600 cases. There were two reasons why a distinct line of demarcation could not be drawn between the period of incubation and the initial stage: 1. No symptom was constant to usher in the initial stage; 2. They were not definite in their duration. The symptoms complained of during the initial stage in 626 cases were as follows in point of frequency: headache, backache, epigastric symptoms, lassitude, prostration, langour, inability to walk about, symptoms of cold and sore-throat, pains over the body, and general *malaise*. Other symptoms were constipation, rigors, faintings, stupor, delirium, pains over the præcordia and syncope, constriction round the chest, epistaxis, photophobia and lacrymation, symptoms of laryngitis, metrorrhagia, erythema variolosa; in children, fretting, grinding of teeth, and convulsions. The duration of the initial stage in 626 cases, of which 517 were vaccinated, and 109 were unvaccinated, was as follows: One day in 123, or 19.6 per cent. of the cases; two days in 224, or 35.7 per cent.; three days in 128, or 20.4 cent.; four days in 50, or 8 per cent.; and prolonged in 79, or 12.6 per cent. There were no noticeable symptoms during this stage in 22, or 3.5 per cent. of the cases. He discussed the causes of the variation in duration of the period of incubation, and gave the experience of various observers on the comparative study of the period in various exanthems. He gave the history of 117 cases in which the period of incubation and the pre-eruptive stage were determined. In 12 cases, the exposure to the source of infection was single, and of short duration. The period of incubation in them was as follows: 6 days, with 7 days of initial stage, in one case; 8 days in one; 9 days in two; 11 days in one; 12 days in three; 13 days in two. It was 14 days in one case of three visits, on three consecutive days, each visit lasting for half an hour. Two of the cases had contracted the disease during the initial stage in the primary case, proving that this period was infective. He related the history of 90 cases in whom the pre-eruptive stage was determined, with a view to prove that the period of incubation was non-infectious. The history showed how the disease spread by direct contagion. Had the period of incubation been infective, the secondary cases would have occurred coincidentally with the primary cases. The pre-eruptive stage in these cases varied from 8 days to 23 days, and in 41 of these it was from 14 to 18 days. When susceptible individuals were continuously exposed throughout the pre-eruptive stage to the source of infection, the period of incubation was shorter than in those of single exposure. In Mr. Makuna's 14 cases, it varied from 11 to 19 days. Quarantine of 14 and 16 days in two of these cases was useless, as the pre-eruptive stage in one was 15 days, and in the other was 19 days. The following table was given, showing the duration of the initial stage in 626 cases.

Disease.	Total Cases in each Disease.	One Day.	Two Days.	Three Days.	Four Days.	Prolonged.	None.
Variola varicelloides	22	6	6	5	1	1	3
,, discreta	316	64	115	52	34	39	12
,, cohærens	45	4	22	12	3	4	—
,, confluens	203	42	67	48	11	29	6
,, corymbosa	1	—	1	—	—	—	—
,, maligna	39	7	13	11	1	6	1
Vaccinated cases.....	517	106	186	103	44	60	18
Unvaccinated cases	109	17	38	25	6	19	4
Total cases	626	123	224	128	50	79	22

In the discussion which followed, Dr. Squire, Dr. Mackellar, Mr. Sweeting, and Mr. Shirley Murphy took part.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.

MONDAY, APRIL 3RD, 1882.

S. LEE RYMER, L.D.S., President, in the Chair.

Syphilitic Teeth.—Mr. ACKERY showed two cases of unilateral syphilitic deformity of the upper central incisors; in each case the left central showed the typical notch, while the right was normal.—Mr. COLEMAN showed a model of a case in which there were two supernumerary central teeth of distinctly syphilitic type, whilst the proper centrals, which were coming down within the arch, were well formed. The patient presented other evidences of syphilitic taint.

Recurrent Epulis.—Mr. GADDES read notes of a case of recurrent epulis. A girl was sent to the National Dental Hospital on account of a tumour connected with the first right upper molar; it was about the size of a bean, and bled frequently. Under gas and ether, the tooth and the bulk of the tumour were removed. The growth proved to be a

round-celled sarcoma, very vascular, and attached to the periosteum of the buccal roots of the tooth. In the course of a few days, a mass of granulations appeared filling up the space recently occupied by the tooth. In spite of several applications of nitric acid, the mass rapidly increased in size, and at the end of three weeks it was evident that something more must be done. Gas and ether having been again administered, Mr. Gaddes removed the whole of the outer alveolar plate with the hyperplasia, and then gouged away the socket of the tooth, with the gum-tissue, nearly to the floor of the anterum, care being taken not to interfere with the adjacent teeth. The wound healed soundly, and when the patient was last seen, four months after the operation, it was difficult to believe from the appearance of the part that so much of the bone had been removed.—Mr. S. J. HUTCHINSON thought that dental licentiates were not justified in undertaking the treatment of such cases as this. The dental license only entitled its possessor to practise dental surgery, and if he wanted to practise oral surgery he ought to be fully qualified as a surgeon. He was himself a member of the Royal College of Surgeons; but, practising simply as a dental surgeon, he was always in the habit of referring such cases to a general surgeon or a general hospital, and he thought that this was the proper course to pursue.—Mr. F. H. WEISS was not prepared to say that they would have acted as they had done, if they had known the exact nature of the case from the first; but it seemed at first sight a very simple one, and it was only after the first operation that they found out with what they had to deal. He suggested that it would be a good thing if the Society would express some decided opinion as to what should be considered to be the limits of dental surgery.—Mr. STOCKEN thought that the duties of the dental practitioner should include the treatment, both local and constitutional, of all diseases connected with the teeth.—Mr. R. H. WOODHOUSE thought they would do well to confine their attention to the care of the dental tissues, since, besides the risk and trouble involved in the treatment of such cases as that described by Mr. Gaddes, such practice would probably cause ill-feeling between the dental and surgical professions.—Mr. LAWRENCE READ thought that any expression of opinion by the Society on the subject was unadvisable, since it could have no power to enforce its decision, and the probability was that practitioners would continue to conduct their practices after their own ideas. This appeared to be the general opinion of the meeting, and the matter dropped.

MIDLAND MEDICAL SOCIETY.

WEDNESDAY, APRIL 5TH.

E. MALINS, M.D., in the Chair.

Aneurysm of the Aorta.—Dr. BARLING showed a large aneurysm of the arch of the aorta, at the junction of the transverse and descending portions, taken from a woman aged 24, who had died in the General Hospital. There was no history of syphilis, but severe pain had been experienced in the back for upwards of two years. Death eventually took place from hæmorrhage into the left pleural cavity. Considerable atheroma of the arch of the aorta was present, but little elsewhere. The bodies of the dorsal vertebræ were eroded, and portions of the third, fourth, and fifth ribs had disappeared.

Thrombus of the Abdominal Aorta.—Dr. BARLING also exhibited the abdominal aorta taken from the body of an old woman with senile gangrene of the left foot. The parts had separated at the ankle-joint; but the patient, who was suffering from chronic Bright's disease, gradually sank. The necropsy showed that the aorta was almost completely occluded by a laminated thrombus, which apparently commenced at the posterior part of the vessel; the channel left for the blood-current, between the external part of the thrombus and the coats of the aorta, was very small. The common and external iliac vessels, on both sides, were much narrower than in healthy subjects, but not more markedly on the side affected by gangrene than the other.

Calculi imbedded in the Walls of the Bladder.—Mr. BENNETT MAY exhibited the bladder of a patient who had suffered from stricture and phosphatic cystitis for several years. The walls of the organ were nearly an inch thick, and imbedded in them were three small calculi, the largest being in size equal to a large horse-bean. The little sacs in which the stones lodged had but a small aperture of communication into the cavity of the bladder. Four months before death, Mr. May performed lateral lithotomy to remove a phosphatic calculus, and in the hope of obtaining recovery by thorough drainage. There was, however, no improvement in the state of the urine; and, on the healing of the wound, which took ten weeks, fresh formations took place in the bladder. This, on two occasions, was cleaned out by the lithotrite and Bigelow's aspirator. At no time did washing out the bladder afford any beneficial effect. Death gradually took place with symptoms of heart-clot.

Epithelioma of Cervix Uteri.—Dr. MALINS, in showing a large epithelioma removed by the *écraseur* from the cervix of the uterus, remarked that, whatever the ultimate result of such cases might be, yet, for a time, marked improvement in the symptoms was effected by removal of the diseased texture.

Ovariotomy.—Mr. HUGH KER (Halesowen) read notes of two cases in which he had performed ovariotomy. One patient did extremely well; the second died immediately the operation was concluded, from the effects of ether administered as an anæsthetic. The *post mortem* examination revealed hydrothorax on one side of the chest. Mr. Ker discussed the propriety of administering chloroform in preference to ether in such cases, and stated his opinion that, for the use of practitioners in the country, chloroform was decidedly the most advantageous anæsthetic.

Rapid Lithotrity.—Mr. T. F. CHAVASSE read a paper entitled "Practical Remarks on Rapid Lithotrity", and gave details of a case in which he had removed 465 grains of uric acid calculus at one sitting. The patient, who was sixty-three years of age, made a rapid recovery.

METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.

FRIDAY, APRIL 28TH, 1882.

ALFRED CARPENTER, M.D., in the Chair.

Material for Splints.—Mr. NELSON HARDY showed specimens of the corrugated paper for making splints, manufactured by Messrs. Smyth and Co. of Islington, which was described in the JOURNAL a few weeks ago by Mr. Walter Pye. He thought it would be found useful both in hospital and in private practice, especially in country districts, for the treatment of fractures in children, and in some cases in adults. The chief objection to it was that if there were much discharge, it would become saturated and cease to give support; but this, he thought might be remedied by varnishing it over when required for such cases.

Pathological Specimens.—Dr. GEORGE RICE showed an ovarian cyst from the body of a woman, single, aged 39, who had been in full work as a domestic servant six weeks before her death, and had only begun to complain of serious illness three weeks before death. When admitted to the Woolwich Infirmary, she measured 34¾ inches at the umbilicus, the right side measuring an inch more than the left. She was tapped, and 394 ounces of fluid removed, but sank shortly afterwards. At the *post mortem* examination, the tumour was found to spring from the left ovary and extend into the right side.—Dr. RICE also showed an aneurysmal sac attached to an enormously hypertrophied kidney, in which were layers of coagulated blood, and a large glandular tumour which he had removed from the neck.—Mr. LOCKHART LAWSON showed an epulis which he had removed from a lady's mouth, and which had been growing three years.

Peculiar Skin-Eruption occurring during Pregnancy.—Mr. ROBERT OSWALD read notes of this case. Mrs. A., aged 40, mother of five children, was confined of a healthy male child on March 7th, 1882. She had had no child or miscarriage for eight years and three months previously. When about five months pregnant with this last child, she noticed a squamous eruption appear on the upper third of the forearms, not affecting the flexures of the elbow-joints. This gradually became worse, until both forearms and hands were affected. The skin was very much indurated, rough, and thickened, and sensation was impaired. Almost concurrently with this, the lower limbs became affected, but with some variation however. The limbs were enlarged to almost twice their natural size, and were œdematous. The skin was very thick and hard, and hung down in masses, resembling elephantiasis. About two months previous to her confinement, large bullæ made their appearance on the lower extremities, but never on the upper limbs. Some of these burst, and formed hard thickened scales—from which exuded a thin, glairy fluid. The pain was very severe, and the patient was unable to attend to her household duties for quite three months previously to the confinement. Two or three days after labour the skin of the forehead, face, neck, and upper part of the chest, which up to that time had been free from blemish, became scaly, thickened, and indurated, although no bullæ appeared. The poor woman was very much disfigured, and entirely altered in looks. In this affection both anæsthesia and hyperæsthesia were present. The patient was no doubt of a rheumatic diathesis. Would this, combined with the great change in the septum during pregnancy, account for this peculiar state of the skin? The only treatment adopted was absolute rest, combined with the administration of alkalies. About two months

previously to her confinement, eight years ago, a similar eruption appeared on the arms, hands, and feet; the face was quite free; and about three weeks after the "lying-in" the skin was quite free again. She had always enjoyed very good health. She was at the time of reading this paper (seven weeks after confinement) considerably better, although bullæ were still present on the legs; but she could walk about with comparative comfort. The severity of the former attack was not nearly to the extent as in the present instance.

The Treatment of Angular Curvature of the Spine.—Mr. JOHNSON SMITH said that the value of Professor Sayre's plaster-jacket method had been shown by a long list of his own cases, many treated and demonstrated in this country, and by the favourable experience of surgeons both here and on the continent. Of the few who had declared themselves opponents of this plan, most acknowledged that, in some cases of spinal caries, it had advantages; whilst amongst those who had practised Sayre's plan of treatment, there was an almost general conviction as to the object and value of the jacket. There seemed to be doubt as to the part intended to be played by the extension or suspension, and as to the degree to which such should be carried. Some had extended carefully and gently, while others had thought it necessary to administer an anæsthetic during the application of the plaster bandage. It being granted that the pressure of the inflamed parts on each other might be relieved by extension, it yet seemed difficult to believe that this relief could be maintained for several weeks by the support of any stiff apparatus, however carefully and skilfully applied. The body, when gently extended under the tripod, was certainly placed in a favourable position for the application of the bandage. A still more favourable relation probably existed when the body was in the recumbent posture; but, with the trunk thus placed, the jacket could not be applied in Sayre's own way, and the surgeon was likely to lose by substituting for a continuous bandage any arrangement of short slips. If this difficulty could be overcome, and a jacket, equal in strength and firmness, and as closely fitting as that devised by Sayre, could be applied whilst the body was in the recumbent posture, extension, it was argued, need no longer be practised, and the tripod might be dispensed with. The chief of the disadvantages were held to be those common to all the so-called stiff or fixed bandages which concealed the seat of the disease or injury. In discussing the indications and contra-indications of Sayre's plan of treatment, the author expressed an opinion that it might be dangerous in cases where there was paraplegia; and that, where sinuses existed in the back, its advantages were neutralised by its inconvenience with regard to the maintenance of cleanliness.—Mr. MASSEY asked if Mr. Johnson Smith had tried poroplastic felt.—Mr. NOBLE SMITH said the question at issue might be brought down to the point of how best to give local rest to the diseased parts. The old plan of recumbency gave no rest to the parts, since every movement altered the position of the spine, and he thought it was not too much to say that the old instrument often did as much harm as good. The chief objection to the plaster-jacket was the retardation of respiration. He had seen many cases where ulcerations and abscesses had formed beneath the jacket without giving any indication of their presence. Unless the disease were very low down, the jacket did not give sufficient support. He thought a splint used by Mr. Chance, which he had modified somewhat, would be found very useful.—Mr. NELSON HARDY had used the poroplastic felt jackets in several cases with great advantage. He thought that Mr. John Wood's plan of double extension was worth a trial.—The CHAIRMAN (Dr. CARPENTER) thought that, in many cases, Sayre's jacket was a great success, because there was no angular curvature at all; in fact, in hysterical cases, great care was necessary in using extension.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: PATHOLOGICAL SECTION.

MARCH 31ST, 1882.

J. F. WEST, F.R.C.S., in the Chair.

Coloboma Iridis.—Dr. WADE introduced a lad with well-marked coloboma of the iris.

Large Gall-stone passed per Rectum.—Dr. WADE showed a large gall-stone, and read notes of a case of hepatic colic which had occurred in the practice of Dr. Nason of Stratford. The first attack of colic occurred in June last year, followed by another about a month later, attended with vomiting, which was at first bilious and then stercoraceous. The symptoms then subsided, but once more recurred, disappearing finally with the passage of a large calculus per rectum, together with a great quantity of fœces. The patient ultimately made a good recovery.

Suprarenal Capsules in Addison's Disease.—Dr. WADE also showed the suprarenal capsules from a case of Addison's disease, which had occurred in the practice of Dr. Nason. The patient was a female, of middle age, much emaciated, and in colour resembling a mulatto. The capsules on microscopical examination were found to be undergoing general caseous degeneration.

Burn.—Mr. WEST introduced a patient convalescing from an extensive and severe burn upon the lower part of the abdomen, the upper and inner part of the right thigh, and the pudenda, caused by falling when drunk on a box of fusees in his right trouser's pocket.

Aneurysm of Aorta.—Dr. MILNER MOORE of Coventry showed a specimen, and read notes, of a case of aortic aneurysm in the neighbourhood of the cœliac axis. The aneurysm was firmly adherent to the duodenum, into which it ultimately burst. The case was interesting in the fact that though the hæmorrhage was severe, the man, aged 28, lived for six days afterwards; and, secondly, that, though the hæmorrhage was into the transverse part of the duodenum, the blood was discharged by vomiting and not by the rectum until a short time before death.

Malignant Infiltration of the Breast.—Dr. BARLING showed a specimen of malignant infiltration of the mamma, which had been excised by Mr. Bartleet at the General Hospital. The patient had no hereditary tendency to cancer. It began with induration near the nipple, with pain in the heart and axilla. On admission the breast was enlarged and hard, but no definite tumour could be made out. The nipple was retracted, and the axillary glands enlarged. Microscopic examination revealed the general characters of diffused scirrhus.

Malignant Disease of Colon: Right Colotomy.—Mr. BENNETT MAY showed a specimen of malignant disease of the transverse colon, presenting the microscopic characters of cylindroma, for which right lumbar colotomy had been performed. The patient was 53 years of age, and the symptoms of obstruction came on gradually. She lived only four days after the operation. The fact that she could retain an enema of three pints indicated that the obstruction was above the sigmoid flexure.

Fibroid Phthisis.—Dr. SAUNDBY showed a patient with fibroid phthisis in that form which had been called cirrhosis of the lung. There was no history of pleurisy, and the patient considered himself well up to three weeks previously.

MANCHESTER MEDICAL SOCIETY.

WEDNESDAY, APRIL 5TH, 1882.

EDWARD LUND, F.R.C.S., President, in the Chair.

Excision of the Tongue.—Mr. WHITEHEAD introduced a man whose tongue he had excised for epithelioma in February, and upon whom he had subsequently performed tracheotomy and gastrostomy, in consequence of the disease having extended to the pharynx. The patient had improved since being operated upon and expressed himself hearty and free from pain.

Exfoliative Dermatitis.—Mr. WHITEHEAD exhibited some large pieces of cuticle which he had received from Mr. Chevallier Reston, of New Zealand. They were reported to represent specimens of a periodic and complete exfoliation which occurred with a woman, whose case was reported in 1881.

Tricuspid and Mitral Stenosis.—Dr. LEECH showed the heart of a woman who had suffered from tricuspid and mitral stenosis.—The right auricle was enormously dilated, the left auricle slightly so. The other cavities of the heart did not appear increased in size.

Staphylorraphy and Uranoplasty.—Mr. HARDIE showed a series of twelve cases of cleft palate, in nine of which he had closed the defect by operation; while three, which had not yet been operated on, illustrated certain varieties of the malformation. In detailing his method of operating, Mr. Hardie expressed his preference for the detachment of the soft parts from the bone in the case of the hard palate, and the division of the muscles by Pollock's puncture when dealing with the soft palate. For sutures, he used silver wires, and found that they might be inserted most easily by first passing the unarmed needle, and then threading it as it presents in the cleft. He showed also small silver clips by which sutures of relaxation might be used in cases in which there was tension on the flaps. For success, he held that much more was to be gained by the cultivation of patience and dexterity, than by the use of curiously contrived instruments.

Case of Spontaneous Fracture in Early Infancy.—Dr. COLLINS showed a child (born on January 2nd, 1882) who had all the appearances of recently united fracture of the left femur when first seen on January 13th. The left humerus was found broken on January 30th; the right humerus on February 20th; the right femur on February 24th. Each fracture occurred at the centre of the shaft of the bone. There was not the slightest evidence of violence or injury; and he was unable, by the most careful inquiry, to trace a history of syphilis or other

hereditary disease. All the long bones in this child were more or less curved, especially the tibia and fibula on both sides, which were almost angular about an inch above the ankle, with some thickening. Analysis of the mother's milk, collected March 3rd, showed that casein and butter were below, milk-sugar above the average quantity; salts were normal. Twenty days after, during which cod-liver oil was administered to both mother and child, a second analysis was made of the milk, showing normal quantities of casein, butter, milk-sugar, and salts. All the fractures had united firmly and rapidly, and the child's health had not apparently been in the least affected.

Thrombosis of Left Innominate Vein.—Dr. WALTER showed a patient, aged 24, recovering from thrombosis of the left innominate vein, which occurred in connection with phlegmasia dolens of the left arm a month after labour. The lesion was ushered in with rise of temperature (104°), delirium, and excessive tenderness along the deep vessels of the neck, and was rapidly followed by swelling of the entire left half of the neck, the superficial veins of the same side of the face, neck, and infraclavicular and mammary regions becoming greatly enlarged. In a week, the symptoms abated very much, and a month later had completely disappeared, with the exception of the enlargement of the veins of the left infraclavicular and mammary regions.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.

TUESDAY, MARCH 14TH, 1882.

HECTOR C. CAMERON, M.D., President, in the Chair.

Aphasia.—Dr. FRASER showed an aphasic patient, who had become re-educated to a considerable extent. He did not understand spoken words, nor could he reply correctly to spoken questions, but replied at once correctly to written questions, and read what was written. Thus when a purse was shown to him, he called it "foke"; when "purse" was written he read it at once correctly; but immediately afterwards when shown a purse, he called it "foke". When asked orally his age. he answered "John"; when asked in writing, he answered "56", originating the number in speech. He also told the number of fingers, so that he had not lost the faculty of numbering, or had regained it.—Dr. W. T. GAIRDNER showed a similar patient for comparison. He also had become re-educated to some extent. His intelligence was fairly normal, and he had considerable sense of humour. When first seen, four years ago, he could hardly name anything correctly, or else he did so with defective articulation; some things he named better than others. He had no catch words or "barrel organ" expressions which came out whatever questions were asked. He learned to play dominoes correctly, but could not name the numbers, and if a number were asked he was quite puzzled. He could render numbers on his fingers, and thus could tell the hour correctly. After some time he learned to draw a little, then to write his age in figures, or the number of a domino; but still he could not say it, or said it wrongly.—Dr. MEIGHAN made an ophthalmoscopic examination of both patients. In Dr. Fraser's case the refraction was hypermetropic : $\frac{1}{30}$. The optic disc of the left eye was pale, with a small spot of pigment at the upper and outer side; the veins were dilated and tortuous; the arteries small and contracted. In the right eye, the appearances were normal. In Dr. Gairdner's case refraction was emmetropic and the discs normal, but the vessels in the left eye were dilated and more numerous than in the right.

Glandular Epithelioma of Lower Jaw.—Dr. GEORGE BUCHANAN showed a round tumour of the size of a large walnut, distending the body of the lower jaw. The walls of the cavity were very thin, and gave the sensation of egg-shell crackling. The tumour apparently arose in connection with a painful tooth. The entire jaw was removed; and, on examination by Dr. Stevens, the tumour was found to consist of glandular masses of epithelioma lined with columnar epithelium, and embedded in a loose mucous tissue of gelatinous consistence.

Cystic Tumour of Fibula.—Dr. BUCHANAN also showed a large tumour from the upper end of the fibula of a boy of 15 years. A year ago, after a kick, a swelling formed over the fibula, which gradually increased in size. Before removal the tumour seemed to be malignant, and gave the sensation of egg-shell crackling. On making an incision, however, into the tumour, nothing but a reddish fluid containing blood-corpuscles and oil-globules escaped, there being no solid matter whatever in the interior. The tumour might therefore be called a simple cyst. Nearly the upper half of the fibula with the tumour was removed, and the boy made an excellent recovery.

Enlargement of Colon.—Dr. W. T. GAIRDNER showed for Dr. CARLYLE JOHNSTONE of the Morningside Asylum, Edinburgh, an enormously enlarged colon from a female insane patient. She had been thirty years in the asylum, and for many years her abdomen had been noticeably increased in size. She generally enjoyed good health with occasional bilious attacks, though latterly symptoms of phthisis set in. She never complained of pain or of constipation, and when bilious never took medicine, but merely lay in bed, and abstained from food for a few days. Ten days before her death she had a severe bilious attack with vomiting diarrhœa and increased distension of abdomen. Several doses of purgative medicine were given, and were reported by the attendants to have operated freely. The patient seemed to have recovered, and on the morning of 17th February she arose and took some breakfast, but fainted suddenly and died: aged 64. *Post mortem* examination showed all the organs healthy, except the colon, which was very large, measuring 26½ inches in circumference and distended with fæces. The rectum completely filled the pelvis, pushing the uterus and bladder forwards and upwards into the abdomen. The small intestine was fairly normal in size. No stricture or other organic obstruction was found. Microscopic examination of the colon showed that great hypertrophy of the muscular fibres had taken place, the walls being twice their normal thickness; the mucous membrane was considerably congested in patches, and there were numerous small superficial erosions in it. The abdomen at the level of the umbilicus measured 43 inches in circumference.

Perforating Ulcer of Duodenum.—Dr. EDWARD MCMILLAN showed this specimen, from a woman who had suffered for some time from indigestion, for which she had been in the habit of taking quinine and tincture of perchloride of iron. While sitting at breakfast, she had been suddenly seized with severe pain and cramps in the abdomen. In two hours she had marked symptoms of peritonitis, and died in twenty-four hours. On *post mortem* examination, a small perforating ulcer was found half an inch beyond the pylorus, and resembling in its characters a typical gastric ulcer. There had been no hæmorrhage.—Dr. W. T. GAIRDNER remarked that he had seen some chronic ulcers of the duodenum, ending in perforation and death, without hæmorrhage.

Sponge-Grafting.—Dr. W. MCEWEN showed some microscopic specimens to illustrate this process. He had grafted one half of an ulcer on the outer side of the leg; but, while the meshes of the sponge rapidly filled with granulation tissue, the ulcer did not heal. The sections shown demonstrated the fact that absolutely no change had taken place in the sponge, and Dr. McEwen therefore objected to the term sponge-grafting, because the sponge-tissue never became alive. He did not find the process of any value.

REVIEWS AND NOTICES.

ON THE ENDEMIC HÆMATURIA OF HOT CLIMATES CAUSED BY THE PRESENCE OF BILHARZIA HÆMATOBIA. By F. H. H. GUILLEMARD, M.A., M.D. Gonville and Caius College, Cambridge; Fellow of the Royal Geographical Society. London: Baillière, Tindall, and Cox. 1882.

THE special interest of this pamphlet is that it contains the carefully detailed history of a case of endemic hæmaturia, studied from its very onset by a careful observer. After describing the type-case and various phenomena connected with Bilharzia disease as noticed in this case, an historical abstract of the discovery of the parasite and its life-history is given, the mode of infection discussed, and its geographical range indicated. The symptoms, diagnosis, pathology, prognosis, and treatment are reviewed; and in an appendix are some remarks on Bilharzia in animals, and the relation of the disease to *Filaria Bancrofti* (*sanguinis hominis*).

The type-case, a male, aged 29, travelling in South Central Africa, was convalescent from malaria and dysentery, when he was one day suddenly seized with sharp pain in the urethra while passing urine. This was followed by dysuria and sharp perineal pain, and frequent desire to pass urine. This was at the end of April. When he reached the Diamond Fields in June, his urine was first examined, and found to contain numerous specks about the size of a pin's head, of bright scarlet colour. It was free from albumen. Microscopical examination revealed a few blood-corpuscles, pus-cells, and ova of Bilharzia. About two months from the commencement of his symptoms, blood was first noticed in the urine with the naked eye, the amount being limited to a few drops immediately after micturition. By this time, the irritability of the bladder had ceased; but the dysuria was so great, that the patient accustomed himself to pass urine once only daily. On his return to this country, he felt almost in his usual health, though slight hæmaturia persisted. On reaching England, three ounces of a solution of iodide of potassium, one grain to the ounce, were injected. The result, however, was most unfortunate, it being followed by an attack of acute cystitis with great constitutional disturbance. It is not clear that the injection was altogether blamable for the result; for, at the time of the operation, the orifice of the urethra was slightly in-

jected and swollen, certain portions of the perinæum and under part of the penis were slightly tender on pressure, and the passage of the catheter was attended with extreme pain. Supervening on the cystitis, digestive disturbance, a slight attack of pericarditis, and, later, muscular twitchings, troubled the patient. There then occurred gradual improvement of health, but hæmaturia persisted. Nine months' residence in Madeira much benefited his general health, but little improved his local condition. His "present condition" is described in considerable detail, irritability of the bladder and occasional acute lancinating pain in the perinæum being the most prominent symptoms. It is stated: "The patient is firmly convinced that he can at times feel the actual movements of the helminth in the urethra; and, considering the size of the animal, it is not impossible." We must here remark that this statement is liable to prove a little misleading; for, though it is *possible* that the movements of the worms are appreciable to the patient, it must be remembered the parasites are in the urethral veins, not in the urethra itself. We make these remarks because one of our contemporaries, in reviewing the little book, has fallen into the mistake of believing the parasite (more probably parasites, for the female is enclosed during ovulation in the gynæcophoric canal of the male) to lie in the urethral canal, and has made the ingenious suggestion that "it seems probable that it might be seized by an instrument adapted from the lithotrite". The general characters of the urine are well given, and attention drawn to naked-eye appearances, which are almost pathognomonic. These are, minute opaque rounded masses, not exceeding the size of a pin's head, either white, yellowish, or brilliant red; and brightly blood-stained branching fragments, resembling small fragments of veins, floating in the urine or deposited as a sediment.

In writing of the appearance of the ova, the author perhaps speaks a little too positively of the relative positions of the head of the ovum and the spine of the ovisac. He remarks: "Cobbold says, probably from an error, that 'the tail is generally directed towards the spine-bearing end'." The relative positions are very indefinite; and in some recent specimens we examined from two patients—one from North, and the other from South Africa—the spine was nearly equally directed to the tail and the head. If there were any preponderance in one direction, it was towards the tail. The remarkable and most interesting phenomena of hatching the eggs is graphically described. One of the most important points to be yet determined is the mode of infection; for, when the parent helminths are once in the urethral or mesenteric veins, treatment is practically confined to minimising the effects they evoke. Most writers now believe that the disease is communicated by means of unfiltered drinking-water. The author, however, is inclined—it seems to us with some reason—to connect the infection with river-bathing; and thus is explained the predominance of the disease in males. Whether the embryos gain admittance through the skin or natural apertures of the body, as the author suggests, or by water imbibed whilst bathing, is certainly open to doubt. The native belief that the parasite enters by way of the urethra, and the means taken to prevent this, mentioned by Dr. Norman Moore at a recent meeting of the Pathological Society, when Dr. Zancarol of Alexandria introduced the subject, are alluded to. The tendency to calculus is mentioned. It is interesting to note that the blood of the type-case was found on one or two occasions to contain embryonic *Filaria sanguinis hominis*. The same thing has been also observed by Sonsino in a few cases. The author very properly regards the coexistence of the trematode and nematode in the same subject as a mere coincidence; but he throws out the suggestion that this coexistence may explain cases which begin as hæmaturia and ultimately assume the characters of chyluria.

In conclusion, we have only to cordially recommend this well-written essay to our readers. By an hour's agreeable reading, anyone can obtain a very good knowledge of the disease of which it treats, which is certainly one of the most remarkable and interesting in our nosology.

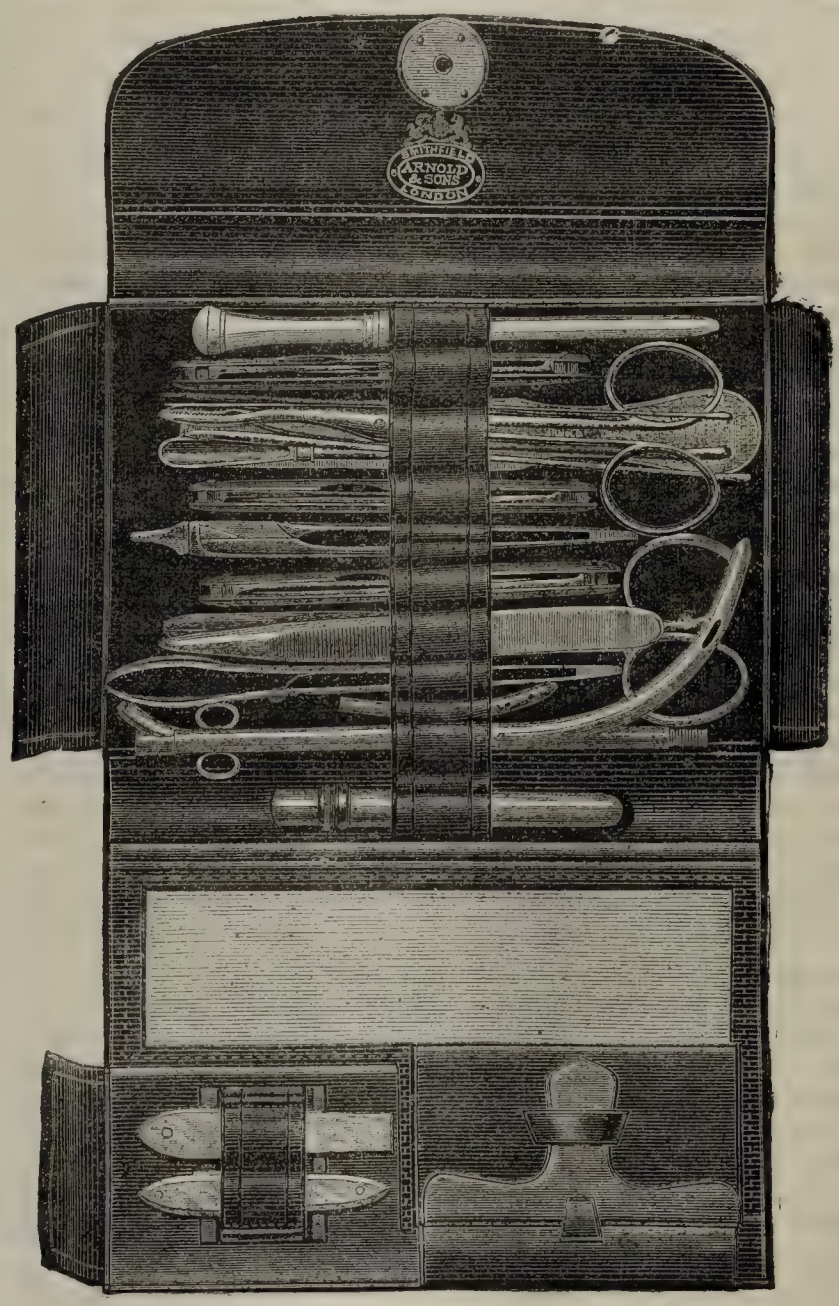
REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

CLINICAL THERMOMETERS.

Messrs. E. Greenwood and Co., of Topsfield Road, Crouch End, London, N., have brought under our notice their "New Improved Clinical Thermometers", which are well adapted for use in hospitals and infirmaries, and the medical profession generally. These instruments are specially made, and every care is taken so that they should be perfectly accurate, while they are remarkable for their extremely low price. They have also a great advantage over those of the old pattern in that the indices are much longer, and will not run down, which oftentimes is a great annoyance when a quick reading is required to be taken in urgent cases. Many of the large hospitals in London, and also in the provinces, are now being supplied from these makers. These thermometers are also supplied at a singularly cheap rate, viz., 48s. per single dozen, or 4s. 6d. each in cases; or, where three dozen are ordered, at 42s. per dozen in cases complete. This low cost is often a great consideration, especially where a large number are required for public institutions.

NEW-SHAPED POCKET-CASE.

Messrs. Arnold, of West Smithfield, have designed a Pocket-Case of an entirely new design. Its advantages over the old form of case



will readily suggest themselves. It is made curved, so that it adapts itself to the contour of the body, and can be carried in the breast-pocket without bulging. The contents are arranged in an exceedingly small space; although, whilst containing the full complement of instruments usually found in an ordinary three-fold case, its dimensions are only $5\frac{3}{4} \times 4\frac{1}{4} \times 1$.

The case contains: exploring trocar and cannula, Syme's and Paget's abscess-knife, scalpel and finger-knife, sharp and probe-pointed bistoury, electro-plated spatula, bow dressing or polypus forceps, torsion forceps, dressing scissors, spring dressing forceps, silver male and female catheter united, silver caustic-case with palladium spring holder, gum lancet, bleeding lancet, silver director, two silver probes and half a dozen needles. In addition to the above, it is provided with an ivory tablet for pencil notes.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1882.

SUBSCRIPTIONS to the Association for 1882 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, MAY 13TH, 1882.

RECENT RESEARCHES ON BACTERIA.

II.—KOCH'S INVESTIGATIONS ON TUBERCULOSIS.

EXPERIMENTS which have been carried on during the last few years have demonstrated beyond a doubt that tuberculosis belongs to the group of infective diseases, although various questions have arisen as to the origin of a similar disease from inoculation with non-tubercular matter. Many of these difficulties have been cleared up, and a great advance has been made in the pathology of this subject, by the beautiful experiments recently published by Dr. Koch. Starting from the point of view that the infective nature of the disease has been demonstrated, and with the knowledge that all the infective diseases at present thoroughly investigated have as their cause some form of micro-organism, Dr. Koch has studied tuberculosis in man and in animals, both spontaneously occurring and artificially produced, according to the methods described in our last article.

The first point was to ascertain whether any micro-organisms were present in the body of men and animals which had died of tuberculosis, and whether, if present, they were always of the same kind, and had definite characteristics distinguishing them from other forms. For a long time, these attempts failed; but, by a special method of preparation, the difficulties were at length overcome, and a bacillus was found, of definite form, and with certain very characteristic peculiarities. One cubic centimètre of a concentrated alcoholic solution of methylen blue is mixed with 200 cubic centimètres of distilled water; to this is added two cubic centimètres of a ten per cent. solution of caustic potash, the fluid being well shaken. The material to be stained is kept in this solution for from twenty to twenty-four hours, or, if at the temperature of 40° Cent. (104° Fahr.), for a half to one hour. The cover-glasses on which broken down portions of tubercle have been dried, are then placed for two minutes in a filtered concentrated watery solution of vesuvin. As a result, the methylen blue is displaced by the vesuvin from everything but the tubercle-bacilli; so that, after washing in distilled water, the bacilli stand out as blue rods on a brown ground. Sections are treated similarly; after having lain for twenty-four hours in the methylen blue, they are transferred to the filtered concentrated watery solution of vesuvin for fifteen to twenty minutes, then they are placed in distilled water till no more of the stain comes out, and afterwards in alcohol, oil of cloves, and Canada balsam. Here, also, the nuclei are stained brown, while the tubercle bacilli appear as delicate blue rods. All the other forms of bacteria which Dr. Koch has as yet examined in this way are stained brown, with the exception of the bacilli found in leprosy, which also retain the methylen blue in preference to the vesuvin. These bacilli may also be stained by other aniline dyes if the solution be made alkaline by the addition of caustic potash or soda. The bacilli found in this way are delicate rods from a quarter to a half the diameter of a blood-corpuscle in length. They are present in large numbers in all places where the tubercles are of recent formation and spreading rapidly, more especially at the border of the cheesy masses. They possess a special relation to the giant-cells, being found in their interior sometimes to the number of twenty in each cell. In old tubercles, there are fewer bacilli, though they are seldom altogether absent, unless where the tuberculous process has come entirely to a standstill.

It might be objected that these appearances have, in some way or other, resulted from the staining process employed; but Koch states that the bacilli may be seen without being stained at all. For this purpose, a portion of tubercle containing these bacilli may be examined in blood-serum or distilled water in a hollow slide, when the bacilli will be found as delicate rods which do not possess any power of movement. In some of the rods seen in sections, spore-formation may be observed, the spores being of oval form. Dr. Koch has examined the following cases in man: eleven cases of miliary tuberculosis, twelve cases of cheesy bronchopneumonia, one case of a tubercle in the brain as large as a hazel-nut, and two cases of intestinal tuberculosis; in all of these, bacilli were present. Three cases of freshly extirpated scrofulous glands were examined, in two of which bacilli were found enclosed in giant-cells; and in two out of four cases of synovial degeneration of joints they were present in small numbers in giant-cells. Among the lower animals, ten cases of *perlsucht* were investigated, also three cases of so-called bronchiectasis in cattle, a cheesy gland in a pig, a tubercular hen, three monkeys which died of spontaneous tuberculosis, nine guinea-pigs and seven rabbits which had spontaneous tuberculosis, and 172 guinea-pigs, 32 rabbits, and 5 cats which had been infected with the disease; in all of these, the tubercle-bacilli were found. The constant presence of a distinct form of organism in a distinct pathological process was thus demonstrated, but it did not, therefore, follow that this organism was the cause of the pathological process.

An important point now arose, viz., whether the disease which followed the inoculation of material containing living bacilli was produced by that inoculation, or was due to accidental causes. The following points indicate that it did not arise spontaneously. In spontaneous tuberculosis, such a plentiful crop of tubercles never developes in so short a time as in those cases where inoculation was performed; secondly, control animals which were treated in the same way as the inoculated animals, with the one exception that no material containing these living bacilli was introduced into them, did not become tuberculous; further, in spontaneous tuberculosis, the bronchial glands become enlarged and cheesy, and then the lung is affected. In these cases, where inoculation was performed generally on the abdomen, the nearest lymphatic glands, viz., the inguinal, and at times the axillary, became first enlarged, and the spleen and liver were specially affected.

That the material which produced this infection must contain living bacilli for a successful result—that, in other words, the bacilli stood in relation to the result of the inoculation as cause to effect—was rendered probable by the following fact. In all cases where the material used for inoculation contained living bacilli or spores, the result was positive in animals liable to infection; while, where the material inoculated did not contain these bacilli or their spores, a negative result was obtained, the animal remaining healthy. Thus, in several cases, experiments were performed with the contents of a scrofulous gland, and with degenerated synovial membrane, neither material containing bacilli; and also with the tubercular lungs of a monkey, some parts of which had been dried for two months, and some kept one month in alcohol, and in no instance did tuberculosis follow.

In order to prove that the bacilli were the real and only cause of the infection, it was necessary, however, to separate them from the tuberculous material, and introduce them alone into the animal. This was done in the manner indicated in our last article, by growing them on a solid substratum. It was found that these bacilli required a temperature approaching that of the human body for their growth. Now, at that temperature, the gelatine cultivating preparations became fluid, and thus the advantages of solidity were lost, while it was also found that these bacilli grew in fluids only with the greatest difficulty. The material which Koch has found best for the present purpose is blood-serum which has been rendered solid by heat, but which has not been exposed to so high a temperature as to become opaque. If blood-serum be exposed for an hour daily to a temperature of 58° Cent. (136.4°

Fahr.) for several days in succession, it is generally thoroughly sterilised; then, by keeping it for some hours at 65° Cent. (149° Fahr.), it becomes solid without losing its transparency. Portions of tubercles removed from the body, with various precautions to prevent the access of extraneous organisms, are placed on the surface of this material, and the vessel kept in an incubator at a temperature of 40° Cent. (104° Fahr.). The following phenomena occurred, whether the tuberculous material was taken from animals which had been killed after infection with tubercle, from animals which had died of spontaneous tuberculosis, or from human beings which had died of tuberculosis. For a week, there was no marked alteration; if marked development occurred within that time, it was always due to extraneous bacteria, and the experiment had failed. About the tenth day, small points and scales became evident, which slowly spread, and were seen to consist of tubercle-bacilli. After about fourteen days, these bacilli were transferred to fresh blood-serum. In doing this, the scales were broken up as much as possible, and a minute portion transferred to a new flask. When this transference had taken place several times, the original material was entirely got rid of, and only the bacilli developed from it remained. Now, inoculation of these bacilli, isolated in this way from all the other original material, produced tuberculosis with the same certainty as did the inoculation of tuberculous material containing living bacilli. The substance inoculated was generally introduced beneath the skin of the abdomen, or into the anterior chamber of the eye; and the bacilli had been cultivated in four to ten or more different flasks. Without enumerating the experiments, we may give the first as an example. Of six newly bought guinea-pigs, four were inoculated under the skin of the abdomen with bacilli which had been obtained from the lung of a human being who had died of miliary tuberculosis; these bacilli had been grown for fifty-four days, during which time five successive cultivations had been carried out. Two of the guinea-pigs were not inoculated. One of the inoculated animals died on the thirty-second day, and all the rest were killed on the thirty-fifth day. All those which had been inoculated showed extensive tuberculosis in the various organs, while those which had not been inoculated remained healthy. A number of experiments carried out in this way, and several in which the bacilli were injected into the abdominal cavity, yielded results absolutely identical with those which followed the introduction of tuberculous material containing living tubercle bacilli.

Similar results followed the introduction of bacilli into the anterior chamber of the eye. Thus, to mention one experiment, four rabbits were taken; into the eye of the first, pure blood-serum was injected; into the second was introduced the point of a syringe filled with blood-serum containing bacilli obtained from tuberculosis in a monkey, and cultivated for 132 days; but the piston was not moved, and thus no injection was made (this was an inoculation properly so called), while this serum with bacilli was injected into the eyes of the third and fourth rabbits. All the animals were killed on the thirtieth day. The first rabbit was healthy; the third and fourth had iritis, panophthalmitis, emaciation, and numerous tubercles in the lungs; the second had typical tuberculosis of the iris, the lymphatic glands under the jaw and near the root of the ear were swollen and infiltrated with whitish yellow nodules, but the lungs and other organs were still free from tuberculosis. This experiment shows that the rapidity of development of the morbid process depends on the number of bacilli inoculated, as was also demonstrated by the fact that the development of tubercles was more rapid and more extensive when the material was introduced directly into the abdominal cavity or into the veins. Also, in the second rabbit, there was nothing introduced except a few bacilli or their spores adhering to the end of the syringe; the microscopic portion of material which produced the infection could not possibly contain any of the original tuberculous matter, seeing that the bacilli had been passed through at least ten different flasks. We have already stated that the tubercles produced in this way were similar to those arising spontaneously; and, on microscopical examination, the appearances as to character of cells, presence of bacilli, etc., were absolutely identical.

These investigations seem very definite, and only require careful confirmation to enable us to accept the matter as proven. That the facts are accurate and have been observed with scrupulous care, all who are acquainted with Dr. Koch and his work will admit; and Koch does not seem to be going beyond a legitimate conclusion when he writes that it must be looked on as a great advance of knowledge "that, for the first time, the parasitic nature of a human infective disease, and, indeed, of the most important of all diseases, has been completely demonstrated." As yet, the only disease in which so much and such convincing proof has been furnished is anthrax; though the presence of micro-organisms, which seem to stand to the morbid process in the relation of cause and effect, has been shown in a number of other affections. The questions which arise as to the relation of these organisms to the complex processes grouped together as phthisis, the views as to heredity, infection, etc., are too numerous to enter upon in the present article.

ANTIVACCINATION FALLACIES.

DR. CHARLES J. PEARCE has recently published another attempt to prove, by statistics, the worthlessness of vaccination as a protection against small-pox; his work is published by the Society for the Abolition of Compulsory Vaccination, and is dedicated to the British Parliament. As a contribution to vital statistics, it affords yet another example of the difficulty which strong partisans find in dealing dispassionately and scientifically with figures. It is unnecessary to doubt Dr. Pearce's intention to deal fairly with the statistics of small-pox and vaccination; but it is surprising to find that he has simply adopted and reiterated all the most extravagant assertions and misleading figures that have been put forward during the past ten years by uncompromising antivaccinators; and that all the statements and statistics issued by believers in vaccination during the same period are not only unanswered, but are simply ignored. Neither will truth or the cause of antivaccinators be served by this method of treatment. The uninformed may be deceived and carried away by Dr. Pearce's one-sided statement of the case for antivaccination; but whether from a statistical, a medical, or a public health point of view, the fallacies with which his statement abounds can scarcely escape the notice of readers who bring intelligence and knowledge to bear upon the question.

Dr. Pearce, few years ago, indited a letter to Mr. Sclater-Booth, then President of the Local Government Board, in which he called attention to the fact that, since compulsory vaccination was enacted in 1853, there had been three small-pox epidemics in England and Wales: in 1857-8-9, in 1863-4-5, and in 1870-1-2. He further showed that the number of fatal cases of small-pox successively increased at each of these epidemics; and also that this increase of deaths from small-pox was proportionately much greater than the increase of population between those periods. This statement, so far as it goes, is correct, and is perfectly satisfactory to Dr. Pearce, who complacently remarks: "So much for vaccination in relation to small-pox in England and Wales." This statement, however, is so distinctly a partial statement of facts, that it suggests, and Dr. Pearce distinctly asserts, the fallacy that the mortality from small-pox has largely increased in England and Wales since compulsory vaccination was instituted. The fallacy of Dr. Pearce's statement, which has been disseminated broadcast on leaflets by the Society for the Abolition of Compulsory Vaccination, was pointed out in these columns, and elsewhere, at the time; but it suits Dr. Pearce, as well as other advocates of the repeal of the Compulsory Vaccination Acts, to ignore the following unquestionable fact. The mortality from small-pox in England and Wales since when this Compulsory Act was first enacted, has fallen to less than 1853, half what it was in the years prior to that date. The annual death-rate from small-pox in England and Wales averaged 420 per million living during the 12 years prior to compulsory vaccination, for which such mortality statistics are available; whereas in the twenty-eight years 1854-81,

during which vaccination has been compulsory, and more or less effectually enforced, the rate of mortality from small-pox has declined to 196 per million. We should be interested to know what Dr. Pearce and other antivaccinators have to say to this fact, which they carefully avoid mentioning in their sensational literature. There has been, indeed, in recent years a tendency to increased mortality from small-pox in epidemic years, but, in non-epidemic years, comparatively few deaths occur; hence the mean rate in a long series of years shows a marked decline.

Apart, however, from this avoidance of figures, which are objectionable, as not fitting in with his opposition to vaccination, Dr. Pearce's book contains some inexcusable inaccuracies. We may especially note that, in Table XIV, he gives the annual death-rate from small-pox in England and Wales per million living in the five years 1875-79 as 344; this is more than four times the correct figure, which is only 82. This incorrect figure, Dr. Pearce states, was furnished to him by the courtesy of Dr. Ogle, the successor of Dr. Farr in the General Register Office. It is hardly probable, however, that such a manifest blunder could have been committed in an official communication from the General Register Office. Any way, there is no foundation for the conclusion, based upon this false figure, that the "death-rate from small-pox has greatly increased". The fact is that, during the nine years (1873-81) that have elapsed since the remarkable epidemic of 1871-2, the annual death-rate from small-pox has been so low as 83 per million, which is less than a fifth of the rate that prevailed during the pre-compulsory vaccination period of which we have trustworthy statistics. Dr. Pearce's book is based on the assumed increase of small-pox fatality in England; and, in face of the above mentioned figures, it is evident that this assumption is a fallacy, and one which is inexcusable in any one who writes authoritatively on the statistics of small-pox and vaccination. This is far from being the only fallacy asserted or implied by Dr. Pearce's essay, but it is, perhaps, the most important one. No one can assert that vaccination has fully answered the expectations of Jenner; and no one can deny that the epidemic of 1871-2 disclosed serious defects in its administration, as well as the necessity for revaccination of adults. Such a work, however, as Dr. Pearce's, full as it is of exaggerated statements and fallacious figures and assertions, will not assist in arriving at the true statistical relation between vaccination and small-pox.

PUBLIC APPOINTMENTS THROUGH NOMINATION.

IT need hardly be observed to those who rightly understand the history and constitution of the British Medical Association, that one of its most important functions is the advancement of the general welfare and reputation of the medical profession as a whole, and not the mere promotion of the interests of any one section of it. Although its chief direction, and the place of publication of its JOURNAL, happen, from the force of circumstances, to be located in the metropolis, it by no means follows that the concerns of the metropolitan part of the medical profession, or of the teachers and students of the metropolitan schools, have any more weight with those in whose hands the direction of the affairs of the Association is for the time placed, than the concerns of the schools and practitioners in other parts of the kingdom. It should be evident, indeed, to all who may give attention to the subject, that the Association would cease to have the influence it really possesses, if an endeavour were made to obtain special advantages for a portion of the profession, whether educational or as practitioners, at the expense of others occupying similar positions, or engaged in similar occupations elsewhere. No member of the Association would contravert the truth of this statement; and, if we now assert it, it is because we have been recently taken to task by a military contemporary for not complaining, in some remarks which we found occasion to make on the last examination for commissions in the Army Medical Department, of no instances having occurred of surgeons being nominated to vacant commissions, but that all the appointments had been given to surgeons who had publicly competed for them. It is certainly true that we did not make any complaint on the score mentioned. We did not do so for various reasons of a general nature, which need not be now stated, as they were put forth fully at the time of the publication of the warrant, in which, for the first time, the military authorities secured for themselves the power of nominating a proportion of the medical officers of the army independently of public competition; and also for another reason, which was not, at that time, adverted to, but which nevertheless is not without considerable weight: and that is, because we are well aware that, if a system of nomination were carried out, it would practically be assisting the London schools of medicine at the cost of all the other medical teaching establishments of the empire. With the opportunities of intimate communication which exist between the staffs of the military departments in London and the staffs of the metropolitan medical schools, there is danger that the appointments by nomination would nearly all fall into the gift of the latter. Even without any intention of favouritism, owing to the difficulties in the way of free consultation with the teachers of schools at remote distances, the result could hardly be otherwise if such a system were in force. Under any circumstances, suspicions would be aroused that private interests ruled the choice of the nominees, and feelings of jealousy and dissatisfaction would be engendered in every medical school which did not happen to receive an offer of nominating one or more of its students to a commission in the Army Medical Department. As it is, and as it has been for a long time past, knowing, as all schools do, that the vacant medical commissions in the public service are open to free competition; that every student, after obtaining the necessary qualifications, may start on equal terms in the race for such appointments if he chooses to do so, the ground is cut away for any sense of unfairness, and no cause of complaint can be established.

Notwithstanding that the advantages of admission to the medical branches of the military services by fair and open competition appear to us so manifest, our contemporary, the *Broad Arrow*, has expressed its surprise, in an article in its issue of the 8th April, that, "as a leading representative of professional opinion", this JOURNAL should have "ignored the growing grievance amongst medical men aspiring to commissions" of there being no entries by nomination. After pointing out that the Royal Warrant of 1879 prescribed that half the vacancies in the Army Medical Department should be filled up by competition, and that, as regards the other half, the Secretary of State was empowered to supply them on the nomination of the governing bodies of the medical schools, our contemporary argues that, although the filling up of half the appointments by nomination was only permissive, the removal of the compulsory condition as regards this half was clearly intended to convey something more than a hope that competitive examination was not to be applied universally as before. Yet no application for admission on the system of nomination, it mentions, has been entertained, so that the supposition becomes inevitable that the permissive clause was meant to be inoperative, and that it was simply introduced as a bribe to win back candidates when the service was unpopular. The final conclusion at which our contemporary arrives is that, as the medical service has become popular without the nomination clause being acted upon by two successive Secretaries of State, and as it appears evident that it is not intended to be acted upon, "all concerned, and certainly not least the medical schools themselves, will be benefited by its removal. To keep it in reserve in case of future unpopularity of the department is not a dignified, nor even a prudent, proceeding; for whilst, on the one hand, warrants have suffered too much already by saying what they do not mean, on the other hand, the class of candidates would not be worth having who would accept a commission which their brethren should for any good reason decline."

With the conclusion to which the *Broad Arrow* has come regarding the nomination clauses of the last Army Medical Warrant, we fully agree, although we cannot admit that there has been any sense of grievance among members of the medical profession because it has not hitherto been acted upon. We believe that all aspirants for commis-

sions whose medical services have been worth acceptance, so far as the welfare of the officers and men of the army is concerned, have been quite willing to compete on fair and equal terms for the vacant commissions; and that the profession—and not only the profession, but the public also—would have raised an outcry if, through the influence of any particular set of teachers, or any particular school, some individuals should have had commissions conferred on them by private recommendation and favour. There has been abundant evidence of the unsatisfactory conditions under which testimonials and laudatory certificates are sometimes obtainable; and experience has proved the little real importance which is not unfrequently to be attached to them if relative qualifications and merits be considered. Our contemporary, in remarking that no application for admission to the Army Medical Department by nomination has been entertained, leads to the inference that such applications have been made. We should like to know from what quarter these applications have emanated. Supposing they were made by some particular London school or schools, and that the applications should have been granted, we would ask our contemporary to consider how the fact would have been regarded by other London schools on whom no such favour had been conferred. And presuming there to be vacancies enough for nomination appointments to be allotted to all the London schools, so that every one had a commission placed at its disposal, what about the provincial, Irish, Scotch, and Colonial schools, who could most justly claim the right to a similar privilege? The appointments in the medical branches of the services are undoubtedly public appointments, and, subject to the special qualifications imposed on all candidates for them alike, ought to be available on equal terms, without favour or private interest, to every qualified practitioner wishing to obtain them. No legitimate objection can be urged against an arrangement by which the competition for appointments is equally open to all concerned, and the appointments are given to those only who prove themselves, to the satisfaction of reliable and impartial judges, to be the best among the competitors; but we may safely assert that no system under which one body of candidates are compelled to compete publicly for half the vacant appointments, while another body of candidates are to receive a similar number as personal gifts through private or special recommendations, will ever acquire favour with the profession at large. The necessity for such a divided system, and one so foreign to the spirit of the age, must be very strong and patent indeed, before it can be carried into operation without very powerful opposition, not only on the part of the medical profession, but also of the public in general.

DR. FANCOURT BARNES has been elected Assistant Obstetric Physician to the Great Northern Hospital.

THE Clinical Society will hold its usual meeting this (Friday) evening. The notice was accidentally omitted from last week's JOURNAL.

A DINNER in aid of the funds of the London Fever Hospital is to be given at Willis's Rooms on Wednesday, the 14th June, when His Royal Highness the Prince of Wales has consented to preside.

THE epidemic of small-pox at Wells, Somersetshire, shows, unfortunately, no sign of abatement. With a view of securing, so far as possible, the isolation of those attacked, the local authority have decided to erect a series of huts for their reception.

THE Bishop of London has this week presided, at King's College, over the annual meeting of St. John's House and Sisterhood. The report showed that the work of the Sisterhood was still increasing, and was doing much to diminish human suffering, especially among the poor.

ON the 9th instant, the Convocation, and on the 10th instant, the Senate, of the University of London passed resolutions condoling with the Duke of Devonshire, who was for many years Chancellor of the University, on the recent terrible bereavement which has befallen the house of Cavendish.

MR. HENRY C. BURDETT will read a paper at the meeting of the Statistical Society, King's College Entrance, Strand, on Tuesday evening next, 16th instant, at a quarter to eight, on "The Relative Mortality of Large and Small Hospitals, and the action of the Antiseptic (Listerian) System upon such Mortality." The statistics cover a period of six years. The paper will be followed by a discussion, in which members of the profession are invited to take part.

MEASLES seems to be very prevalent in Bradford. At one of the schools nearly two hundred children have been absent on account of this disease, and fourteen deaths have happened in one week. The health-officer deplores that this malady is treated by a large class of the inhabitants as one of trifling importance, and as almost a necessary incident of child-life. This mistaken fatalism, he says, renders it difficult, owing to the absence of all precautions, for any child to escape the infection.

THE case of Neville *v.* Smith, which lately came before Mr. Commissioner Kerr, resulted in a decision which must commend itself to all. The plaintiff, on taking a house, was assured by the defendant that the drains were all right. This, however, turned out not to be the case, and the children of the plaintiff fell ill in consequence, and an action was brought against the owner to recover damages. In answer to the charge, it was contended that the landlord had not authorised the agent to give the assurance that the drains were perfect; and Mr. Kerr, in giving judgment for the plaintiff for £35, said "it was a mockery that an agent should have anything to do with letting a house, without knowing whether it was healthy or unhealthy".

NAPPER TESTIMONIAL FUND.

A PUBLIC meeting in aid of the above is announced to take place at Willis's Rooms, King-street, St. James's, S.W., on Thursday, May 18th, at 4.30 P.M.; J. Eric Erichsen, Esq., F.R.S., in the chair. Tickets of admission are to be sent to all subscribers and cottage hospital surgeons, but all members of the profession and their friends are invited to attend. Collection-papers, etc., with cheques, should be returned on or before the 16th inst. to the honorary secretary, Dr. Stowers, 23, Finsbury Circus, E.C.

THE BACILLI OF TUBERCLE.

AT the Physiological Laboratory at King's College, on Monday last, Mr. Watson Cheyne and Mr. E. M. Nelson exhibited some specimens showing the bacilli found in tubercle, prepared by Dr. Koch, and brought over to this country by Dr. Goltdammer. On one slide was a miliary tubercle from the human lung, crushed and spread out on a coverglass, and stained with methylen blue and vesuvin; in this, the bacilli appeared as delicate blue rods among the brown-stained nuclei and granular material. The second specimen was a section of a tuberculous mesenteric gland, from a guinea-pig which had been inoculated with tubercle; the bacilli lay in large numbers among the nuclei towards the outside of a tubercle. The third was a section of a tuberculous mesenteric gland from a cow affected with bovine tuberculosis (*Perlsucht*). This specimen demonstrated the presence of bacilli in the interior of giant-cells. The discovery of the bacilli in this case was much more difficult than in the others; but on carefully focussing, several minute delicate blue rods could be found. Mr. Cheyne showed other forms of bacilli, for comparison with the tubercular varieties. Large numbers of the bacilli, which have been described as occurring in leprosy, were shown in a section of a leprous nodule. These differ from the tubercle bacilli in being more pointed at the end, and in being stained by methyl violet (Weigert's nuclear method of staining). There was also a specimen of the bacilli which produce septicæmia in house-mice, and of a long delicate form which apparently caused erysipelas in the ear of rabbits (see Koch's *Traumatic Infective*

Diseases). In contrast to these was a splendid specimen of the bacilli of anthrax in the lymph-sinuses of a lymphatic gland. It is satisfactory to have seen and confirmed the presence of these organisms in tubercle; while, by the exhibition of other forms of pathogenic bacilli, each having their special characteristics, one is led to see that the presence of these organisms in the morbid processes can hardly be a matter of accident. The lenses employed were Ziess's $\frac{1}{12}$ oil, with Abbé's condenser, and Powell and Lealand's $\frac{1}{12}$ oil and $\frac{1}{20}$ water immersions, with achromatic condensers. The demonstration was largely attended, most of the best known British authorities on the germ-theory and on antiseptic surgery being present.

THOUGHT-READING.

A MEETING, at which Dr. Crichton Browne presided, and which was attended by a number of scientific and literary men, was held at the Marlborough Rooms on the evening of Saturday last, the 6th instant, to witness an exhibition of the phenomena of "thought-reading" by Mr. Stuart Cumberland. That gentleman, with great promptitude and precision, went through the usual performance of finding articles that had been hidden during his absence from the room, of spelling out words thought of by the subjects of his experiments, and of disclosing the date of birth of several members of his audience. At the close of his demonstrations, Monsignor Capel, Professor Ray Lankester, Dr. Hack Tuke, Dr. Simpson, and others, complimented him on the success which had attended them, and expressed their conviction that his power in "thought-reading" was superior to that of any professor of the art who had as yet appeared in London. Professor Croom Robertson said that, having been a member of a small committee which investigated the pretensions of Mr. Bishop as a thought-reader about twelve months ago, he could testify confidently that Mr. Stuart Cumberland was correct in his interpretations or readings in a larger proportion of instances than Mr. Bishop; and that there was this great difference between Mr. Bishop and Mr. Cumberland, that, while the former always left it to be understood that he was aided in his experiments by an occult force or mysterious influence which he could not himself comprehend, the latter acknowledged that he was aided in all his revelations simply by naturally quick and highly trained perceptive faculties, and that he was guided entirely in his explorations and discoveries by movements in the hands which he held or pressed to his forehead. Monsignor Capel said that "thought-reading" or "willing" is practised in hundreds of drawing-rooms in London; and the chairman expressed his belief that Mr. Cumberland is engaged in a salutary work in exposing the impositions of charlatans, and the superstitions of weak-minded enthusiasts. Some spiritualists who were present did not seem inclined to accept Mr. Cumberland's account of his own extraordinary powers, but were evidently disposed to regard him as a clairvoyant, in spite of his disclaimers, and of his plain-spoken denunciations of spiritualism in all its manifestations.

THE FINCHLEY TRAGEDY.

THE trial of the burglar Baker for the murder of his co-burglar Clark, at Finchley, has resulted in a verdict of manslaughter, and a sentence of penal servitude for life. The trial disclosed a shocking state of brutality and vice as prevalent in the Borough. The death of the unfortunate man was achieved with circumstances of great ferocity; and was thus described by Mr. Pepper, who was called on behalf of the prosecution. There were nineteen wounds upon the body, of which three were mortal. Of the three mortal wounds, one was on the left side of the chest, penetrating the right ventricle of the heart; the second wound was on the lower part of the chest, on the right side, passing through the liver into the large vein of the abdomen (inferior vena cava?), and it had led to copious bleeding; and the third wound was in the left internal jugular vein. All these wounds were such as might have been inflicted by a sharp knife. There were four wounds on the neck, six on the back, three on the left forearm, two in the chest, one on the upper lip, one on the left temple, dividing the temporal artery, one on the back of the right hand, and one on the front of the right thigh. These wounds varied from half an inch to one inch in length, and they had all the appearances of having been produced by some sharp instrument at least three or four inches long. There were also scratches and abrasions on the skin. Over the surface of the brain there was a considerable effusion of blood, which Mr. Pepper thought might be regarded as to the result of mental or physical excitement; and he thought that the immediate cause of death was pressure upon the brain, assuming that the deceased was healthy and free from drink. A man receiving the injuries might have lived twenty minutes; but any one of the fatal wounds would considerably weaken a man, and after either of them he would not be able to make much resistance, the shock would be so great. There was no evidence deducible from the *post mortem* examination as to whether the deceased had been drinking or not. There was no trace of wine in the stomach. No question was raised by the counsel for the defence as to whether the possibly fatal wounds were inflicted before or after the effusion on the brain. The case is altogether remarkable, and suggests some nice medico-legal questions, on which Mr. Pepper will no doubt have some observations to make. This gentleman appears to have wisely given his evidence with great caution. We take it that he thought the death to have actually resulted from effusion of blood upon the brain, but that, had this lesion not proved fatal, death would inevitably have resulted from hæmorrhage.

UNWHOLESOME SAUSAGES.

A PORK-BUTCHER named Walters has been summoned before the Kingston magistrates, and fined £20, for exposing for sale meat unwholesome and unfit for human food. A number of pieces of ulcerated beef were found lying on the board where his men were engaged in making sausages; and Mr. Shirtliff, the medical officer of health, was shown a leg of beef infiltrated with pus, the tissues in the neighbourhood of the joints being quite disorganised. A lad in Walters's employ owned to having cut up some of this meat for sausages, and he had not been told not to use any portion of it. An attempt was made, on the part of the defendant, to show that the condition was due to *post mortem* changes. It was, however, shown that the meat, when it was seized, had been only four days killed; and the medical testimony proved that its condition was due to disease, and not mere decomposition. It is bad enough when unsound meat is exposed for sale on the counter; but then, at least, purchasers can see what they are buying. But manufacturing it into sausages, it appears to us, is a much more insidious offence, and deserves a severer punishment. The highest fine that can be inflicted under the 117th clause of the Public Health Act is a bagatelle to those whose profits must be at least cent. per cent. on the outlay. But for information given the authorities by one of Walters's own *employés*, this seizure would never have been effected, and there might have been another of those mysterious cases of wholesale poisoning by sausages, which from time to time go the round of the papers.

SMALL-POX MORTALITY OF LONDON DURING 1881.

THE most noticeable feature in the zymotic mortality of London during the past year was the high death-rate from small-pox. The deaths from this disease were 2,371, giving a rate of 0.62 per 1,000. On only seven occasions has this rate been exceeded in the previous forty-three years; and the prevalence of the disease was the more remarkable, inasmuch as neither the rest of England and Wales, nor any one of the other large towns, was similarly affected. Moreover, the same unhappy pre-eminence in regard to small-pox has been displayed by the metropolis for several preceding years. The Registrar-General points out, however, in his recently published summary for the year 1881, that, whatever may have been the cause of the recent greater prevalence of small-pox in London than in any other great towns, it was not one which past experience shows to be permanently characteristic of the metropolis. For, if a sufficiently long series of years be taken—as, for instance, the decennium 1871-1880—it is found that London, far from heading the twenty great towns, when ranged in order of thi

mall-pox rate, came eighth on the list. In 885 of the 2,371 fatal ases of small-pox, no reliable statement was made as to previous vac- ination or non-revaccination. Of the remaining 1,486, only 524, or 5.3 per cent., were certified to have been vaccinated; while 962, or 4.7 per cent., were certified to have been unvaccinated. Of the eaths among the unvaccinated, speaking roughly, three-quarters ccurred before the age of twenty; while, of the deaths among the vac- inated, three-quarters occurred after the age of twenty. Thus, taking he age of twenty as the dividing point, the figures were almost exactly nverted in the two classes. The explanation is obvious. The vac- inated are protected in youth, and especially in childhood; but at later ges they become more assailable, owing to the gradual weakening of heir protection and its non-renewal by revaccination. The unvac- inated, on the other hand, are least protected in infancy and child- ıood, for at the later periods of life an increasing proportion of them ıave become protected by attacks of small-pox.

THE UNIVERSITY OF LONDON AND THE LATE CHARLES DARWIN.

\T the meeting of Convocation of the University of London, on the)th instant, a vote of condolence with the family of the late Mr. Dar- vin was unanimously adopted. Its terms were as follows: "That he Graduates of the University of London, in Convocation assembled, lesire to record their sense of the irreparable loss which science and)hilosophy have sustained in the death of Mr. Darwin, whom they ecognise as an acute and patient investigator, an earnest seeker after ruth, and an original thinker whose writings have exercised a profound nfluence upon the progress of science and scientific thought through- ut the world." On the following day, which was "Presentation)ay", Sir John Lubbock, the member for the University, re- erred in eloquent terms to the deceased naturalist (for to Mr.)arwin, as Dr. Pye-Smith had observed on the previous day, his old-fashioned title may be rightly applied). Sir John Lub- ıock dwelt especially on the change in public opinion which was nanifested by the large attendance, not only of men distinguished in cience and in literature, but also of eminent theologians and divines, t the funeral in Westminster Abbey. Loud applause greeted the peaker when, in a voice tremulous with emotion, he spoke of the arnest and reverent feeling which pervaded all that Mr. Darwin had vritten, and of the warm affection with which he was regarded by all vho had had the privilege of his personal acquaintance.

HOSPITAL SATURDAY IN BIRMINGHAM.

'HE Hospital Saturday collection in Birmingham has been large this ear. The general collection was made on Saturday last. Up to Vednesday, the sum of £4,245 15s. 11d. had been paid into the bank, as gainst £3,379 17s. 10d. received at the corresponding period of last ear, showing an increase of £865 18s. 1d. Some further contribu- ons have yet to be made; and it is hoped the total may reach £5,000, nd so far surpass the collection of any previous year. This satisfac- ›ry increase is due partly to an improvement in trade, and partly to nproved organisation in the movement.

THE NOTIFICATION OF INFECTIOUS DISEASES.

. RETURN has just been issued of the several communications received y the Local Government Board and the Home Office from the local uthorities of the several towns in England and Scotland, in which ›cal Acts are in force containing provisions which require the notifica- on of infectious diseases, as to the operation of these provisions. . circular was issued on April 3rd from the Local Government Board, y Sir John Lambert, asking the local authorities of the urban sanitary istricts in which such provisions relating to the compulsory notifica- on of infectious diseases are in force, whether they are satisfied with :e working of these provisions, whether they have any suggestions to ake on the subject, and whether, before the powers contained in these ›ovisions were obtained, public attention was specially directed to the tention of the local authority to apply for them. This circular was nt to the following authorities: Barrow-in-Furness, Birkenhead, Blackburn, Blackpool, Bolton, Bradford, Burton-on-Trent, Derby, Huddersfield, Jarrow, Lancaster, Leicester, Llandudno, Manchester, Norwich, Nottingham, Oldham, Preston, Reading, Rotherham, Staf- ford, Stalybridge, and Warrington. The replies which are contained in the return are too long for analysis this week; but we shall lay a summary of them before our readers in an early number.

AMERICAN CHEESE.

THE manufacture in America, and the introduction into the British market, of a new kind of cheese, of an apparently good quality, from a mixture of skimmed milk and lard, and also from skimmed milk and oleomargarine, is said to be progressing with great activity. This compound, which, we are told, closely resembles the best Cheshire and Derbyshire cheese, and is largely sold in this country as such, is said by chemists to be a wholesome food when made of the purest lard or bullock-fat; and oleomargarine cheese is said to be more nou- rishing than cheese made from lard. But there is the fear, as has already been pointed out, that other than bullock-fat may be used, and that there is nothing to prevent the manufacturer from intro- ducing the fat of horses or pigs dying from disease into this compound. We agree in thinking that the attention of the Board of Trade should be invoked, to insist that this compound be sold under another name than that of cheese, and that the public at least may know when they are eating the one or the other.

THE HOSPITAL SATURDAY FUND.

THE eighth annual report of this fund shows that the amount collected, during 1881, was the largest that has yet been received—being an increase over the previous year of £1,540. The total amounted to £8,174; of this sum, £2,067 were derived from street collections, and £6,107 from artisans' collecting sheets. The amount distributed among hospitals, dispensaries, and convalescent institutions, was £7,000. The street collection was so successful last year, that the Council pro- pose in future to carry it out upon a larger scale. This we regret to hear; for it is a branch of the work which is little, if at all, removed from an appeal to charity. The blind beggar who stands at one corner of the street, and the lady who sits at a table at another corner, equally appeal to the passers-by, and hope to receive alms from the rich and poor alike. If the artisan be not begging for himself, he gets the ladies to beg for him. The systematic collection made among the working men themselves is a far more satis- factory feature of the movement. What is wanted is an organised system of self-help, not a haphazard collection in the streets. A few years ago, representatives of this fund took part in the formation of the Metropolitan Provident Dispensaries Association, and we regret that the report before us contains no allusion to this important movement. The Council of the Fund have withheld a grant to St. George's Hos- pital, on the ground that they did not receive a sufficient number of "letters" in return for their last year's award. Thereupon the secre- tary of the hospital stated that they had received the full number that had been agreed upon at the time the fund was instituted. Still the Council felt aggrieved, and proposed to give £50 as an award, and to expend another £50 in making one of their members a Life Governor of the hospital. But the authorities of St. George's positively declined to accede to any such arrangement. There can be no doubt that, in coming to this decision, they were actuated by a wise appreciation of all the circumstances of the case.

FRACTURED RIBS IN ASYLUMS.

THE annual report of the Pauper Lunatic Asylum for the counties of Salop and Montgomery and the borough of Wenlock for the year 1881 contains an account of an inquiry held in that institution by the Com- missioners in Lunacy into the circumstances attending the death of a male patient named Jones, who died there on April 11th from "exhaus- tion after mania, accelerated by fracture of the ribs and congestion of the lungs." The inquiry was deemed necessary by the Commissioners because another patient, also suffering from mania, had sustained frac-

ture of the ribs, and died in the asylum two months previously. In both cases the injuries had been detected during life, but in neither had the investigations of the coroner and visiting justices led to any definite conclusion as to the manner in which they were caused. The Commissioners, having read the records of the asylum bearing on the case, examined, on oath, the medical superintendent, assistant medical officer, the late chief attendant, and eleven attendants—all the persons, in fact, who had charge of the patient during his residence in the asylum. They also examined, but not under oath, three male patients. This extensive array of testimony, however, did not effectually clear up the case, but made it probable that the fractures, which involved five ribs, two of which had penetrated the pleura, were sustained in a fall during a struggle with an attendant, which happened six days before his death. The patient, who was a powerful and violent man, is alleged to have made an assault with an iron spitoon on an attendant, who, in order to save himself, rushed up to him and threw his arms round his waist, upon which they fell upon the floor together. No one witnessed this fall, from which the attendant seems to have sustained no injury. After it, however, the patient was noticed to be a little lame. The practical conclusions at which the Commissioners arrive are, that there was defective supervision of the attendants at the time of the accident, owing to a vacancy in the office of chief attendant; that the regulations for the guidance of attendants in the asylum demand supervision, especially with reference to reporting immediately, through the chief attendant, to the medical officers every act of violence, serious struggle, or heavy fall occurring among the patients, wherever they may be at the time; and that the attendant who had the struggle with the patient Jones, and in whose ward the other case of fractured ribs occurred, should be removed to a less responsible position in the asylum. The justice of the last recommendation was evidenced by the fact that, soon after this attendant was transferred to another ward, he was detected striking a patient, was at once summoned by the superintendent before the magistrates, convicted, fined the by no means extravagant sum of £2 2s., and dismissed the service of the asylum.

THE GROWING INSALUBRITY OF THE LARGER INDIAN STATIONS.

OUR Indian contemporary, the *Pioneer*, has a brief article with the above startling heading. In this article, the writer contends that such stations as Umballa and Meerut, which formerly had a good reputation as healthy stations, now rival Peshawur and Meean Meer, "of infamous notoriety", in unhealthiness. The forms of disease now prevailing at Umballa and Meerut are said to be "low fever, typhoid, and malarial dyspepsia", forms of blood-poison which may not be generally directly mental, but which sap the strength of men and women and children without attracting the amount of official attention that is at once aroused by a large amount of mortuary statistics." This state of matters is said to be traceable to the improper disposal of night-soil, which is so dealt with as to contaminate not only the air, but also the walls. There is, we fear, too much reason to believe that the above is a true account of the condition not only of the stations mentioned, but also of many others, and that a searching inquiry is loudly called for. When the old system of latrines imperfectly flushed with water was done away with, and the "dry earth" system substituted, it was regarded as a most important improvement in cantonment and barrack sanitation, and so, without doubt, it was. It is certain, however, that those who for years urged the introduction of the dry earth system on the authorities, never contemplated that the old evils were merely to be introduced in a new way. When the subject of the prevalence of enteric fever in India was under discussion in the Section of Military Medicine and Surgery of the International Medical Congress, Professor Maclean, in a paper read to the Congress, strongly insisted on the fact, in the face of assertions to the contrary, that enteric fever in India is distinctly traceable to the causes acknowledged in this country to be the chief factors in its genesis, viz., fæcal contamination of air, water, and food. If, as we have no cause to doubt, the statement given in the paper from which we have quoted be correct, the remedy is easy enough; there is no cause for the despairing cry with which the writer in the *Pioneer* concludes his article, that *omnia sanitas* must be added to the mournful category of the preacher.

CARBONIC OXIDE IN THE AIR.

AT the ninth meeting of the German Society for Public Health, under the presidency of the Duke Carl Theodor, at Vienna, in September 1881, Dr. Max Gruber related at length some experiments he had made on dogs and fowls, in order to observe accurately the symptoms produced by the inhalation of small and carefully measured quantities of carbon monoxide. This object was carried out by means of Pettenkofer's respiratory apparatus. It would appear that small amounts may be continuously inhaled without producing any morbid symptoms. The dogs remained in good spirits, with unimpaired appetites. Dr. Max Gruber also placed himself in the same apparatus, and read with a loud voice, on two separate occasions, for some hours, without experiencing any discomfort, except a little dryness of mouth. Dr. Gruber believes, as Eulenberg first demonstrated, that hæmoglobin charged with carbon monoxide is less stable than is generally supposed, and that it undergoes disintegration at ordinary temperatures, and still more at body-heat. It is, therefore, believed that the body has a limited power of rendering this material harmless. Von Fodor has brought forward a new method for the detection of the monoxide in the air, even when diluted twenty thousand times. The gas is first secured by means of the colouring matter of blood (as in Vogel's method), and is then made to decompose a solution of palladium chloride. Many gases will throw down black palladium from a solution of its chloride; but, by isolating the carbon monoxide in combination with hæmoglobin, this test is thought to give warrantably accurate results. Dr. Renk, in a recent article on sewer-gas, has given carbonic oxide as an impurity of the air of sewers in some cases, the occurrence of the oxide being attributed to the existence of broken gas-pipes in the neighbourhood of sewers.

INFANTILE MORTALITY.

THIS painful subject has of late received considerable attention at the hands of health-officers, whose efforts to secure an improvement in this direction are worthy of special commendation. Improper feeding is rightly held to play an important part in the deplorable mortality amongst children that occurs in our manufacturing towns. Alluding to the subject in his last report on the health of Alnwick and Canongate, Mr. F. McEwen, while recording for the past year a reduced fatality among infants, admits that the rate in the district is still too high. He observes that, so long as child-bearing women are as ignorant, as many of them are, of the very rudiments of the principles of nursing and rearing of infants, so long will children be born only to die during the first year or two of their existence. How many children fall victims to the feeding-bottle—"that utter abomination of child-feeding contrivances, when in the hands of a slovenly mother or an ignorant careless nurse"—he should not like to guess. A frequent examination of the contents of these bottles has shown that the "milky stuff" contained in them was utterly unfit for the child's stomach. This, he says, is only one of the many insidious poisons that slowly but surely do their horrible work. One of the most miserably painful sights that meets the eyes of medical men is that of a little child gradually wasting away to a skeleton, owing to improper feeding; while its mother or foster-mother, ignorant of the proper way of feeding it, and regardless of skilled advice, sends it to sleep with some soothing "trash", or very often alcohol in some form or other. Whatever medicine a doctor may prescribe is expected to work a miraculous cure, while the most important part of the treatment—the nursing and feeding—is neglected, either because it is too troublesome or is considered superfluous. Too many people are apt to console themselves when a little one dies, with the remark—often sincerely, though ignorantly, made—that it is the will of Providence. However consoling this may be, he thinks that it is the duty of clergymen and others, who can use their influence among the poor, to try and convince them that it is *not* the will of Providence

that children should die; and that if they were fed, clothed, and otherwise treated in accordance with those principles that regulate the health of children, the tables of infantile mortality would soon show most gratifying results.

RABIES IN PARIS.

In his report for the past year on the subject of rabies in dogs, the chief veterinary surgeon to the Paris Prefecture of Police states that that disease has increased in an alarming manner. During 1881, 615 cases of mad dogs were reported, while 733 animals and 153 persons were bitten by them. Of the latter, 23 died of hydrophobia. In the preceding year the number of mad dogs was 297; of persons who received bites, 68; and of persons who died of hydrophobia, only five. In view of this increase, the Council of Public Health has submitted to the Minister of Commerce a new and more stringent code of regulations to be observed by dog-owners.

VACCINATION IN BENGAL.

Vaccination continues to make steady progress in Bengal. The total operations performed during 1879-80 numbered 1,742,995, against 1,315,884 in the previous year, showing an increase of 427,111 cases. The number of persons operated on by the vaccine establishment, exclusive of the work done by dispensary vaccinators, was 654,898, against 567,623 in 1878-2; and that by licensed vaccinators, 1,024,452, against 625,439. The total number of successful operations was 1,689,590, against 1,251,936 in 1878-9; and the percentage of success in primary operations, exclusive of dispensary vaccination, was 98.05, against 98.49. In secondary operations, the ratio of success was 20.91, against 46.89 in the previous year; and it ranged from 16.45 in Calcutta and its suburbs to 94.23 in Eastern Bengal. The rate of success in dispensary primary vaccinations was 83.57, against 94.97; and in secondary operations, 55.81, against 77.57 in 1878-9. The sex of 1,654,210 vaccinatad persons was registered; and of these, 867,115 were males, and 787,095 females, giving a percentage of 52.42 males to 47.58 females, being nearly the same proportions as in previous years. No record has, unfortunately, been kept of the ages of those who were successfully vaccinated. The system of self-supporting vaccination is being gradually extended throughout Bengal; for, as already stated, there was a considerable increase in the work performed by licensed vaccinators. In the metropolitan circle, the result was very satisfactory. The number of vaccinations in this circle rose from 294 in 1878-9 to 377, and the operations performed increased from 394,186 to 625,388, giving a percentage of success in primary vaccination of 99.75. In other circles also there was a satisfactory extension.

SCOTLAND.

The death of Dr. John Brown of Edinburgh, the well known author of *Horæ Subsecivæ*, *Rab and his Friends*, and other works, is reported to have taken place on Thursday morning. He was 72 years of age.

GLASGOW DISTRICT LUNACY BOARD.

The Glasgow District Lunacy Board are to be recommended by their Court of Management to purchase, for asylum purposes, the estate of Eastfield. This will involve an expenditure of £11,500. It is considered, however, that the property will furnish a most eligible site for new asylum buildings.

THE NOTIFICATION OF INFECTIOUS DISEASE.

The report submitted to the Public Health Committee of the Edinburgh Town Council on Tuesday by the medical officer of health shows the value of the system of notification of infectious diseases, as now established and successfully carried out in Edinburgh. During the month of April, 1,386 cases were reported; this was the highest number ever reported in one month since the system was adopted. No fewer than 1,239 of these were cases of measles, which shows an increase, as compared with 1,118 in March and 440 in February. Eighty-three were cases of scarlet fever, 52 were of typhoid fever, and 12 were of diphtheria. The measles epidemic is thus shown to have reached its zenith in April, there now being an apparent diminution. No fewer than 51 cases of scarlet fever are reported since May 1st, and 26 of these occurred within a very limited district at East Thomas Street. Suitable measures have been taken to arrest the spread of the disease. The mortality in Edinburgh for April was 19.88 per 1000 *per annum*, as compared with 22.07, the average death-rate of the same month for the previous five years. The death-rates in the three divisions of Edinburgh were: New Town, 15.06 per 1,000; Old Town, 23.98 per 1,000; and Southern Suburbs, 18.11 per 1,000. Thirteen per cent. of all the deaths were due to zymotic diseases, of which whooping-cough contributed 19 cases, while measles alone caused 24 deaths.

GLASGOW INSTITUTION FOR DISEASES OF WOMEN AND CHILDREN.

The report submitted at the fourth annual meeting of the supporters of the Glasgow Institution for the Diseases of Women and Children showed that 408 women had been treated at the institution, which would involve about 7,000 consultations. Of the above number, 326 are reported cured and 24 relieved, while 3 are the subjects of incurable disease. Recently two beds have been added; and these are occasionally occupied by indoor patients, of whom there have been six dismissed cured or relieved. The outdoor cases have increased by 40 per cent. during the year, while 200 children have also been treated at the institution. It was pointed out that depending for their comfort on these 408 women were their children, who numbered 1,150; and from this a slight estimate could be formed of the utility of the institution. Dr. Bell read the medical report.

HEALTH OF GLASGOW.

The return of the medical officer of health for the fortnight ending April 15th, shows that there were 514 deaths registered, representing a death-rate of 26 per 1,000 living. This rate is in excess of that of the preceding fortnight, and is due to a larger mortality from diseases of the lungs, the number of deaths from pulmonary diseases being 196, representing a death-rate of 10 per 1,000 living, and constituting 38 per cent. of the total deaths. There were 5 deaths from fever, 3 from enteric and 2 from typhus; and 41 deaths from the infectious diseases of children, viz., 32 from whooping-cough, 9 from measles, and 3 from scarlet fever. The most important sanitary event of the fortnight has been the admission of four cases of small-pox to the hospital, after an interval of eight months' entire absence of the disease. Two of the cases were emigrants passing through the city, and two came from Ireland. It thus seems that Glasgow is at present under a cross-fire as regards small-pox: on the one hand, from the Continent, through emigrants; and, on the other, from Ireland. All due precautions are being taken for preventing the spread of the disease.

IRELAND.

HARVEY MEMORIAL FUND.

A general meeting of the subscribers to this fund was held on the 3rd instant, in the King and Queen's College of Physicians, Dr. J. W. Moore, Vice-President of the College, in the chair. Dr. C. J. Nixon, one of the honorary secretaries, read the report of the Committee, which recommended that the sum collected—about £280—should, after payment of all expenses, be invested in the names of the King and Queen's College of Physicians and of the Royal College of Surgeons in Ireland; and that the Presidents of these Colleges should be requested to award the interest of the fund triennially for the best essay on any subject in physiology, to be selected by the candidate, and illustrated by original preparations or drawings. It was further recommended that the prize should be open to all students of the Dublin schools of medicine, as well as to all junior practitioners, under three years' stand-

ing, holding qualifications from Irish licensing bodies. The Colleges having previously signified their acquiescence in this proposal, it was unanimously adopted by the meeting. The first award of the prize will probably be made in June 1885.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

AT a special meeting of this College, held on Tuesday, it was unanimously resolved: "That the College take this, the earliest opportunity of expressing their horror and indignation at the barbarous assassination of Lord Frederick Cavendish and Mr. Thomas Henry Burke; and offer their sincere sympathy to Lady Frederick Cavendish and Miss Burke, and the other relatives of the deceased Chief Secretary and Under Secretary, in this hour of their terrible bereavement."

ROYAL COLLEGE OF SURGEONS IN IRELAND.

AT a special meeting of the Council of this College held on Tuesday last, Dr. Archibald Jacob, Ophthalmic Surgeon to the House of Industry Hospitals, was elected professor of ophthalmic and aural surgery in the College, in the room of Mr. Swanzy, resigned on being appointed an examiner in the College. A special meeting of the Fellows of the College was held on Thursday to consider resolutions submitted to the meeting by a subcommittee of the College in reference to the recent and atrocious murders of the Chief Secretary and Under Secretary in the Phœnix Park.

ROYAL UNIVERSITY OF IRELAND.

THE first medical examinations of this new University will be held in Dublin, commencing on June 19th. Candidates are to lodge a form of application for examination, accompanied by the necessary certificates and fees, with the secretaries to the University, on or before May 20th. The fees are cheap enough, as the following table shows.

First Examination in Medicine	...	£1 0 0
Second Examination in Medicine	...	1 0 0
M.B. Degree Examination	...	3 0 0
M.D. Degree Examination	...	5 0 0
M.Ch. Degree Examination	...	5 0 0
Diploma in Obstetrics Examination	...	2 0 0
Diploma in Sanitary Science Examination	...	2 0 0

The regulations concerning these examinations can be had from the Queen's Printers in Ireland, Middle Abbey Street.

THE LATE DR. JOHN HUGHES.

WE regret to record the death of this physician, which took place very suddenly on the morning of the 5th instant, at his residence, 52, Merrion Square, Dublin. Dr. Hughes was Senior Physician to the Mater Misericordiæ Hospital, one of the visiting medical officers of the Richmond Lunatic Asylum, and Visiting Physician to the Central Asylum for Criminal Lunatics at Dundrum.

SMALL-POX.

SMALL-POX is very slowly decreasing in Belfast, and at present there are about sixty cases of the disease located in the Union Hospital in that town. In Armagh last week, one additional case was reported by Dr. Riggs, medical officer of the workhouse, as having been admitted into that institution. There are now six acute and sixteen convalescent cases in the hospital, which, compared with former returns, shows that the disease is gradually decreasing.

HEALTH OF CORK.—During the four weeks ending April 22nd, the total number of registered deaths amounted to 187. Of these, 13 were due to infectious maladies. During the same period, 200 births took place, or at the rate of 33.17 per 1,000. The annual death-rate per 1,000 inhabitants gives a total ratio of mortality of 31.82; but, deducting the deaths (13) occurring in the workhouse, and therefore outside the borough, the urban death-rate will then stand at 25.90, and from infectious diseases 2.1. There was a somewhat increased amount of typhus as compared with the previous month.

THE ASSASSINATION OF THE CHIEF SECRETARY FOR IRELAND, LORD F. CAVENDISH, AND OF THE UNDER SECRETARY, MR. BURKE.

WE have received the following authentic report of the *post mortem* examination of the bodies of Lord Frederick Cavendish, Chief Secretary for Ireland, and Mr. Thomas Henry Burke, Under Secretary, which was held on Sunday morning, May 7th, at the Chief Secretary's Lodge, Phœnix Park, whither they had been removed from Steevens' Hospital.

The examination was conducted by Mr. Porter, Surgeon to the Queen, and Consulting Surgeon to Steevens' Hospital, assisted by Mr. Hamilton, Surgeon to Steevens' Hospital, and Mr. Myles, Resident Surgeon. Notes of the necropsy were taken by Dr. H. Colpoys Tweedy, Senior Physician to Steevens' Hospital, from Mr. Porter's and Mr. Hamilton's dictation. Mr. Ormsby, Surgeon to the Meath Hospital, and Dr. Speedy, of the North Dublin Union, were also present.

The remains of Mr. Burke, the late Under Secretary, were first examined, and presented the following marks of violence.

The clothes were profusely stained with blood, and pierced in several places, before and behind, apparently with a sharp-pointed weapon; and the glove belonging to the left hand had two rents on the index finger, and a slit extending almost the entire length of the middle finger. The face was stained with blood, and there was a quantity of semi-clotted blood in the mouth and fauces. The first and most striking wound was one on the front of the neck, to the left side. It presented the character of a deep gash, about three inches and a half in length; only small vessels, however, were wounded, for the carotid artery and jugular vein had escaped, and the trachea was uninjured. There was another deep wound at the right side of the neck, immediately behind the sterno-mastoid muscle, and at the anterior margin of the trapezius. This wound penetrated to the spine. There were two wounds on the index-finger of the left hand, corresponding to the rents in the glove, and one on the middle finger of the same hand—the nail and last phalanx of which were split down for about half an inch. These cuts were apparently caused by attempts at warding off the assassin's weapon. On examining the chest, three punctured wounds were found. One was directly over the middle bone of the sternum, and did not penetrate the thorax. The second was over the cartilage of the second rib, on the left side. This, as well as the other sterno-costal cartilages, was almost completely ossified; but, such was the violence of the stroke that it was completely severed, and the wound penetrated to the apex of the left lung, severing the internal mammary artery on that side. The third stab was lower down on the same side, about an inch and a half above the nipple. This also reached the lung, and the two accounted for the profuse hæmorrhage from the mouth, as the cut in the throat did not communicate with the air-passages or pharynx. The last, and what must have been the fatal stab, was in the back. It was found just over the inferior angle of the left scapula passing in between the ribs, opening the pericardium (which was filled with blood) penetrating the posterior wall of the left ventricle of the heart, and opening that cavity. This wound, evidently inflicted by a long sharp-pointed and probably double-edged weapon, must have caused death almost instantaneously.

The remains of Lord Frederick Cavendish were next examined. His clothes, like those of Mr. Burke, were saturated with blood and exhibited great marks of violence. There were seven cuts in the coat alone. The trousers were covered with dust, particularly at the knees, and there was a quantity of blood on the back and along the right seam. The body presented the following wounds. There was a deep transverse gash on the centre of the left forearm, cutting down through the muscles to the bones, one of which, the ulna, was fractured, and a portion of it absolutely sliced away. It was probable that this wound was received in an effort to ward off a blow. There was a slight abrasion over the right cheek-bone, and also one on the right knee. He had received a deep stab in the centre of the back of the neck. The weapon had passed from this point through the muscle to the root of the neck at the right side, injuring the spinous process of the sixth cervical vertebra, and finally emerged an inch over the right clavicle. There was another deep wound at the outer edge of the inferior angle of the right scapula, involving the bone. There was a deep gash in the right axilla, extending upwards and backwards, but not wounding any large vessel. This, like the wound on the left arm, was probably received when the limb was raised in an effort at self-defence. Over the right shoulder was a deep angular wound, penetrating to the upper edge of the scapula, transfixing the shoulder, completely severing the axillary vessels in the first stage just above the lesser pectoral muscle, and emerging anteriorly over the cartilage of the second rib. This was probably the fatal wound. The thoracic viscera were uninjured, nor was there any blood in the cavities of the pleura or pericardium.

At the inquest, Mr. Porter deposed that the wounds in both cases were of the same size, and had all the same clean edges. With the exception of the wound on Lord Frederick Cavendish's arm, which appeared to be a gash, and the abrasion on the right knee, due probably to his having fallen on his knees, all the wounds were punctured wounds. The weapons which inflicted them must have been long daggers or sharp knives—nine or ten inches in length—exceedingly keen and well tempered. They were such wounds as a bowie-knife might have inflicted. There is reason to presume that both these unfortunate gentlemen were attacked simultaneously in front and from behind.

ROYAL COMMISSION ON THE MEDICAL ACT.

THE Royal Commission held its final meeting this week, and completed its report, or reports—for we understand that, as we previously intimated, there will probably be more than one report. We trust, however, that the technical formalities necessary before the reports be made public will be quickly gone through; the profession has already been kept sufficiently long in suspense on the subject.

THE HEALTH OF THE POPE.

WE are enabled to state, with authority, that the rumours which have lately been circulated as to the illness of Leo XIII have no real foundation. Similar statements used to be made about this time in former years in reference to the health of Pius IX, and grave assertions were often published that the Vatican physicians strongly advised change of air as the only means of prolonging the life of that aged Pope. Leo XIII is a thin, ascetic, and delicate man, liable to slight temporary ailments, and with too sensitive a nervous system for all the brain-work he has to do. He is, in consequence, often tired and depressed, and unable to receive the many visitors who throng to see him; and it is well known that he dislikes receiving all and sundry, being, in this respect, just the opposite of his predecessor, who had the greatest pleasure in seeing his audience-rooms crowded with visitors. He is not, however, suffering from any organic disease; is free, just at present, from even temporary indisposition; and is probably quite as fit to bear his confinement to the Vatican and its grounds now as he was at the date of his election.

THE CLAIM OF THE UNIVERSITY OF LONDON ON GRESHAM COLLEGE.

IF the function of an university be twofold—that is to say, if it ought not only to confer degrees, but also to teach—then the University of London has but partially discharged its functions; for, as is well known, it has been, up to the present time, little more than an examining body. Convocation, at its meeting on the 9th instant, passed a resolution urging upon the Senate a course of action which, if successful, would seem practically to amount to nothing less than converting the University into a teaching body also; it has requested the Senate "to consider the desirability of urging the claims of the University before the City of London Livery Companies Commission, with special reference to Gresham College."

The college owed its existence to Sir Thomas Gresham, who bequeathed the Royal Exchange and some adjoining hereditaments, subject to life interest to his widow, and to some contingencies which never took effect, in two moieties, one to the Corporation of London, and the other to the Mercers' Company, on the condition, amongst others, that the former body should pay £50 a year each to four persons to read lectures in divinity, astronomy, music, and geometry, and the latter the same stipend to three lecturers in law, physic, and rhetoric. By the same will he left his house in Bishopsgate "for every one of them, (*i.e.*, the lecturers) there to inhabit, study, and daily to read the said several lectures". In 1596 a Gresham committee was appointed jointly by the Corporation and the Mercers' Company to administer his bequest, and the first lecturers were appointed.

The contention is "that Sir Thomas Gresham's foundation was intended to be the nucleus of an university". As long ago as 1857, in his evidence before this charity commission, the lecturer in astronomy said:—"If Gresham College were to be restored to its original dimensions and formed into a college affiliated to the London University, it might be made of value for educational purposes in the city." This suggestion was actually adopted in the report presented to the commission at that time, but no action was taken. Convocation, however, seems now to go beyond this, and to desire to apply the funds to a system of education to be administered directly by the University. At least this we gather from the tenour of the remarks made by Mr. Macdowall, who moved the resolution. The matter is now receiving the attention of the Senate, which has always shown itself the best guardian of the interests of the University; its action will be awaited with interest, not only by the graduates, but by all who are interested in the progress of higher education, and especially of scientific education.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT an ordinary meeting of the Council, on the 11th instant, Dr. G. M. Humphry, F.R.S., of Cambridge, a member of the Council, was readmitted a member of the Court of Examiners. At the same meeting the Jacksonian Prize was presented to Dr. William Alexander of Liverpool, a Fellow of the College, for his essay on the Pathology and Surgical Treatment of Diseases of the Hip-joint. Mr. Thomas Edwarde of Llansaintffraid was elected a Fellow of the College, his diploma of membership bearing date May 8th, 1835.

A Report was received from the Court of Examiners, to whom it had been referred to "report to the Council whether, or not, it is desirable that all students rejected in the pass examination for the diploma of member should be placed in the same category as regards the time required to elapse before they can present themselves for re-examination".

The Court having considered this resolution, it was resolved that the following be the report to the Council thereon, viz.: "1. That it is already provided by Clause 2, Section IX, of the Standing Rules that a candidate, referred at the pass examination for the diploma of member, may, if the Court shall so determine, be re-admitted to the examination within the period of six months after his reference; and that, in the opinion of the Court, it is not necessary to make any alteration in the regulations in respect of the power vested in Court for shortening the period of reference. 2. That, in the opinion of the Court, however, it is desirable that an additional Standing Rule should be enacted, giving to the Court, in cases where extreme ignorance is exhibited, the power of lengthening the period of reference from six to nine or twelve months, as the Court shall determine." This report was accordingly adopted.

The Nomination Committee, in conference with the Committee on additional examinations, having met to consider the following resolutions of the Council, dated May 13th, 1880, viz.: "1. That, under the powers given by Section XIV of the by-laws, the Council do proceed, as soon as is practicable, to institute an examination in elementary anatomy and physiology, and in such other subjects as the Council shall from time to time determine, to be passed by candidates for the membership of the College at or after the expiration of their first year of study. 2. That it be referred to the 'Committee on Examinations in Anatomy and Physiology' to prepare, and submit to the Council for approval, the necessary regulations for defining and conducting such examination; 3. That it be referred to the Committee on By-laws to prepare the revised or new formulæ which will be required for the rearrangement of the payment of fees, by the institution of such examination;" and having considered the same, have agreed to the following report to the Council. The Joint Committee have to report to the Council that, however desirable, it is not practicable to institute an Examination in Elementary Anatomy and Physiology at the College without an additional charge to the students; but that, in the opinion of the Committee, it is desirable that, in lieu of the proposed Examination at the College, an Examination in Elementary Anatomy and Physiology should be instituted at the several recognised Schools of Medicine after the end of the first year of professional study; and that any student commencing his professional education on or after the 1st of October 1882, should not be admitted to the Primary Examination for the Diploma of Member of the College without the production of a certificate from his teachers, that he has satisfactorily passed the Examination in question at his Medical School.

This report was approved by the Council, adopted, and directed to be entered on the minutes.

We are given to understand that considerable discussion arose as to the report of the Visitors of the General Medical Council, the results of which cannot be made public, since the question has not yet been considered by that Council.

It was decided that the annual meeting of Fellows for election into the Council of the College should be held on the first Thursday in July.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL:

NOTICE OF QUARTERLY MEETINGS FOR 1882: ELECTION OF MEMBERS.

MEETINGS of the Committee of Council will be held on Wednesday, July 12th, and October 18th. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary not later than 21 days before each meeting—viz., June 22nd, and September 27th, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

November 4th, 1881. FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

STAFFORDSHIRE BRANCH.—The third general meeting of the present session will be held at the Bell Medical Library, Cleveland Road, Wolverhampton, on Thursday, May 26th, at 3 P.M.—VINCENT JACKSON, General Secretary, Wolverhampton.—April 24th, 1882.

SOUTH MIDLAND BRANCH.—*Preliminary Notice.*—The annual meeting of this Branch will be held in the Committee Room of the Northampton General Infirmary, on Thursday, June 1st, at 2.30 P.M. Gentlemen who are desirous of reading papers, or of exhibiting pathological specimens, are requested to communicate at once with the Honorary Secretary.—G. F. KIRBY SMITH, Honorary Secretary, Northampton.—April 24th, 1882.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of the above District will take place at the Castle Hotel, Wellington Square, Hastings, on Wednesday, May 24th, at 3.30 P.M.; Dr. Trollope, of St. Leonard's, in the chair. Dinner at 5.30 P.M.; charge six shillings, exclusive of wine. The following communications have been promised. Dr. Humphreys: On the Treatment of the Febrile Condition. Mr. Baber: Adenoid Vegetations of the Naso-Pharynx. Mr. Campbell: Two cases of Hip-Joint Disease. Mr. Mansell (for Mr. Duke): Notes of a case of Empyema. The Honorary Secretary will be glad to receive notice of any other papers. Visitors, whether members of the Association or not, will be gladly welcomed. It is particularly requested that gentlemen intending to dine will give two days' notice to the Chairman or to the Honorary Secretary.—T. JENNER VERRALL, Honorary Secretary, 95, Western Road, Brighton.

SOUTH-EASTERN BRANCH: WEST SUSSEX DISTRICT.—The next meeting of this District will take place at the Infirmary, Worthing, on Wednesday, May 31st; Mr. W. J. Harris in the chair. Members intending to read papers, or bring forward subjects for discussion, are requested to send notice to G. B. COLLET, Honorary Secretary, 5, Steyne, Worthing.

BORDER COUNTIES BRANCH.—The spring meeting of this Branch will be held at Moffat, on Friday, June 2nd. Gentlemen intending to read papers are requested to communicate at once with one of the Honorary Secretaries.—J. KENDAL BURT, Kendal; J. SMITH, Dumfries, Honorary Secretaries.

EAST YORK AND NORTH LINCOLN BRANCH.—The annual meeting will be held at the Infirmary, Hull, on Wednesday, May 24th. Gentlemen who intend to make any communication, or to propose any resolution, are requested to inform the Secretary not later than the 14th instant.—E. P. HARDEY, Honorary Secretary, 17, Brunswick Terrace.—May 3rd, 1882.

LANCASHIRE AND CHESHIRE BRANCH.—An intermediate meeting will be held at Bailey's Hotel, Blackpool, on Wednesday, May 17th, at 3 P.M. Mr. Rushton Parker (with Mr. Barron's assistance) will give a microscopic demonstration of Koch's recent discoveries of septic and tubercular organisms. Other communications—Dr. Walter: Cure of Hystero-Epilepsy by Excision of both Ovaries. Dr. Rich: Cray-fish poisoning. Mr. Farrar: Mussel poisoning. Mr. W. Whitehead: Surgical Treatment of Elephantiasis; etc. A light lunch will be provided at the place of meeting. Dinner at Bailey's Hotel, at 5.30 P.M.; tickets 7s. 6d.—Dr. DAVIDSON, Honorary Secretary, 2, Gambier Terrace, Liverpool.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting of the above District will be held at the Hackney Town Hall, on Thursday evening, May 18th, at 8.30 P.M.; Dr. Herbert Davies in the chair. Sir William Mac Cormac will read a paper On the Newer Operative Procedures in Abdominal Surgery.—FREDERICK WALLACE, Honorary Secretary, 96, Cazenove Road, E.—May 8th, 1882.

BATH AND BRISTOL BRANCH.—The sixth ordinary meeting of the session will be held at the Museum and Library, Bristol, on Wednesday afternoon, May 24th, at 4.15 P.M.; David Davies, Esq., President. The afternoon will be devoted to a discussion on Bone-setting, which will be opened by F. Richardson Cross, M.B.—E. MARKHAM SKERRITT, R. S. FOWLER, Honorary Secretaries.—Clifton, May 1882.

EAST ANGLIAN BRANCH.—The annual meeting of this Branch will be held at the Rectory Room, Beccles, on Thursday, May 25th, at noon, under the presidency of W. M. Crowfoot, M.B. The President will deliver an address upon the Germ-Theory of Disease. Mr. W. Cadge, F.R.C.S., will read a paper upon Nerve-Section in the Treatment of Neuralgia. There will be a discussion upon a paper read at the Southwold meeting by H. J. Benham, M.D., upon the Treatment of Intestinal Obstruction, in which several members have promised to take part. *Déjeuner* at 4 P.M., at the King's Head Hotel; tickets, exclusive of wine, 5s.—W. A. ELLISTON, M.D., Ipswich; M. BEVERLEY, M.D., Norwich, Honorary Secretaries.—May 8th, 1882.

METROPOLITAN COUNTIES BRANCH: NORTHERN DISTRICT.

THE fifth meeting of the session was held on Wednesday, March 22nd, at the house of Dr. A. O. Grosvenor, 72, Priory Road, Kilburn; Mr. ERNEST HART presiding.

The Registration of Diseases and Deaths.—Dr. DANFORD THOMAS read a paper on this subject. After recapitulating the chief sections in the Registration Acts of 1836 and 1874, as far as they related to the registration of deaths, Dr. Thomas drew attention to the actual practical working of these. For thirty-eight years, the registration of all deaths that occurred was secured, with such information as to the cause of death as might be obtainable. For the last eight years, more accurate information of the cause of death has been obtained from the certificates which medical practitioners, without fee or reward, had been by the 1876 Act compelled to give, under a penalty for refusing to do so. As the law now stood, all deaths were registered as either certified or uncertified—certified, if a medical certificate were forthcoming; and uncertified, if no such certificate were handed in. In both instances, the cause of death was recorded: in the one case from the medical certificate, in the other from the verbal statement of the informant—both appearing to possess an equal value in the Registrar-General's returns of the causes of deaths. The number of uncertified deaths per cent. of all deaths varied considerably in different parts. In London, where the coroners were active, the number did not probably exceed one per cent.; but, in Durham, the uncertified deaths had been as high as 19.7 per cent.—a fact which, in the words of the Registrar-General, "appears therefore to call for investigation." In nearly all cases of uncertified deaths, some cause of death was assigned by the informant, and entered by the registrar, the result of which must be to depreciate the value of the national death-register as the basis of trustworthy mortality statistics. When uncertified deaths were numerous, unqualified practice was rife; and this was exceedingly difficult to prevent in the present state of the law. With regard to certified deaths, Dr. Thomas drew attention to the fact, that the present legal demand upon the practitioner had a tendency, in many cases, to prohibit him from stating the whole truth, as to the cause of death, in the certificate which he was compelled by law to give to the informant of a death, usually a relation of the deceased person; and, from the hands into which the certificate might fall, restrictions and inconveniences surround the practitioner, in many instances compelling him to sign his name to a document which was filled in, with a view rather to avoid giving offence or causing distress to the relations, than with the object of affording the most correct and accurate information of the true cause of death. As examples of this, attention was drawn to the large number of deaths caused by alcoholic poisoning, masked, under such certificates of the cause of death, as cirrhosis, hepatitis, jaundice, hæmatemesis, dyspepsia, and pyrosis; stomach-disease, Bright's disease, phthisis, insanity, paralysis, apoplexy, cephalitis, dropsy, etc. The Registrar-General's returns showed that only 1,120 persons died from the excessive use of alcohol in 1876. Dr. Morton, from private inquiries, estimated that about 14,000 died annually from the direct effects of alcohol; and that about 23,000 deaths were partially due to the same cause. Would not medical practitioners certify correctly, if the system of registration were improved? Syphilis, and the various forms in which it appeared, were seldom certified as such, for the same reasons as stated above. After commenting on those deaths in which symptoms were certified to instead of causes, to the inaccurate way in which many certificates were filled in, and to the various "unclassified" and "undistinguished" deaths, as mentioned by the Registrar-General, Dr. Thomas moved the following suggestions and amendments to the present system of registration, as calculated to secure more accurate testimony as to the actual cause of death. Every registered medical practitioner should be, as it were, a primary registrar of deaths; and his returns should be made to a superintendent registrar, who might be the medical officer of health of the district, or the clerk to the sanitary authority. The duty of the practitioner would be to record any death that might come under his notice on a prescribed form, which should be transmitted by post, within twenty-four hours of the death, to the superintendent registrar of the district. The practitioner should furnish all particulars now required for registration; and, besides this, add a confidential report as to the cause or causes of the death, for the private information of the Registrar-General, and he might mention any other circumstances which may have led up to or induced the fatal disease. The practitioner should be paid a reasonable fee for his trouble, the postage of the document being prepaid by the State, similarly to the vaccination certificates. The medical officer of health, as superintendent registrar, should carefully classify all the deaths weekly, forwarding copies of the same to the Registrar-General's office. He would also be a fit and proper person

to make special inquiries into all deaths of persons dying without medical attendance, otherwise uncertified deaths, and communicate with the coroner if necessary. The various duties of practitioners, medical officers of health, and coroner, together with the form of certificate, and many minor details in connection with the suggested amendments for registration of deaths, were then dealt with; Dr. Thomas concluding his paper by remarking that we should then cease to see, in the Registrar-General's returns, such headings as "deaths from violence, kind not stated," "manner not stated," "how or what kind not stated," not otherwise described; or that, in fourteen out of so many persons poisoned, the "kind of poison was not in any way stated;" and the term "uncertified death" would be a thing of the past. Some of the suggestions made might be effected by orders from the Local Government Board; but amendment in the law would be required for others.—Dr. J. MORTON said that the results of registration, originally intended for civil, and not for scientific purposes, afforded a mass of immensely valuable information, which was only now beginning to be properly utilised, and required improved methods, such as Dr. Thomas proposed. Whether the information afforded—as it must be, in the first instance, by the individual practitioner—reached the Registrar-General direct or through the medical officer of health, as Dr. Thomas proposed, was a matter of detail, so long as it was treated as confidential. He did not apprehend much difficulty, except in manufacturing towns, where there were masses of poor and much unqualified practice. Dr. Morton was of opinion that the classification of diseases adopted by the Registrar was faulty, in that it gave too much weight to local manifestations, and too little to constitutional states.—Dr. W. G. WALFORD said that he could corroborate Dr. Thomas's remarks as to the unsatisfactory character of many death-certificates, filled up and signed by medical men. He had for many years been medical officer of health in a country town of about 20,000 inhabitants, and had experienced much difficulty in making out his mortality bills from the registrar's returns, which were, of course, copied from the death certificates. Some of the reputed causes of death were so very peculiar, not to say amusing, that he soon learnt to recognise different practitioners by the style of their certificates. Some, for example, assigned "fever" as the cause of a large number of deaths, both of very young infants and very old people. One case, certified as "typhoid", in a woman of 75, proved to be "alcoholism". Pneumonia was frequently given as the cause of death in infants six months old. "Dropsy" or "ascites" were sometimes the only causes given. Not unfrequently he had noticed that the real cause of death was withheld, in order to spare the feelings of the friends of the deceased.—Dr. DOWSE concurred in the value of Dr. Thomas's paper, although he thought that too great blame should not be laid at the door of the general practitioner, in reference to the registration of deaths: for, in many cases, in country and general practice, it was not always an easy matter to state correctly the absolute cause of death; and he gave, as instances, deaths from scarlatina and diphtheria, where the patients, in some cases, die in twenty-four hours, from rapid failure of nerve-power, without any objective or characteristic signs being present by which the disease may, in the ordinary way, become recognised. He considered Dr. Thomas's plan for registration of great value.—Dr. POTTER proposed, and Dr. WILLOUGHBY seconded, the following resolution: "That Dr. Danford Thomas be requested to bring his views before the Parliamentary Bills Committee of the Association; and that the Committee be asked to endeavour to ascertain the opinion of the Government on the subjects submitted."

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.

A MEETING of the above District was held, at Gravesend, on April 12th; J. C. ARMSTRONG, Esq., in the chair.

Conjoint Meeting.—A letter was read from the Secretary of the East Kent District, suggesting that a conjoint meeting of the two Districts should be held early in next session. This was cordially and unanimously adopted by the meeting.

The next District Meeting was appointed to be held at Rochester; and Mr. Nankivell was requested to act as chairman.

Papers.—The following were read.

Dr. William M. Ord read a paper on the Diagnosis of Thoracic Aneurysm; and showed a specimen of Aneurysm of the Innominate Artery, carefully prepared by Dr. C. E. Hoar.

Dr. Monckton gave a short address on Chorea, and its treatment.

Collective Investigation Committee.—Dr. STEPHEN MACKENZIE explained the views and objects of the Collective Investigation Committee.

Dinner.—Seventeen members and visitors dined together at the new Falcon Hotel.

CORRESPONDENCE.

THE TAX UPON CARRIAGES.

SIR,—Having seen a suggestion in the JOURNAL of Saturday last about increased tax on carriages (page 674), I took a copy of the petition and got it signed by upwards of thirty medical men in this town and neighbourhood. Will you kindly mention this in your next issue, as it may stimulate other towns to go and do likewise?—I am, sir, yours faithfully,

DE VERE HUNT.

Bolton, May 10th, 1882.

*** This example has been followed by many other medical men; and it will greatly assist the Parliamentary Bills Committee if it be extensively adopted.

THE ETIOLOGY OF INDIAN ENTERIC FEVER.

SIR,—In the last of Sir Joseph Fayrer's Croonian Lectures on the Climate and Fevers of India, published in your issue of the 6th inst., the author deals with the vexed question of the etiology of enteric fever. In the course of his lecture, Sir Joseph Fayrer quotes a passage from a paper on this subject read by me at the London International Congress, intended to show, from my own experience, that fevers with the intestinal ulceration characteristic of enteric fever existed both in India and in China previous to the year 1857. To this quotation, the author appended a note to guard himself against the inference of complicity with my heterodox doctrine on the etiology of enteric fever; but as the author does not state what my doctrine is, I ask you to grant me space to do so for myself. As a teacher of tropical medicine in a public institution, I think it due to the position I hold that there should be no misapprehension as to my views on a point so important, although I wish it to be understood that I have no merely controversial object in view.

I do not hold that a specific poison from the intestines of an infected person is a *sine quâ non* to the propagation of enteric fever in India, although I do not doubt that it is often so propagated, and it is quite certain that the facilities for such propagation abound in that country. I do distinctly hold that, as in Europe so in India, enteric fever is a fæcal disease, modified, like almost every disease in that country, in its symptoms, progress, and morbid anatomy, by the all-pervading poison of malaria, whatever that may be. I cannot here repeat the evidence brought forward by myself and others of the extent to which pythogenic influences prevail in India, nor is this necessary, for the matter is beyond dispute; but I must confess I find it difficult to understand how those who acknowledge fæcal impurities in air, water, and food, to be powerful factors in the genesis of enteric fever in temperate climates, almost ignore their influence in the country where they most abound.

Sir Joseph Fayrer, in the lecture under notice, quotes a passage from an official report of Dr. Marston on enteric fever in India, which has been carefully read by me. Any opinion put forward by a physician so competent, and so accurate a thinker as Dr. Marston, is worthy of respectful consideration from me, and this the report to which I refer had long before I read the quotation in Sir Joseph Fayrer's lecture. I confess, however, I cannot see the force of my friend Dr. Marston's arguments against the propagation of enteric fever by fæcal contamination. For example, the proclivity of "new arrivals" to suffer from the disease; surely this is sufficiently explained by the fact that the "new arrivals" about whom Dr. Marston is thinking are young soldiers at the age most prone to suffer from the disease all the world over. Again, why should the fact that enteric fever extends over "vast areas" of India be taken to be an argument against its pythogenic origin, if it be a fact, as I contend it is, that pythogenic influences in the fæcal sodden soil of India also extend over "vast areas"—to say nothing of the indisputable fact that the disease extends over "vast areas" in Europe also? Then again, in support of his argument, Dr. Marston says that "isolated cases" prevail in India. Is that fact peculiar to India? Is there a medical practitioner in Great Britain who does not see "isolated" cases every month in the year? I repeat I find it hard to find any valid reasons against the fæcal origin of enteric fever in India based on such facts as those just given.

With regard to those "climatic causes" so much dwelt on by Sir Joseph Fayrer and those who agree with him, I venture to draw attention to enteric fever as seen in Italy, in a climate widely different from that of England. I have never heard it said that the disease owns a different parent in the two countries; but I have seen—and I insist on the significance of the fact—enteric fever originating in Rome as much modified in its symptoms and progress by the malaria for which that

city is notorious, as in India, from the influence of the same agent. Many years ago I pointed out, in the pages of the BRITISH MEDICAL JOURNAL, that a well known, and at one time very fashionable, hotel in Naples, which strides over one of the old Roman sewers, still used, is notorious for the number of fatal cases of enteric fever it has furnished. Again, although the houses of Italian noblemen and other wealthy Roman citizens are as much exposed to "climatic influences" as the hotels frequented by English and American travellers, enteric fever is rarely seen in the former, while it is painfully common in the latter. Why? Water-closets on a faulty and defective system are to be found in all the hotels of the historic city, but have not been introduced into the houses of the inhabitants.

I must not take up more of your valuable space, or I could give more reasons in support of my contention that enteric fever in India is the same disease we all know too well at home; in the main owns the same origin; and is only modified by the "climatic" influences of my friend Sir Joseph Fayrer and those who look to such causes as the sole agents in its production.—I am, sir, faithfully yours,

Netley, May 8th, 1882. W. C. MACLEAN.

THE ROYAL MEDICAL BENEVOLENT COLLEGE.

SIR,—Kindly permit me, through the medium of the JOURNAL, to call the attention of the profession to the claims of the Royal Medical Benevolent College at Epsom upon them, and to urge every member of the medical profession who hitherto has neglected its claims at once to contribute to its funds, which are, I am sorry to find, in a depressed condition, either by sending the amount that renders the donor a life-governor, or the annual subscription of one guinea.

In a note received January 5th, 1882, now before me, the secretary of the College observes: "If, as you say, every member of the profession, or even every other one, were to subscribe his annual guinea, we should be quite at ease; but the proportion who have done so is not large." This negligence or indifference on the part of, I fear, the majority of the profession in the United Kingdom is to be deplored, since the amount required from each individual member of it is but a trifle, not amounting to sixpence a week; but, in the aggregate, it forms a sum, if contributed, that would enrich the College, and enable its authorities to carry out from year to year more fully the design of its founder, John Propert.

In the balloting paper for this year's election of pensioners and foundation scholars, I find twenty-one names for the former whose ages range from sixty-one to eighty-nine years, who base their claims for aid from the College upon advanced age, or some crushing misfortune, or a general incapacity for further duty, or on the death of the husband, etc. I note also that, out of these twenty-one would-be pensioners, only three are or have been life-governors, and three annual subscribers to the College; the other fifteen clearly not having in any way contributed to the funds of the institution whose aid they now seek. This is a painful fact, and is, I hope, in some degree remediable in the future; for it is not creditable to the profession that such things exist, and it must be admitted that, had these fifteen present candidates for relief, who are all non-contributors, only subscribed their guinea annually, the College no doubt would have been in a better position than it is to entertain their present solicitations; nor would these competitors against the six subscribing ones have at any time seriously felt any difficulty in the payment of the modest annual subscription, which it was their duty and obligation to pay to the College that depends, in a great measure, upon our unanimous support.

In the same balloting paper, I also find the names of forty-two boys whose parents or friends seek for them foundation scholarships, all of these boys being sons of medical men. Now, out of this number of forty-two, I can only find two life-governors and one annual subscriber; the other thirty-nine are the sons of men who have never, I suppose, contributed to the College a single subscription. This, indeed, must be very wrong, and unjust also to the three boys against whom the thirty-nine other boys appear in competition for the advantages offered by an institution in whose support the parents of them have shown no concern; and this also demands a remedy.

I am very reluctant to use any expression that may appear to be unjust or unnecessarily severe, but this apathy or neglect of the non-subscribing portion of the medical profession to the funds of their College must be due to their improvidence or parsimony, perhaps to both of these qualities, and should, so far as they are concerned, be at once and for ever removed as a reproach from them, and the funds of the Royal Medical College in future be enriched by the yearly subscriptions of one guinea from each of these, at present, non-supporters of the same. This, I apprehend, is not unreasonable to expect from thousands, some of whom, from time to time, either directly or indirectly appeal to the College for aid, as we have seen, if not for themselves, then for their children or widows; and, unfortunately, owing to their present apathy or neglect, the applications are often in vain. The *Medical Directory* for 1882 gives the number of medical practitioners for Great Britain, both at home and abroad, as 24,571. Now, from these, I apprehend, it is not unreasonable to suppose that the Royal Medical Benevolent College, Epsom, should receive, as annual subscriptions, at least £20,000; and if so supported, it would then be only to the honour and advantage to the profession for whom it is established.

I would respectfully commend these few remarks to the serious, generous, and prompt consideration of the great majority of the profession who are not, and who never have been, contributors to the funds of the College, believing, as I do, that they will never miss the annual subscriptions; and while benefiting others, I trust they may never have occasion to seek that aid from the College which their contributions will enable this noble institution to extend more freely to the less fortunate and, if subscribers, most deserving claimants upon its funds and shelter.—Yours truly, FREDERICK HALL.

1, Jermyn Street, May 1882.

ANTIVIVISECTION AT BIRMINGHAM.

SIR,—I am not disposed to continue the discussion of this subject in the spirit and temper displayed by Dr. Saundby at the Philosophical Society, but I have under consideration a scheme which will shortly take practical form, by which a large sum (probably £500) will be offered as a prize for an essay which will prove the usefulness of vivisection as a method of scientific research, the conditions to be approved by the "Association for the Advancement of Medicine by Research". If this essay appears and its facts cannot be controverted, I am quite prepared to withdraw everything I have said on the subject.—I am, etc., LAWSON TAIT.

7, Great Charles Street, Birmingham, May 7th, 1882.

THE ADMINISTRATION OF ETHER.

SIR,—In the JOURNAL of April 22nd, there are published three cases which illustrate the dangers of ether as an anæsthetic. These dangers have been already pointed out, but it seems necessary to repeat the caution. In the report of the Clinical Society's meeting, there are two cases of extirpation of the kidney, related by Mr. Godlee and Mr. Howard Marsh respectively, in both of which death occurred from suppression of urine. I think it should be clearly understood that ether is a very dangerous anæsthetic when there is any kidney-disease present. Mr. Lawson Tait has recorded a very interesting clinical observation, in the course of an operation for the cure of a fistulous communication with the ureter, which showed that, during the administration of ether, the secretion of urine stopped; and Dr. Norris of Philadelphia has published several cases of death with uræmic symptoms after administration of ether to persons suffering from latent chronic Bright's disease. I have observed the same association of phenomena, and would urge very earnestly that, in all cases when the kidneys are suspected of being diseased, chloroform should be substituted for ether. I observe that in these cases the other kidney is spoken of as "practically healthy", but I think it will be admitted that such "practically healthy" kidneys would have shown definite microscopical departures from health; and, however clearly the unilateral character of the renal lesion may be indicated, it is not right to expect that the other organ is absolutely healthy.

The other case was at Guy's Hospital, where ether was given for an operation for empyema. It has been shown over and over again that ether exerts a very decided irritating effect upon the lungs, and that wherever pulmonary complications exist it should not be used. It is only about a year since another patient died from ether at Guy's Hospital, during an attempt to remove a foreign body from the air-passages.—I am, etc., ROBERT SAUNDBY, M.D.Edin.

47, Newhall Street, Birmingham, April 22nd, 1882.

HOSPITAL FOR NORTH LONDON.

SIR,—A late issue of the JOURNAL contained an account of the proceedings of a preliminary meeting to consider the advisability of establishing a new hospital for North London. At this meeting, it was unanimously resolved that it was advisable to start such an institution with three hundred beds forthwith, on the ground of the inadequate accommodation afforded by the only existing hospital alluded to—viz., the Great Northern, with thirty-three beds—entirely ignoring or forgetting such hospitals as the German, St. Saviour's, and the North-West London. This latter institution is in the Kentish Town Road, at present contains twenty-six beds, and, though started as a hospital for

women and children, has for over a year extended its benefits to the male sex as well. It gave relief to 220 in-patients and over 11,000 out-patients last year; and, as a further extension of the building is to be taken in hand this summer, there can be little doubt that, with efficient support, it will be adequate to meet the requirements of Hampstead, Kentish and Camden Towns. Moreover, the out-patient department is conducted on the principle of helping those who are willing to help themselves, all except the extreme poor being expected to pay a small sum to cover the cost of the drugs.

Thus, sir, the question arises, in the public interest, for the serious consideration of men of light, learning, and wealth, like Messrs. Ashmead Bartlett-Coutts, Burdett, and Levi, whether it would not be the more economical, efficient, and successful plan to endeavour to develop and expand the Great Northern and North-West London Hospitals, which are already doing good work, and have recommended themselves to the public, rather than to start a third and rival institution, with the certainty of crippling and the possibility of ruining all three.—Yours faithfully,

D. H. CULLIMORE,
Physician to the North-West London Hospital.

54, Welbeck Street, W., May 6th, 1882.

SIR,—In last week's JOURNAL Dr. Burnet complains that at the Camden Conference justice was not done to the Great Northern Hospital. I think if Dr. Burnet had been present he would not have felt justified in making such a complaint.

None of the speakers, so far as I know, spoke evil of the Great Northern or its work—as, indeed, why should they? The hospital has done, is doing, and doubtless will continue to do good work. Dr. Burnet says its borders are to be extended. This is surely a step in the right direction and cannot but be approved by every one, but especially by us who see so clearly the destitute condition of North London with regard to hospital accommodation. If, therefore, any speaker at the conference, inadvertently or otherwise, failed to do justice to the Great Northern, I will venture to express regret on his behalf, and to say for the Council, as a body, that we heartily recognise the good work of the hospital, and wish all success to its extensive scheme.

Does not Dr. Burnet fall into an error when he speaks of *subdivision* in connection with the proposed new hospital? What do we propose to subdivide? *Extension* is proposed, but not subdivision. Mr. Burnet will not ask us to believe that the Great Northern, even were it enlarged threefold, can supply more than a tenth part of North London. What is to become of the other nine-tenths?

The open secret of Dr. Burnet's letter is, that the successs of the new scheme may possibly interfere with the financial prosperity of the Great Northern Hospital. With that view I do not agree. If the Great Northern or any other charitable institution shall do work of the highest kind at a reasonable cost, there is little fear of its wanting funds. How is it that George Müller of Bristol and Mr. Spurgeon at Stockwell receive such large sums annually, almost without the asking? It is because the public is convinced that every shilling given to the Bristol and Stockwell Orphanages produces a full shillingsworth of the very best kind of work. If hospitals are to have full coffers they must set about convincing the public that money entrusted to them is equally well spent.—I am, sir, yours faithfully, GEORGE W. POTTER, M.D.

12, Grosvenor Road, May 9th, 1882.

ROYAL COLLEGE OF VETERINARY SURGEONS.—The thirty-ninth annual meeting of the Council of the Royal College of Veterinary Surgeons has been held under the presidency of Mr. George Fleming. During the discussion of the paragraphs of the report, the President stated that after September 30th, 1883, no man whose name was not on the register of the Royal Veterinary College could practise animal medicine or surgery under any title or name whatever in any of the three kingdoms, under the provisions of the Veterinary Surgeons Act, which received the Royal Assent last session. Mr. Wilson moved that the best thanks of those present, and the profession generally, be given to the president for the successful action he had taken in connection with the passing of the Veterinary Surgeons Bill, and the motion was carried unanimously.—The Chairman, in reply, said that his task of obtaining from the Government a recognition of the public value and standing of the profession had been simplified by the esteem in which it was held by the public at large. Privileges had been granted to them by the measure which it had been long necessary that they should obtain. The Act would place their profession in a position which it did not hold in any other country in the world. The benefits which the public and the profession would derive from the operation of the Act depended largely upon the exertions of the veterinary surgeons themselves.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

THE SUPERANNUATION OF POOR-LAW OFFICERS.

DEPUTATION TO THE LOCAL GOVERNMENT BOARD.

A DEPUTATION from the Poor-law officers holding appointments in the metropolitan district waited on Tuesday on Mr. J. T. Hibbert, M.P. (Parliamentary Secretary), at the Local Government Board, with reference to the Instructional Letter to Boards of Guardians dated December 14th, 1880, on the subject of superannuation allowances of Poor-law officers. The memorial presented by the deputation urged that, as a matter of mere justice, persons holding office before the date of the letter should be exempted from its provisions; and, further, that the Civil Service statutes, referred to in the circular as the basis upon which to regulate the pensions of Poor-law officers, could not be deemed fairly applicable to them, because they had never been recognised as civil servants, nor enjoyed the privileges of that class. The memorialists submitted to the consideration of the Board that, if any amendment of the Act of 1864 were contemplated, there were two provisions that would be beneficial to the Poor-law service and equitable to its servants; the first being, that superannuation should not be permissive merely, and conditional on previous resignation, but also assured to the officer whose conduct had been satisfactory; and the second, that, in computing the length of service entitled to superannuation, the whole service, uncontrolled by the question of the last parish or union served, should be taken into account. The deputation, which was introduced by Mr. A. Pell, M.P., included Viscount Newport, M.P., Mr. Stanley Leighton, M.P., Mr. Brinton, M.P., Mr. Holland, M.P., and representatives from the officials of the Paddington, Holborn, Lambeth, Kensington, Stepney, Greenwich, St. Saviour's, Fulham, and Westminster Boards of Guardians. Sir John Lambert, K.C.B., the Permanent Secretary of the Local Government Board, was present during the proceedings.

Among the speakers were Mr. Aveling, Clerk of the Paddington Board of Guardians; Mr. Barker, of the Lambeth Board; Mr. Rutherglen, Clerk to the Kensington Board; Mr. Jones, one of the relieving officers of the Stepney Board; and Mr. Jones, Clerk to the St. Saviour's Board.

Dr. JOSEPH ROGERS remarked that he felt, when the circular was issued, that it would act very prejudicially to the interests of many Poor-law officers with whom he was acquainted. Poor-law officers, whether medical or relieving officers, or clerks, entered upon their duties at a very much more advanced period of life than the general run of civil servants; and they therefore laboured under corresponding disadvantages in the estimate of their superannuation allowance. He could not help thinking that the department had looked at the whole matter from the Civil Service point of view, and not from the point of view of the position which Poor-law officers occupied. They were under the control, not only of this department, but also of their respective boards of guardians; and what they asked was that their case should be more generally considered, and the disadvantages under which they laboured be more favourably regarded. One of the chief matters they had to urge upon the Local Government Board was that their length of service should be counted, whether rendered in one or in two or three unions. That concession they felt to be absolutely necessary, while it would result in the utmost advantage to the country at large. What, however, he wished to bring particularly under the notice of the department was, that some regulation should exist with regard to the officers appointed to the county and borough lunatic asylums. They were under the control of justices and county boards, though they were supported out of poor-rates, and their grievances were identically the same as those of the relieving officers and everyone associated with the administration of the Poor-law in this country. They were liable to get either something or nothing at the mere caprice of the justices sitting in Quarter Sessions, and he hoped that, when this subject came to be considered by the Local Government Board—and especially did he trust that this memorial would receive their favourable attention—they would not omit to bear in mind the case of this class of officials.

Mr. HIBBERT, in reply, said he had listened with great interest to the statements that had been made by the members of the deputation, and felt that what had been said was well worthy of the serious consideration of the Board. Personally, after having worked for a great many years as a member of a board of guardians in the North, he naturally felt a sympathy with the officers representing the Poor-law

system. He thought, however, he was bound to say, first, with respect to the Circular itself—though he did not question the truth of what had been stated as to the manner in which it would act against the interests of certain old Poor-law officers—that its intention was really not to act in that way, but to put the question of superannuation, if possible, on a more satisfactory footing than had been the case up to the time when it was issued. Even although it might have done injustice in some cases, yet in others it must have had a beneficial effect in drawing the attention of boards of guardians to a regular system of superannuation. Undoubtedly there was a great deal to be said in favour of some system of continuous service if it could be managed, and in the metropolis it would be less difficult to achieve than in other parts of the country. As to the certainty of superannuation, if they could introduce the Civil Service system, which would allow an officer to retire at a certain time, he knowing exactly the terms on which he would so retire, that would be much more advantageous than the present system of superannuation, but then again that would depend on their creating a fund from which to draw the superannuation allowances. Then with respect to an officer not being required to resign previous to his superannuation, he certainly did think a strong case for reconsideration had been made out so far as that proposal was concerned. At all events, it must be admitted that it was very hard for an officer to be called upon to resign before he knew whether or no he was to have a superannuation. Next, as to the application of the circular to old Poor-law officers, he and Sir John Lambert would represent to Mr. Dodson what had been stated to-day, and no doubt the right hon. gentleman would see if its application could be made to differ in the case of old officers as compared with officers appointed since it was issued. That, however, was a matter entirely for the consideration of the Board, and it was one, too, that he felt to be worthy of serious attention. There was no doubt that the whole system of the superannuation of Poor-law officers did require reconstruction; and he hoped that something might be done before long to improve the position in which the law at present stood on the matter.

The deputation then withdrew.

NOTIFICATION OF INFECTIOUS DISEASES.

THE interest attaching at this moment to the action which should be adopted by sanitary authorities, as regards infectious diseases, gives special importance to the annual report of the Medical Officer of Health for the borough of Warrington for the past year; and we are glad to find that Mr. J. H. Gornall has entered in detail into this subject with respect to his sanitary district.

We have so often referred to the powers obtained by the Corporation of Warrington, in their Improvement Act, 1879, with regard to the compulsory notification and the isolation of cases of infectious diseases, that it need only be remarked that the provisions of that Act are, in this respect, much more stringent than those sanctioned by our Association. Indeed, Mr. Gornall reminds us that, by some, they have appeared to be "drastic.....and incompatible with the Englishman's assumed right to do as he pleases." The notification of the existence of a case of infectious disease is required, under penalty, both from the head of the household in which it occurs, and also from any medical practitioner visiting the patient; power is given to the Corporation themselves to cleanse and disinfect infected houses and things at their own cost, or at that of the owner or occupier; and, on the certificate of their own officer of health, or of any other medical practitioner, that a patient cannot otherwise be so isolated as to prevent the spread of infection, compulsory removal to hospital may be carried out. With a view of giving effect to these powers, an admirable infectious hospital and an efficient disinfecting stove have been provided, and a suitable staff of sanitary officers is maintained.

During 1881, scarlet fever was prevalent in the borough, the outbreak being a recrudescence of a previous attack in 1880. During the first six months of the year, 34 cases came under notice, some being notified each month, and all but two were removed to the Borough Hospital. Notwithstanding this, however, the disease spread, as many as 328 cases being notified during the latter half of the year. At first, nearly all the cases heard of were isolated in hospital; but, in the last three months of the year, and presumably owing to want of sufficient accommodation, only 138, out of 205 cases which were notified, were removed from their homes.

Mr. Gornall anticipates the objections which will be raised, in view of this result, by those who are opposed to compulsory notification and isolation; and admits that, having regard to the provisions which obtain in Warrington, an explanation is needed as to the spread which occurred in the second half of the year. In the first place, he publishes a table, which shows how unceasing has been the fatality from scarlet fever for the past twenty years, and how serious have been some of the epidemics in Warrington. Thus, in 1863, scarlet fever caused 383 deaths; in 1869, there were 109; and in 1878, there were 104 deaths. In 1881, however, and this notwithstanding the circumstance that the disease appeared in every part of the borough, there were only 22 fatal cases; and Mr. Gornall expresses the strong conviction that, although the means adopted in Warrington did not succeed in actually "stamping out" the disease, yet to their adoption has been due the great saving in life during the past epidemic.

To several reasons he assigns the partial failure to arrest the progress of infection. In the first place, a number of cases occurred in which parents, who had called in no medical practitioner, failed to notify the existence of the disease—this failure being in no way due to fear of removal to hospital, but solely to ignorance. Unfortunately, the disease, in some of these cases, made its way into schools, and a rapid spread resulted. In another district, where a sudden and rapid extension took place, it was found that scarlet fever was prevalent in a sanitary district just outside the borough; and, there being no system of compulsory notification in operation in that district, the children of the two adjoining districts mingled together without hindrance on a common playground. In two instances also, in both of which no medical attendance was sought, there was intentional suppression of the existence of the disease. Proceedings were taken in these cases, and penalties were inflicted. Such cases, however, were obviously rare; indeed, Mr. Gornall, at one point of his report, says, he cannot refrain "from commenting on the readiness, nay eagerness, with which information as to fresh cases was supplied;" and it need hardly be observed that no case of failure to notify occurred where a medical practitioner was in attendance.

Having regard to all the circumstances referred to in this report, it is impossible not to recognise the immense advantages which have already accrued to the borough of Warrington, through the provisions it has acquired for the notification and the isolation of cases of infectious diseases. It must, however, be recognised that, in a large community of persons, where scarlet fever has for many years past been almost constantly prevalent, germs of disease lie hidden, which may at almost any moment lead to the spread of infection; and that, owing to this circumstance, coupled with the fact that cases occur which are not recognised by the poorer classes, who in instances of apparently trivial illness so often fail to secure medical attendance, it will hardly be practicable, in the first few years after the adoption of such measures as are in use at Warrington, to secure the full benefit which may be anticipated to result from them. If by means of popular instruction those members of the lower classes, who, it is stated, are by no means unwilling to notify infectious disease when it occurs, could be taught what are the early indications of a mild attack of scarlet fever, much would be gained; and the action already taken at Warrington gives reason to hope, that intentional suppression of information, on the part of the public, will be effectually put an end to.

Mr. Gornall does not give an opinion, as to whether the failure to secure medical attendance in certain cases was ever due to the fear that such a course would lead to the intervention of the sanitary authority; but the whole tenor of it leads to the conclusion, that any such practice cannot, to any material extent, be credited with the extension of the disease under consideration. Nor indeed does the mortality imply that failure in notification was largely practised. During the year, 362 cases were notified to the Corporation, and 22 deaths occurred—giving only a death-rate of 6 per cent.

SMALL-POX IN SHEFFIELD.

SIR,—As the recent outbreak of small-pox in this hospital seems to have attracted a considerable amount of public attention, the following summary of the facts may be of interest. An exaggerated account appeared in the local papers; and, unfortunately, made its way, with various additions, into several London and provincial papers.

All the members of the staff were vaccinated, except the cook, who had had a previous attack of small-pox. On March 30th, the ward maid of the small-pox block was taken ill, with the usual symptoms of commencing small-pox. On April 1st, a rather scanty rash appeared. None of the spots went on to suppuration, and there was no secondary fever. She had fair marks from infantile vaccination, but in her case the revaccination was only partially successful. My own attack began on April 2nd. There was considerable primary fever for three days, but no rash appeared, and rapid convalescence followed. On April 3rd, the cook was seized with the same symptoms. The primary fever ran high, and a copious rash came out on April 5th; but only a few spots went on to suppuration. She has now completely recovered. None of the nurses or other servants have been attacked by small-pox. There have been, however, several cases of minor ailment, chiefly "gathered fingers."

The Hospital Committee of the Town Council have requested the Medical Officer of Health (Dr. Hime) and myself to make a thorough investigation, and report as to the sanitary condition of the hospital; and, if any defects should be found to exist, they will be at once set right. I may add that, before the present year, there has been in Sheffield no hospital available for the reception of non-pauper infectious cases; and it is very satisfactory to find that already a considerable number have availed themselves of the advantages offered by this hospital.—I am, etc.,

B. A. WHITELEGGE, M.D.Lond.,
Medical Officer, Sheffield Borough Hospital.

SIR,—I should feel obliged if you could inform me whether a parish medical officer could claim any fee on behalf of a medical practitioner who assisted him in a difficult instrumental midwifery case.—Yours, etc., QUERY.

*** Boards of guardians may, subject to the approval of the Local Government Board, grant to a gentleman called to the assistance of a Poor-law medical officer, who has had a difficult case of instrumental midwifery, a fee. In some instances, the fees thus given have been fairly liberal—to wit, in each of two cases that occurred in the Strand Union and the Westminster Union Workhouses respectively. Dr. Hall Davis was awarded £5, the medical officer £2, his deputy £1, and the midwife an extra grant of 10s. These amounts were sanctioned by the Local Government Board. In order to secure payment, a letter should be addressed to the guardians, giving the details of the case; and these instances may be cited. Unless full particulars be given, showing the difficulties and dangers of the case, the central department may overrule any decision come to by the local board.

OBITUARY.

HENRY ALFRED HAMILTON LIGHTON, M.R.C.S.

WE regret to record the premature death of this promising member of our profession. He was the third son of the late Rev. Sir Christopher Robert Lighton, Bart., of Brockhampton, Herefordshire. In 1879, he joined Mr. Read, of South Kensington; in July 1880, he had a slight attack of hæmoptysis, and was advised to winter abroad. He accordingly went with Mr. Potter, of Queen's Gate Gardens, in his yacht to the Mediterranean, returning in May 1881, much improved. In October, however, his health began to fail, and he accompanied Lord Hemsley and his brother to Madeira, where they awaited his yacht, intending to cruise about. In November, he had another attack of hæmoptysis, and gradually grew worse until Tuesday, the 2nd instant, when he died. He was an M.R.C.S.Eng. and L.S.A., also M.A. of Cambridge, and had passed his examination for second M.B.; but, owing to ill health, had not been able to write a thesis, and take his degree. He was beloved by all who had the pleasure of knowing him.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in Anatomy and Physiology, at a meeting of the Board of Examiners, on the 4th instant, and when eligible will be admitted to the pass examination.

Messrs. Thomas J. Fletcher, Alexander G. Paterson, Edward H. Warner, Hugh R. Bramwell, William T. Prout, Theodore S. Wilson, Charles L. Lightfoot, Joseph Priestley, and Frank W. A. Godfrey, students of the Edinburgh School; William Washbourn, William E. Coleman, Arthur F. Voelcker, and Charles J. Arkle, of University College; George F. Collins, James P. Fenoulhet, John Girvin, and Casper R. Laurie, of St. Bartholomew's Hospital; Gerald Cree and William E. Newry, of the Middlesex Hospital; Richard H. Castor, and Charles K. Ackland, of King's College; James D. Staple, of the Westminster Hospital; Frank C. Clarkson, of St. Thomas's Hospital; and Walter H. Dodd, of Guy's Hospital.

Four candidates, having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their anatomical and physiological studies for three months, making a total of 53 rejections out of the 220 candidates examined, including six who had an additional three months.

The following gentlemen passed on the 6th instant.

Messrs. William L. Braddon, Edward P. Mourilyan, Richard M. Ward, Melville McP. Hailey, and Thomas John, of Guy's Hospital; Thomas Clifford, William G. Richardson, Cuthbert U. Laws, and Frank Winter, of the Newcastle School; Charles E. Adams, George L. Wells, Sydney C. H. Moberly, and Walter E. Foster, of St. Bartholomew's Hospital; Robert W. Leeming, B.A.Cantab., Sidney Partridge, and Matthew W. Gutteridge, of the Edinburgh School; Alfred N. Darlington, Joseph H. Partrick, and Charles Greene, of the Birmingham School; Frederick B. Hulke, John S. Reed, and George McShane, of University College; Walter Basset and Edwin D. Duffett, of the Bristol School; Hormasjee E. Banatvala, of the Bombay School; Edward J. Lewis, B.A.Cantab., of the Cambridge School; Sidney J. Armstrong, of the Charing Cross Hospital; Percy Priestley, of the Sheffield School; Arthur M. Watkins, of the Liverpool School; John W. Parry, of the Glasgow School; Wilberforce Thompson, of the Leeds School; and Jenkyn Lewis, of the London Hospital.

Sixteen candidates, having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their anatomical and physiological studies for three months, including three who had an additional three months.

The following gentlemen passed on the 9th instant.

Messrs. George Stevenson, Charles Averill, Frederick A. Pring, Otto Wunderlich, Septimus M. Hebblethwaite, Ninian W. Woods, and Lovell Drage, of St. Bartholomew's Hospital; William R. Edwards, John A. Gillett, Thomas Wingrave, William G. Hall, and Edwin C. Thomas, of the London Hospital; William J. Lee, Frederick W. Welstead, and Arthur R. Carver, of Guy's Hospital; James M. France and Howard D. Buss, of University College; Alfred H. Sturdee, of King's College; George D. Symes, of St. George's Hospital; and Thomas D. White, of the Middlesex Hospital.

Eight candidates were rejected.

The following gentlemen passed on the 11th instant.

Messrs. Francis S. White, Edmund B. Holland, James H. Walker, and Herbert Davison, of University College; Watkin L. Rhys, Thomas N. Swindlehurst, and George T. Cattell, of Guy's Hospital; Bernard Castle and William Spry, of St. Bartholomew's Hospital; George A. E. Roberts and Alfred Kirley, of the Middlesex Hospital; Arthur B. Blacker and Edward S. Sugden, of St. Thomas's Hospital; James E. Crisp and Richard Cordiner, of the London Hospital.

Thirteen candidates were rejected, including two who had an additional three months.

The name of Thomas Kenedy Dalziel, of the Edinburgh School, who passed on the 26th ultimo, was accidentally omitted in the list then published.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, May 4th, 1882.

Browne, William, Beith, Ayrshire.
Dawson, William Edward, London Hospital.
Priestley, John, Greenhays, Manchester.
Williams, John Worthy, 58, Acre Lane, Brixton.

The following gentlemen also on the same day passed their Primary Professional Examination.

Hadley, Wilfred James, London Hospital.
House, Percy William McW., London Hospital.
Scanlan, Arthur de Courcy, Westminster Hospital.
Stephens, Samuel, St. Bartholomew's Hospital.

UNIVERSITY OF DURHAM.—At the first examination for the degree of Bachelor in Medicine, held during the last week of March, 1882, the following candidates satisfied the Examiners.

Second-Class Honours.—Cornelius C. Caleb.

Pass-List.—F. M. Blackwood; Percy Brown, M.R.C.S., L.S.A.; Fred. Bryan; W. R. Edwards; F. W. Giles, M.R.C.S., L.S.A.; Thomas E. Gordon; F. Greenwood, M.R.C.S.; J. C. Grinling, M.R.C.S.; George Rome Hall; Alexander Harper; H. J. Hillstead; H. M. Hughes; A. G. Laidler; A. E. Larking; T. H. Openshaw, M.R.C.S., L.S.A.; J. S. Revely; G. W. Richards; E. W. Simmons; M. T. Wakefield; James Watson; S. Welch, M.R.C.S.; W H. Wigham; G. G. D. Willett, M.R.C.S.

UNIVERSITY OF EDINBURGH.—The following candidates have passed the first professional examination for degrees in Medicine and Surgery.

A. M. Adams, A. Alexander, N. E. Aldridge, J. A. Ashcroft, James Anderson, John S. Archibald, Samuel Arnold, H. T. Barton, John B. Bawden, Robert N. Bell, David Berry, Robert Beveridge, Richard Bland, Walter C. Bluck, Frederick M. Blumer, Louis Z. H. Bouchet, W. F. Boycott, Alex. Brewster, Edward Bryden, C. G. Cassidy, Edward Chamberlayne, James A. Clark, James F. Cownie, Arthur L. Curtis, James H. Dawe, Herbert J. Dring, George G. Eyre, Alexander S. Ferguson, Thomas L. Ferrier, Arthur M. Fraser, David Fraser, Thomas Fraser, Robert Fullerton, Thomas A. Fulton, J. W. Gainer, J. E. Gemmell, Walter M. Gossip, Walter D. Grieve, Felix O. Guerin, William P. Harries, James Hindle, Herbert Hirst, William A. Holmes, Robert S. Hubbersty, Hugh C. Hughes, Job Hughes, James Hunter, James Hutcheson, Theophilus B. Hyslop, George A. John, Aubrey Johnston, George F. Johnston (with distinction), James P. Johnston, John Jones, Arwid L. Kellgren, James Kerr, William Laing, Charles N. Lee, Edwin L. Lees, James A. Leishman, Louis H. Le Merle, William Little, Gerhardus S. Loubser, Reginald Lucy, William M'Culloch, Alex. G. Macdonald, Henry C. M'Ewan, William C. M'Ewan, John M'Gibbon, Alistair Macgregor, Ian D. Mackay, William B. Mackay, John C. Mackenzie, William R. M'Kinnell, Murray Maclaren, Alex. R. Macmillan, Thomas Monies, Upondra N. Mukerji, Neil G. Munro, Albertus Mybrough, Walter B. Nisbet, John W. Pare, Alexander Paterson Emmanuel Porter, James H. Pringle, John C. Robertson, A. H. Robinson, William L. Ross, George T. Sinclair, Horace Smith, William Spettigue, William H. G. Stephen, Benjamin D. Stewart, John R. Talbot, Mowbray Taylor, John T. Thompson, James B. Tierney, George J. E. Trotter, George A. Tullis, Edward Walker (with distinction), Thomas A. Watson, Frederick E. Welby, Stephen F. Wernich, Alfred B. Whitton, Arthur Wood.

The following have passed the second professional examination.

George F. Alexander (with distinction), John Anderson, T. L. Bancroft, Theodore H. Barker (with distinction), W. H. Barrett, H. J. Barron, Minas M. Basil (with distinction), Basanta K. Basu, James A. Blair, John H. Brown, John N. Burns, George S. Cardew, James M. Caw, Edwin A. Chill, Ronald Clark, J. A. Clayton, Horace Cocks (with distinction), Francis G. Connor, William Cotton (with distinction), James Craig, William Cumming (with distinction), James Dalgleish, Thomas K. Dalziel, Archibald Donald, Alexander P. Drummond, William Duff (with distinction), H. A. Dumat, Thomas E. Dyson (with

distinction), Thomas J. Fletcher, Alex. Forbes, Arthur Fuller, M. H. Gardiner, J. E. Godfrey, R. Gordon, James Graham, L. R. Gray, T. D. Greenlees, H. M. Hardcastle, R. D. Helm, James Heath, John Henderson, Robert S. F. Henderson, George Hewlett (with distinction), John Hutson, Robert Inch, R. W. Jamie, Charles H. Jones, David K. Keith, James Kerr (with distinction), Ernest Kingscote, J. A. Loudon, D. R. M'Arthur, B. F. P. Macdonald, John Macdonald, William F. Macdonald, George Mackay, Robert Mackenzie, Frank I. Mackinnon, John M'Lachlan (with distinction), Charles M'Leod, William M. M'Pherson, Augustus A. Matheson, Farquhar W. Matheson, T. C. Meggison, A. W. T. F. Mickle, W. H. Miller, Robert P. Mitchell, Upondra N. Mukerji, J. A. J. Murray, J. A. Myrtle, Gustave P. Nicolet, Gerrit Nieuwoudt (with distinction), Owen R. P. Owen, Alexander G. Paterson, Donald Paterson (with distinction), Walter Petter, William L. Price, Joseph Priestley, G. M. Reid, James B. Roberts, T. M. Robertson (with distinction), Arthur Robinson (with distinction), J. R. Stevenson, James Stewart, Arthur J. Stiles, H. A. Tuxford, Richard Vassie, John Walther, Allan O. Ward, Edward H. Warner, G. de B. Watson, W. H. Weston, R. A. Williams, H. A. Wilson, H. G. Wilson, Theodore S. Wilson, Arthur C. Younan (with distinction).

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH.—DOUBLE QUALIFICATION.—The following gentlemen passed their first professional examination during the recent sittings of the examiners.

Charles E. Solomon, Cornwall; Robert M. Fleming, Suffolk; Joseph Dunlop, Conagher; Douglas L. Thomson, Hampshire; Charles S. Murray, London; William M. Storrar, Aberdeenshire; John H. McAuley, Dublin; Michael Hawe, Cork; Robert Spring, Cork; Edward Morse, Crewkerne; Robert B. Graham, Berwickshire; Frank Laird, Aberdeenshire; Herbert D. Harthan, Sandbach; William Ferriday, Manchester; Cyril S. Earle, Manchester; Charles T. U. Babot, Newcastle; Percy H. Day, York; Robert McCall, Edinburgh; Thomas G. Williamson, Leith; Stuart Herriot, Alderley; Joseph Fitzgerald, County Limerick; Ernest F. Taylor, Riponden; Neil Stewart, Caithness; Benjamin Marshall, County Tyrone; William A. Dickson, Dublin; Michael D. Hart, Jamaica; Charles W. Dean, Lancaster; James H. Curtis, Cork; Arthur Neville, Cheltenham; James Mungle, West Calder; Clement Rowsell, Kennington; John E. Hutchings Stephens, Cornwall; John G. Brown, County Cork; Wellington Dowman, Cork; Major H. C. Irving, Allahabad; William P. B. Goodridge, Stourpain; James Malcomson, County Down; James Alister, County Down; Sewell S. McFarlane, Australia.

The following gentlemen passed their final examination, and were admitted L.R.C.P.Edinburgh and L.R.C.S.Edinburgh.

Joseph S. Dunlop, Liverpool; James P. Johnstone, Demerara; Robert W. Jephcott, Warwickshire; Cyril J. Williams, Yorkshire; Symers D. Macvicar, Moffat; Henry B. S. Curll, Norfolk Island; Alexander Meighan, Glasgow; Albert P. Wells, Chelmsford; Hartley Dixon, Cheshire; James T. Carter, Manchester; William M. V. Williams, Denbighshire; James W. Jeram, Southsea; Francis E. Mulliner, Northampton; Campbell T. Dewar, Jamaica; William Johnson, County Durham; William Turner, Ratho; James Gunning, Castlerea; Matthew R. Draper, Cheltenham; James A. Mather, Fifeshire; Francis B. Norris, Cork; Charles C. Brodrick, Jersey; Wesley F. McLean, Canada; Charles S. Brewer, Liverpool; Charles S. Leach, Rangoon; Caleb St. J. Lawrence, Madras; Charles H. Eyles, Madras; Robert W. Mackinstry, County Monaghan; George T. Girdler, Penge; Thomas M. Dawson, Liverpool; Moffat Young, Londonderry; James H. Mawson, Humbleton; Samuel McC. Cowe, Whitehaven; Richard Crofts, Cork; Searle M. Haward, London; Charles H. F. Underwood, Poona, Bombay; James Fairbairn, Australia; Edward Knight, London; John W. Levis, Skibbereen; Frank S. Boreham, Lynn Regis; Joseph C. Blyth, Montgomeryshire; William Gunn, Sutherlandshire; George W. Daunt, County Cork; Hugh O. Hughes, Denbigh; Charles Maxwell, Lockerbie; Samuel W. Brierley, Victoria, Australia; Harry A. Murphy, Bolton; Henry J. Edwards, Bowness; Henry J. Thomson, Margate; Robert Dickie, Bradford.

ROYAL COLLEGE OF PHYSICIANS, EDINBURGH.—The following gentlemen have passed the examination for the single qualification of the Royal College of Physicians.

Hubert S. Reynolds, Warwickshire; William Brown, Beith, Ayrshire; William A. Martin, Ormskirk, Lancashire; James M. Ferguson, Bolton, Lancashire; Francis W. S. Allison, Hobart Town; Edward Corner, Williton, Somersetshire; Arthur R. Broom, Ottery St. Mary, Devon; Gerald Nicholson, Clapham Park; George R. Green, Everdon, Northamptonshire; John C. Saunders, Sheffield; Henry A. Layton, London; Herbert A. H. M'Dougall, Sarawak, Borneo; William D. J. Morris, Fishguard, Pembrokeshire; Henry M. Sloggett, India; and Charles Penruddocke, Bath.

The following gentlemen have been elected Members of the College.

George F. Grosvenor, M.D., London; Thomas Sutton, Manchester; Francis Vacher, Birkenhead; William Harris, Norwich; William D. Lovell, Bradford-on-Avon, Wiltshire; Thomas A. Elias, Southport; James Ritchie, M.B., Edinburgh; William W. Dunkley, Coventry; Philip Addis, Iver, Bucks; Walter S. Simpson, Worthing, Sussex; George D. Smith, M.B., Leith; Frederick E. Fenton, Ealing; Frederick W. D. Fraser, M.B., Edinburgh; Warwick C. Steele, London; William C. E. Taylor, Scarborough; Arthur Storrs, Bury St. Edmund's; Henry C. Williams, Manchester; John T. Duncan, Stamford, Lincolnshire; Hibbert S. Parker, Putney; Alexander S. S. Fernandes, Edinburgh; John A. Lycett, M.D., Wolverhampton; Arthur C. Dixie, Burton-on-the-Water, Gloucestershire; Richard T. Parkinson, Manchester.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.—The following gentlemen passed their first professional examination during the recent sittings of the examiners.

Archibald J. A. Campbell, Perthshire; Ernest J. Jerome, Sunderland; Edmund J. Nuttall, Rochdale.

The following gentlemen passed their final examination, and were admitted Licentiates of the College.

James W. Davidson, County Antrim; John Griffiths, Carnarvonshire; Harold A. V. Batten, Uxbridge; Arthur Storrs, Nova Scotia; Harry P. Hallows, Liverpool; Ernest J. J. Sunderland.

George J. Lucas, Blackheath, passed his first professional examination for the Licence in Dental Surgery; and James Lindsay, Edinburgh, passed his final examination, and was admitted L.D.S.

MEDICAL VACANCIES.

The following vacancies are announced :—

BRISTOL FORESTERS' DISPENSARY.—Qualified Medical Practitioner. Salary, £120 per annum. Applications to E. L. Burgess, 34, Horfield Road, Kingsdown, Bristol, by the 29th instant.

CHARING CROSS HOSPITAL, West Strand, W.C.—Assistant Surgeon. Applications by 15th May.

CITY OF LONDON LUNATIC ASYLUM, Stone, near Dartford, Kent.—Assistant Medical Officer. Salary, £120 per annum. Applications by the 17th instant.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge Road, S.E.—Registrar and Chloroformist. Salary, £30 per annum. Applications by the 15th May.

GORT UNION—Medical Officer for Ardrahan Dispensary District. Salary, £140 per annum, with £10 per annum as Medical Officer of Health, registration and vaccination fees. Election on the 12th instant.

GOVERNMENT RAILWAY SERVICE, at the Cape of Good Hope.—Medical Officer. Salary, £25 a month. Applications by May 17th.

HACKNEY UNION.—Resident Medical Officer. Salary, £200 per annum. Applications by the May 29th.

HARTLEPOOL UNION—Medical Officer for the District. Salary, £50 per annum Applications to the Clerk by May 17th.

HARTLEPOOL UNION—Medical Officer for the Workhouse. Salary, £65 pe annum. Applications to the Clerk by May 17th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Resident Clinical Assistant. Applications by June 3rd.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Junior Resident Medical Officer. Salary, £50 per annum. Applications by May 24th.

LANCASTER INFIRMARY.—Dispenser and General Assistant. Salary, £8 per annum. Applications by May 15th.

PARISHES OF GLENLIVET AND KIRKMICHAEL.—Medical Officer Salary, £100 per annum. Applications to Mr. J. Hay, Inspector of Poor, Inveraven, Ballindulloch, by the 15th instant.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Four Examiners i Medicine and Two Examiners in Midwifery. Applications by the 25th instant.

ROYAL FREE HOSPITAL, Gray's Inn Road.—Junior Resident Medical Officer Applications by the 24th isntant.

ROYAL HANTS COUNTY HOSPITAL, Winchester.—House-Surgeon. Salary £100 per annum. Applications by June 10th.

ROYAL PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL.—House-Surgeon. Salary, £100 per annum. Applications by May 25th.

TORBAY HOSPITAL AND PROVIDENT DISPENSARY, Torquay.—Junio House-Surgeon and Dispenser. Salary, £90 per annum. Applications b May 22nd.

WARNEFORD, LEAMINGTON, AND SOUTH WARWICKSHIRE HOSPITAL.—Honorary Physician. Applications by May 22nd.

WEST DERBY UNION.—Two Resident Medical Officers for the Workhouse Walton-on-the-Hill. Salary, £100 per annum. Applications by May 16th.

WEST DERBY UNION.—Two Resident Medical Officers for the Workhous for Sick Poor at Mill Road, Everton. Salary, £100 per annum. Application by the 16th instant.

WILTS COUNTY ASYLUM—Assistant Medical Officer. Salary, £120 per annum Applications by 17th May.

MEDICAL APPOINTMENTS.

ANSTED, H. L. P., L.R.C.P., appointed Assistant House-Surgeon to the Bristo General Hospital, *vice* E. M. Knapp, M.R.C.S., resigned.

CLAREMONT, Claude C., M.B., B.S., appointed Medical Officer for Out-Patients t the Royal Portsmouth, Portsea, and Gosport Hospital; also Medical Officer t the Royal Portsmouth Provident Dispensary.

DOUIE, W., M.B., appointed House-Surgeon to the Clinical Hospital and Dispensar for Women and Children, Park Place, Manchester.

GREAVES, Charles A., M.B., appointed Medical Officer of Her Majesty's Priso Derby, *vice* J. Wright Baker, M.R.C.S.Eng., resigned.

HAMMOND, Thomas, L.R.C.P., appointed Resident Clinical Assistant to the We Riding Lunatic Asylum, Wakefield.

HEELIS, Robert, M.R.C.S., L.R.C.P.Lond., L.S.A., appointed House-Surgeon the North Lonsdale Hospital, Barrow-in-Furness, *vice* P. L. Booth, M.R.C.S resigned.

HUXTABLE, L. R., M.B., appointed Junior Resident Medical Officer to the Roy Free Hospital, *vice* J. Pollard, M.R.C.S., resigned.

IRWIN, T. W., L.R.C.P. & S.Ed., appointed Medical Officer to the Rosscarbe Dispensary District, County Cork, *vice* M. Callanan, L.K.Q.C.P., resigned.

KING, W. H., M.D., appointed House-Surgeon to the Chester General Infirmar *vice* F. E. Woodward, L.R.C.P., resigned.

SCONGAL, E. Fowler, M.A., M.B., L.R.C.S.Ed., appointed Medical Officer a Public Vaccinator for the Fulstone District, Huddersfield Union.

SYMOND, M. J., M.D., appointed Assistant House-Surgeon to the Royal Lond Ophthalmic Hospital.

TOWNSEND, H. R., M.D., appointed Medical Officer to the Cork Dispensary, v W. Holmes, L.R.C.P.Ed., deceased.

VAISEY, T. F., M.R.C.S., appointed Medical Officer to the Winslow Union, *vice* Collins, L.R.C.P., resigned.

Voice, C. B., M.R.C.S., appointed Resident Assistant Medical Officer to the Township of Manchester.

Vickham, W., M.R.C.S., appointed Parochial and Sanitary Medical Officer to the Parish of Polmont, N.B., *vice* D. A. MacCarthy, M.D., resigned.

Vindle, Bertram C. A., M.B., M.Ch.Univ.Dub., appointed Medical Officer to the Throat and Ear Hospital, Dublin, *vice* Wallace Beatty, M.B., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., *which should be forwarded in stamps with the announcements.*

MARRIAGE.

Lithgow–Curzon.—On the 29th ult., at the Parish Church, Aldershot, by the Rev. F. Malim, T. G. Lithgow, L.R.C.P.Lond., of Farnborough, to Harriet Augusta, eldest daughter of Col. the Hon. E. G. Curzon, Assistant Adjutant-General, Aldershot.

DEATH.

Lighton.—On May 2nd, at Madeira, Henry Alfred Hamilton Lighton, B.A.Camb., M.R.C.S., L.S.A., of 138, Cromwell Road, South Kensington, third son of the late Rev. Sir Christopher Robert Lighton, Bart., of Ellastone, Staffordshire, and Brockhampton, Herefordshire, in his thirty-first year.

A curious occurrence is reported from Hynron, Dumfriesshire, which, according to the recent census, possesses a population of 416 souls. At one of the schools situated in the parish, no fewer than four sets of twins sat upon the forms. Arranged according to sex, two are boys, two girls, and the remaining four are "mixed". According to age, they are all above the average height and weight. All have blue eyes and light hair.

A Singular Legacy.—A patient, who had benefited by M. Olher's subperiosteal method, bequeathed to him his elbow-joint as a token of gratitude. The legacy proved a valuable one for pathological science, since the physiological process of renewal of the tissues could be followed almost step by step.

Royal Infirmary, Glasgow.—The following gentlemen have been elected house-physicians and surgeons from 1st May 1882. *House-physicians:* Mr. H. W. White, L.F.P.S.G., and L.R.C.P.E., Mr. Wm. Gibbs, Mr. Robert Rentoul, Mr. J. W. White, Mr. Charles S. Young. *House-surgeons:* Mr. A. J. Engels, Mr. Hugh Sinclair, Mr. John Keay, M.B., C.M., Mr. Henry Oakes, Mr. John T. Davies.

The Devonshire Hospital at Buxton.—The additions made to this hospital by the governors of the Cotton District's Convalescent Fund are completed, and 100 beds have been allotted to the affiliated hospitals in the same proportions as those at the Barnes Convalescent Home, whilst 50 beds are kept for nominations by the governors under regulations to be adopted. The patients are to be maintained in the hospital at the expense of the Cotton District's Fund, subject to revision at the end of twelve months. Our infirmary has three beds placed at its disposal, and for the next year the cost of the patients whilst there will be borne by the fund. There is also at the disposal of the charity a bed in the child's sanatorium at Southport, free of charge, supported by the same fund, and one at the Barnes Convalescent Home at Cheadle.

Medico-Psychological Association.—The quarterly meeting of this association was held on the 28th April at Bethlem Hospital, Dr. D. Hack Tuke presiding. At the opening of the meeting the president referred to the attempted assassination on the 16th ult of Dr. Gray, the Superintendent of the Utica Asylum, and a resolution of sympathy was unanimously adopted. The association then resumed discussion upon the subject of "Insanity as a Plea for Divorce," which had been introduced by Dr. Savage at the previous meeting. The interest of the debate centred round the recent case of Hunter *v.* Edney, in which the insanity prevented the consummation of the marriage, one or two other special cases being cited by Dr. Savage. As regards insanity before marriage it seemed to be generally allowed that the question was met by the common law, while with respect to insanity supervening after marriage it was felt that in the present condition of things it would be inexpedient to adopt in England a similar system to that existing in Saxony and elsewhere, under which insanity and certain other diseases were admitted as pleas for divorce. Dr. Weatherly then brought forward the subject of the "Supervision of single cases of Lunacy in Private Dwellings," which he maintained was insufficient and unsatisfactory, quoting in support of his views the statements advanced by him in his treatise on "The Care and Treatment of the Insane in Private Dwellings, and an interesting discussion followed. Papers were also submitted by Dr. Bower on "Employment" in the treatment of mental disease in the upper classes, and by Dr. Boyd on the "Laws relating to the admission of Pauper Lunatics to Asylums."

Comparative Longevity of the Jews.—M. Gustave Lagneau, in a memoir, "Sur les Différences Demographiques Presentées par les Juifs les Protestants et les Catholiques," presented to the Paris Academy of Moral and Political Sciences, states that in Prussia, in the Duchy of Baden in Vienna, and many other countries, the highest rate of mortality exists among the Catholic population. Among the Protestant it is less. The lowest rate is observed among the Jewish race, and in all countries this inferiority persists. The same proportion, in an inverse sense, exists with regard to births.

Health of Foreign Cities.—A table in the Registrar-General's last weekly return supplies the following facts and figures, which afford trustworthy indications of the recent health and sanitary condition of various foreign and colonial cities. According to the most recently received official weekly returns, the annual death-rate was equal to 33.4 in Calcutta and 28.4 in Bombay; cholera caused 82 deaths in Calcutta (showing a marked increase upon recent weekly numbers), and 46 fatal cases of measles were reported in Bombay. No returns have been received from Alexandria since the end of March. In twenty-two European cities, the death-rate averaged 31.3, and exceeded by no less than 9.4 per 1000 the average rate prevailing last week in the twenty-eight large English towns. The death-rate in St. Petersburg was equal to 60.0, and showed but a slight decline from the still higher rate in the previous week; the 770 deaths included 45 from typhus and typhoid fevers, and 35 from scarlet fever. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate averaged 27.0; measles caused 8 deaths in Copenhagen, and 7 fatal cases of diphtheria occurred in Stockholm. The death-rate in Paris, although lower than in recent weeks, was equal to 27.3; the 1177 deaths included 52 from diphtheria and croup, 37 from typhoid fever, and 25 from small-pox. The death-rate in Brussels did not exceed 22.3, although 5 deaths were referred to whooping-cough. The death-rate in Geneva, however, was equal to 29.3. In the three principal Dutch cities, the death-rate averaged 24.7; it was equal to 26.2 in Amsterdam, where the 170 deaths included 11 fatal cases of measles. The Registrar-General's table includes returns from eight German and Austrian cities, in which the death-rate averaged 31.4, and ranged from 24.6 and 27.5 in Berlin and Dresden, to 38.5 and 42.8 in Vienna and Prague. Small-pox caused 42 deaths in Vienna, showing a considerable increase upon recent weekly numbers; diphtheria was fatally prevalent in Berlin and Dresden. The death-rate was equal to 33.7 in Rome, 32.1 in Naples, 27.5 in Turin, and 24.7 in Venice. The returns from Rome and Naples related to weeks ending in December and January. Ten fatal cases of measles were reported in Turin. The annual death-rate in four of the largest American cities averaged 28.9, and ranged from 22.5 in Baltimore to 36.5 in New York; the high death-rate in New York was mainly due to the fatal prevalence of scarlet fever, measles, and diphtheria. Scarlet fever also caused 31 deaths in Brooklyn, and 25 deaths were referred to typhoid fever in Philadelphia.

Bequests and Donations.—Mr. Christopher Russell Brown, of Tredegar Square, has bequeathed £1,000 to the London Hospital; £1,000 to the Newcastle-upon-Tyne Infirmary; £500 to the Royal London Ophthalmic Hospital; and £200 to the City of London Truss Society.—"H. M." has given a third £500 to the Hospital for Women.—Mr. Alfred Kitching of Darlington, has bequeathed £100 each to the Darlington Hospital and Dispensary.—"O. Z. Z." has given £100 to the North Eastern Hospital for Children.—The Cloth-workers' Company have given £100, additional, to the London Hospital; £25 to the East London Hospital for Children; £21, additional, to the London Lock Hospital and Asylum; and £21, each, to the Great Northern Hospital; the New Hospital for Women; and the North Eastern Hospital for Children.—Mr. A. C. Scrimgeour and Mr. J. A. Scrimgeour have each given £31 10s. to the Surgical Aid Society.—The Belfast Royal Hospital has received a donation of £50 from Mr. Henry Spence.—Mr. J. F. Symes of Axminster, has given £1,000 to the Devon and Exeter Hospital,—Mr. William Slocombe of Upper Holloway has bequeathed £900 to the Earlswood Asylum for Idiots; £800 to the Hospital for Incurables; £400 each to the City of London Hospital for Diseases of the Chest; the Royal Hospital for Diseases of the Chest; and the Brompton Hospital for Consumption; £300 to the London Fever Hospital; and the "residue" to the Hospital for Sick Children.—Mr. W. H. Ryder of Streatham, has bequeathed £500 each to the London Hospital; Charing Cross Hospital; the Royal Free Hospital; the Middlesex Hospital; and St. George's Hospital; £250 each to the Westminster Hospital, and the Brompton Hospital for Consumption; and £100 to the Evelina Hospital for Sick Children.—The Goldsmiths' Company have given £100 to the Middlesex Hospital; and £50 to the Great Northern Hospital.

OPERATION DAYS AT THE HOSPITALS.

MONDAY..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p. Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu.F., 9.30; o.p., Tu. F., 2; Eye, Tu.F., 9.15; Ear, M. Th., 2; Skin, Tu.Th., 1.30; Throat, M. Th., 1.45; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. T. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15 Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY.—Pathological Society of London, 8.30 P.M. Dr. Norman Moore: Hæmorrhage into Stomach; Stomachs from Poisoning by Cyanide of Potassium and Oxalic Acid; Ulceration of Epiglottis in Typhoid Fever. Mr. Bowlby: Chondrosarcoma of Female Breast. Dr. Ralfe: Renal Calculus undergoing Disintegration. Dr. Stephen Mackenzie: Conclusion of a Case of Filarial Hæmato-chyluria. Dr. Shattock: Congenital Abscess of Radius. Mr. R. W. Parker: Congenital Absence of Radius (living patient). Mr. J. H. Morgan: Congenital Absence of Radius (living patient). Mr. J. Hutchinson, junior: Psammoma of Spinal Cord. Dr. M. Ord: Acetonæmia. Dr. Sharkey: Cancer of Kidney. Mr. Treves: Congenital Sacral Tumour. Dr. Turner: Cerebral Aneurysm. Mr. Hobson: Congenital Obstruction of Bile-Ducts. Card specimens—Dr. Tyson (of Folkestone): Fibroid of Uterus; Stricture of Pylorus; and others.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE TAX ON CARRIAGES.

SIR,—I enclose you copy of a letter that I have forwarded to a member of Parliament. If you think it of sufficient importance, will you publish it in the JOURNAL, with the view of some united effort being made in the matter?—Yours truly,

F. A. CAMPION FLETCHER.

Bank House, Cross Hills, *viâ* Leeds, April 25th, 1882.

"Bank House, Cross Hills, *viâ* Leeds, April 25th, 1882.

"Sir,—I venture to address a letter to you regarding the new tax to be imposed on carriages. I am a young, hard-worked general medical practitioner in the country, having long journeys to make for small fees, long hours to work, much work to do that I never get paid anything for, and part work to do under a union appointment, for which I am inadequately paid. I am obliged to keep groom and gig, two horses nine months out of the twelve, and, unless I wish to depart this life within a few years, a covered carriage for use at nights, and in severe weather, when my journeys will permit. I have taxes to pay for groom and carriages—both of these necessary to carry on my work—amounting to £3 12s., to be increased next year to £4 19s. Of course, I do not mention any other tax, which every householder has to pay. When I have stated these facts concerning myself, I have given you the position of many (in fact, of the majority) of medical men in the country. We are without doubt as hard worked as (if not harder than) any other business or profession, and often, at the end of life (shortened by our irregular habits), find ourselves unable to provide for our families.

"I venture to ask, Does not this carriage-licence without the increase press unduly upon us? We have no choice, but are compelled to keep them to carry on our work. Many of us would only be too glad if we could do without them. Ought we not to be allowed to use one carriage (say two-wheeled) without licence, and pay for any other? At any rate, is not the present tax high enough for us to have to pay? As a class of men, we give much to the public; are we not entitled to some consideration in return?

"I shall feel deeply thankful if you can bring this under the notice of the Premier, or act upon it as you may think best. Apologising for troubling you,—I am, sir, yours very truly,

"F. A. CAMPION FLETCHER, L.R.C.P., L.R.C.S.ED."

SIR,—Whilst quite sympathising with the object of the petition which you advocate in the above matter, and although intending to take part in a petition from my own town, I yet foresee that the rejoinder will very probably be that, if the carriages of medical men are "implements of their calling as much as are the carriages of farmers, brewers, and others", it is open to them to escape the tax altogether by submitting to the same regulation as the above-named classes do, viz., by having painted in legible letters on their vehicles their names and addresses. Well, is there any valid reason why medical men should not have recourse to this method of saving three or six guineas a year?

A contemporary of yours has lately alluded to the case of a poor parson with about £250 a year, and who drove a pony shandydan, which he had partly made himself, and which had only cost him £9; and yet this poor parson had been regularly paying two guineas licence duty every year, and now he felt that he must "put down his carriage" altogether, as he could not find another guinea. It is surprising that the remedy was not as obvious to him as I trust it will be to many a poor doctor.—I am, sir, yours,

M. R.

W. H. C.—We do not quite see what advice we can usefully tender. If our correspondent have a grievance against a local newspaper (and we think, by the wording of the paragraph, he may justly have one), it is clear that our columns cannot be conveniently made the channel of his reply to aspersions which are local. It does not occur to us that our correspondent acted unreasonably in refusing to serve as an unpaid policeman.

POISONOUS CRAYONS AND ARSENICAL PIGMENTS.

SIR,—The case of poisoning by sucking crayons commented upon in the number of the BRITISH MEDICAL JOURNAL for May 6th, demands more than a passing notice. As you say, there are points about it of medical interest, and which we may hope Dr. Kavanagh, who was in charge of the case, will feel inclined to clear up. He will, no doubt, after reading your remarks furnish particulars of the *post mortem* appearances presented by the intestinal organs, especially of the stomach; and give a more complete history of the symptoms during life. He is evidently of opinion that poison of some sort had a large share in producing the death of his little patient; nevertheless, he merely mentions having found fifty grains of lead in one of the crayons, but omits to say how much was supposed to have been eaten or sucked by the child; and furthermore, no mention is made of having submitted the contents of the stomach to analysis, with the view of discovering either lead or other poison. May I ask if other of the crayons from the same box were tested for arsenic; as I have a suspicion that arsenic may have been found had it been looked for; and my reason for offering this opinion is that, two or three years ago, while prosecuting inquiries into wall-paper poisoning, I examined a number of other out-of-the-way articles, and, amongst them, the cheaper kinds of artists' colours and crayons. I found the greens and occasionally the blues gave me a metallic ring of arsenical crystals.

Notwithstanding the outcry made by the profession about the employment of arsenical pigments in various manufactures, a far too general disregard of the public health is manifested on the part of manufacturers. The sale of arsenical wall-papers still goes on, as the following case, which quite recently came under my observation, will show. Mr. E. M. F. consulted me for a smart attack of conjunctivitis, associated with tonsillitis. The history he gave me of the attack was, that he had been employing his leisure hours in cutting out pictures for an ornamental screen. Having arranged a number of larger coloured pictures, he was filling up all vacant spaces with leaves and twigs cut from a decorative green wall-paper, a remnant of which he had purchased for the purpose. On the first day, he experienced a feeling of languor, headache, and irritation of the eyes and throat; but, as he believed he was suffering from a cold or a bilious attack, he contented himself by resorting to household remedies. The next day, feeling much better, he resumed his occupation; but, before many hours had passed over, these symptoms returned with greater violence. A sense of constriction of the throat, extreme pain over the epigastrium, great irritation of the eyes, lachrymation, etc., obliged him to call in medical aid. He got better and worse alternately, and ultimately consulted me. The invariable increase in the symptoms after even a short time occupied in cutting out the leaves and flowers, gave me the clue to a diagnosis. I came to the conclusion that he was suffering from arsenical poisoning. The wall-paper was submitted to chemical analysis, and found loaded with arsenic. On the removal of every particle of the paper from my patient's house, all the distressing symptoms at once disappeared, and, as if by magic, he quickly recovered his former health.—Yours faithfully,

JABEZ HOGG.

Bedford Square, May 9th, 1882.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

PROFESSIONAL ETIQUETTE.

SIR,—I should much wish to have your opinion as to whether the following conduct is becoming from one professional man towards another. On Saturday last, a patient of mine, whom I have been long in the habit of attending, was taken suddenly ill, and sent for me. I was, unfortunately, not at home, but in a few minutes I returned, and received the message requesting my attendance. I immediately visited the patient, who resides only a few doors from my house, and was then informed that a Mr. B. had just left. I may add that he would not have been sent for but for the fears entertained by the daughter of the patient. No medicine had arrived; and the patient, in reply to my inquiry whether she preferred my attending her or Mr. B., said she wished me to continue my attendance as before. I saw her again the same night at 9 P.M., and again the next morning at 11 A.M., when I was much surprised to find Mr. B.'s assistant seated by the bedside, examining the patient; whereupon I said to him, "Are you aware that this is my patient?" He replied that Mr. B. had been sent for the day before. I informed him that, as I was not at home when the message came, but arrived a few minutes after Mr. B. left the house, and by the wish of the patient, and my being her usual medical attendant, I took charge of the case. The nurse in attendance told me she would send to Mr. B. to say I had been, etc. After this explanation to Mr. S., he persistently endeavoured to claim the patient; and finally, after appealing to the patient whether she wished my services or his, and on being informed that she wished me to continue my attendance as before, Mr. S. reluctantly retired; but what astonished me most was to find, upon seeing the patient again in the evening, that Mr. S. had gone to the patient again in my absence, begging her to allow him to attend; he was, however, told that the patient desired to have no more to do with him. As this is not the first time I have been treated this way by Mr. B., any comment of mine would be superfluous; but, as I before said, I should like to have your opinion of such conduct.—I am, sir, yours faithfully,

April 6th, 1882. J. L. W.

*** Assuming Mr. W.'s statement to be strictly accurate as to the facts of the case, the conduct of Mr. B.'s assistant was indefensible, and in direct contravention of the recognised rules of the profession.

A. E. J.—There are two inebriate homes advertised in the JOURNAL, the only two at present licensed under the Habitual Drunkards' Act, 1879. That at Cannock, Staffordshire, is carried on by a member of the British Medical Association, Mr. F. J. Gray, and is conducted on strictly total abstinence principles. The Dalrymple Home Association hopes to be able to have another open during the present year.

MEDICAL MEN AND LIFE-ASSURANCE COMPANIES.

SIR,—About four months since, I received a visit from a gentlemanly individual, styling himself "Agent Superintendent" of an insurance company. He stated that he was authorised to call upon me, to ask me if I would accept the post of medical examiner for the town I reside in and a district of ten miles around. He stated, further, that the average amount paid to medical men in the neighbourhood had amounted to about £40 *per annum*. He would guarantee me that sum. As a per contra to this desirable addition to one's income, I should have to give the company the benefit of my insurance for a small sum. As my visitor seemed full of business, and told me further he had two or three lives waiting to be examined, I, without inquiry, underwent examination and paid my first premium. The same day, my visitor called again, with a new agent to be examined, who had also agreed to insure for a small sum, on the faith (as I afterwards found) of a similar representation. After waiting about a fortnight, and not receiving anything to show for my appointment, I ventured to write to the secretary at head-quarters in London. With great courtesy, that gentleman, without deigning a reply to me, forwarded my letter to my previous visitor, and in a day or two I received a letter of virtuous indignation from that individual at having dared to "impugn his veracity". However, four months have elapsed; and with the exception of the receipt of a gorgeous policy, I have not heard a word from anyone in connection with the office, and I have not been called upon to examine a single life. I am writing this as I hear other towns have been visited in a similar way, and perhaps the kind insertion of this may bring forward similar experiences.—I am, sir, yours obediently,

A YOUNG NORFOLK SURGEON.

PITTING IN CHICKEN-POX.

IR,—In a case of apparent varicella in a female child, five and a half years of age, occurring lately in my practice, I noticed several distinct marks of "pitting" where the vesicles had been, on both face and body. I am not aware that pitting is a result of varicella, and the discovery has led me to believe that my case of varicella has been after all one of variola, though I am by no means decided about it. The case occurred contemporaneously with a number of others in the same locality; I have examined most of them, but can find no traces of pitting in any but this one, though several were more severe than this. The marks are very distinct, and apparently characteristic of modified small-pox. The child has been efficiently vaccinated. No cases of variola have been reported from this place for about three years. While suffering from the complaint, the child was able to go about, even outside. She has subacute bronchitis, with distinct evidences of inherited phthisis; and, since her attack of "varicella", has periodically vomited—about every second day—a quantity of clean healthy pus, with some mucus, but no traces of blood. I bring the case to notice chiefly with the view that it may prove useful, in epidemics of chicken-pox, to examine carefully in all cases not only during the course of the disease, but after convalescence, for any traces of the signs and consequences of variola, to determine which it may be, or if concurrent variola and varicella.—I am, yours, etc.,

G. H. J. DINSMORE, M.B., M.A.

Coundon, Bishop Auckland, April 5th, 1882.

*** Pitting does sometimes follow chicken-pox; and seeing that this disease was prevalent in the locality, but that there had been no small-pox there for three years, that the child went about during the illness, and that the eruption was mainly on the head and trunk, which we infer from the pitting having taken place there, we think there can be little doubt that the case was one of chicken-pox, and not small-pox.

R. PATTERSON.—We have compared our summary with the full shorthand notes of Dr. Patterson's evidence, and we can find no inaccuracy such as that of which he complains.

THE ATTRACTION TO EDINBURGH.

SIR,—Will you allow me to offer an explanation to "Civis Acad. Edinensis" as to the "attraction" of the Edinburgh College of Physicians, which, to myself at least, is satisfactory. The popularity of the College cannot arise from any low standard of education or examination. Certainly, the course of study demanded by the College is as extensive as that required by any Scotch university; and, with regard to the examinations, the number of rejections (43 per cent.) shows them to be at least as rigid as any other examining board in the United Kingdom. The assumption that the large number of rejections are due to the great inefficiency of the candidates rather than to the severity of the examinations, is ungenerous. Surely, after upwards of twenty years' experience with 43 per cent. of rejections, the Edinburgh College must prove a very uncertain haven in which the plucked ones might find a certain rest. I know of more than one instance in which a "poor plucked" one at the Edinburgh College immediately passed at the Dublin College. Why, then, do the English students flock to the Edinburgh College of Physicians rather than to the London College? The Edinburgh College took the lead in granting the degree of Physician to the general practitioner. It is only natural it should still maintain it. It is true some mistakes were made at the beginning, but they were speedily rectified; at least, what the Edinburgh did for a few months, the London did for a year—admitted without examination.

In the Edinburgh College, the degree of Licentiate in Medicine is the first step to the Fellowship; whilst, in the London College, the Licentiates are as completely cut off from the higher grades as though they had no connection with their College.

With reference to the Scotch universities, it will, I think, be at once seen why the Scotchmen graduate in them, whilst the English go to the colleges. The Scottish universities admit to their medical degrees only their own pupils, and therefore require residence. These circumstances must necessarily exclude a vast number of English students, whilst no such exclusion exists in the colleges. A large number of English students would, from the expense, be precluded from leaving their homes, and taking up residence in Scotland. Others might prefer the advantages of attending the great London colleges and hospitals to any provincial school, however eminent. Both these classes would go to the Edinburgh colleges, from necessity. But these difficulties do not apply to Scotch students. They are at home in Scotland, and must go to some university, or at least some university town, to receive their education. It is, therefore, natural they should graduate at their own university, and that few would go to the colleges for their diplomas.—I am, sir, yours truly,

J. ST. JOHN GAGE PARSONS, M.D. Edin. Univ., U.S., F.R.C.S.Eng.,
Licentiate of the Royal College of Physicians of Edinburgh.

Crofton House, Bristol.

SIR,—Your correspondent "R.O.L." is in error in imagining that I wrote with a view to depreciate the Edinburgh University degree, or indeed any Scotch qualification. I think if he had attempted to give "Civis Acad. Edinensis" the explanation he desired, it would have been keeping more to the point. However, perhaps he will permit me, as holding the L.R.C.P.Edin., to inform him that I did not have to pass an examination in chemistry. There are always more Englishmen in for this qualification than Scotchmen, for the well known reason that the latter graduate. Writing from London, I wonder at his saying that the Edinburgh M.B. is a training of at least four years; as if that is anything more than is required by the examining bodies here.

I maintain that the student who spends the whole of his time in London is practically more the master of his profession than the student who finishes in the North, and fritters away his time in attending lectures which will be of no value to his future patients. The experience to be gained in the infirmary is ignored in the mania to obtain a degree; hence, the student is taken at the most important and practical part of his career, still to plod over books. This is only what students themselves have told me.—I am, yours truly,

A. T.

SIR,—As I see so much discussion going on in your JOURNAL with reference to the examinations of the Royal Colleges of Edinburgh, I hope (as a Licentiate of those bodies) to be allowed to express an opinion as to their attractions to myself and others (not Scotchmen); and, in addition, beg to state, that I came across the Atlantic from one of the colonies, expressly to take these (much maligned) diplomas, considering them to be as good a passport into practice as I could have (judging from the men I met who possessed them).

The following reasons also obtruded themselves, viz.: 1. The superior teaching of the Edinburgh schools. 2. The excellent reputation of the Edinburgh diplomas everywhere out of London. 3. Taking the two diplomas at one set of examinations. 4. The smaller cost of the Edinburgh diplomas, than of those of corresponding bodies in England (the L.S.A. counts for nothing out of this country).

Having given my reasons, I hope others will come forward and do the same; and, if the eyes of the London corporations are opened thereby, it will be a blessing to many London students. I think the system of constant attack pursued by the London journals very unhandsome, unwarranted, and savours somewhat of jealousy. I can easily understand the annoyance of those "interested in London schools and corporations", at seeing many of their students flit away to the North, to pass their finals there. Had the London licensing bodies the courage to reform their present bungling and expensive modes of procedure, and adopt the conjoint scheme, with all its advantages, I think the exodus complained of would not trouble their peace of mind any longer. This same obstinacy is sending lots of our good men abroad to obtain university degrees of doubtful character, when they might be kept at home by a little pecuniary liberality (that is, by testing them in examinations, and not in time and money). The Scotch students can obtain the degrees of the universities with very little more trouble and expense than the licences of the corporations; hence the dearth of Scotchmen in the pass-lists of the Royal College of Physicians and Royal College of Surgeons at times. On looking through the *Medical Directory* for 1882, I was struck with the number of men possessing the M.B. and M.D. Edin, who also took the L.R.C.S.Ed. Can this be explained? Is it that the C.M. is not worth taking?—I am, sir, yours faithfully,

A COLONIAL.

SECONDARY SMALL-POX.

SIR,—I should feel very much obliged to you or any subscriber to inform me, through our valuable JOURNAL, whether varioloid, or secondary small-pox, after vaccination, of course modified, and therefore of a mild character, be infectious or propagable from person to person.—I am, etc.,

V.

*** Yes; highly infectious.

TRICYCLES.

SIR,—In the JOURNAL of May 6th, I see the use of the above strongly advocated by two of your correspondents. Will you kindly permit me to ask them, through the medium of the JOURNAL, how they find tricycles to answer in hilly districts.—Yours, etc.,

HILLY DISTRICT.

We have refrained from alluding to the subject of the Napper testimonial fund, pending a correspondence that has taken place in the *Surrey Advertiser*, which was provoked by a most unjustifiable attack, from a quarter in which it should have been least expected, upon Mr. Napper's title to being considered the originator of the cottage hospital system. The evidence brought forward in support of Mr. Napper's claim, we think, must convince all reasonable persons that his position is unassailable; and further controversy seems to us out of place.

Boracic Glycerine.

Sir,—It will be interesting to learn, from those whose practice and experience enables them to speak authoritatively on the subject, whether—as Mr. Balmanno Squire suggests—boracic glycerine can be made to take the place of carbolic acid in all the operations of antiseptic surgery. That it can be so used in certain cases, and with advantage, I feel sure; *e.g.*, when a wound, treated antiseptically with carbolic acid dressings in any one of the usual methods, has become almost superficial, and begins to respond too vigorously to the irritation of even weak carbol oil, it will heal more readily and kindly under lint moistened with ordinary "glycerine of borax", than if treated with simple water-dressing, or with dry lint. This may be proved by simultaneously treating two similar wounds on the same limb, or two different portions of a large superficial wound, by the two methods, and noting the rate of progress and the result in each case. Ulcerated superficial wounds, once they have been cleaned and stimulated into healthy action, usually heal very readily under this treatment. But, in deep, or lacerated, or contused wounds—those from which we should expect, under ordinary circumstances, a good deal of suppuration—the boracic glycerine has disappointed me, and has seemed much inferior in usefulness to carbolic acid; and I think that the powerfully hygroscopic qualities of glycerine which come usefully into play when the main business in hand is the formation and protection of young epithelium, are, at best, of doubtful value in lesions involving greater depths of tissue. On the other hand, in dealing with weak, pale, and flabby granulations, boracic acid lacks that quality of sufficient irritating power which, when responded to, we term stimulation. I apprehend that the chief value of glycerine as a vehicle of the germicide boracic acid lies in the fact of its being in itself aseptic, protective, and hygroscopic, and not subject to evaporation at ordinary temperatures. I have often found boracic glycerine a pleasant and successful application in cases of tinea circinata and of pityriasis versicolor.

In the summer of 1874, I first showed that the action of glycerine upon borax was a chemical one—boracic acid being set free; since then, I have, in the case of infants who have to be brought up by hand, often ordered the addition of a few grains of borax to the milk, which is at the same time sweetened with glycerine instead of with sugar; milk thus treated is less apt to become sour in hot weather (borax is often added to milk, especially in the summer months, in many large dairies); and children thus fed would seem to suffer less frequently from "thrush" than do those fed in the ordinary way on cows' milk and with equal attention to cleanliness. A similar treatment of the milk-food of infants and young children has served to prevent or mitigate the simpler forms of summer diarrhœa. A little borax, boracic acid, or—if the milk be liked sweetened—a little glycerine of borax, is probably, also, an useful addition to the milk ordered for enteric fever patients.

I have only lately learnt that, in 1878, Messrs. Senier and Lowe published papers in the journals of the Chemical and the Pharmaceutical Societies, showing that when ordinary sodic biborate, or borax, is dissolved in glycerine, boracic acid is set free, while more basic borates, having a constitution between mono- and bi-borates, remain behind; and proposing to utilise this fact as a test for glycerine. Glycerine, however, although peculiar, does not stand alone in this respect; the salts of ammonia also have the power of decomposing borax and setting free boracic acid (Woodcock, *Jour. Chem. Soc.*, xxiv, p. 785)—a power which should not be overlooked in medical practice or prescribing.

May I take this opportunity of again calling attention to the fact that the common glycerine of borax, *B. P.*, is *not* "an alkaline combination", as it is often stated and considered to be; in proof whereof, anyone who will add a strong solution of bicarbonate of soda to an equal quantity of "glycerine of borax" in a lightly corked phial, will voluntarily make the experiment which is sometimes unwittingly and disastrously performed by the dispenser who trustfully mingles these ingredients in accordance with the unguarded directions of an apparently innocent prescription.
—I am, sir, your obedient servant, C. E. Shelly, M.B.Cantab.
Hertford, May 3rd, 1882.

G. M. S. asks: Where could I obtain a copy of the *Girton Review*, as mentioned in the British Medical Journal of April 15th, page 548; and who are the manufacturers of the "corsets" you mention in the same article?

*** The *Girton Review* is only printed for private circulation, but subscribers' names are received by Miss E. Sillers, Girton College. The address of the corset-maker is S. Harper, 11, St. Andrew's Street, Cambridge.

Pruritus Vulvæ.

Sir,—Will any of your readers be kind enough to give me a few hints as to treatment of an obstinate case of the above distressing malady, which is most probably due to a diabetic condition of the urine? My patient is sixty years old, strong and robust in appearance. Menstruation ceased only four or five years since. None of the usual signs of diabetes are apparent. The urine is of low specific gravity, and contains a small quantity of sugar. Ordinary measures have been perseveringly used for some time without any good results, and I shall be greatly obliged for some additional suggestions from any kind member.—Yours very truly,
H. H. O.

Gall-stones.

Sir,—In the Journal of April 22nd, 1882, Dr. Dunbar Walker describes three gall-stones passed by an infant of three months old after the administration of a dose of castor-oil. They were found to be "hard as wax, ovoid in shape, and dark grass-green in colour". He adds that those substances seemed to consist of cholesterine. It would be interesting to me, and doubtless to many of your readers, if Dr. Walker will kindly state what tests he applied to ascertain the presence of cholesterine, for the following reasons. 1. Masses of crystallised cholesterine are usually much harder than wax, and are generally almost colourless. 2. The masses described usually resemble those I have myself observed, which have been passed from the bowel after the administration of olive-oil, and which have been incorrectly described as gall-stones (*vide Lancet*, 1881, vol. ii). 3. The improbability of the formation of gall-stones at so early an age suggests the possibility that the masses observed were intestinal, and not biliary, concretions, and that they consisted of saponaceous matter rather than of cholesterine. 4. The smallness of the number of concretions observed is probably accounted for by the smallness of the dose of castor-oil.—I am, sir, your obedient servant,
Clifton, April 29th, 1882. R. Shingleton Smith, M.D., B.Sc.

Sir,—Can anyone give a receipt for preventing the bite of fleas—some substance dissolved in oil would be most convenient for anointing the body with, but I cannot discover any? I suffer so fearfully from these pests that they prevent my doing my duty to the poor, being afflicted if I go near them with a kind of perpetual itch.—Yours obediently,
Tormented.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Mr. W. S. Simpson, Worthing; Mr. Schofield, Manchester; Mr. H. Turner, Norwich; Dr. Wilks, London; Mr. Simeon Snell, Sheffield; Dr. Waters, Chester; Mr. John D. Power, Swansea; Dr. B. A. Whitelegge, Sheffield; Dr. Collie, Homerton; Dr. Bassett, Birmingham; Mr. C. E. Shelly, Hertford; Dr. Morley Rooke, Cheltenham; Mr. H. Roe, Droitwich; Dr. Styrap, Shrewsbury; Mr. R. Heelis, Barrow-in-Furness; Our Aberdeen Correspondent; Dr. G. W. Potter, London; M. O. H.; Mr. Lawson Tait, Birmingham; Mr. A. D. Macdonald, Liverpool; Mr. T. Laurence Read, London; Dr. J. F. Knott, Dublin; Mr. W. H. Lamb, London; Dr. W. R. Gowers, London; Mr. P. Gordon Bell, Etwall; Mr. E. P. Hardey, Hull; Mr. D. H. Cullimore, London; Dr. T. Maccall, Matlock Bridge; Mr. Dawson W. Turner, London; Our Dublin Correspondent; Mr. Shirley F. Murphy, London; Dr. A. Rabagliati, Bradford; Mr. T. L. Walford, Reading; Mr. R. Ellis, Newcastle-upon-Tyne; Mr. A. T. Bacon, Leeds; Mr. Thomas Laurie, London; Dr. Brailey, London; Messrs. Fletcher, Fletcher, and Stevenson, London; Dr. Mac Cormac, Belfast; Mr. F. J. Falvey, Tralee; Dr. John Ringwood, Kelso; Dr. H. A. Cottell, Louisville; Dr. Crichton Browne, London; Dr. J. W. Moore, Dublin; Mr. John Keay, Glasgow; Dr. C. R. Illingworth, Accrington; Dr. Parsons, Dover; Dr. Woodward, Worcester; Mr. John Furley, London; Dr. Saundby, Birmingham; Dr. Dougal, Strathavon; Mr. Hugh Linton, Crouch Hill; Dr. C. A. Cameron, Dublin; Mr. Jabez Hogg, London; A Scotch Doctor; Dr. J. B. Emmerson, Biggleswade; Mr. G. E. Williamson, Newcastle-on-Tyne; Dr. F. B. Hallowes, Redhill; Dr. G. de Courcy Morris, London; Dr. M. Beverley, Norwich; Dr. R. John Garden, Aberdeen; Veto; Dr. J. Hamilton Scott, Camberley; Dr. Holman, Reigate; Mr. William Marriott, London; Mr. A. E. Jerwood, London; Dr. A. Patterson, Glasgow; Dr. Sidney Coupland, London; Dr. Henderson, London; Mr. F. Wallace, London; Mr. A. Graham, London; Mr. W. M. Vores, Great Yarmouth; Dr. Kerr, London; Dr. C. A. Greaves, Derby; Dr. Heneage Gibbes, London; Mr. C. H. Golding-Bird, London; Mr. J. Davis, Steeple Aston; Dr. Thomas Draper, Enniscorthy; Mr. C. C. Claremont, Portsmouth; Dr. Jacob, Dublin; Mr. H. Farbstein, Hull; Mr. T. Whitehead Reid, Canterbury; Dr. Erskine, Bournemouth; Mr. J. P. Oates, Malvern Wells; Mr. Nelson Hardy, London; Dr. Thin, London; Mr. F. Hawthorn, Uttoxeter; Dr. Creighton, London; Dr. Markham Skerritt, Clifton; Dr. A. Hughes Bennett, London; Mr. J. A. Byerley, Portsea; Mr. Bernard Roth, London; Mr. T. D. Thomas, Chester; Dr. Ireland, Prestonpans; Mr. Watson Cheyne, London; Dr. Fairlie Clarke, Southborough; Mr. B. G. Morison, London; etc.

BOOKS, etc., RECEIVED.

Catalogue of the Pathological Museum, Medical College, Calcutta. By J. F. McConnell, M.B. Calcutta: Bengal Secretariat Press. 1881.

Nitro-Glycerine in Angina Pectoris. By William Murrell, M.D. London: H. K. Lewis. 1882.

On Concussion of the Spine. By J. E. Erichsen, F.R.S. London: Longman, Green, and Co. 1882.

Spirillum Fever. By Dr. H. Vandyke Carter. London: J. and A. Churchill. 1882.

Examination Questions on the Medical Sciences. By J. G. Leask, M.B. London: Baillière, Tindall, and Cox. 1882.

Muscles, Mind, and Morals. By E. T. Tibbits, M.D. London: Simpkin, Marshall, and Co. 1882.

On Failure of Brain Power. By J. Althaus, M.D. London: Longmans and Co. 1882.

John Howard's Winter's Journey. By W. A. Guy, M.B., F.R.C.P., F.R.S. London: Thos. De la Rue and Co. 1882.

The Sphygmograph. By Dr. Dudgeon. London: Baillière, Tindall, and Co. 1882.

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CLINICAL LECTURE

ON A

CASE OF CHRONIC CEREBRAL MENINGITIS: CHRONIC ABSCESS OF BRAIN: LIMITED PERITONITIS: OBSTRUCTION OF THE PORTAL AND SPLENIC VEINS: AND ACUTE CEREBRO-SPINAL MENINGITIS.

By A. HUGHES BENNETT, M.D.,
Assistant-Physician to the Westminster Hospital.

The subject was M. M., aged 37, of no occupation. The father of the patient, who was otherwise a healthy man, was said to have had several attacks of temporary paralysis affecting the right leg and both arms. These seizures came on suddenly, and their effects lasted from a few days to several months. Otherwise, the family history was healthy. The patient himself, a gentleman of large property, appeared to have enjoyed perfectly robust general health all his life till the present illness. He was born in Australia, and remained there till a few years ago, engaged in active and healthy pursuits. Since his residence in England, he had passed his time in country and outdoor occupations, and had always been noted for his activity and strength, as well as for intellectual acumen. At the age of fifteen, on awaking one morning, the patient discovered weakness in one of his arms; this soon passed away. Since then, he had been liable to attacks of a similar nature. Being in his usual good health at night, next morning he would find one or more of his limbs on the left side weak. This paresis lasted from a few days to some weeks, and on one occasion as long as six months. The paralysis was not complete; and, when it affected the leg, did not prevent the patient from walking, but only caused him to be lame and drag the toes along the ground. When the arm was attacked, it was weak; and there was numbness, especially on the ulnar side. In the intervals between these seizures, he was perfectly well, and there was no trace of impaired motion. Even when the paresis was present, he could, as a rule, take a great amount of exercise; but on several occasions, when it was severe, he was completely laid up. He had never had syphilis or or any other cerebral symptoms, and was not aware of having had "fits" or attacks of any kind.

About the middle of September 1880, the patient, being in his usual good health, was seized with a severe pain in the epigastric region, and with an illness which laid him up in bed for six weeks. This pain was extremely acute and continuous, so that he had to be kept more or less under the influence of opium. It appeared to be confined to a spot about the ensiform cartilage, was increased on pressure and after food, and was modified by position. There was a little vomiting; but no blood was ever seen in the ejected matter. The medical men in attendance believed the affection to be ulcer of the stomach. At the end of six weeks, the symptoms passed away; the patient become convalescent; travelled to London; and for the next three weeks, although generally weak, considered he was rapidly improving in every way.

On November 21st, the patient was seized with a severe pain in the epigastrium, which again compelled him to apply for medical assistance.

Present Condition.—The patient was very tall (said to be 6 feet 5 inches in height), of spare yet robust build, pale and somewhat thin from his recent illness. He complained of a severe dull aching pain at the ensiform cartilage. This was not influenced by pressure, but was increased after food, although not to a great extent. There was nothing to be seen or felt locally. There was no vomiting, nor other symptoms. All the organs were healthy; but the patient was slightly feverish, greatly depressed in spirits, and had a look of much anxiety and suffering. This condition continued without change during the next five days, the pain occurring in paroxysms of an extremely severe character, leaving during the intervals a dull aching sensation. On November 25th, the urine was found loaded with bile; and on the following day the patient presented all the usual appearances of jaundice. For the following three weeks, the condition remained much the same; and there was almost constant pain in the epigastrium, increased frequently by paroxysms of a very acute character. There were also griping pains in the abdomen, especially before and after a stool. The bowels were constipated, and there was well-marked jaundice; no vomiting or headache; no œdema or anasarca; and the appetite was fairly good. The most careful and repeated physical examinations failed to detect anything abnormal. About December 19th, all the symptoms gradually began to diminish in severity; abundant bile appeared in the stools; the urine became clear; the yellow colour of the skin perceptibly faded; and the epigastric pain was much relieved. This general improvement so advanced, that in a few days the patient became quite convalescent, was able to sit up, and, with the exception of great weakness and emaciation, felt in good health and spirits. This continued till January 1st, when he was suddenly seized with an acute lancinating pain in his head, accompanied with feverishness and great depression, which lasted during the day, and which was finally relieved by a hypodermic injection of morphia. A few days subsequent to this, a return of his former complaint was observed; namely, paresis of the left leg. The extensors of the foot were paralysed; and, when the patient walked, he was very lame, and the toes dragged along the ground. The extensors of the thigh were also weak. All the flexor muscles seemed to be normal. The extension of the left hand was somewhat impaired, but otherwise the limb was unaffected. There was no loss of sensibility. With this exception, the general convalescence progressed favourably till January 6th, when the patient stated that he had a "fit". He said he had a repetition of this seizure on the following day. During the succeeding twenty-four hours, he had two more attacks, one of which was witnessed by Mr. W. L. Purves (who watched the case with me throughout), and who described it as a genuine epileptiform fit. There were sudden convulsions of all the limbs and face, and complete loss of consciousness, lasting for some minutes. Immediately afterwards, the patient was weak and depressed, otherwise well. Next day, there was distinct paresis of the right arm, and the face was drawn slightly to the left; no other cerebral symptoms. This paresis of the arm gradually increased till January 12th, when its movements were very feeble and imperfect, and the grasp of the hand was almost lost. The patient then was depressed and emotional, but his intelligence was perfect. There were now slight thickness of speech and hesitation in articulating. On the following day, the right arm was absolutely paralysed as to motion, but the sensibility was unaffected. Two days later, the right leg was found weak; there was considerable difficulty in articulation, and the patient spoke in a mumbling way. The movements of the tongue were sluggish; and, when protruded, it was pushed towards the left side. The face was distinctly drawn towards the left. In addition to the difficulty of articulation, there was evidence of partial true aphasia, as the patient had difficulty in selecting and recollecting suitable words with which to express himself; but he never employed wrong ones. His understanding seemed intact. Till January 17th, all these symptoms rapidly increased, when, in addition, he was attacked with severe pain in the back, with cramps and contractions of the legs. The patient was dull and apathetic, but appeared to understand what went on around him. His speech was now unintelligible. All the symptoms increased, and on January 22nd the whole of the right side was completely paralysed. Although the patient could not say a word, he appeared intelligent, and understood what was said to him. On the 28th, the patient was evidently becoming weaker, the sphincters began to be relaxed, and the catheter had to be used. From this date to February 8th, he gradually sank, became comatose, and died.

Post Mortem Examination.—This was made by Dr. Goodhart, in my unavoidable absence; and the following is an abstract from his excellent report. *Head.* The cranial bones, dura mater, and sinuses were normal. The arachnoid and pia mater were thickened, and at the base much so; they were opaque, and their vessels were imbedded in thick white fibrous tissue. This induration of the membranes was symmetrical, except at the upper part of the right ascending parietal convolution, immediately adjacent to the longitudinal fissure, where there was a small patch of scar-like fibrous tissue in the pia mater, below which the cortical substance appeared healthy. The brain was of normal size; the surface was dry and greasy-looking, apparently the result of acute meningitis. The Sylvian fissures were adherent. The convolutions upon the right side looked normal; but on the left they were much flattened, and the sulci were indistinctly marked. On the surface of the left ascending frontal convolution, bordering upon the longitudinal fissure, appeared a rounded eminence, about half an inch in diameter, and of yellow colour, to which the dura mater and arachnoid membranes were adherent. A section parallel to the longitudinal fissure was made through this swelling, when it was found to communicate with an abscess below containing from an ounce and a half, to two ounces of thick, green, tenaceous, odourless pus. The cavity of the abscess was lobulated, and about the size of a small hen's egg. It occupied the white substance of the brain, immediately below the ascending

frontal and parietal and the posterior portions of the frontal convolutions. Above, it appeared to point at the eminence already described at the upper part of the ascending frontal convolutions; and below it reached very near the convolutions of the island of Reil. The interior of the cyst was smooth, and covered with flaky pus. That portion of the abscess which approached the cortex had no distinct cyst-wall; but the remainder was surrounded by a dense tough capsule about a millimètre in thickness. The outer layer of this appeared very vascular, and in some parts of it there were small extravasations of blood. This capsule separated readily from the surrounding brain-tissue, and could easily have been enucleated. The ventricles and ganglia were healthy, except that the latter were somewhat compressed on the left side. Otherwise, the brain was normal. *Spinal Cord.* A quantity of turbid fluid was found beneath the sheath. There was general injection of the vessels of the cord, and a quantity of yellow lymph was found in the meshes of the pia mater. The cord was soft, and the white matter streaky-looking from injection of the vessels. *Abdomen.* Above the umbilicus, the omentum was adherent to the abdominal wall. There were a number of tough fibrous bands of adhesions between the stomach and under surface of the liver. All the structures of the portal fissure were imbedded in a mass of dense fibrous tissue, making it a difficult task to dissect out the various channels. When this was effected, the portal vein was found to be completely obliterated by a firm organised fibrous thrombus, strongly adherent to the vein-wall. The splenic and mesenteric veins at their upper part were obstructed in a similar manner. The common bile-duct permitted bile to flow through it readily; and its walls were rugose-looking and dilated, but otherwise healthy. The gall-bladder was healthy, and no trace of stone was found in its interior. At the lower omentum was a regular plexus of minute veins, which made their way to the cardiac end of the stomach, and discharged themselves into enlarged œsophageal veins. Some also appeared to run backwards from the portal vein and communicate with the inferior vena cava. Another large plexus of veins passed from the sigmoid flexure to the internal abdominal ring, and blended with the spermatic vein, which was unusually large. The *Liver* was in structure normal. The branches of the hepatic artery were enlarged and thickened, and the branches of the portal vein were not discoverable to the naked eye. The *Stomach* was considerably mammillated, otherwise normal. The *Spleen* weighed six ounces, and was somewhat tough and bloodless. The artery was normal, but the vein could not be discovered. *Lungs.* There was some recent lymph in the lower portions of the pleural cavities on both sides. Both lungs were extensively affected with bronchopneumonia. The other organs and structures of the body were normal.

COMMENTARY.—This case presents many features of pathological and clinical interest; but I shall limit my remarks to the following three general heads: 1. The lesion of the portal system; 2. The lesions of the nervous system; and 3. The relation existing between these two morbid states.

1. *The Lesion of the Portal System.*—Thrombosis of the portal vein, although by no means common, is a clearly recognised pathological condition, and a considerable number of cases have been recorded both at home and abroad. In the instance before us, this state was probably the result of a limited peritonitis, involving the structures lying in the portal fissure. After death, the tissues in this neighbourhood were found thickened and matted together: hence, either by mechanical pressure or by inflammatory irritation of the venous wall, or possibly by both these causes acting together, the blood in the interior of the vessel during life had coagulated, and the clot had subsequently become organised, so as to form a complete obstruction to the vein. As a result of this mechanical condition, certain symptoms are usually induced—namely: ascites, enlargement of the spleen, dilatation of the veins, diarrhœa, hæmorrhage, œdema, etc.; but, in this case, all these symptoms were conspicuous by their absence. Here the only evidence of any abdominal affection was intense paroxysmal pain in the epigastrium, and jaundice, which for a time gave us the impression that the patient was suffering from gall-stones. There were absolutely no symptoms to point to any obstruction of the portal vein. This serves to show that, when this condition is induced gradually, the circulation must be established in other directions, so that the usual mechanical effects are prevented. In the healthy subject, the anatomist finds that there are minute veins which pass directly from the intestines into the liver, independently of the ordinary portal system. These are accessory portal veins. There are also numerous venous communications between the portal system and the inferior and superior venæ cavæ; and, in short, even in health, there is a free anastomosis of all the vessels in this neighbourhood. When the main trunks of the portal vein are obstructed, these collateral branches enlarge, and thus establish the circulation. In the present case, this was actually discovered; and, as far as a dissection of the matted tissues could be made, a number of these enlarged collateral branches were demonstrated. We may therefore assume, that it was owing to the successful re-establishment of the circulation that the absence of the usual mechanical symptoms was due. The jaundice during life was probably the result of pressure on the gall-duct by the inflamed and thickened peritoneum.

2. *The Lesions of the Nervous System.*—The patient, from the age of fifteen, had been constantly seized with attacks of temporary paralysis, usually affecting the left side of his body. He generally discovered these symptoms on awaking in the morning; and the paresis, in different attacks, lasted from a few days to several months—the patient during the intervals being in a perfectly normal condition. The movements of the limbs were not abolished, but were sufficiently impaired to cause great weakness of the left arm and hand, and dragging of the leg, and certain muscles seemed to be more affected than others. The patient was ignorant of having had any kind of fit. The nature of these seizures is not clear; but, from the fact that his father suffered from exactly similar symptoms, it might be urged that they may have been the results of epileptic attacks occurring during sleep, and therefore without the knowledge of the patient. On the other hand, after death, there was found old-standing meningitis, and more especially a patch of inflammatory thickening of the membrane over the right ascending parietal convolution. It is possible that these pathological conditions may have existed for many years, and given rise to occasional attacks of paralysis on the left side. Until five weeks before death, with the above exceptions, there had been no other cerebral symptoms. At this time, the patient was suddenly seized with violent pain in the head and feverishness, followed a few days later by epileptic attacks, subsequently by paralysis of the right side, including the face and tongue; followed by true aphasia; and, finally, by coma and death. On examination, an abscess was found in the left side of the brain, whose size and position was sufficient to satisfactorily account for the paralytic and functional symptoms on the right side of the body. These last, however, made their first appearance only five weeks before death; and, on inspecting the abscess, the question arises as to whether its age corresponds with the symptoms observed during life. To judge the length of time an abscess has existed, is often extremely difficult. When acute or subacute, there is no capsule surrounding it; therefore, when such exists, as in the present case, we may assume it to be chronic. Meyer states that the earliest appearance of a capsule is at the sixth or seventh week; and Huguenin demonstrated the distinct evidence of one not earlier than the twelfth week. In the patient under notice, the capsule was thick, dense, and well defined, and otherwise the abscess presented all the appearances of a chronic nature, and therefore must have existed at least for several months. As the earliest symptoms of any brain-disturbance were noticed for the first time only five weeks before death, we must assume that the abscess existed prior to that period, without producing any objective phenomena. The temporary attacks of paralysis, from which the patient suffered all his life, had apparently no connection with the cerebral abscess, as they affected the left side of the body; whereas the abscess was on the left side of the brain, and subsequently induced right hemiplegia. We are therefore left in doubt as to the date of the origin of the abscess. We can only assume that it must have existed at least some months, before there were any trace of symptoms resulting from it. Such cases are very rare: for, although it is not uncommon to find cerebral abscess having existed, apparently even involving a motor area, without producing sufficiently definite symptoms to permit a diagnosis being arrived at, still there are almost always some phenomena present pointing to impairment or alteration of brain function. In the present case, the most careful investigation of the patient and his friends failed to elicit the existence of any cerebral symptoms whatever, prior to the terminal changes occurring shortly before death. These final symptoms presented nothing remarkable, consisting as they did of impaired function of the left side of the brain, evidently due to recent extension of the cavity of the abscess causing pressure and altered circulation in the hemisphere. This was demonstrated by the morbid appearances seen after death, as already described. Upon the question of cerebral localisation, this case throws little light. Supposing the abscess to have existed for a certain period without producing symptoms, it only indicates that a slowly growing lesion, occupying the position of motor conducting fibres, need not of necessity cause paralysis. There is no evidence that, during the latent stage, any portion of the cortical matter was involved—nor did it appear that any of the important ganglia were directly affected. The abscess was situated in the medullary portion of the brain, immediately below what we have recently been told are the motor centres; and, although it might be assumed that the nervous communications would thus be severed, yet, in this instance, no paralysis ensued. Later, we have pathological demonstration of extension of the cyst-wall, of softening of

grey matter, and pressure on the convolutions and deep-seated ans, which conditions were accompanied by paralysis and other signs functional inactivity. A small patch of cicatricial tissue was found r the upper part of the right ascending parietal convolution, close to longitudinal fissure; and we know that all his life the patient was ble to altered motility of the left side, and especially of the leg. it could be proved that these were cause and effect, this would sup- t recent observations by Ferrier and others on cortical localisation.

3. *The Relation between the Abdominal and Cerebral Lesions.*—Two mparatively rare diseases—namely, obstruction of the portal vein, l abscess of the brain—having occurred in the same individual, the estion arises: Was each of these lesions independent of one another? were they in any way related? Cases are on record in which abscess the brain seemed to have originated as a result of abdominal disease; t these are very rare, and were usually of a pyæmic nature. We ve seen that the first symptoms of abdominal disease began about five nths before death. Although there is no proof of it, it is possible at the abscess originated at this time. If so, could the limited peri- itis and obstructed portal system have been its cause? Of seventy- cases of abscess of the brain, collected by Sir William Gull and Dr. tton, in only three could the disease be traced to an abdominal affec- n; and in each of these there was a collection of pus in that cavity. ppuration in any part of the body may occasionally lead to abscess the brain, more especially if pyæmic in character. In the case fore us, there was no evidence of any suppuration having taken place, her in the abdominal cavity, or in any other part of the body; and ere never had been any appearance of blood-poisoning or other con- tutional disturbance, sufficient to account for the existence of a cerebral scess. It has been suggested that this lesion was of an embolic igin, due to the abnormal condition of the portal circulation. We n, however, scarcely imagine an embolus, filtering through the liver id lungs, capable of producing mechanical obstruction; and, if the articles were sufficiently minute to effect a passage, we have no reason suppose they should create mischief specially in the brain, unless they ere poisoned, which the facts of the case disprove. In this instance, ie cause of the abscess is not apparent, and therefore its age is un- ertain. There was no injury, disease of the ear, or symptoms of an cute cerebral attack, which are the most common causes. Of the eventy-six cases already cited, the abscess could be traced to disease of ie ear in twenty-seven; to injuries of the head in seventeen; to lung- isease in ten; to surgical affections in nine; and in eight only was no efinite cause ascertained. To such so-called idiopathic abscesses, we ay add this one, as the data before us fail to establish either its ause or age. We, therefore, fail to prove any relation between the bdominal and cerebral symptoms.

The facts of this case, taken as a whole, seem to suggest the following equence of events. The patient, in early life, without apparent cause, vas afflicted with chronic cerebral meningitis, which, for many years, caused no symptoms except occasional attacks of temporary hemiplegia. The changes in the tissues and circulation, thus induced, may have afterwards been the starting-point of the chronic abscess, which existed or a long time without producing any symptoms. Five months before death, the patient was seized with an acute attack of limited peritonitis, involving the portal system, and subsequently causing thrombosis and obstruction of these veins. The constitutional disturbances, induced by the second attack of this illness, probably excited the recent acute action in the brain, in the shape of cerebro-spinal meningitis, and the extension of the already existing abscess.

FUNGOSITIES OF THE FEMALE BLADDER.—Dr. Atlee publishes, in the *Boston Medical and Surgical Journal* of March 30th, a case which is specially interesting at the present time, as Sir Henry Thompson has so recently, at the Royal Medical and Chirurgical Society, drawn atten- tion to tumours of the bladder. Dr. Atlee saw his patient in Septem- ber 1880; she was a lady, aged nineteen; she was obliged to pass urine every half hour, and the urine contained a large quantity of blood. An exploration of the bladder was at once advised, and sub- mitted to, under the influence of anæsthetics. An ordinary pair of dressing-forceps was introduced into the urethra, opened, and with- drawn; this was done several times, and the urethra thereby fully dilated. On the introduction of the finger into the bladder, no calculus or distinct tumour was to be felt; but "about the fundus were a number of fungosities, or soft growths, some of them more than a half inch in length, and about one line in thickness." Dr. Atlee scraped them away with his finger-nail, and up to the date of the paper (March 1st, 1882) the young lady has remained perfectly cured. Dr. Atlee is particular to explain that the growths were not villous, but true fun- gosities, having anatomically the same fundamental structure as the mucous membrane from which they sprang.

REMARKS ON ACUTE SPINAL PARALYSIS.

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WE must first ask what we mean by "acute spinal paralysis". The term has become restricted to a narrower range of symptoms than it literally designates. Most acute lesions of the cord produce "acute spinal paralysis", but by the expression is commonly understood only those forms in which the paralysis is local in its distri- bution, and is accompanied by rapid muscular wasting. It thus includes only the disease with which we are familiar as "infantile paralysis", and the analogous affection which occurs in adults. Patho- logical observation has demonstrated that, in most cases, the symptoms are due to an acute inflammation of the anterior grey cornua of the cord; hence the term suggested by Kussmaul, of "anterior polio- myelitis". We may also, if we wish for a descriptive pathological name of still simpler character, call it "cornual myelitis". But it is important to bear in mind that these are pathological, while "acute spinal paralysis" is a clinical name, and they are not quite conterminous. The symptoms of acute spinal paralysis may depend on any acute process in the anterior cornua. They may occur, for instance, from hæmorrhage in this situation as well as from inflammation. We must, therefore, include under the term acute spinal paralysis, cases which are not myelitis.

The general symptoms of acute spinal paralysis are well known, since, as it affects children, the disease is familiar to all practitioners; and its characters in adults are nearly the same. There is an acute, or subacute, onset, with symptoms of a general illness. The paralysis is usually at first extensive, sometimes universal; but power gradually returns, except in a limited region, in which the muscles rapidly waste, and present the electrical reactions which characterise nerve-degenera- tion—loss of irritability to faradisation; preservation, and even increase, of irritability to voltaic electricity, with certain alterations in the mode of response to the latter.

Our knowledge of the nature of the process in the spinal cord is, perhaps, more meagre than in the case of any disease equally common. We know nothing of the way in which, in ordinary cases, the inflamma- tory lesion commences. Death during the early stage of the affection is extremely rare, and opportunities for examination have been so scanty, that there exists no observation on the state of the spinal cord during the first few days of the affection. It is possible, however, that more cases in children are fatal at the onset than is commonly believed, because the nature of the disease at this period may readily be mis- taken. It is chiefly to general practitioners that we must look for the opportunity of further investigation on this important point.

It is singular that our knowledge of the causes of the disease is hardly more definite than that of its pathology. Even the causes which are recognised are not altogether beyond question. Hereditary tendency to nervous affections seems to have but little influence in its causation; most authorities doubt the influence altogether. I have myself been strongly impressed by two or three cases, in which other members of the families have suffered from other acute affections of the nervous system. This is a point on which a comparison of experience is very desirable.

The influence of age is well known, but the remarkable proclivity of children to suffer from the disease is quite unexplained. They do not suffer specially from other inflammatory affections of the nerve-tissues, although liable to certain inflammations of the membranes. The disease has been observed to come on a few days after birth. If the account given by the friends of one of my patients be correct, the disease came on, in her case, *in utero*. On the other hand, recent medical literature abounds with examples occurring in adult life. I have seen one case, in which the disease came on in a man of more than seventy years of age. After some rheumatoid pains about the neck and shoulder, he found the right hand weak; and certain muscles, especially the long extensors of the finger and thumb, and, to a less extent, the thenar and hypothenar muscles, rapidly wasted, and presented the characteristic electrical reactions. The hand also presented a well marked condition of myxœdema. I am not aware that this condition has been before observed in connection with the disease.

In young children, it is customary to refer the disease, like many others, to the irritation of teething. Is there the slightest ground for this? Here, again, we want more facts, which only the general prac- titioner can supply. We want to know the age and the state of denti- tion at the time of the onset. In a large number of cases, this informa- tion can only be given by those who have the charge of the patients

in the early stage. Another cause to which the disease is commonly attributed is exposure to cold—sitting on cold stones and the like. That this cause is occasionally effective, can scarcely be doubted. One well marked case, in which the flexors of the hips and extensors of the knees were affected, occurred in a young lady immediately after sitting for some hours on damp grass, during the menstrual period. But it is probable that the influence of cold has been exaggerated. Many cases are ascribed to slight exposure to cold, merely because no other reason can be given. In adults, again, the rheumatoid character of the pains which attend the onset may cause the disease to be ascribed to cold, although, as is well known, in spinal disease, pain of a rheumatic character may have no rheumatic significance.

Another point in etiology which deserves discussion is, the relation of the disease to season of the year. An American physician, Dr. Wharton Sinkler, states that, on the other side of the Atlantic, three-fourths of the cases begin during one quarter of the year—between June and September. Of 149 cases he collected, 6 occurred in January, 1 in February, 11 in April, 6 in May, 18 in June, 34 in July, 43 in August, 9 in September, 6 in October, 7 in November, and 2 in December. In this country, a similar relation probably exists, since Dr. Barlow of Manchester found that, of 53 cases, 27 occurred in July and August. Hence it is clear that, whatever be the effect of cold and chills, the influence of heat in predisposing to the disease is still more potent. I have seen one case in the adult in which the disease was distinctly part of a slight attack of heat-stroke. It is very desirable that the influence of season in this country should be investigated on a still larger scale.

Among the symptoms of the disease which especially deserve attention and discussion, is the equivocal character of the symptoms which attend the onset. I venture to presume that there are few practitioners of much experience who have not, at some time, made a mistake in the early diagnosis of one of these cases. In children, the symptoms of general illness, the acute febrile disturbance, sometimes commencing with a convulsion, and reaching, as I have seen, a temperature of 103.5°, suggest an acute specific disease much more than an affection of the spinal cord; and universal paralysis has been more than once regarded as merely general prostration. In adults, the rheumatic pains are usually the obtrusive initial symptom; and the disease has repeatedly, I had almost said constantly, been mistaken for rheumatic fever. In many cases, the error in diagnosis is never discovered. When the paralysis is found out, it is supposed to have come on during the progress of a primary disease which never existed, the symptoms referred to it having really been those of the spinal affection.

This leads me to a point in etiology which I have purposely postponed, but which deserves discussion. The assumed relation to a primary disease is not always an error in diagnosis; acute spinal paralysis does sometimes come on during the course of another affection, although far less frequently than is commonly supposed. To be conclusive, the symptoms of the primary affection must be definite and unmistakable. The disease to which, in adults, acute spinal paralysis is commonly supposed to be secondary, is acute rheumatism. I believe that this opinion is usually, if not always, the result of an error in diagnosis. The only disease to which I have seen acute spinal paralysis distinctly secondary, is typhoid fever, in two cases. In the one case, many muscles of the upper and lower limbs were affected; in the other, the muscles of one forearm and hand. Each occurred about the time of puberty. The occurrence of acute spinal paralysis in typhoid fever is intelligible, since we know that, in this disease, minute foci of myelitis, which cause no symptoms, may often be found after death.

A point in diagnosis to which I would call special attention is the importance of early electrical examination. By early, I mean at the end of six or eight days from the onset. It is useless to make an examination sooner, because the indications furnished by electricity depend on the occurrence of degeneration in the motor nerves, and this degeneration occupies several days in descending from the spinal cord to the neighbourhood of the muscles. Examination with faradisation is all that is necessary at this stage. This form of electricity stimulates the muscles through the nerve-fibres contained in them; if these be degenerated, the muscles will not respond. But these motor nerves depend for their nutrition on the large nerve-cells of the anterior cornua of the cord. The fibres may be indeed regarded as the prolonged processes of the nerve-cells; as parts of the nerve-cells, and sharing every change in their nutrition; degenerating if the cells be damaged. The widely spread paralysis which occurs at the onset depends on damage too slight to cause degeneration, and it soon passes away. The muscles thus affected present no change in their reaction, and do not waste; while those which derive their nerves from the part most damaged present the reaction of degeneration, and this is followed by rapid wasting. Thus, by finding that in some part of the paralysed region the irritability to faradisation is lost, we not only establish our diagnosis, but we can pick out and state which muscles will be ultimately affected and which will soon recover, and this before there is any other sign of difference than that afforded by the electrical examination. It may be asked, Is it safe to make an electrical examination at this early stage? Is there not danger of exciting a reflex irritation in the cord, and so increasing the damage? I believe that, if carefully done, it is perfectly safe. A very weak current will suffice, just sufficient to cause contraction in the healthy muscles; and, if necessary, the stimulation of the sensory nerves may be reduced to a minimum by employing the faradaic shock, instead of the current (which consists of a series of shocks, and is much more painful). For this, we move the hammer slowly with the finger, instead of allowing it to vibrate automatically. As an instance of the value of this test, I may mention the case of a lad, aged 16, who was seized with paralysis of both arms and legs, the onset being attended with acute fever. It was apparently due to lying with a cold wind blowing on the back, while heated after hunting. Examination showed that certain muscles of the left forearm and hand had entirely lost faradaic irritability, which was normal in the other muscles of the left arm and in both legs. Thus the diagnosis was established, and the ultimate localisation of the paralysis ascertained, although the verification of the inference was unfortunately prevented by the death of the patient, a few days later, from a cerebral complication.

The exact observation and record of the muscles affected is of great importance for scientific purposes; because we may thus obtain information, to be gained in no other way, of the anatomical arrangement of the nerve-cells representing muscles and movements in the spinal cord. Some interesting observations on this point have been published by Remak, and lately by Ferrier and Sturge; but we are still only at the threshold of the subject. As an illustration of what I mean, and as evidence that the arrangement in the grey matter of the cord is rather of movements than of muscles, I may refer to a fact which I have several times noted. Duchenne has taught us that the pectoralis major is functionally two muscles. The upper clavicular part brings the arm forward, and is associated in this action with the serratus magnus, which brings the scapula forwards. The lower sternal part of the pectoralis depresses the raised arm, and, in doing so, acts with the latissimus dorsi. In acute spinal paralysis, one part of the pectoralis is often affected without the other, and the physiological association is reproduced in the paralysis. If the upper part be paralysed, so is also the serratus, and the latissimus escapes. If it be the lower part of the pectoralis which is affected, the serratus escapes and the latissimus is paralysed.

As a rule, after recovery of the less damaged parts of the cord has taken place, a certain amount of local paralysis and wasting persists, slight or considerable. This, when improvement has ceased, remains stationary, as a rule, through life, although there may be an apparent increase in the symptoms consequent on the occurrence of deformities due to the shortening of the unparalysed opponents of the affected muscles, or on the lessened growth of bones. But I have seen two cases in which, after infantile paralysis in childhood, symptoms of slow degeneration—lateral sclerosis—came on in adult life; at seventeen in one case, at thirty-five in the other. Erb has recorded a similar case. It will be interesting to learn whether other instances have been met with by others.

Many points in the treatment of these cases deserve discussion. What is the best posture for a patient in the early stage of the disease? The extreme distension of the vessels within the spinal canal in a body which has lain on the back, familiar to all, suggests how undesirable this position is in an acute myelitis. And yet, in many cases no other posture can be borne for long, and motion is as undesirable as gravitation. We have too often to be content with a compromise. The prone position is the most desirable; next to that, if rest can be secured in it, the lateral; the worst is the dorsal.

Are any local applications to the spine desirable in the early stage? It is only rational to treat these cases as we should treat other internal inflammations. But of the forms of local treatment—leeching, counter-irritation, warmth or cold, which is best? Much must undoubtedly depend on the patient's age and state. Counterirritation has fallen somewhat into disfavour as a means of treating the acute stage of inflammation. It is probable, however, that its *modus operandi*, and that of heat and cold, do not greatly differ; that, by each, first vascular constriction and then dilatation are obtained; and so blood-stasis is lessened, and therefore also the migration of leucocytes, which the microscope has proved to play an important part in the damage to the spinal cord from acute inflammation. But how important it is that this effect should be aided by a posture which lessens mecha-

al congestion. I cannot but think that the damage to the cord uld often be lessened, were the early treatment of these cases con-cted on the principles which we apply to acute inflammation else-ere.

Should not the internal treatment in the early stage be rather that the morbid process than for its seat; be that for an internal in-mmation rather than for a disease of the spinal cord, and therefore nsist of aperients, diuretics, and agents which act on the vascular stem, rather than nervine remedies? During the stage of recovery, ere seems no reason to doubt that nervine tonics do some good; and the value of electricity and skilled rubbing there is a fair agreement opinion. When the disease was regarded as purely muscular, it is thought that electricity actually cured it in some cases. The proof at the seat of the disease is the spinal cord renders this opinion ex-mely improbable. Beyond doubt, the application of the voltaic or nstant current to the muscles (to which their fibres will still respond, hough insensitive to faradisation) improves their nutrition, lessens eir wasting, and keeps them in a better condition to respond to any rve-power over them which may ultimately be regained by the re-very of damaged cells and regeneration of degenerated fibres. Thus e ultimate state of the patient is better than it would be without ectricity. It is desirable, therefore, to use such a current as shall use slight visible contraction in the muscles. Unfortunately, child-n are often so much frightened by even a very weak application, at the needful strength cannot be employed without causing an amount emotional disturbance, which may not unnaturally be regarded as ing the child more harm than the electricity does good. Here, ain, we have sometimes to be content with a compromise. A weaker rrent than will cause contraction has probably some influence on mus-lar nutrition; and I think the best rule is to employ such a strength the child will bear without much emotional disturbance, whether we n thus get muscular contraction or not. If care be taken to avoid arming the child at the commencement, a current of some strength n often thus be employed.

Is the influence of electricity confined to the muscles? Does it aid e recovery of the spinal cord and nerves? Some believe that it es, and urge therefore that, in treating the muscles, one pole should e placed upon the spine; and the method is, on *à priori* grounds, a asonable one. But the tendency of the disease to spontaneous im-ovement renders it extremely difficult to form an opinion on this oint. For myself, after a careful comparative trial of the two methods applying electricity, from the cord to the muscles, or to the muscles ily, I have been unable to observe any superior advantage in the former ethod, which seems, even when a large spinal electrode is employed, disturb children more than the application to the muscles only. t the same time, beyond the increased discomfort, there is no objec-on to the application of one pole to the spine.

How soon should electrical treatment be commenced? I cannot ink it desirable to apply the voltaic current to the spine within one onth of the onset; but it may certainly be applied to the muscles, ith care, much sooner, at the end of ten days or a fortnight when ie "reaction of degeneration" has become distinct.

ON SOME POINTS IN THE DIFFERENTIAL DIAGNOSIS OF INTRACRANIAL DISEASE, GENERAL PARALYSIS OF THE INSANE, AND TABES DORSALIS.

By THOMAS STRETCH DOWSE, M.D.,
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ATHOLOGICAL and clinical experience during the past ten years, in ference to nervous disease, have convinced me that, in the pathology f the general paralysis of the insane, and in the pathology of tabes orsalis, we have an association of changes which are still open to a ast deal of investigation.

The relationship of spinal to cerebral lesions in the general paralysis f the insane has been noted for many years; but I have failed to dis-over any sound pathological deductions as to why the two conditions ould coexist to the extent which is invariably found. We are reatly indebted to the valuable labours of Westphal, Voisin, and lickle, for much information upon this subject. To M. Pierret we re also indebted for bringing before the profession the head-symptoms a tabes, and the important part which the trigeminal nerve takes, by s reflex influence, in the production of certain transitory pareses of ne muscles of the eye, of the face, and of mastication; and also ne head-pains, which are sometimes met with, but which must not e confounded with the chronic inflammatory changes of the brain which are found in the course of the general paralysis of the insane. I have seen such cases relegated to the class of tabes, when one might as fairly have classed them with cases of gross intracranial disease, or even of general paralysis, and where, in fact, the tabes was merely a manifestation of a more or less diffuse process of degeneration, extending over the entire nervous system, although the objective signs were by comparison more marked in the posterior columns of the cord. Erb says: "Naturally, in all such cases, the importance of the spinal becomes subordinate to that of the cerebral disease." I must admit that I have had several cases under my care, where, in the initial stage (and this is extremely important from a prognostic point of view), I have been unable to give a decided opinion as to whether my patient would remain tabetic, or whether he would suddenly merge into the insane paralytic. I will give an example.

Some time ago, I was called in consultation, by my friend Mr. Willis, of Hornsey Lane, to see a patient who might fairly be said to be suffering from tabes dorsalis. He had the signs, subjective and objective, of this disease: the flying lightning-like pains, which he called rheumatic; the dysæsthesia and anæsthesia of the lower limbs; absence of knee-reflex; the Argyle-Robertson pupil; and inability to maintain the equilibrium of the body with the eyes closed; and, in addition to these, he suffered from M. Pierret's head-symptoms—namely, pains in the head involving the regions supplied by the trigeminal nerve; but there is this noteworthy fact to remember, that, during these attacks of pain, the temperature of the head was always increased. Again, his *morale* had changed, and this is not common to tabes; for, instead of being as he was formerly, an even-tempered man, he had become liable to attacks of uncontrollable excitement, and during these attacks the articulation became so markedly defective that he could scarcely be understood; but at ordinary times there was no tremor either of the tongue or facial muscles. He was a strongly built, florid-complexioned, muscular man, aged 32, without any nervous history.

I will now describe another case which has a direct bearing upon the subject. John H., aged 48, came to consult me, at the Hospital for Epilepsy and Paralysis, on December 20th, 1880. He was a florid-complexioned, strongly built, muscular man. He had suffered from shooting lightning-like pains about the body for the past ten or twelve years; they affected chiefly the anterior and the inner surfaces of the thighs and legs; they would last for five minutes, or for six, twelve, or twenty-four hours. He said these pains were not so bad as they used to be. He thought "they had given place to weakness". At times, he had burning pains of the same character in the penis, which migrated to the rectum; and these were accompanied with great desire both to urinate and to defæcate. His mental powers had failed, so that he was unable to carry on his business. When any person was talking to him, he not only forgot what he was talking about, but forgot the presence of the person to whom he was speaking. For some time, he had been unable to preserve his equilibrium, and he would roll about in walking, and his friends would accuse him of being drunk. When at the theatre, he became very emotional, and was readily excited to cry or laugh, according to the nature of the performance. Upon examining the cranial nerves, the following signs were noted. The first nerve was normal; as to the second nerve (the examination was made by Mr. Mackinlay), the discs were pale, the left one most decidedly so; the arteries small. There was no retinal change, or change elsewhere in the fundus of the eye. Right eye, vision $= \frac{20}{40}$, and C. $\frac{1}{48}\ \frac{20}{20}$; left eye, vision $\frac{20}{40}$, and C. $\frac{1}{48}\ \frac{20}{20}$. With the best eye, he could read Jäger 1 at a foot without glasses; the pupils were unusually small. There was no marked limitation of the field of vision in either eye; the pupils did, however, contract very slowly and sluggishly when exposed to light. The third, fourth, and sixth nerves were normal. There was marked anæsthesia and analgesia throughout the range of the fifth nerve. The lateral movements of the jaw were performed with some slowness and difficulty. He was unable to whistle or send forth a full current of air. When he talked, the mouth became filled with froth. The labials were frequently reduplicated: he pronounced "Papa's performing pony" in this way, "Pap-p-p-a perf-f-f-f-f-forming pony"; and, during articulation which required the exercise of labial and lingual co-ordinating power, the labial and zygomatic muscles acted without purpose. When he stood with the eyes closed, he became unsteady, and said that he felt trembling all over. The knee-reflex was scarcely appreciable. There was no ankle-clonus; no reflex of the feet. The cutaneous sensibility of the trunk was fairly normal. Muscular response was normal, both of sensation and motion, to the continuous and to the faradaic currents. There were deep-seated anæsthesia and analgesia of the lower limbs. From his own evidence, it appeared that on January 6th he completely lost his reason; and he remained in this state for a fortnight, and after this he began to improve. On July 8th, 1881, he again presented himself at the hospital,

greatly improved in every way. His memory, reasoning power, and articulation were almost perfect; there was no tremor of the lips or facial muscles, no tremor of the tongue nor overflow of saliva; yet there was the same evidence of spinal myosis, and the sharp lancinating pains continued to worry him. He had been taking large doses of the iodide of potassium with evident benefit. I need scarcely say that, in all human probability, this man will ere long become the subject of confirmed general paralysis, which was preceded by the symptoms of tabes about twelve years ago.

The following case, from a clinical and pathological point of view, is of exceptional interest, and shows how the signs of ataxy may exist, due to sclerosis of the posterior columns of the spinal cord in connection with pathological changes in the brain which are common to the general paralysis of the insane, without the patient presenting during life those objective psychical manifestations which usually are to be found in this disease. I do not assume that this case is in any way unique; but it is undoubtedly a typical connecting link in a certain chain of evidence —I mean the evidence of association between pathological changes in the brain and spinal cord of tabes on the one hand, and general paralysis of the insane on the other hand.

W. B., aged 34, was sent to consult me by Mr. Mackinlay, at the Hospital for Paralysis and Epilepsy, Regent's Park, in November 1880. There was no family history of brain-disease, neither was there any clear evidence of syphilis. He had been employed as a dock-labourer, and enjoyed excellent health until the end of 1879, when the left eyelid began to droop, and the sight of the left eye began to fail, and so did the sight of the right eye; and, after this, he saw double. In the month of July 1880, he began to suffer from severe headaches; the pain was of a shooting character, and extended from the forehead to the occiput, and sometimes from one temporal region to the other; and the pains would sometimes come on suddenly, and depart suddenly, but they were invariably associated with an increase of temperature. Soon after the pains in the head began, his gait became unsteady, and his fellow workmen accused him of being continually drunk. It is a point of interest to note that he never felt giddy during locomotion, but, when lying in bed, it seemed to him as though the bed were continually moving round and round; and, when sometimes standing upon his legs, his body revolved against his will from left to right. At times, he suffered from great stiffness of the muscles of the back of the neck, and the head would be forcibly retracted. The following notes of his actual state were made at the time of his admission into the hospital. "The cranial development is regular, and not unduly prominent in any direction. When the skull is percussed, he experiences no pain, but, some months ago, the scalp was so tender, that he could not bear it to be touched. I am indebted to Mr. Mackinlay for the following ophthalmoscopic examination. Right eye: discs white (a little bluish); punched out in appearance; no cupping; arteries very small indeed (like fine hairs); veins about normal size; choroid thin; tension normal; vision equal $\frac{20}{70}$ partly, and Jäger 4 at 8 inches (minim type). Left eye: disc dead white and punched out: veins tortuous, arteries very small indeed; tension normal; vision absolutely *nil*. The pupils, moderate in size, rather larger in the right eye than in the left, do not respond, even to very strong light. Slight ptosis of left lid. There are no marked objective signs of any other cranial nerves being involved. He complains of numbness at the tips of the fingers, but there are no other subjective symptoms of defective sensation. On the objective side, there is a marked retardation in the conduction of impressions from the periphery to the nervous centres, and more especially in the lower limbs, both in reference to pain and sensation. All voluntary movements are co-ordinate when he is lying down, but, when standing or walking, there is defective volitional co-ordinating power. There is complete absence of knee-reflex, and no reflex movements are excited when the soles of the feet are tickled. The sphincter muscles of the bladder and of the rectum are unaffected. There is a marked tendency to depression, and he is readily induced to cry and to laugh. Sometimes (but not often), there is defect of articulation; otherwise, there is neither tremor of the tongue nor of the facial muscles."

These signs and symptoms deserve consideration; for I maintain now, as I maintained then, that we had clear evidence of gross intracranial change, which involved the cerebellum; and I am quite willing to admit with all candour, that I even thought my patient had a tumour of the cerebellum. Dr. Buzzard, who saw the case, thought there was no question of doubt about its being a case of tabes, pure and simple; and my friend Dr. Boyd, with his vast experience and great mental acumen in all such matters, suggested "general paralysis of the insane". In about three months from this time, the man died, with no other marked signs or symptoms than those just narrated, excepting the signs of a more or less acute general paralysis, into the details of which it is not necessary to enter.

At the *post mortem* examination, which was kindly made for me by my then colleague Dr. Sturge, the following notes were made. The dura mater was much thickened, especially over the vertex and the anterior lobes. There was much meningeal congestion and diffuse chronic arachnitis, with considerable excess of fluid; adhesions existed between the membranes and the cortex. The convolutions were particularly noticeable over the frontal gyri, and the gyri of the temporo-sphenoidal lobes, as well as the ascending parietal convolutions. The grey cortex was materially altered and wasted and softened in the parts just mentioned, and the white substance of the hemispheres was excessively vascular. At the base of the brain, marked changes had taken place, but more particularly was this the case in the optic nerves; they were shrivelled and hardened, and looked something like dried gelatine; this was seen more clearly towards their ends, for, where they wound round the thalamus, the structures appeared to be normal. There was the same condition of arachnitis at the base that there was over the vertex of the brain. The cerebellum was healthy, but there were some adhesions of a slight character over its surface. The floor of the fourth ventricle was remarkably granular; and I may here mention that this condition is common in the brain of the general paralytic. The spinal cord presented slight chronic inflammatory thickening of the membranes, but no adhesions. I am indebted to my friend Dr. W. B. Kesteven for the following careful microscopic examination. Beginning at the conus medullaris, and going up through the spinal cord to the cervical region, there was marked sclerosis of the posterior columns, extending slightly into the lateral columns. Between the posterior cornua, the columns had a darker aspect than in healthy cords, owing to an increase of the connective tissue and its fibrillation, which encroached upon the nerve-fibres, compressing them and their axis-cylinders, so that, in a transverse section of these portions, the translucent sheath and coloured axis-cylinders presented an opaque aspect. These portions of the cord took dyes more deeply than the healthy parts. The texture of the cornua also was much denser than in the normal state. Their cells had not undergone any alteration of size, but in many places they were slightly granular, and their nuclei appeared to me enlarged. The cells of the anterior horns were distinctly undergoing fuscous degeneration in varying degrees, as shown by their only partially taking the carmine dye. The roots of the nerves were, in many instances, to some extent atrophied. The blood-vessels were tortuous, and had become dilated by repeated distension, so that large perivascular spaces were seen in which the cut ends of vessels were observed to be thickened. In many of the smaller vessels were thrombi and emboli. These lesions were most obvious in the cervical region and in the medulla oblongata. The appearance of sclerosis decreased upwards, until it had disappeared in the medulla, where, as in the anterior horns of the cervical region, the cells seemed to be the principal seat of the morbid changes very marked in those of the olivary bodies, and in the nuclei of the vagus. In the medulla oblongata were scattered a few colloid bodies. The central canal throughout its whole length was obliterated by nuclei and corpuscles. The fibres of the optic nerve and commissures were very much atrophied, whilst their blood-vessels were enlarged and much dilated.

Such, then, are the notes, clinical and pathological, of a case which I hold, presents features common alike to the general paralytic and tabetic. I have no time here to analyse these especial features, but in the following remarks, the drift of my ideas will be elucidated.

(*To be continued.*)

NOTES OF A CASE OF ACUTE ASCENDING PARALYSIS.

By J. MAGEE FINNY, M.D.Dubl., F.K.Q.C.P.I.,
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THIS disease is one of very great rarity. In 1859, Dr. Landry described a peculiar form of paralysis, which he termed "Paralysie ascendante aiguë" (*Gaz. Hebdom.*, 1859, Nos. 30, 31); and yet not more than thirty cases are to be found recorded, and some even of these are doubtful examples of that disease. This lack of instances is the more noticeable, since the last decade is one marked in the history of medicine for the very great interest taken, and the rapid advances made, by many skilful observers in diseases of the nervous system.

Of the etiology and pathology of acute ascending paralysis, it may be truly said we have no knowledge. It seems to have no morbid anatomy. The most careful and experienced observers—such as Vulpian, Hayem, Westphal, Pelligrino, Levi, and MM. Déjérine and Goetz-

have failed to discover any gross or microscopical lesion, or any anatomical changes (which could in any way be connected with the production of the symptoms peculiar to Landry's disease), with reference to the brain, medulla, and spinal cord; or to the sympathetic nerve, the peripheral nerve-trunks, or the muscles. (*Diseases of the Spinal Cord*, by Erb: Ziemssen's *Encyclopædia*, vol. xiii.) On the other hand, it should be stated that Drs. Harley and Lockhart Clarke noted distinct degenerative changes, in parts of the spinal cord, in a case of acute progressive paralysis described by them (*Lancet*, 1868, October 3rd); and, in his book on *Diseases of the Nervous System*, published in 1881, Dr. Ross records pathological alterations in the grey nucleus of the cord, in a supposed case of this disease—a case, however, which he had not seen during life. With these exceptions, and perhaps that in which MM. Déjérine and Goetz discovered atrophy of some tubuli, with an increase of nuclei of the intertubular connective tissue in a single nerve root, I know of no published instances of the disease in which anything abnormal has been discovered in the nervous centres, which might be termed peculiar.

The absence of a distinct pathology suggested, doubtless, to Landry the idea that acute ascending paralysis is not a disease of the spinal cord, but is due to some intoxication, which evidences its pernicious influence through the motor tracts of nervous centres by some inappreciable physico-chemical change in the nerve-elements. This view, which, for want of a better, was adopted by Westphal, seems to gather some additional weight from the close analogy, which Dr. Harley has noted, between the symptoms of the disease and the physiological effects of woorara on animals.

On this question, it is plainly premature to give an opinion; and one must be content to look upon its pathology and etiology through the same misty cloud of ignorance as that through which we view the pathology of chorea, tetanus, hydrophobia, and some other affections which are characterised by strong perversion of nervous function.

The following case of acute ascending paralysis came under my observation in December 1879, and constitutes the only instance I have met; and, as far as I know, the only recognised instance of the disease which has ever occurred in Dublin. Although some of the details of the case are, I regret to say, lacking in that accuracy which I could desire, and which a more intimate knowledge, at the time, of the nature and main features of the disease would have enabled me to have supplied, I consider the following notes of the case worthy of notice.

Case.—Helen M., aged 25, was admitted to the City of Dublin Hospital, under my care, on December 8th, 1879, complaining of great weakness of her legs, and of inability to walk or stand. When seen on the 9th, her aspect and position in bed presented nothing to warrant the idea that, within five days, she would have passed away. Her decubitus was dorsal, but easy, the legs lying extended in the natural position of repose. With great efforts, she was able to sit up; but she could not turn on her side without the nurse's assistance. The legs lay motionless, and she was unable to stir them or bend them in the least. There was a total absence of all rigidity or spasm on passive movement, or of fibrillary twitchings. On testing the muscles of the thigh and leg by faradism, the electro-muscular contractility and sensibility seemed normal, or but little diminished. Sensation was unimpaired, and responded to the tests of touching, pricking, and of heat and cold. The superficial reflexes were not exaggerated. Examination of the spine failed to elicit any marked point of tenderness to firm pressure, percussion, or the hot sponge. The patient did not complain of the sensation of a belt around the waist, or of undue heat or cold—symptoms with which one is familiar in some cases of inflammatory affections of the spinal cord—though she referred to an uncomfortable feeling above the sacrum; and this, I take it, was but the expression of powerlessness of the parts below that point. There was no paralysis of the bladder or rectum during the first two days of her stay in hospital, and the urine was of normal reaction and specific gravity, and free from albumen. There were no bed-sores, and the nutrition of the limbs was unimpaired, the muscles being of equal size in each leg.

Thinking it possible that much of the symptoms could be explained on the theory of the case being one of hysteria—an hypothesis strongly suggested by the patient's emotional manner, and familiar and endearing mode of speech—I had her lifted out of bed by two assistants, for the purpose of testing her powers of standing and of locomotion. It was at once evident that she was totally unable to direct her legs in the very slightest degree, still less to stand or to walk. Her legs hung quite powerless, and, as if loose at the hips, they dragged after her as she was lifted out of bed and put back again, without the least attempt at spasm or rigidity. In fact, they reminded one forcibly of the limbs one sees in advanced infantile palsy.

There seemed on the patient's part every readiness to make the best effort in her power; and, although she was agitated by being lifted out of bed, she offered no resistance. It was now plain that a very serious lesion of the motor tracts of the spinal cord existed; or, speaking more correctly, a serious disturbance of motility was present; and that the disease had advanced with great rapidity during the preceding four days—seeing that she had lost, during that time, all power of motion in the lower extremities and in the back.

The next two days evidenced still further progress of the disease upwards, as she lost—at first partially, and then completely—the power over the arms and hands. This was shown by her inability to draw the bedclothes up, or to arrange her night-dress, or to lift herself up in the bed. The spinal muscles also failed, and it required constant care on the part of the nurse to keep her propped up in bed. She could not lie down, owing to oppression of breathing.

On December 12th, the respiration was almost entirely carried on by the diaphragm. On the 13th, the paralysis involved the powers of deglutition; the pulse ran up to 136; and she sank on the 14th, with all the symptoms of asphyxia—the mind remaining clear till about fifteen hours before the close.

After the third day of her stay in hospital, it became necessary to draw off the urine, and the bowels became constipated—a condition due largely to the paralysed state of the abdominal muscles. The urine was at no time ammoniacal.

In seeking for evidence to throw some light upon this novel case, I made careful inquiries into her history. From herself, little could be learned, as she was completely silent as to her immediate antecedents; and, though her sisters were able to supply some facts, there was nothing, I regret to say, discernible, which could have acted as a predisponent or excitant of the disease, or which threw any light upon its nature. Though unmarried, it appeared she kept company occasionally for over a year with a man, who seemed to evince kindness towards her, and at whose hands she apparently received no ill-treatment. About a fortnight or three weeks before her present illness, she left her home in this man's company, and he helped her back three days before admission into hospital. On that occasion, her sisters stated, she was just able to stand, and, by the use of her arms, to drag her legs after her into the hall, but was unable to go upstairs. She remained at home three days; and, during them, she lost all power of moving her feet and legs. Though questioned closely by her sisters, she gave them no insight into the origin of her illness—if, indeed, it were in her power to do so. There were no appearances to warrant the idea of her having taken too much drink, or of having received any ill-treatment or hurt. When seen by me, there were no marks of blows or violence on any part of her body. She was well-nourished and well-formed, with fair muscular development, and without any evidence of either scrofula or syphilis.

The duration of the disease was somewhere between nine and twelve days, as it is probable she was complaining of some degree of loss of power before she returned home, three days before admission to hospital, and nine before death.

The indications for treatment were by no means clear, so that I directed my attention to supporting her general strength by light nutritious diet, and to giving her sleep, and to calming her emotional excitement. For this purpose, I gave her bromide of potassium, in fifteen-grain doses, three times a day, and sleeping draughts of chloral. The insomnia, however, was not readily overcome, as she needed rather large doses of morphia (hypodermically administered) before sleep was procured.

At the *post mortem* examination, which I conducted, with the assistance of my clinical clerk (Dr. Stuart Davis), twenty-four hours after death, there was noted nothing abnormal in the thoracic or abdominal cavities, with the exception of a cyst, of the size of a walnut, in the left ovary. The brain and spinal cord were carefully removed. Sections were made through several parts of both, but I could discover no gross or macroscopical alterations of the nervous tissue, or in its coverings, which could be termed peculiar, or which could not be accounted for by the mode of death of the patient. As to the microscopical appearances presented by the spinal cord, I regret to say I am unable to speak, as, by a most lamentable oversight, the specimens were not placed in hardening fluid till decomposition had set in, and rendered them useless for microscopical examination. As, however, but negative results have followed most elaborate and careful microscopical examinations made of the nervous centres (by more skilled hands than mine), this was not a matter of so much regret as it would otherwise have been.

In conclusion, from a careful review of the whole case, its gradual onset, its steady but rapid upward progression, its fatal termination by involving respiration and deglutition, and the absence of all irritation of the spinal cord or its coverings, there can be no doubt of its having been a typical example of Landry's disease, occurring in a woman.

REMARKS UPON REGRESSIVE PARALYSIS:

CHIEFLY AS SEEN IN THE YOUNG SUBJECT (SO-CALLED INFANTILE PARALYSIS, ACUTE SPINAL PARALYSIS, ETC.).

By W. H. BARLOW, M D.,

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THE term "acute spinal paralysis" is vague, and may include several distinct forms If by this term be meant the disease hitherto described as "infantile paralysis", and characterised by destruction of the great ganglion-cells of the anterior cornua, which is now known to be common to the adult as well as the infant, and to which the above name was given by Heine, Séguin, and others, then it is inexact and insufficient. The title given by Kussmaul, "poliomyelitis anterior acutissima", though exact enough as a description of the lesion generally found, is scarcely satisfactory, inasmuch as it describes rather the result of the morbid action than its nature; and it is by no means certain, or even probable, that the inflammatory process is confined to the grey matter. In this state of uncertainty, I ventured in the year 1879 to suggest a name which should not be manifestly incorrect, and, while designating the disease in a clear and distinct manner, should yet express no theory of a pathological nature, which future research might show to be unfounded. That name was "regressive paralysis", being based upon the most marked and constant characteristic of this form of palsy, and standing in bold relief from the class of *progressive* paralyses; and this name I venture again to submit, as a general title, to the approval of my brethren. In the year mentioned, I published the details of over sixty cases of this disease occurring in the infant, and one in adult life. Since then, I have largely increased my experience, both in the child and among those of riper years.

Further experience has confirmed the belief that the disease is essentially the same, whatever be the age of the patient attacked. The mode of onset, the character of the accidents preceding the febrile and inflammatory symptoms, and, so far as our yet limited experience goes, the final pathological results, are all essentially the same, with only such differences as might have been expected *à priori*, from a consideration of the greater mobility and excitability of the nervous system, in the young child, during the processes of active growth and development.

A young man aged 18 was exposed to great heat, moisture, and sudden variations of temperature, while employed as an engine-fitter in repairing an engine in a building where another was in full action. After two days, he was seized with a rigor, followed by shivering, fever, pain in the back, and finally paralysis of both legs, which eventually made regression from all but certain muscles of the right leg.

Again, an officer aged 31, after exercise in a powerful sun, took in the evening a cold bath in the open sea; he felt chilly, but remained exposed to this influence for three-quarters of an hour. He had pain in the back, was restless, and finally was paralysed in both legs and muscles of the loins. Regression was made from the muscles of the back, and from some of those of the legs; the temperature of the limbs became lowered, and the skin mottled. Electrical exploration showed the reaction of degeneration.

Again, a man aged 34, apparently quite healthy, attended a crowded meeting, and, while perspiring profusely, walked home in a snow-storm, with a keen north wind blowing upon him; was chilled; had pain and stiffness in the back of the neck; was feverish, restless, and unable to sleep; and, after a day or two of these symptoms, had difficulty in passing urine, and was paralysed in all four extremities; and eventually there was regression from the right arm and hand, and some improvement in the other limbs. (The two latter cases are from Althaus.)

Or an agricultural labourer, after prolonged exposure to wet and cold for several days in succession, is seized with rigors, febrile reaction, pain in the back and limbs, followed by paralysis of both legs, which soon recedes from one and becomes definitive in the other limb.

The illustrations might be multiplied to an almost indefinite extent, all agreeing in the previous exposure to some severe peripheral shock, either by severe alternations of temperature or some similar cause, followed by an irritative fever with hyperæsthesia, to end in a definitive paralysis of smaller extent than ensued on the first manifestation, with atrophy of the paralysed muscles. In the earlier accounts of this affection, the fact of the regression was not accentuated, in some cases not noticed—a fact due to the advanced period at which most of them came under the observation of the reporters, and the consequent imperfections of the early history. The same causes have made some confusion, in the history of the cases reported in the early days, of the research into the nature and causes of the affection as seen in infants; but these have been cleared up by the light of further inquiry, and the same is now occurring with regard to those in adult life.

The cases reported are not yet sufficiently numerous to enable us to say whether the seasons have any influence upon the adult form of this disease, but with regard to the infantile form the evidence is very clear. Of 111 cases in which a clear and distinct history of the attack and its date of onset were obtained, no fewer than 71 cases occurred in the four summer months, thus divided:—in June, there occurred 13 cases; in July, 26; in August, 22; in September, 10=71. This shows that almost one-half of these cases happened in the two hottest months of the year, July and August. This fact, which I published in 1879, was, I have since learnt, noticed by Dr. Wharton Sinkler of Philadelphia, and published by him in 1875; but I have not seen it noticed by European authors until recently by Onimus. In connection with these facts, it is interesting to note the ages of the patients attacked; of 149 cases, there were 15 under six months; between that and one year, 27; between the ages of one and two years, 52; between two years and five, 42; from five to seven, 3 cases; and in 10 no distinct account could be obtained. Thus it is just at that period when the nervous system of the child is most excitable, and when, from the processes of rapid growth and development, and from the evolution of the teeth, it is most susceptible to external influences, that these attacks occur. And just as, during these periods and during the same months, the system is most liable to attacks of diarrhœa, convulsions, and other troubles of a reflex nature, so is it liable to this disease, which takes its origin from an impression of a similar nature, only affecting the motor centres of the spinal cord in the most intense degree, instead of the cerebral or other centres. Wherever a full account can be obtained, sufficiently near to the date of the attack to allow a clear recollection of the antecedents, it is found that these have been of one of the following characters. In what may be called the typical form of onset, the child, after exposure to some form of violent alteration of temperature, such as a chill, after being submitted to the influence of a high temperature, of which I have given many instances in the paper before mentioned (and to which there are generally added circumstances of exhaustion), is seized with rigors; high temperature, 104° to 105° Fahr.; a variable degree of hyperæsthesia; often vomiting or nausea; frequently some difficulty in passing urine;* with tenderness over the spine, and often pain when the limbs are moved; great restlessness, and sometimes heavy, almost comatose, sleep. After waking from this sleep, or if this be not present, then gradually the tenderness and pain on movement subside, the febrile symptoms abate (but a higher temperature than normal may persist for some time), and the child is found to be paralysed in one, two, three, or, it may be, all four extremities; and frequently the muscles of the neck and back may be also involved, or even occasionally the face and the tongue. In another class of cases (14 out of 149) the paralysis is preceded by convulsions; while, in a third form, the attack is preceded by one of the exanthemata, or by whooping-cough, or diarrhœa. Of 149 cases, 24 were of this class. It has been coincident with the cutting of a tooth thirteen times, and therefore attributed to that cause, in the absence of any history of exposure or other peripheral irritation. But my own opinion is, that it is the condition of the nervous system at the period of the dental evolution that predisposes to the attack, by rendering the body more susceptible to external impressions, rather than the evolution itself, and I regard these rather as instances of defective history, than as true types of the onset. Pressure upon nerves and various forms of mechanical injury have been adduced as causes, but my own experience has been that these belong to quite another category of paralyses. Some writers have divided these cases into as many as nine different classes, distinguished by the mode of onset; but the other classes belong, in my opinion, rather to one general group, where the history has been defective or ill-observed, and the three forms I have mentioned alone really include the characteristic types of the mode in which the disease sets in.

In several of the cases in which convulsions occurred, they were repeated after the paralysis was perceived, and in a few there was a temporary loss of consciousness; thus pointing to cerebral as well as to spinal irritation. Indeed, from the undoubted cases (12 in 149) in which the early stages have been accompanied by affection of the tongue, face, and neck, I hold it to be proven that the brain itself is not unfrequently involved in the disturbance which leads to palsy. Nor do I see why this should be doubted, if we bear in mind that the two organs are continuous, and that experiment has proven that irritation of

* The bladder-troubles are quite temporary, though there often exists a greater sensitiveness of the bladder than is normal, and the patients are liable to pass urine involuntarily when frightened, spoken to sharply, or during electrical changes of the atmosphere.

ıe motor centres of the cerebrum has led to lesions in the anterior ornua of the cord. (Pitres, *Société de Biologie*, 1878. MacDonnell, ublin Pathological Society, 1878.)

Immediately after the subsidence of the febrile symptoms, the keenness of the sensibility seems to be somewhat blunted, as though the ervous influence had been exhausted by the previous excitement; but speedily recovers, and afterwards remains unchanged. Kennedy avê an account of certain cases in which complete recovery took place; ut Heine and Duchenne both denied that these were true examples of iis affection, and placed them in a separate category, under the title f "Temporary Paralysis." I am, however, satisfied that there are ases, probably much more frequent than physicians imagine, in which ıe regression is complete; and I have given instances, which differ ı no respect from those which go on to atrophy and deformity, xcept in the slighter degree of the initial disturbance, and the fact ıat, after a brief period of paralysis, the regressive movement is carried) its full extent, and the child recovers, without any permanent aces of the attack. It is to be remarked that in all those cases here there existed facial paralysis, or paralysis of the muscles of the eck, these parts were the first to recover their power; and the same olds good of the muscles of the trunk, when they are affected together ith the lower extremities; and that in all those cases some groups of uscles remained paralysed, and eventually became atrophied, while thers recovered, and that they presented the electrical reaction eculiar to this form of palsy.

Heine asserted (and he has been followed by several other writers) ıat the true hemiplegic form of palsy never occurred in this disease; ut I have seen it in thirteen cases, where the other diagnostic marks ere distinct and incontestable. But, as explanatory of the cause of ror, I may mention that it was persistent in both limbs of one side ı only two cases; in the other it retired, leaving only one limb permanently affected. The crossed form, where the arm and leg of opposite sides are affected, is the most common form when two limbs are aralysed definitively, and was called by Heine spinal hemiplegia. It the result of an attack affecting primarily either three, or it may e all four limbs (which occurred eighteen times), and which has eceded from one or two, leaving the other on opposite sides definitively aralysed.* Of this I have five of the eighteen, the remainder ending in alsy of one leg only. I have not met with any case where there was progressive increase of paralysis, or where an attack has recurred.

With regard to treatment and its results, I must confine myself here o stating, that hopefulness and perseverance will meet with a reward ften exceeding expectation, especially if the treatment be commenced arly, and the child's volition be called in to aid the efforts of art.

In conclusion, I may venture to offer a few remarks as to the manner ı which the paralysis is brought about. It has been proved by Brown-équard, Tiesler, and others, that irritation of a nerve will produce esion of the spinal cord; while the nerve-trunk, between the seat of ritation and the cord, presents no trace of any irritant action; so that is quite easy to comprehend how any irritant impression upon a large rface, supplied by peripheral nerves, may cause a profound impression pon the centres to which they lead, just as we know that similar ritants affecting other peripheral nerves will cause convulsions, which re in young children often the expression of irritation of the motor entres (cortical) of the cerebrum.

That the great ganglion-cells of the anterior cornua are connected ith special and peculiar nerve-fibres is probable, nay, almost certain; nd, if that be so, then the explanation of the facts and peculiarities f this form of palsy is easy. The picking out of single muscles, or roups of muscles, for definitive palsy and atrophy, coincides with the icking out of certain ganglion-cells for destruction, amid others left ound; just as the groups of those vanished cells correspond with the nlargements from which the nerves to supply the wasted limb are iven off. And an irritative inflammation, commencing in the cell as ıe focus of irritation, would, though it might spread readily enough to ıe surrounding parenchyma, still leave its greatest effect and most lasting traces upon the cell itself. Probably, the first effect of an irritation to produce changes in the circulation of the nerve-centre itself, and ıus involve the surrounding parts, to which the vessels so altered are istributed. At any rate, it appears from *post mortem* records,† that ıe parenchyma is largely involved early in the process; and, that it through the instrumentality of the circulation is probable, not only om analogy, but also from the enlarged condition of the circumvascular spaces, which is a common characteristic of the *post mortem* conitions found in these cases.

Lastly, I would urge that the time has come when a greater degree of generalisation may be profitably admitted in the study of this disease, which has hitherto been almost entirely subjected to analytical examination, a process so essentially needful for the distinction and verification of facts, in a new and unexplored field; but which, when once a sufficient number of facts and observations have been collected, serves rather to cramp and fetter the mind of the inquirer, who should then carry his researches into the wider fields of synthetical study, and ask what are the relations of the facts already known to other forms and manifestations of a different character.

* When the hemiplegic form persists, it is probable that it is also produced by gression from one limb where three have been originally involved.

† See Report of meeting of Pathological Society of London, February 4th, 1879.

A CASE OF SALTATORY AND GENERAL CLONIC SPASM TREATED WITH CONIUM.*

By E. H. JACOB, M.D.,
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THE patient whose case is described below has been under my notice twice; the first time, in the Leeds Infirmary (under the care of Dr. Eddison); the second, under my own care at the Dispensary.

J. E. A., aged 27, an iron-moulder, was admitted to the Leeds Infirmary on August 13th, 1878, and gave the following history. Four years ago, his foot was crushed by a stone. The next day, he was seized with a general shaking of limbs and body, which lasted about an hour. This was followed by similar attacks at intervals; but he was generally relieved by resting for a day or two. Eighteen months ago, he received a severe blow in the lumbar region from a crane, which was immediately followed by an attack of shaking. He continued to work, however, though the attacks became much more severe, till about four months before admission. For the last few days, he had had from one to four attacks a day.

On admission, he was fairly nourished, but looked pale. He complained of nothing but the attacks of trembling. These attacks appeared to begin with a slight quivering of one leg; this spread until the muscles of both legs were in rapid vibration. The abdominal muscles were tense, but not quivering. Generally the arms were involved, and occasionally the head. The shaking stopped temporarily if the limb were gently moved. The attacks came on occasionally at night, sometimes without awaking him. There was slight tenderness over the lumbar spines. His appetite was good; his bowels regular. The day before admission, he had two attacks, lasting one hour and half an hour respectively. Sometimes they lasted four or five hours; but he occasionally went eight to fifteen days free from them. He was kept in bed, and ordered half an ounce of conium-juice three times a day.

August 15th. He felt but little effect from the medicine, but had but one attack yesterday, lasting twenty minutes only (the shortest attack hitherto had been about fifteen minutes). He slept well. On August 16th, he had no more spasms. On September 7th, he was discharged, having had no more attacks. The succus conii had been continued in doses of six drachms.

I heard no more of this patient till the end of September last, when he was sent to the Dispensary, to be under my care, by Mr. Stamp Taylor, to whom he had applied for advice. He was then in a far worse state than when I had seen him before. He was pale and wasted, and was just beginning a spasmodic attack similar to those he had in the Infirmary, For the last month, he said, he had suffered from them from one to four times a day.

Beginning with tremor of the legs, the spasm grew more violent, till the patient fairly leaped into the air about eighty or ninety times a minute. His arms then became affected, but to a slighter extent than his legs; and sometimes his respiratory muscles joined in the general spasm, so that he breathed in short painful jerks. He declined to lie down, saying he had rather stand and jump if he had anything soft to stand on, as when he lay down "it shook him to pieces". He had been curious enough to count his leaps, and told me he had had thirty-one thousand in the last month. I gave him, on the spot, two drachms of tincture of conium, the only preparation which happened to be at hand; and ordered him half an ounce of conium-juice three times a day. The tincture of conium had no effect; but the attack passed off in about twenty minutes, leaving him much exhausted. There was some tenderness over the last two lumbar spines, and pressure there gave him a "sensation of cold". He did not know anything in particular which started the spasms, and no pressure-point could be detected.

October 7th. The medicine had had no effect. He had had one or more attacks every day. During the visit, the right arm and leg were shaking vigorously; but there was no leaping. He was ordered to increase the dose of conium till he felt the characteristic effects with which he was familiar, from his previous use of the drug.

* Read before the West Riding Medico-Chirurgical Society.

October 14th. The medicine, evidently a bad sample, had had no effect, physiological or other, though he had taken an ounce and a half for a dose. He was jumping vigorously, every muscle apparently in a state of clonic spasm, except the facial. He was given an ounce and a half of tincture of conium, but with no apparent effect. Half an ounce thrice daily of a fresh sample of conium-juice (supplied by Messrs. Harvey and Reynolds) was ordered.

October 21st. The medicine had a distinct physiological effect every time, and he had had no bad attacks—indeed, nothing but a slight occasional quivering; but he felt weak and ill. He was directed to continue the medicine twice a day.

October 28th. The shaking had entirely ceased; but he felt weak, and had pain in the back. He was ordered a tonic iron mixture, and a dose of conium occasionally if he felt any symptoms of spasm.

November 4th. He felt better, and had had no more spasms.

This case differs in many respects from the cases of saltatory spasm reported by Bamberger, Guttmann, and more recently by Dr. Gowers. In previous cases, there was a history of epilepsy, chorea, hysteria, or some debilitating disease, but none of injury. These were cases of functional irritability of the spinal cord, similar to those we see in "spinal irritation" and many hysterical persons. But in the case described there were no indications of any organic disease in the shape of paralysis or affections of the sphincters; so that we must rather class it with the sequelæ of spinal concussion, among that large, vague, and unsatisfactory collection of symptoms of which we hear much in railway trials for compensation. Some light is thrown on the pathology of cases as these by experimental physiology; but the conclusions are somewhat confusing. Division of the cord (in the rabbit) just below the lumbar enlargement causes repeated flexion of the legs, whereby we may assume the presence of a co-ordinating centre for the legs in that part; but electric stimulation of the cord above the sixth cervical vertebra also caused springing movements of the legs. This may account for the cases where the neck-muscles were involved; but there was no history of injury in my case other than in the lumbar region. Again, there is reason to assume the existence of a centre for co-ordinating reflex movements of the limbs in the medulla at the junction of the lower with the middle third of the floor of the fourth ventricle—indeed, close to the respiratory centres; but the implication of this seems unlikely in the above case.

Lastly, I would point out the necessity, when conium is prescribed, of securing a specimen which shall not be wholly inert, like two of those I tried; and of giving the remedy in sufficiently large doses to produce a distinct physiological effect. This is generally a slight feeling of heaviness across the eyes, slight staggering of gait, and a desire to lie down, which ought to be produced by about half an ounce of the succus. But it is absolutely useless to prescribe this drug, wherever obtained, unless the particular sample have been tested by its physiological action. While, however, a strong man will be only slightly affected by half an ounce of a good preparation, a much smaller dose would be sufficient for feebler organisations.

ON REFLEXES AND PSEUDO-REFLEXES.

By A. DE WATTEVILLE, M.A., M.R.C.S.Eng.,
Electro-therapeutist to St. Mary's Hospital.

The question is still debated, whether the muscular contraction following the percussion of a tendon is a true reflex phenomenon or not. It is agreed on all sides that it ultimately depends upon a reflex action, since it is abolished by the destruction of the posterior roots. Those who do not consider the contraction to be a direct reflex hold that its cause is the excitation of the muscular substance itself by the sudden stretching; and explain the integrity of the reflex loop necessary for its occurrence by assuming that the excitability of muscle to this particular stimulus depends, like tonicity, upon a reflex influence from the cord, or rather is a manifestation of this tonicity. The chief reason for rejecting the direct reflex theory is that the time which elapses between the instant of percussion and that of contraction is too short to admit of a centripetal stimulus being converted in the cord in a motor impulse, on the usually adopted measurements of the rate of nervous vibration. Now, measurements of the period of latent contraction following the percussion of a tendon, and of the rate of nerve-vibration, present too wide discrepancies as given by different authors to give very accurate data for calculation; and the process itself of calculation from one set of data to another, both obtained under different conditions, opens the door to many fallacies. In order, therefore, to avoid the uncertainties attending such a method of proof, it has seemed to me desirable to obtain myographic records of the knee-jerk and the plantar reflex on the same subject and with the same method. In this way, the results are at least comparable. The absolute measurements may not be correct; but, if so, the error is the same in both series of results, and thereby eliminated. The point upon which I would draw attention in the annexed tracings, then, is the relative rather than the absolute duration of the periods recorded.

The method I used was one taught me by my friend Dr. Augustus Waller, and is the same as that by which he made the measurements recorded in his well known paper on "Tendon-reflex" (*Brain*, 1880). This method, the adequacy of which we independently proved by various tests, consists in recording both the instant of percussion and of muscular contraction by the same apparatus. An appropriate India-rubber bag is fixed over the explored muscle, and connected with an ordinary Marey's registering apparatus. The two events (percussion and contraction) are recorded by ascents of the lever; the interval between the points of ascent indicates the lost time of the muscle.* The lost time of the apparatus itself being (as ascertained by previous chronographic measurements) the same in both cases is thereby eliminated.

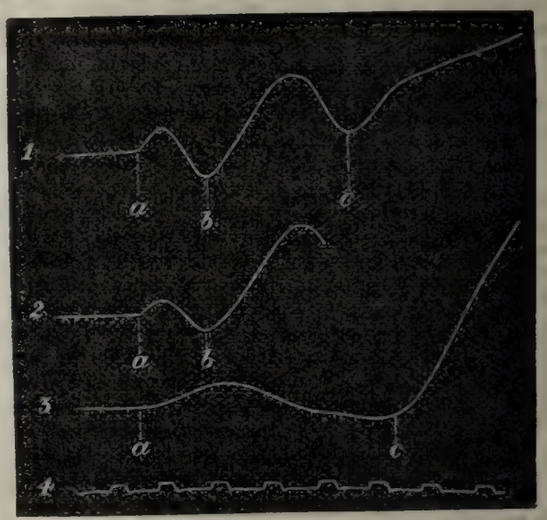

Fig. 1, line 4, time-tracing; fifty vibrations a second. Line 3, plantar reflex. At *a*, stimulation of the skin; at *c*, contraction of the extensor femoris. Line 2, knee-jerk (same subject). At *a*, percussion-wave; at *b*, contraction of the same muscle.

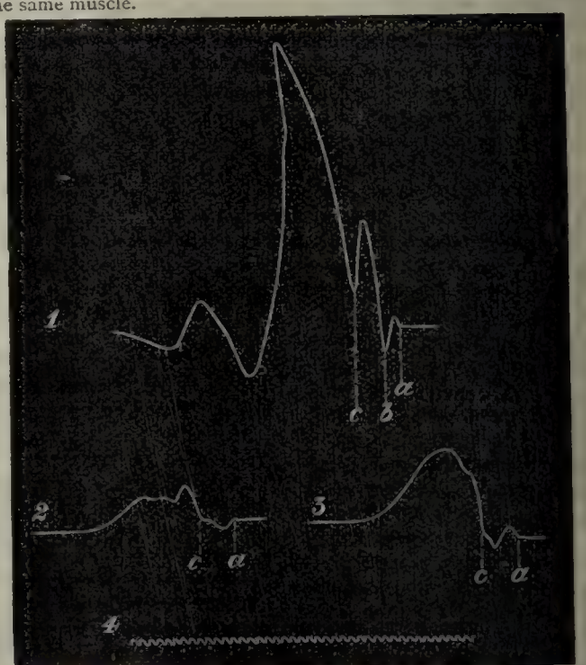

Fig. 2, line 4, time-tracing; same frequency, slower movement of the cylinder. Line 3, plantar reflex. At *a*, stimulation of the skin; at *c*, contraction of the gastrocnemius. Line 2, ditto. At *c*, contraction of the extensor femoris.

Figs. 1 and 2, line 1, tracings obtained from patient in St. Mary's Hospital (under Dr. Broadbent, in February 1882), with marked knee-jerk and skin-reflexes. At *a*, percussion; at *b*, usual knee-jerk; at *c*, further contraction, which I consider as a sensory reflex.

* In Brissaud's work (*Recherches sur la Contracture, etc.*, page 96), he erroneously attributes the percussion-wave to a direct muscular contraction; the period which elapses between the electric signal and that event he interprets as Helmholtz's latent time of stimulation. But then, what becomes of the lost time in his apparatus which, he tells us himself (page 93), amounts to .008 sec.? His "petit fait" is of physical, not physiological, origin.

Though my researches are not yet completed, I have obtained results which may appear novel or definite enough to deserve publi-

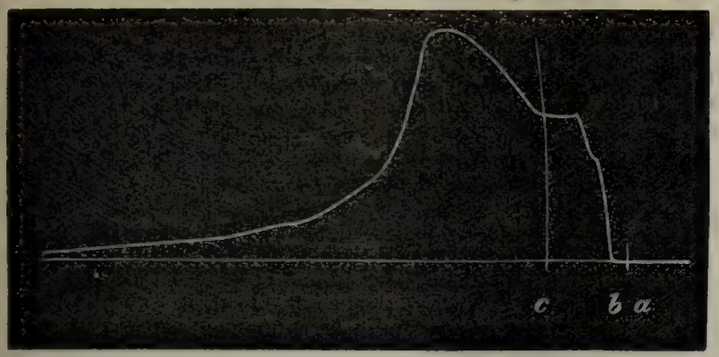

Fig. 3, medium rate or cylinder. Tracing rom another patient of Dr. Broadbent's, suffering from obscure cerebro-spinal lesions; increased plantar reflex. Galvanic stimulation of the anterior tibial group of muscles (*a*) was followed by the usual latency and muscular contraction (*b*), which readily passed into a tonic spasm. If the current was sufficiently strong, there occurred, after an interval, a further contraction (*c*) of the anterior tibial muscle. (This tracing was obtained by Dr. Waller and myself in July 1881. All the other tracings bear the date of February 1882, and were taken in the wards of St. Mary's Hospital, with the assistance of my clerk, Mr. G. Callender.)

cation in a preliminary note. The tracings illustrate several facts.

1. The latency of the plantar reflex is about three times as long as that of the so-called "tendon-reflex." The latter, in my tracings, has the usual duration ascribed to it by most authors, viz., about .03 of a second.

2. The muscular contraction following cutaneous stimulation tends to run a more protracted course than that following percussion of the tendon.

3. In certain cases, percussion of the tendon is followed by a contraction, of which the latency and protraction correspond exactly to those characteristic of the reflex contraction excited by excitation of the skin.

4. In certain cases, the galvanic stimulation of the muscles also gives rise to a contraction occurring later, and running a more protracted course than that due to the electric stimulus.

5. In comparing the latencies of contractions of the extensor femoris, and of the gastrocnemius, following excitations at the sole of the foot, it must be borne in mind that the difference will be comparatively small, owing to the fact that the two muscles receive their nervous supply near the knee. The difference, likewise, between the latencies of knee-jerks following cutaneous excitations at the sole of the foot, and at the patellar tendon respectively, will be equal to the time taken by the transmission of the stimulus from the sole to the knee.

6. The possibility of true reflex contractions following a galvanic shock and a tap on the tendon is one of great importance in diagnosis, and deserves further consideration and elucidation.

I have investigated myographically the question of "crossed tendon-reflex." The tracings will be published on a future occasion; but I take this opportunity to say, that the latency of contraction in the opposite leg is absolutely identical with that in the leg percussed—a fact in itself sufficient to disprove the reflex nature of the phenomenon. Further, it is easily shown that a blow, given over the tibia or patella of one leg with the fleshy part of the hand, produces little or no contraction in that leg, whilst the opposite is *adducted* vigorously. It is plain, therefore, that the shock conveyed along the femur to the pelvis, and acting mechanically on the most favourably placed tendons, is quite sufficient to explain the facts—a view obviously forced upon us by the results of Prevost and Waller's experiments on rabbits.

In conclusion, I wish to advert to one difficulty attending the "direct-muscular" or "myotatic" theory of the knee jerk, and allied phenomena. Though its latency is too short to justify the reflex hypothesis, is it not too long to be readily reconciled with the accepted periods of latency to electrical and other direct stimuli? We know, on the other hand, that the time of latent stimulation of nerve-centres (cortical substance: Franck and Pitres, Richet, Bubnoff and Heidenhain) is much longer than of peripheral organs; whilst we have in the muscles themselves organs (end-plates), which stand, so to speak, midway, in some of their physiological properties, between a nerve-cell and a nerve-fibre. The solution of that difficulty (if it is one) might, therefore, be found in the assumption, that the excitation produced by the sudden stretching of a muscular fibre falls primarily upon its nerve-ending. None of the known facts, at least, militates against this view, which I throw out, more as a "working hypothesis" for future investigations, than as a scientific explanation of the phenomena.

Postscript.—As this communication is going through the press, my attention is called by Dr. Ferrier to a paper by Professor Westphal, in the current number of the *Archiv für Psychiatrie*. With his admirable clinical perspicacity, the author therein describes cases, in which he has observed pathological exaggerations of several of the phenomena illustrated and measured in the above tracings—such as the double knee-jerk, the longer latency, the protraction of the reflex contraction. He has, moreover, seen in a case the knee-jerk follow cutaneous excitation, when percussion of the tendon had no effect—a fact which confirms my view concerning the second contractions exhibited in tracings 1 (Plates I, II). The concordance between my results—obtained independently, and by physiological methods—and those of so high an authority as Professor Westphal, is to me welcome and gratifying.

ABSTRACT OF LECTURES
ON THE
ANATOMY, PHYSIOLOGY, AND ZOOLOGY OF THE EDENTATA.

Delivered at the Royal College of Surgeons of England.

By W. H. FLOWER, F.R.S., LL.D.,
Hunterian Professor of Comparative Anatomy.

Lecture III.—Anatomy of the Bradypodidæ, or Sloths *(continued)*.

The teeth of both genera of Sloths are nine in number—viz., five in the upper and four in the lower jaw, on each side; but, in some fœtal specimens of *Bradypus*, a minute tooth has been seen in the lower jaw, anterior to those usually met with, making the number equal above and below. No traces of milk-teeth have been discovered. All the teeth are similar in structure, single-rooted, with persistent pulps, and consisting of a central axis of soft vascular dentine, surrounded by a layer of hard dentine and a thin external coating of cement. The apex of the teeth is rounded at first, but, when they are brought into use, it wears into a cupped surface, with an irregular projecting margin formed by the hard dentine, which serves the purpose of the cutting enamelled ridges of the molar teeth of the more highly developed graminivorous mammals. In *Bradypus* (three-toed sloths), although the teeth differ in size, their cutting surfaces are all on the same level; but, in both species of *Cholœpus* (two-toed sloths), the anterior tooth above and below is greatly enlarged, separated from the others, and assumes much the form of the canine of animals having the heterodont type of dentition. It differs, however, in the circumstance that the lower tooth, instead of passing in front of the upper when the mouth is closed, shuts behind it—so that these teeth are not really the homologues of the canines of ordinary mammals, but special modifications of the homodont type of dentition.

The face in both genera is short, and the lips simple and not very flexible. The tongue is short and soft, presenting a marked contrast to that of some other members of the order, which will be described in future lectures. The submaxillary glands have their normal proportions, and are slightly exceeded in size by the parotids, as in most herbivorous animals. The sublingual is very small. The stomach is very large and complex, formed in both genera on the same principle, though differing in the two in the details of its structure. In *Cholœpus*, it consists of three main divisions of very unequal size. 1. There is a very large subglobular paunch, divided by an imperfect longitudinal septum into two compartments, the anterior of which is prolonged at its lower end into a curved conical cæcal appendage. The posterior compartment, into which the œsophagus enters directly, is further divided by a horizontal ridge into an upper and lower pouch, the latter being the larger. 2. A very small sac is situated much as the psalterium of ruminants, and of similar form, having its convex border turned upwards or outwards; while, running along its short floor is a groove, bounded by muscular ridges, extending from the œsophagus into (3) a small elongated tubular cavity, curved into the convexity downwards, with muscular walls, and communicating by a narrow pyloric orifice with the duodenum. This corresponds in situation with the abomasum of the ruminants. Although there is this general resemblance to the stomach of the last-named group, there is a singular difference in the distribution of the hard cuticular lining. In the sloths, this extends from the œsophagus over both divisions of the posterior compartment of the paunch, but not into that which has the cæcal prolongation, and passes through the

second stomach into the third, where it becomes very thick and rugous, and covers the whole inner surface, except a large oval patch on the convex border, over which the lining membrane is soft, vascular, and glandular. The three-toed sloths differ chiefly in the cæcal prolongation of the paunch, being more elongated, and complicated internally by a number of longitudinal septa dividing it into deep cells; whereas in *Cholœpus* it is quite simple. In both genera, the intestinal canal is narrow and simple, and without cæcum, ileo-cæcal valve, or any great distinction between large and small intestine—offering a remarkable contrast in this respect to other animals having apparently precisely similar habits and food, as the *Indris* among the Lemurs, and *Koala* among the Marsupials, in which the stomach is small and simple, and the intestinal canal, especially the colon and cæcum, of enormous length and capacity. The liver, as in vegetable feeders generally, is small, but presents a remarkable difference in the two genera. In *Cholœpus*, it is narrow and elongated, has an immensely developed Spigelian lobe, and a gall-bladder. In *Bradypus*, it is extended transversely, the Spigelian lobe is small, and there is no gall-bladder. The absence of this receptacle in one and its presence in another form of animals, apparently similar in habits and food, is worthy of notice in speculating on its function. But we must confess that there is still much to learn regarding the natural history of this very interesting group of animals.

The vascular system is remarkable for the *retia mirabilia*, or plexuses of small vessels, which surround the principal arteries of all the limbs. These, however, are not peculiar to the sloths, but are found also in many other animals of the order, as the anteaters and armadillos, and also in some of the Lemurs and the Monotremes. The trachea in *Bradypus* differs from that of all other mammals in being folded upon itself several times, in the upper part of the thorax, before it divides into the bronchi—a character not unfrequent in the class of birds. In *Cholœpus*, it has the usual straight course. The brain is of simple character, with the cerebellum completely uncovered by the cerebral hemispheres, which have a few longitudinally disposed sulci. The corpus callosum is short, and wants the reflected anterior portion or genu.

The organs of generation offer many characters of interest, and appear in their general features to be alike in both genera. In the male, the testes are abdominal, placed close together on the fore part of the rectum. Vasa deferentia, at first much convoluted, pass directly down to their termination in the urethra, without any accessory glands or seminal vesicles in *Bradypus;* the latter are very large in *Cholœpus*. The urethra is very short, and the penis quite rudimentary, only grooved below, and consisting of a pair of small corpora cavernosa, the crura of which are not attached to the bone of the pelvis. Externally, there is very little difference between the male and female organs. A wide cloacal recess is divided in both by a narrow hairless septum, which can scarcely be called a perinæum, having the orifice of the rectum behind, and of its uro-genital canal in front—the small clitoris of the female being replaced by the scarcely larger penis of the male. This opening in the female leads to a short recess or vestibule, into the anterior part of which the short wide urethra opens; and behind this are, in the virgin state, a pair of small apertures, only large enough to admit a small probe, which pass upwards side by side through a considerable thickness of solid tissue into the uterus. The latter is a simple elongated cavity, having an obtusely truncated upper extremity, near which, on each side, a short Fallopian tube enters. In the uterus which has borne young, its cavity becomes continuous with the uro-genital canal by a single orifice of considerable width; though the process by which this change takes place, from the double to the single orifice, whether by absorption of the intermediate tissue, or by the enlargement of one and obliteration of the other channel, is not known. The fœtal membranes of the two-toed sloth have been fully described by Professor Turner. The placenta is completely deciduate, as in man and the higher primates. It is, towards the termination of pregnancy, large in proportion to the size of the uterus, occupying three-fourths of the entire surface of the chorion, being dome- or bell-shaped. It is subdivided into about thirty lobes, not scattered like the cotyledons of ruminants, but more or less closely aggregated together, each lobe being irregularly discoidal in shape and of varying size. The non-placental portion of the chorion is lined by a decidua reflexa, into which vascular villi project. There is no trace of urachus, nor remains of the sac of the allantois, nor of the umbilical vesicle. The fœtus is enveloped in a very perfect *epitrichium*—a thin, translucent, membranous bag—above the completely developed hairy covering, composed of stratified epithelial cells. This, which has been fully described by Welcker, not only in the sloth, but in certain other mammals, is formed by a lifting up of the outer layer of the epidermis, by the growth of the hair. It is completely adherent to the skin at the margin of the lips, eyelids, meatus auditorius, umbilicus, etc. It appears to be constantly found in fœtal sloths. The *vernix caseosa* is its representative in the human fœtus.

THERAPEUTIC MEMORANDA.

PAPAW IN THE TREATMENT OF CHRONIC ECZEMA.

THE so-called papaine, the partially purified extract obtained from the papaw tree, was recommended at the International Congress last year as a solvent of diphtheritic false membrane. I have lately been using it as a local application in old-standing cases of chronic eczema, more especially of the palm. As it is used in the West Indies to soften tough meat, I thought it might be of service in cases the chief feature of which is thickening and hypertrophy.

It would occupy too much space to discuss the method of action here; it will be sufficient to say that it is supposed to digest certain substances by means of a special ferment. Roughly speaking, it may be said to resemble pancreatine. I have had such marked success with it, that I recommend it to the profession as a remedy worthy of trial in cases which often resist all the ordinary modes of treatment.

The following brief notes of a case recently treated may be of interest. Mrs. R. was sent to me by Dr. J. E. Pollock, last June. She was suffering from severe chronic eczema of both palms, which completely resisted the external use of tar, and mercury ointments of various kinds and strengths, as well as a six months' course of arsenic, and was only slightly relieved by prolonged soaking. On April 18th, I ordered 12 grains of papaine and 5 grains of powdered borax, in two drachms of distilled water, to be painted on the parts twice daily. When seen on May 9th, the hard horny masses of heaped-up epidermis, which were present on April 18th, had entirely disappeared from the skin, covering the heads of the metacarpal bones, leaving its texture quite normal. The fissures of the central portion of the palms had quite healed, and the cuticle was softened and pliable, though still showing signs of roughness.

The patient stated that the application produced only a slight pricking and tingling sensation. No internal remedies were given. The borax was added with the view of checking fermentation, and supplying the alkali required in order to obtain the full action of the drug. In some other cases of chronic eczema and psoriasis, the same benefit has followed in as short a time as in the case above mentioned.

MALCOLM MORRIS, 63, Montagu Square, W.

CLINICAL MEMORANDA.

MILD SCARLATINA.

MILD scarlatina is a valuable subject for consideration, both on public and professional grounds. The differential diagnosis between scarlet fever and rötheln is comparatively easy when a case of either comes under observation in or before the eruptive stage; but, after this period, the difficulty of diagnosis increases. It is manifestly of the first importance that care should be taken in framing a diagnosis; on the one hand, that a serious disease may not be regarded as a less serious one, and *vice versâ;* on the other, that a too hastily expressed opinion may not imperil our own diagnosis and reputation, or that of a professional brother.

In preparing a paper on Rötheln, recently read before the Harveian Society of London, I was much struck with the value that the temperature affords in framing a diagnosis between rötheln and its congeners, scarlet fever and measles. To prevent any misunderstanding on the part of the public, all cases of scarlet fever, whether of mild or malignant type, should be called scarlet fever; for the terms, "mild scarlatina," "scarlatina," and the like, lead to the belief that neither care nor quarantine is obligatory; hence severe sequelæ, and extension of the exanthem.

It is important, also, to realise that rötheln, as Dr. Cheadle has demonstrated, "exists not only in the slight and unimportant form generally recognised, but as an eruptive fever of considerable severity, which may assume a dangerous and even malignant type."

Even mild cases of undoubted rötheln have come under my notice, associated with a transient albuminuria, and profuse branny disquammation, followed by a prolonged convalescence, debility, and anæmia.

H. CRIPPS LAWRENCE, L.R.C.P.Lond.

SURGICAL MEMORANDA.

FRACTURE OF THE LEG.

IT may be of interest to report a fracture of the leg, which possessed a few remarkable features. The fracture was the result of indirect violence, having occurred during a fall; and yet (1) the fracture of the tibia was compound and comminuted; and (2) the fracture of the fibula was nearer the malleolus than that of the tibia; both of which conditions, I believe, are somewhat unusual.

KENNETH W. MILLICAN, Kineton, Warwick.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

DEVON AND EXETER HOSPITAL.

CASE OF SUBARACHNOID HÆMORRHAGE, WITH HÆMORRHAGE INTO THE PONS VAROLII.

(Under the care of HENRY DAVY, M.R.C.P., M.B.Lond.)

[Notes by A. G. BLOMFIELD, M.D., House-Surgeon.]

H. I., aged 40, had been a soldier (in the Royal Horse Artillery), and was invalided five or six years earlier, after sunstroke in India. His general health had been good. On December 29th, 1881, the patient got up about 7.30 A.M., and went into a fellow-lodger's room to ask the time; while looking at the watch, he suddenly fell against the wall, and slid on to the floor. He was lifted on to the bed, and then "mumbled out" that he "had never felt so queer in his head before". Soon after this, he recovered, and, before 8 A.M., he went to his work as sweeper at the neighbouring barracks. About 10 A.M., he was found by one of the soldiers lying unconscious, and, at 10.45, he was brought to the hospital by the ambulance.

On admission, the patient was a fat, thick-set, unhealthy-looking man. He was quite unconscious, passed urine involuntarily, and foamed at the mouth; breathing was noisy and stertorous, and the pupils were very minutely contracted. There was no apparent facial paralysis, and both his legs were straight, motionless, and rigid. The arms, forearms, and hands were extended, and very rigid. At irregular intervals, spasm in the muscles of the forearm and hand drew the hand backwards, so as to form an angle with the back of the forearm; at the same time, the ends of the fingers and the thumb were flexed, giving the whole hand a claw-like appearance. The spasm lasted a few seconds, and then slowly relaxed. These clonic spasms gave a somewhat epileptic character to the attack. The pulse was full and rapid, the artery appearing thickened and tortuous at the wrist. A small amount of urine was drawn off, and was found to be loaded with albumen (one-fifth or one-quarter). When the patient was first seen, a diagnosis had to be made between "uræmic coma" and "meningeal apoplexy". It is true that the "complete unconsciousness with the apparent paralysis", the "stertorous breathing", and the "minutely contracted pupils", might have indicated poisoning by opium. The history of the attack, however, negatived such a conclusion, whilst the "rigidity" and "spasmodic movements" such as above described, are well known to occur in meningeal apoplexy. They have also often been found in uræmic coma with convulsion; and, in fact, a diagnosis between these two conditions is made with difficulty. The history of the attack pointed strongly to cerebral hæmorrhage, and the minutely contracted pupils would then probably have indicated implication of the pons Varolii. The presence of albumen in the urine was not of great value. Dr. Wilks (*Diseases of the Nervous System*, page 84) writes that "the majority of such cases (*i.e.*, meningeal apoplexy) in my experience have occurred in Bright's disease, and have been attributed to uræmia." Its presence, however, made a diagnosis of uræmic coma possible, and was, therefore, important as regards the treatment. With regard to the treatment of such cases, it is always rational to adopt that which may be curative; and especially is this the case when the diagnosis lies between the two conditions, to neither of which can such treatment do any harm. There is still no question that bleeding gives the best chance of recovery in cases of uræmic coma; whilst it is still a disputed point, with many, as to whether this old-fashioned treatment of cerebral hæmorrhage was not as scientifically sound as it was often practically useful. It was determined, therefore, to bleed the patient, although the diagnosis arrived at was that of "meningeal apoplexy, with probable implication of the pons Varolii". At noon, Dr. Blomfield took sixteen ounces of blood from the arm; but, as no improvement followed, the bleeding was discontinued. The patient continued in much the same state as that described. It was, however, noticed that the frothy mucus which escaped, did so from the right angle of the mouth; the right buccinator muscle appeared paralysed, but the blowing out of the cheek was on the left side. The patient's temperature commenced to rise about 5 P.M., and, at 8 P.M., it was 103.6°. He died at 11 P.M.

The *post mortem* examination was made sixteen hours after death. After opening the skull, and removing the dura mater, it was evident that an extensive hæmorrhage had taken place into the subarachnoid space. The vessels on both sides of the brain were very full of coagulated blood; but, on the right side, blood was extensively effused over the surface of the brain, had passed into the sulci between many of the convolutions, and had extended to the base of the brain as far forwards as the optic commissure, forming clots in these situations. The arachnoid membrane was much thickened, and, on the upper part of the right parietal lobe, it was adherent to the pia mater, opaque, and dotted here and there with spots of a yellow colour. On removing the arachnoid, it was evident that one of the vessels of the pia mater had given way in the neighbourhood of the fissure of Rolando, near where this joins the posterior branch of the fissure of Sylvius. The pia mater was raised, and with it a clot of blood about the size of a bantam's egg. The brain-substance underneath this clot was crushed into a pulp; a very small part of the clot, extending through the crushed brain-substance, had passed into the right ventricle, and crushed the right corpus striatum superficially. The other ventricles of the brain were entirely free from clot. The brain-substance itself seemed normal. A small clot about the size of a split pea was found to occupy the middle of the pons Varolii. This clot, no doubt, accounted for the contracted pupils. The left kidney was large; one part was markedly granular, the capsule and the cortical substance tearing away together when the former was removed. The right kidney was large, red, and congested; but the naked-eye appearances of both kidneys were not so abnormal as one expected them to be. The liver was healthy. The other organs were not examined.

It is of interest to note that, after his death, Dr. Davy found that the patient had been under his care in the Exeter Dispensary. He was admitted on October 18th, 1881. The note then made was: "H. I., a soldier, suffers from headache; swelling of feet. Chancre eleven years ago." On October 25th, the note was: "Urine, specific gravity, 1005; no albumen." He was much benefited by treatment, and had not attended for some weeks previously to his admission into the hospital.

YORK COUNTY HOSPITAL.

DISLOCATION OF THE FEMUR BACKWARDS, REDUCED, EIGHT WEEKS AFTER THE ACCIDENT, BY MANIPULATION UNDER ETHER.

(Under the care of Mr. JALLAND.)

[FOR notes of this case we are indebted to Mr. W. JEFFERSON, House-Surgeon.]

W. A., aged 20, a farm-labourer, was brought to the hospital on December 17th, 1881. He stated that, eight weeks previously, while leading a horse attached to a corn-drill, he stumbled and fell, the drill passing over his leg, from ankle to hip. He at once jumped to his feet again, but immediately fell down, his injured leg giving way under him. He was carried home, and was seen by two surgeons, who, it was said, pronounced him to be suffering from a broken ankle; and for this his leg was put into splints. After he had remained under treatment for eight weeks without improvement, he was brought to the hospital. He complained of no pain whatever. On examination, the injured limb was seen to be somewhat atrophied; it was quite useless; there was an inch and a half of shortening, and the foot was inverted. There was no flexion nor adduction of the thigh. The patient stated, however, that, immediately after the injury, his thigh was flexed and adducted, so that the knee on the injured side rested on the thigh of the sound one. On looking at the gluteal region, it was found that the great trochanter was an inch nearer the anterior superior spine than its fellow of the opposite side. On further examination, the hand being laid over the buttock and the leg rotated inwards, the head of the femur could be felt to start up close to the tuber ischii; and it was evident that it was lying over the large sacro-sciatic notch, the bone being dislocated out of the acetabulum. The manipulation necessary to elicit this caused no pain.

On the day after his admission, the patient was placed on a low couch, and ether was administered. Mr. Jalland now strongly flexed the thigh on the abdomen, and made its lower end to describe a circle, in order that any adhesions that might have formed should be broken down; there, however, appeared to be none. The thigh was now flexed, adducted, and then extended—rotation outwards being at the same time kept up. This combination of movements was gone through several times; and, though the head of the bone could be got on to the edge of the acetabulum, yet, on the extension being made, it always slipped back. After various modifications of the above had been tried, the thigh was again flexed and adducted. An assistant now placed his fist under the great trochanter, while, with his disengaged hand, he pressed firmly down on the anterior superior spine—the leg being now rotated outwards, and extended slowly. The length of the

limb acted as a lever, the fulcrum of which was the fist; and the head of the bone at once slipped into the acetabulum with a snap.

The patient was put to bed, and a long outside splint applied for a week; after which time it was taken off, and a plaster bandage applied, and he was allowed to get up on crutches. On January 17th, the patient walked out with a perfectly movable joint.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, MAY 16TH, 1882.

SAMUEL WILKS, M.D., F.R.S., President, in the Chair.

Report of the Morbid Growth Committee on Dr. Bedford Fenwick's case of Intrathoracic Tumour.—Dr. COUPLAND read the report, which stated that the growth was a lymphoma, or lympho-sarcoma. The reporters were of opinion that the growth originated in the mediastinal glands, and only involved the lungs secondarily.

Report of the Morbid Growth Committee on Mr. Startin's case of Xanthoma.—The report, which was read by Dr. R. CROCKER, verified the correctness of the diagnosis. The reporters had also examined cases shown by Dr. Mackenzie. The two sets of cases brought out the remarkable fact that the disease was either congenital or developed in early life, and that it affected in each series several members of the same family. In one case, there was a peculiar affection of the joints of the fingers, which it was impossible to bring into relation with the skin-trouble. The group of cases which occurred below puberty differed widely in certain clinical points from the cases which occurred above; one remarkable difference was that, in the former class, the eyelids escaped.

Stomach showing Hæmorrhages, in Cirrhosis of Liver.—Dr. NORMAN MOORE said that the stomach showed numerous hæmorrhages into the mucous membrane. Some of these were covered with epithelium, but in some the clot was quite uncovered. The stomach contained half a pint of altered blood, and there was much more in the intestines. The patient was a man aged 48, who died in St. Bartholomew's Hospital of cirrhosis of the liver. The liver was examined microscopically, and was found to contain an extraordinary increase of connective tissue. In most parts, the fibrous capsule of the lobules was four times as thick as all the other elements of the lobule taken together. The spleen weighed nineteen ounces. This was probably the variety of cirrhosis in which hæmatemesis was most frequent.

Oxalic Acid Poisoning.—Dr. NORMAN MOORE also exhibited the stomach of a servant-maid, aged 24, who had taken several ounces of oxalic acid, and had died in about four hours. The skin about the mouth was natural; the tongue was whitish. The epiglottis was grey, the fauces and pharynx of a pink and grey tint. The lower part of the œsophagus was grey, and the mucous membrane was detached in parts, and everywhere wrinkled. The stomach was distended with dark blood. On washing out the blood, no abrasion was found. The mucous membrane generally was of a brownish colour, with darker lines along the course of the vessels. The mucous membrane of the duodenum and jejunum was of a greyish tint, but was not wrinkled. Below the jejunum, the mucous membrane of the intestines was not altered, but was covered by an abnormal quantity of mucus. The large intestine contained a quantity of solid fæces. There was no peritonitis. The larynx and trachea were natural. The case was exceptional in the length of time between the taking of the poison and death, and in the large gastric hæmorrhage.

Stomach from a Case of Poisoning by Cyanide of Potassium.—Dr. NORMAN MOORE said that the specimen was obtained from the body of a man aged about 28, who was found dead in his bed in a hotel. He had swallowed about half a tumbler of a saturated solution of cyanide of potassium. He had not vomited, and lay as if asleep. The stomach and œsophagus, when fresh, were of a peculiar reddish brown, and were very much wrinkled; but there was no hæmorrhage, and the mucous membrane was nowhere detached. The intestines were quite natural. All the cavities of the heart contained imperfectly clotted blood, and the lungs were engorged. The brain was quite natural.

Ulceration of Epiglottis from a case of Typhoid Fever.—This specimen, also, was shown by Dr. NORMAN MOORE, who pointed out that the ulceration was at the upper edge, and was associated with a small local necrosis. The larynx was normal. The specimen was from a man aged 26, who died of perforation, in about the fourth week of typhoid fever.—The PRESIDENT inquired whether ulceration of the larynx was not far more common in Germany than in this country. German writers referred to it as a comparatively common complication.—Dr. SOUTHEY said that he had seen ulceration of the larynx far more frequently in Vienna, and in Germany generally. He was, at the time, inclined to attribute the frequency to the mode of treatment, very small quantities of stimulants being given. Now, when less stimulant was given in this country, it was worthy of notice that laryngitis had become more common.—Dr. NORMAN MOORE, in reply, said that the President's remark probably conveyed the truth; in the Bâle epidemic, laryngitis was comparatively frequent.

Chondro-sarcoma of Breast.—Mr. BOWLBY said that the patient was a woman aged 40. The tumour, which had been in existence about a year, when first seen, had attained the size of an orange. After removal, the periphery was found to be soft, but towards the centre was a zone of firm tissue, containing masses which consisted partly of cartilaginous tissue; this had in some parts undergone calcareous and mucoid degeneration. The tumour recurred, and the patient died in about six months. He believed that the case was more rare than might, from the works of Rindfleisch and Billroth, and others, have been supposed.

Renal Calculus undergoing Disintegration.—Dr. RALFE showed a specimen of renal calculus which had been passed in a state of disintegration, after it had been lodged in the right kidney for upwards of three years, and which latterly had given rise to so much pain and constitutional disturbance that the question of nephrotomy was entertained. The calculus, which showed signs of erosion on its surface, was reduced to a mere shell. The patient at first had been placed on alkaline treatment, with a view of dissolving the stone; subsequently, recourse was had to the plan recommended by Dr. John C. Murray (of Newcastle) of giving the patient considerable quantities (five to six pints daily) of soft water, *i.e.*, filtered rain-water. Occasional doses of turpentine and opium were also employed, for the relief of attacks of colic and hæmaturia. After some months, pieces of grit and scales began to pass with the urine; and finally, at the end of two years, the shell of the calculus was expelled. Dr. Ralfe thought that sufficient attention had not been paid to Dr. Murray's suggestion, for the employment of soft water to effect the disintegration of calculous deposits in the kidney, or indeed to the whole question of their solution by chemical agencies.

Conclusion of a Case of Filarial Hæmato-chyluria.—Dr. STEPHEN MACKENZIE reported the conclusion of the case exhibited to the Society on October 18th, 1881. The particulars of the case were recorded in the last volume of the *Transactions*, page 668. It was then calculated that there were nightly from thirty-six to forty millions of embryo filariæ in the patient's blood. On October 20th, 1881, he went out in wind and rain without an overcoat; and, on the following morning, had a severe rigor, followed by vomiting, and pain in the head, epigastrium, and right hypochondrium. For the next few days, his temperature remained high, coughing produced pain in the right side, and there were some pain and swelling about the left shoulder. On October 22nd, the number of filariæ in the blood had very much diminished, and, after that date, none were ever discovered in the blood or urine; the latter fluid ceased to be chylous, but the quantity of blood and albumen in it increased. Double pleurisy came on, and the swelling about the left shoulder resulted in an abscess in the vicinity of the sterno-clavicular articulation. This abscess was opened. Another abscess subsequently formed in front of the left shoulder, and was opened; in neither case did the pus contain any trace of filariæ. The pyrexia persisted, and the physical signs of empyema (on the right side) appeared on December 9th. After a temporary improvement, cystitis set in, and the patient became progressively weaker, and died on January 10th, 1882, a little less than three months after the initial rigor. At the necropsy, there were found empyema on the right side, pleurisy on the left, acute cystitis and suppurative nephritis in an early stage, and wedge-shaped patches of yellowish-grey appearance in the cortices of the kidneys. The abdominal lymphatics (which were dissected by Mr. E. H. Fenwick) were found to be enormously dilated. The thoracic duct was dilated up to a point three or four inches above the aortic opening of the diaphragm; at that point it became impervious, and was lost in a mass of inflammatory material; about four inches above this point, it could be again traced, and was still impervious, but, at its termination, it was pervious. The iliac, lumbar, and renal lymphatics (but especially the left iliac and left renal) were greatly enlarged. Scattered about the left renal lymphatics, and occupying the lymph-sinuses, were numerous lymphatic calculi; no filariæ were discovered in them. The various organs of the body were examined microscopically, but no filariæ were encountered. During the life of the patient, Dr. Mackenzie formed the opinion that, in the initial rigor, or shortly afterwards, the parent filariæ, which had been lodged in the receptaculum chyli and contiguous lymphatic trunks, had become dislodged; that one or more reached the thoracic duct near its termination, and there excited inflammatory action, which resulted in the abscess

described above, and that the double pleurisy was an extension from the inflammation of the thoracic duct. He thought that the enormous dilatation of the abdominal lymphatics found after death made it probable that the parent worms had lodged there, and on the whole confirmed the diagnosis. No trace of the parent or of the embryo filariæ had been met with, but all the clots had not yet been examined; it ought, however, to be remembered that three months elapsed between the final disappearance of the filariæ from the blood and the necropsy, and that the parent worms probably perished in the inflammation they excited. As to the mode in which the chyle had reached the urinary tract during life, the evidence was inconclusive; but Dr. Mackenzie thought that the dilated and varicose condition of the renal lymphatics (especially of those on the left side) favoured the theory that the communication had been established at this point, either between the blood-vascular and lymphatic systems at their entrance into the kidney, or by some rupture of the lymphatics of the kidney itself. He thought that the hæmaturia, the severe lumbar pain early in the case, the great dilatation of the renal lymphatics, and the presence of calculi in the renal lymphatics on the left side, combined to make it probable that the communication between the lymphatic and urinary systems occurred in the kidney and not in the bladder. But few necropsies on these cases had ever been made, and in none had the channel of communication been absolutely demonstrated. Microscopic examination of the kidney and bladder had thrown no light on the subject in this case, where however the chyluria had ceased for three months. In China many persons whose blood was infected with embryo filariæ remained in good health, but this case showed that such persons lead a precarious existence, and that serious illness or death result from what must be called an accident of the disease.—Mr. J. HUTCHINSON, jun., said that, in a coati dissected in the Zoological Gardens, the parent worm was found in the right auricle; the animal died of pneumonia and pleurisy.—Dr. STEPHEN MACKENZIE observed that in the canine species the parent worm was commonly found on the right side of the heart: the disease was exceedingly common among dogs in China.

Congenital Absence of Radius.—Mr. SHATTOCK showed two dissected specimens from a case illustrating this condition. In this case the biceps muscle also was absent: this fact suggested that the muscle was developed in connection with the radius.—Mr. R. W. PARKER showed two living specimens in whom this condition was present. In one case the radius, thumb, and index finger, and the corresponding carpal and metacarpal bones on both sides were absent; in the other, the radius, thumb, and index fingers, and corresponding carpal and metarcarpal bones, and also the tibiæ on both sides, were wanting; the foot on each side was adducted on the leg. He pointed out that these cases of so-called "club-hand" depended upon a wholly different condition from so-called "club-foot." He believed that the latter condition was produced by uterine malposition, but that the "club-hand" was due entirely to the want of development of the radius.—Mr. SHATTOCK referred to a case he had shown to the Society, in which the deformity was present on both sides, but the radius was absent on one only; this semed to show that the deformity could be produced without absence of the radius.—Mr. HENRY MORRIS said that just such a deformity was produced after excision of the radius.—In reply to the President, Mr. PARKER said that it was impossible to say whether the biceps were absent in his case, but it was not very evident; the humerus was ill-developed, and both the deltoid and biceps were not to be felt.

Psammoma of Spinal Cord.—Mr. J. HUTCHINSON, junior, showed a specimen of this form of tumour. He said that the patient was a woman, who had suffered from constant pain shooting round the abdomen, and flexion of the thighs on the abdomen; great wasting resulted, but her mental faculties were not disturbed. At the necropsy there was found, about seven inches from the upper limit of the spinal cord, a small lobulated tumour, which had pressed on and caused atrophy of the nerve-substance. The microscopic examination suggested, as usually happened in psammomata, an epithelioma, in which partial calcification had occurred.

Miliary Aneurysms in Cerebral Hæmorrhage.—Dr. TURNER showed drawings and specimens which illustrated the mode of production of cerebral hæmorrhage. The arteries were atheromatous, were affected with periarteritis, and presented well-marked aneurysmal dilatations; in the aneurysm, the middle coat was atrophied; the inner coat was greatly thickened and fibrous-looking. In some specimens, the aneurysmal dilatation was caused in great part by the bulging of the intima, without much increase in the calibre of the vessel; this probably showed an early stage in the formation of an aneurysm. Another specimen showed, he thought, a stage in the production of an aneurysm by an extension of periarteritis to the intima; this caused softening of the wall of the vessel, and on this dilatation supervened. He could trace no connection between the atheroma of the inner coat, which was widely existent, and the formation of the miliary aneurysms. This quite bore out Charcot's view, but Dr. Turner differed from him in attributing but little importance to the changes in the middle coat. In the lung and kidney in these cases, similar changes had occurred in the vessels; so that the periarteritis, which in the brain led to aneurysm and hæmorrhage, was a disease which had affected the arteries of all the viscera.

Simple Stricture of Pylorus.—Dr. TYSON said that the patient had suffered for several years from menorrhagia. There was a large fibroid tumour of the uterus, and a simple stricture of the pylorus, with great dilatation of the stomach. He believed that the stricture was congenital.—Dr. NORMAN MOORE suggested that the pyloric stricture might be submitted to the Morbid Growths Committee.

Carcinoma of Kidney.—Dr. SHARKEY showed drawings and specimens designed to illustrate the development of carcinoma of the kidney from the epithelium of the Malpighian tufts and convoluted tubules. The new growth was obtained from a woman, who died in St. George's Hospital. It was an instance of epitheliomatus group. The growth had probably originated in the left ovary; the kidneys, which were not evidently diseased on naked-eye examination, showed, on microscopical examination, a very early stage of new growth; from the internal surface of the basement membrane of the Malpighian capsules, columns of cells, some round, some columnar extended. Where the process was in an early stage, it was possible to trace the development from the capsular epithelium. Similar changes had occurred in the convoluted tubules. He thought the case of great interest, as demonstrating the development of carcinoma from the epithelium of an internal organ.

Card Specimens.—Mr. S. G. SHATTOCK: 1. Filaria Immitis in the Right Side of a Dog's Heart. The specimen came from Japan. The right auricle was filled by a large clot, from which projected a large number of cordlike bodies—the parent worms. The coagulum contained abundant microscopic filariæ. 2. Caseating Tubercle in the Tibia of a Pigeon.

Dr. B. G. MORISON: Acute Inflammation of Tricuspid and Mitral Valves in a Dog.

After a few words from the PRESIDENT, congratulating the members upon the work of the past year, the Society adjourned until next Session.

OPHTHALMOLOGICAL SOCIETY OF GREAT BRITAIN.

THURSDAY, MAY 11TH, 1882.

WILLIAM BOWMAN, F.R.S., President, in the Chair.

Report on the Structure of the Growth at the Corneal Margin, exhibited in situ by Mr. Mason at a former Meeting.—Dr. BRAILEY had examined the growth microscopically, and found that it was chiefly composed of fibrous tissue, through which numerous oval or angular nuclei were distributed; it appeared to have been covered by a layer of epithelial cells derived from the conjunctival epithelium. He considered it to be a fibroma which had grown in the most superficial layers of the cornea. From the microscopical characters, recurrence was not anticipated, and none had up to the present time occurred.

Disease of the Optic Nerve in a Case of Retinal Hæmorrhage.—Dr. BRAILEY said that the patient was a man, aged 50, who presented a retinal detachment at, and just below, the macula. The refraction was highly myopic, and the vitreous body contained numerous floating opacities. The optic disc was cupped centrally and had a myopic crescent at its outer side; vision only amounted to counting fingers, and was entirely absent from the upper part of the field. The detachment was attributed to a new growth, and the eye was excised; it was then found that the detachment was due to a colourless liquid in the subretinal space. The optic nerve was much thickened owing to a new formation of fibrous tissue within it; the fibrous growth contained large cavities, not unlike those which in myxomatous tumours of the optic nerve contain mucous tissue; in this case, they did not appear to contain this mucous material. The diagnosis of sarcoma was based on the position of the detachment, and the age of the patient. The eye had been affected with glaucoma.—THE PRESIDENT asked whether the fundus could be well seen, and, being answered in the affirmative, inquired why sarcoma was diagnosed.—Dr. BRAILEY said that the diagnosis was made chiefly on the peculiar position of the detachment.

Extreme Tortuosity of the Arteries and Veins of the Retina.—Mr. BENSON (Dublin) showed drawings of the fundus oculi from a young woman, aged 17. The veins and arteries were very large and tortuous in both eyes; there was no evidence of past neuritis, nor excessive tortuosity of the temporal or radial arteries; there were some hypermetropia and convergent strabismus; a successful operation for squint was not followed by any alteration in the retinal vessels.—Dr. STEPHEN MACKENZIE said that the case was analogous to the cases of tortuosity

of the veins which had been shown to be rather a peculiarity than a disease.—Mr. NETTLESHIP had seen two cases in which a remarkable tortuosity affected the veins, but the arteries were not affected. One of these cases was that of a medical student who had no error of refraction, and no disturbance of vision. In reply to the President, Mr. Nettleship said that the tortuosity seemed to be entirely confined to the retinal vessels.

Sympathetic Iritis occurring Thirty-two days after Enucleation of an Eye for Accident.—Mr. SIMEON SNELL contributed an account of a case of this nature. It was that of a man, aged 26, injured whilst working, on September 26th, 1881, by a piece of steel. The cornea and lens were wounded. He was seen soon after the accident, and careful examination appeared to negative the presence of a foreign body in the eye; atropine drops and a cold pad were ordered. On the twenty-eighth day after the accident, the lens was evacuated through an upper corneal incision. This gave relief, and the subsequent history was briefly as follows. The injured eyeball was painful at times, but inflammatory signs subsided, and the eye commenced to shrink. The sound eye suffered only from sympathetic irritation. The enucleation of the damaged organ was always rejected, until December 9th, on which day it was excised. A piece of steel was found in the lower ciliary region. Little change was apparent in the remaining eyeball, but he complained of "mist" in front of the eye at the end of about a week; there was no evidence of neuro-retinitis, and a weak solution of atropine, three weeks or more after enucleation, produced wide dilatation of the pupil. On January 9th, 1882, one drop of a 1 per cent. solution of eserine was inserted. He complained of pain and discomfort on the following day, and when seen on January 11th, there was severe iritis; this subsided under atropine and rapid mercurialisation. He made a satisfactory recovery, and could read Jäger 1. Eserine was used in consequence of an observation at a recent meeting of this society on its value in sympathetic irritation. Did it excite the outburst of iritis in this case? The iritis occurred thirty-two days after enucleation, and one hundred and six after the primary injury.

Sympathetic Inflammation after Enucleation of an Injured Eye.—Mr. W. ADAMS FROST said that the patient in this case was a girl, aged 9. The cornea and sclerotic on the left side were wounded. Enucleation was advised, but the consent of the parents could not be obtained until the thirty-fourth day. The right eye at that time and for a week later showed no symptoms; but on the fifty-sixth day after the accident dimness of vision came on, and a week later there was keratitis punctata. The patient was treated with mercury and atropine, and recovered with normal vision.—Mr. SHADFORD WALKER (Liverpool) remarked that in both these cases mercury was given; he wished to know whether there were any clinical grounds for this line of treatment.—Dr. C. E. FITZGERALD was anxious to elicit the opinion of the Society on enucleation. At the International Ophthalmic Congress Dr. Warlomont had brought forward a series of propositions, to which he desired the Congress to subscribe; this was not done, but if the conclusions drawn from such cases as these were correct, then it became a question whether enucleation ought not to be performed in every case of severe injury. He had lately had a severe case of sympathetic ophthalmia forty years after the injury had been inflicted; he enucleated the eye, and found bone in the sclerotic. The other eye was now the seat of serious sympathetic inflammation. He had found in some recent cases that the globe contained micrococci, which were in greatest number near the wound.—Mr. CRITCHETT said that one difficulty he felt in such cases was, that a comparatively slight injury of one eye might lead to an ophthalmitis of the other eye. In one case, this sympathetic ophthalmia was so severe that the eye was lost, while the injured eye recovered; such a case as this made him hesitate sometimes to advise enucleation. The position of the injury was an important point; if the ciliary region were affected, it was perhaps advisable to advise enucleation in all cases; but it was practically impossible to obtain the consent of the patient and his friends to the enucleation of an eye which still retained normal vision. He had not himself encountered cases where the sympathetic ophthalmia came on after enucleation; indeed, he had believed enucleation was an actually sure preventive. All his experience was against the advantage of giving mercury in inflammation following injury.—Dr. BRAILEY said that the inflammation travelled along the optic nerve, and that, where the disease in the other eye appeared late, it was due to the mild type of the inflammation. He imagined that the clinical symptoms in the second eye were later than the pathological. If the eye were excised early enough, it was probable that sympathetic ophthalmia would very rarely occur. It was a difficult question to decide what should be done in any particular case, and it was impossible to lay down any hard and fast rule.—THE PRESIDENT said that he thought the circumstances of the patient, whether or not great care could be taken, was one of the points to be considered. Among the poor, where it was impossible to be sure that directions would be carried out, it was in many cases to the manifest advantage of the patient to remove an eye, which, in a patient where careful nursing was possible, might be saved. In some cases in private practice, he had not removed eyes which had suffered severe wounds, and had been gratified, after a year or more of careful tending and care, by a very complete restitution of vision. Where enucleation had been performed, the after-treatment was most important; it was desirable to keep the patient under care and regimen for at least two months, until it was perfectly evident that the eye could bear the light without distress.—Mr. ADAMS FROST had given mercury merely because he had seen it do good in serous iritis.

Bony Tumour of the Conjunctiva.—Mr. ANDERSON CRITCHETT said that the patient was a young girl, aged 18. Midway between the corneo-sclerotic margin and the external canthus was a growth, about the size of a pea; it was slightly movable, and had been noticed three days after birth; it had enlarged rather rapidly during the five years before she came to St. Mary's Hospital. It was embedded in, and adherent to, the subconjunctival tissue, but had no attachment to the sclerotic. Microscopical examination showed large lacunæ, with canaliculi, situate in a homogeneous matrix.—Mr. SPENCER WATSON had met with a somewhat similar case. The patient was a boy, who had a small tumour at the upper and inner side of the globe. After removal, it turned out to be an ivory exostosis, and a few Haversian canals were seen under the microscope; the tumour was in part cartilaginous.—Mr. SHADFORD WALKER had had a similar case of a bony tumour, which lay under the conjunctiva; it indented, but was not attached to the sclerotic.

Detachment of the Vitreous Humour.—Mr. SWANZY (Dublin) said that the patient was a farmer, whose general health was good, when, in October 1881, the sight of the left eye rapidly failed, and in a week disappeared. About a week later, the other eye began to fail. On January 10th, 1882, vision in the left eye was reduced to perception of light. Immediately behind the lens, and in contact with it, was an opacity of a greyish colour, which somewhat resembled a detached retina, and was movable only at one small part. Vision in the other eye was good, but the ophthalmoscope showed some small retinal hæmorrhages. It was thought advisable to remove the left eye, and the opacity was then found to be due to a total detachment of the vitreous humour, which lay in contact with the ciliary body and the surface of the lens. The vitreous chamber was filled with a clear fluid; the vitreous membrane contained some blood-corpuscles and pigment. Mr. Swanzy discussed various hypotheses, which might help to account for this condition, but was unable to give any satisfactory explanation.

Primary Tubercle of the Iris.—Mr. SWANZY also related the case of a girl, aged two years, who presented a small white tumour on the surface of the iris; there were also two other minute tumours on the iris. The diagnosis of tubercle was made, and the eye was removed; microscopical examination showed a round-celled growth, with giant-cells, thus confirming the diagnosis. Five months afterwards, the child was still in good health. The family history showed that various members of the family had suffered from tubercular diseases. Mr. Swanzy referred to a case, published by Deutschman, where a child remained in good health six years after the enucleation of an eye in a far more advanced stage of the disease.

Tubercle of the Retina.—Mr. MULES (Manchester) showed drawings and a micro-photograph, from a case of tubercle of the iris, retina, and choroid. The eye was removed; and, on section, the anterior chamber was found to be filled by a mass of tubercle, which extended back to, and implicated, the base of the ciliary processes. The retina contained two nodules; at these points, the structure of the retina was almost entirely replaced by the new growth.

Card Specimens.—Mr. J. G. MACKINLAY: Total Symblepharon of Lower Lid, cured by Teale's operation, performed six weeks earlier.

Mr. MCHARDY: 1. Transportation of Skin from inner side of arm, to replace skin removed, with an epithelioma, involving the inner third of the lower eyelid: operation, June 1881. 2. Half of a Cataractous Lens, which was absolutely black when removed from the eye of the patient, whose right eye contained a cataract which appeared to be growing black.

Mr. COWELL: New Test-Types.

Mr. ANDERSON CRITCHETT: 1. A case of Nuclear Cataracts, treated by marginal iridectomies. 2. A case of Nuclear Cataracts, in which different modes of operating had been adopted.

Mr. BENSON: Drawings of two cases of Rupture of Choroid from external injury.

Dr. A. E. SANSOM: Exophthalmos, with none of the Cardiac and Thyroid phenomena of Graves's disease. The patient was a woman, aged 41; she had suffered on three occasions from jaundice, which was

apparently due to obstruction. Prominence of the eyeballs was first noticed in May 1881. In November, there was extreme proptosis; the thyroid was not enlarged; there was no cardiac palpitation, except on exertion; and arterial tension was rather above the normal. She had slowly but steadily improved under treatment, which consisted in the application of the continuous current to the cervical spine, combined with the administration, at various times, of arsenic, ergot, digitalis, and (latterly) iron.

Mr. JULER: Improved Refraction Ophthalmoscope.—The chief novelty was in the attachment of the mirror, which was provided with an universal ball-and-socket joint, and could thus be turned in any direction. Other advantages claimed were simplicity of construction, and a moderate price.

The PRESIDENT said that it had been determined to hold a discussion on sclerotomy, and that June 8th had been appointed. Several papers had already been promised, and with these the discussion would open; it was desirable that gentlemen desirous of contributing to the discussion should communicate with the secretaries. After some conversation, it was agreed that if an adjournment was necessary it should be to June 9th, for the convenience of country members.

REVIEWS AND NOTICES.

ON CHOREA AND OTHER ALLIED MOVEMENT DISORDERS OF EARLY LIFE. By OCTAVIUS STURGES, M.D., Physician to the Westminster Hospital, etc. London: Smith, Elder, and Co. 1881.

THIS work, although small in actual size, is a *multum in parvo*. Besides containing a mass of valuable and carefully arranged facts and observations, the reflections advanced thereon supply much food for thought and study. As a scientific medical production, it is one which will command attention and respect, on account of the evident experience and ability of the author in the accumulation of material, and of the suggestive and logical argument he founds upon the data at his disposal. Although the treatise deals largely with theoretical questions, these hypotheses are deduced from a rational basis, namely, from the consideration of a large number of cases which have come under the author's own observation, and from the collection of authenticated examples in the practice of others. These facts are presented to the reader in detail in an appendix, and constitute a valuable and practical addition to our knowledge of the subject. Upon these are founded the author's views on the pathology of the disease; and his opinions are advanced and maintained in so able and scholarly a manner as to be worthy of the most careful consideration.

One of the most prominent features of the work, and which all the facts and arguments are brought forward to support, is the view upon which the author strongly insists, that chorea is essentially a functional disorder. Considerable stress is laid upon the statement that we must not look for anatomical changes as a cause for this disease, but that the whole course and symptoms of this affection show it to be simply perverted function of a transitory nature, leaving no permanent traces behind it. Upon the correctness of this view depends in great measure the whole question of the etiology and pathology of chorea. It is unfortunate that Dr. STURGES has not laid down an exact definition of what he understands by "functional disease", as opposed to that due to "structural change"; as these terms are vague, capable of various meanings, and a distinction between the two is often only a matter of verbal discussion.

We quite agree with the author in believing that there has not yet been demonstrated any gross material lesion which constitutes the essential cause of chorea. That various morbid processes have been discovered in the nervous centres of those who have died from or with this disease, is certain; thickenings, softenings, emboli, etc., in various situations have been detected, but these do not seem to us to prove that these abnormalities are the necessary primary cause of the disease. There is no constancy either of the lesions themselves or of the situations they occupy. Considering the comparatively small numbers of necropsies, and the extreme divergency of results, there is nothing to prove that the occasional anatomical changes found are not the result or complication of chorea, rather than its cause. It may even be admitted, and it is doubtless true, that such anatomical lesions may be the starting point of the disease, but this does not necessitate that they are its primary origin. A tumour, hæmorrhage, and other morbid states of the brain may give rise to epileptic convulsions; but these, if the exciting, are not the essential, cause of them, as the attacks may exist without discoverable change in the nervous centres. These lesions only excite the condition which leads to the epilepsy. In the same way, we can imagine that emboli or other morbid conditions may indirectly cause chorea by inducing those changes which lead to it. That they are not the true essential cause, is proved by the fact that they exist in the nervous centres without chorea, and that this disease is often present without discoverable structural changes. The affection thus appears to be due to some condition of the nervous system which has not yet been anatomically demonstrated, which may be occasionally induced, like epilepsy, by a tangible lesion, or, at all events, is sometimes associated with it, but for which such is not essential. While admitting this, are we justified in calling such a disorder a functional one? We confess we look with distrust upon the term. It is difficult to define, it is misleading, and apt to be misunderstood. In the popular sense, it comprises those diseases for which no adequate structural change can be discovered. Such a distinction is surely unscientific, as it is fluctuating, and varies according to the progress of knowledge, and what is functional to-day may be found to be organic to-morrow. Dr. Sturges very ably endeavours to show that chorea may conveniently be termed functional, because the whole course and progress of the affection indicates perverted natural action, which after a brief period returns to its normal condition, leaving no traces behind. Such a definition applies to many diseases, including those we call organic, these last being demonstrable by an anatomical lesion in addition to modification of function. According to the above theory, the only distinction between the two is that in functional disorder this is not to be detected. Because changes cannot be ascertained after death, this is no proof that they have not existed during life; they may be too minute for us to determine, or their traces may have disappeared. Vascular alterations, for example, may have been present which are subsequently not to be traced. These could not be strictly called functional, in the sense of being unaccompanied by physical changes. If they be so termed, because of their being temporary modifications of a normal act, the same would apply to almost all affections of a slight nature, and thus to draw a distinction between health and disease would be impossible.

The fact is, that in many disorders we simply do not know what is their cause. In these, to our senses, all structure appears normal; but it seems only reasonable to assume that the definite alteration in function must be represented by some modification in structure, even if it be temporary. It is true that this is not gross, neither is it visible or tangible; and we may even admit that, from its slight nature and transitory character, it may never be capable of detection. At the same time, it seems impossible to disassociate altered action from altered structure. Doubtless much can be said on both sides of what perhaps is a mere verbal controversy; and Dr. Sturges has urged a place for functional diseases with such ability, as almost to persuade us to adopt his views.

The question of the connection between chorea and rheumatism is discussed; and Dr. Sturges shows that his own cases and those of other observers seem to indicate that, in the large majority of instances, there is no necessary relation between the two. In children, especially, it is comparatively rare for rheumatism to have been present at all in choreic patients; and even when it has existed, there is no evidence that the one disease is the essential cause of the other. It is admitted that acute rheumatism, more especially in adults, may give rise to chorea, just as it does to other nervous disorders due to the vitiated state of the blood, but such cases are rare. In the young, pain is a well known exciting cause of chorea, and this may explain the connection. Even when chorea and rheumatism are associated, the exciting cause of the former is the same as when it occurs alone, namely, psychical disturbance. In short, Dr. Sturges, while admitting that in a small percentage of cases these two affections occur together, and that in a few instances the one may actually be the exciting cause of the other, denies that there is any necessary relation between the two: that chorea usually exists without rheumatism, and that the latter, when present, is not the essential cause. These points, we consider, the author fully establishes, not only by his own cases, but by the statistics of others.

Another important question is fully entered upon, namely, the relation of abnormalities of the heart with chorea. The author maintains that the irregularities of action and the functional murmurs which are frequently associated with the disease are symptoms of chorea itself, and not due of necessity either to anæmia, rheumatism, endocarditis, or other pathological conditions. While admitting that effusions of lymph are occasionally found on the cardiac valves after death, it is urged that this is the result rather than the cause of the heart complication. This seems to be borne out by the fact that, in the large majority of cases, the symptoms are innocuous, and altogether disappear with the chorea, leaving no traces behind. Again, the author points out that the occurrence of cardiac alterations bears a strong relation to the age of the patient, and not to the severity of the disease; as, the more youthful the sufferer, the greater the prevalence of these disorders, and

as age advances the rarer they become. This fact is distinctly opposed to their origin being due to endocarditis, and points rather to the participation of the heart in the general muscular disturbance of the body. The irregularities seem to be best explained by muscular derangement of the organ, and the murmur by paresis and relaxation of the papillary muscles of the same nature as affects the remainder of the system. The conduct of the heart is thus in accordance with the successive modes or differentiations of the muscular disorder. It is unrhythmical and irregular in early childhood, accelerated in youth, and left undisturbed in old age.

As a fatal disease, it is shown that chorea is rarely to be feared. The few who die of this disorder are females at the age of puberty. Exclusive of this sex and period of life, chorea may be said to be unattended with danger to life. In these exceptional cases, there are usually complications in the shape of disturbed intellect. It is pointed out that if rheumatism has little share in the production of chorea, it has some relation in the association of fatal cases.

The various pathologies are passed in review, as well as the different anatomical conditions supposed to originate chorea. In reflecting upon these, the author maintains that there is no morbid condition we know that is capable of producing the symptoms of this disorder, and that it is difficult to conceive of any diseased state anatomically demonstrable capable of giving rise to them. As structural change fails to account for chorea, he bases the origin of that affection on functional disturbance, as has been already indicated.

Such are a few of the more important points discussed in this interesting little work. We refer our readers with every confidence to the original, in the perusal of which they will find substantial information and food for profitable reflection.

THE DISEASES OF THE SPINAL CORD. By BYROM BRAMWELL, M.D., F.R.C.P.E., Lecturer on the Principles and Practice of Medicine in the Extra-academical School of Medicine, Edinburgh, etc. 8vo. Pp. 300. Edinburgh: Maclachlan and Stewart. 1882.

IN the whole range of medicine, there is perhaps no branch which has undergone more extensive changes, or made greater strides in advance, than that of our knowledge of the structure, functions, and diseases of the spinal cord. The histological researches of Lockhart Clarke, the experimental discoveries of Brown-Séquard, and the more recent pathological observations of Charcot, Erb, and others, have completely revolutionised our conceptions of the whole subject, or rather they have instituted information on these matters, which to the last generation were utterly unknown. Even so late as twenty years ago, the teachings of our text-books and the instruction from professorial chairs on special affections of the spinal cord were of the most elementary nature. The notions of its structure were of the vaguest character, the knowledge of its functions were uncertain and conflicting, and, as a consequence, the diagnosis and prognosis of its diseases were most imperfect and unsatisfactory. Of late years, this confusion has in great part been cleared up, owing to our improved knowledge of the anatomy and physiology of the nervous centres; and, if much requires yet to be accomplished before we can congratulate ourselves on having overcome all difficulties, enough has been done to save nervous disorders from being the *bête noire* of the profession, and to render them at the same time an interesting and profitable study.

The work before us, just published, brings before its readers a complete *résumé* of all the recent investigations on the subject both at home and abroad, and may be said, in a word, to lay before the profession, within moderate limits, all the knowledge we at present possess concerning the pathology of the spinal cord; those, therefore, who desire to be informed, in concise and clear terms, of this difficult and complicated subject, cannot do better than carefully study the book under notice.

The treatise may be looked upon, as indeed the author states in his preface that it is, an educational work. It professes to place before the student and the profession all that is known of the subject it undertakes to elucidate. Considering the enormous difficulties to be encountered in the task, this has been carried out in a masterly manner, and evidently by one who has thoroughly and practically acquainted himself with all the details of the inquiry. Such a work it is difficult to review in the true sense of the term, as it deals with the description of facts, rather than with the enunciation of opinions. Our ends will be best arrived at by a sketch of its contents.

Dr. BRAMWELL begins by a disquisition on the anatomy of the spinal cord; and, when we consider the complicated problems there involved, it must be admitted that nothing can be clearer, nothing can be more intelligible, than the manner in which the whole question has been dealt with. This is further illustrated by a series of most excellent diagrams, so numerous and so simple as to indicate to the merest tyro the ideas the author means to convey. Were we disposed to be hypercritical, we might assert that these explanations were too good and too explicit, and that future researches might modify some of our present notions, in the same way as present discoveries have nullified former statements, advanced with equal confidence. At the same time, it must be remembered that this work only professes to indicate our most advanced and recent knowledge as accepted at the present day; and the graphic method adopted by the author, if it may be accused of being somewhat too arbitrary, is undoubtedly the most successful means of demonstrating to the understanding what would otherwise be a perplexing and confusing problem.

Next is discussed the pathological condition of the cord; and this is done in an equally clear and convincing manner. Dr. Bramwell, while continuing to employ the diagrammatic method to explain his views, supplements it by what constitutes one of the chief attractive features of his book. This consists of a series of exquisitely artistic chromolithographs of original sections of the cord in health and disease, prepared and drawn by himself. We have never seen anything more beautifully displayed; and we congratulate the author on the successful manner in which they have been executed. They illustrate, from actual specimens, all the chief lesions of the spinal cord, and render to the senses a picture of easy comprehension of what, a few years ago, was a profound mystery.

A suitable method of case-taking is next detailed, and the author very properly lays considerable stress upon the importance and necessity of a systematic procedure in this particular. In the same chapter is included a general summary of symptoms, diagnosis, prognosis, and treatment.

Finally, the work concludes with a brief account of the special diseases of the spinal cord. The author explains that this is a supernumerary chapter; and we venture to think that, in a future edition, its value would be enhanced if this section were more extended and complete. At present, it fulfils the object the writer has in view—namely, to illustrate the physiological and pathological phenomena as the result of disease; but we look forward in hope, at no distant date, to a more elaborate clinical disquisition on the subject.

In this, as in all other books, there are matters of detail to which exception might be taken; but these for the most part are questions of opinion to which considerable latitude must be given. The work, as a whole, we can strongly recommend to our readers. It is evidently the outcome of experience, labour, and thought. Although simple, clear, and concise, it brings before the profession a complete and exhaustive statement of one of the most difficult and complex problems in the whole range of medicine.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

LIME-JUICE.

THE increasing use of temperance-drinks is a matter for great congratulation; and it is especially in summer that the introduction of wholesome, agreeable, and refreshing beverages of a non-alcoholic character deserves continued encouragement. Some objection is entertained to many of the somewhat medicated syrups of hypophosphites which have been popularised, but which are not always necessary or desirable for habitual table use by persons in vigorous health. Among the various beverages which are free from all objection may be mentioned different kinds of fruit syrups and juices, and especially, perhaps, lime-juice made from sound fruit, free from musty flavour, and unadulterated by sulphuric acid or any other artificial combination. Mr. Feltoe, of Albemarle Street, has introduced a lime-juice which he guarantees, and which is certified by chemists and physicians who have tested it, and which we find, to be free from adulteration, and pleasant to the taste. In flavour, brightness, and quality, the "Spécialité Lime-Juice" appears to be all that could be desired, and it belongs to a class of beverages which can be freely used.

PARASITIC PNEUMONIA OF DOGS.—Dr. Courbin of Bordeaux detected small worms in the alveoli of a dog's lung by microscopical examination. Some were free, some were encysted. The *post mortem* examination established pneumonia as the cause of the animal's death.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1882.

SUBSCRIPTIONS to the Association for 1882 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, MAY 20TH, 1882.

THE LEGAL RIGHT OF MILITIA SURGEONS TO RETIRING ALLOWANCES AND PENSIONS.

WHENEVER a material grievance is sought to be removed, it is of essential importance that sufficient relevant facts and arguments in favour of its discontinuance should be clearly notified. It is from a non-compliance with this requirement that numerous grave abuses have been endured, and many significant reforms delayed for years longer than they otherwise would have been.

There can, we presume, be no doubt that the hardships to which the older surgeons of the Militia have been subjected by recent regulations, in being deprived of their retiring allowances and pensions, is a very sore grievance. Their claims have been well and clearly stated in the petition submitted on their behalf to the Minister at War by Mr. Ernest Hart, as Chairman of the Parliamentary Bills Committee of the British Medical Association. In the remarks concerning their ill-treatment, in this JOURNAL, we have further dealt with the subject on its purely equitable grounds. Their legal rights to these allowances and pensions, which depend upon statute law, have, however, perhaps hardly yet been pointed out in that adequate manner in which we believe they should be, to satisfy the War Office and Parliament that the militia surgeons have an unimpeachable lawful title to these payments. In this respect, the adverse reply of Sir Campbell Bannerman, until recently the Financial Secretary to the War Office, on behalf of Mr. Childers, addressed to Mr. Hart, on the subject of these claims, which we recently published, seems to call for critical discussion in respect to the points of law raised. With this view, we have instituted a careful examination of the Acts of Parliament relating to the pay of the Militia, and other statutes referring to this portion of the army, which directly and indirectly relate to militia surgeons, and other publications concerning them; also the rules of interpretation for the construction of statutes; and have submitted them to legal opinion. We now offer the following remarks on this part of the subject.

Upon looking into about fifty Acts of Parliament upon the above-mentioned claims of the militia surgeons, we find that provisions were made up to 1874 for the payment of these allowances and pensions, at the rate of six shillings a day, to such of these surgeons who had faithfully served in the Militia for twenty years, and were rendered unfit for further service therein by age or infirmity. In 1871, by Order in Council, all jurisdiction over the Militia which was vested in or exercisable by the lords-lieutenant of counties reverted to the Crown; and on this account, and for other considerations, it was enacted by the Militia Law Amendment Act of 1874, 37 and 38 Vict., c. 29, that Her Majesty might, by Royal Warrants, Orders, and Regulations, give directions as to the pay and other matters of the Militia, in the same manner as in the case of the regular forces; and that, after the passing of that Act, the Militia Pay Acts should cease to be of any force as Acts of Parliament, but should have the same effect as if Her Majesty had, immediately after the passing of that Act, embodied the provisions thereof in a Royal Warrant; and that the Militia Pay Acts should mean the Militia Pay Acts 1868 and 1869, as continued by the Expiring Laws Continuance Act 1873. By a Royal Warrant dated July 19th, 1876, it is stated that nothing contained in that Warrant "should be held as giving to any medical officer of the Militia a claim to any pension or retiring allowance granted to medical officers of Her Majesty's forces."

The reply on behalf of Mr. Childers to the petition will thus appear to be neither very strong nor logical. In answer to Sir C. Bannerman's assertion that, until 1829, militia surgeons belonged to the permanent staff of militia regiments, and were, like other members of this section of the army, granted pensions on retirement under the Annual Pay and Clothing Acts, we venture to submit that, although this statement may be true, neither in these statutes nor in the one passed in 1824, 5 Geo. IV, c. 33, referred to in the petition, nor in any other statute, is there anything to imply that they belonged to the permanent staff.

We are further informed by him that the Pay and Clothing Act, 31 and 32 Vict., c. 76, merely secures to militia surgeons employed before 1829 the pensions granted to them under former Acts; and he adds that under neither of these last mentioned statutes are these surgeons entitled to any retiring allowance or pension on retirement on account of age or infirmity, and that there is no other statute which gives them this right. Now, the language of the latter Act entirely contradicts the former portion of this statement; for by the twentieth section of such it is provided, after reciting that certain allowances have been granted, in pursuance of former Acts, to militia surgeons who have been rendered unfit by age or infirmity for further service: "Such allowances shall be issued and paid during the continuance of this Act, in like manner and subject to the same restrictions as the allowances granted by this Act to adjutants who shall by age or infirmity be rendered unfit for further service." It is quite clear, therefore, that other surgeons than those employed before 1829 were receiving allowances and pensions; and it was intended by this statute that they should still be paid. Again, not only under these two statutes, but by virtue also of several other annual Acts of Parliament, as we have before mentioned, the militia surgeons are entitled to allowances and pensions; and it is surprising that Sir C. Bannerman should appear to ignore these statutes.

As the words of the numerous statutes which entitle surgeons to these payments are explicit, their plain and ordinary meaning should be adhered to; but, supposing these words were obscure or ambiguous, even then, according to the rules laid down by eminent jurists and judges upon the interpretation of legal language, or what is called upon the continent legal hermeneutics, such Acts of Parliament would be construed in favour of the payments referred to. Thus Vattel, in his excellent treatise upon the *Law of Nations*, aptly states that the reason and motive of the law that has led to the making of it, is one of the most certain means of establishing the true sense, and great attention ought to be given to it when it is required to explain an obscure, equivocal, or undetermined point, or to apply it to a particular case; while Domat, one of our leading European writers upon the civil law, justly says that laws intended to favour particular individuals ought to be interpreted with all the liberality to which their interests are justly entitled in an equitable point of view, and should not be severely interpreted, nor be applied in a manner calculated to prejudice the persons intended to be favoured. The same principles have been enunciated in our judicial tribunals, and those of all civilised countries. In the case of "Regina *v.* Skeen", it was decided in the Court for the Consideration of Crown Cases Reserved in 1859, that, if the words of a statute were susceptible of a reasonable and also an unreasonable construction, the former must prevail; and Mr. Justice Keating gave a decision to the same effect in the case of "Boon *v.* Howard", in the Court of Common Pleas in 1874.

Again, it must be admitted that, while the provisions of the Militia Pay Acts ceased to be in force as statutes after the passing of the Militia Law Amendment Act of 1874, but merely existed as declaratory statements in Royal Warrants, the right of the militia surgeons to their allowances

and pensions under these statutes still continues; for it has been held that rights acquired by virtue of a statute are not lost by the repeal of the Act creating them. In the case of "Hitchcock *v.* Way", which was argued before the Court of King's Bench in 1837, it was held that a contract which was void by statute when made, could not be set up again by the repeal of the statute between the time of contracting and the commencement of the suit. This decision is in accordance with the equitable principle mentioned by Puffendorff in his *Law of Nature and Nations*, that the law itself may be disannulled by the author, but the right acquired by virtue of that law whilst in force must still remain, inasmuch as a law to take away all its precedent effects would be grossly unjust.

Great weight must be given to the statements in the petition of the militia surgeons, and the various observations which have been published respecting their claims that, in cases where offices are held by individuals under, and taken over by, the Crown, have been abolished, adequate compensation has been made to those whose services were not further required. In support of this statement, it was held in 1877, in the case of "Wells *v.* the London, Tilbury, and Southend Railway Company", in the Court of Appeal, by Lord Justice (now Lord) Bramwell, that, as a general rule, "the legislature never takes away the slightest private right without providing compensation for it." The effect of a statute upon such a right was much discussed in the House of Lords in 1863, in the case of "Walsh *v.* the Secretary for India". In this instance, it appears that Lord Clive, who was represented by the plaintiff, had transferred a sum of money to the East India Company, and had covenanted to pay out of that amount pensions to disabled officers and soldiers as long as the Company employed troops in India; but, on ceasing to employ them, the money was to be refunded to Lord Clive or his representatives. By the statute 21 and 22 Vict., c. 106, the Government of India was transferred from the Company to the Crown; and the same Act of Parliament vested in the Crown all the funds possessed by the Company; and it was contended on the part of the Crown that, notwithstanding the Company no longer employed troops in India, this statute had deprived the plaintiff of his right to have the money repaid to him. The House of Lords, however, were opposed to this view, and decided that, as the claim by the representative of Lord Clive against the Company was neither expressly realised nor prohibited by the Act in question, that statute could not in any respect avail to take away the right of action under that covenant. In his judgment, Lord Westbury stated that "this result follows of necessity, consistently with every rule by which Acts of Parliament ought to be interpreted, especially the rule that they should be so interpreted as in no respect to interfere with or prejudice a clear private right or title, unless the private right or title is taken away *per directum*."

This last mentioned case is greatly in favour of the claims of militia surgeons to retiring allowances and pensions, as it is strictly applicable to that section of the Militia Law Amendment Act of 1874 which we have quoted, showing that, after the passing of that statute, the Militia Pay Acts should cease to be of any force as statutes, but should have the same effect as if the provisions of the same were, immediately after the passing of the Act, embodied in a Royal Warrant.

The reasons for which the militia surgeons are entitled to retiring allowances and pensions, according to justice and precedent; the appreciable services which they have rendered to the army; the sacrifices they have made in obtaining their appointments; the injustice of their being compelled to resign them at the age of sixty-five; and the great sufferings which many of them have undergone in being deprived of their allowances and pensions without compensation, are all subjects which have been well and fully pointed out, and have not been successfully controverted by the Secretary of State for War, or by anyone on his behalf. We will, therefore, not occupy further space at this moment by a repetition of any of these particulars.

The hardness of the case of the militia surgeons is, we think, that those who seek its redress cannot properly be discouraged even by the further rebuff from the War Office implied in Sir Campbell Bannerman's letter. With the assistance of the Parliamentary Bills Committee, and by the energetic work of Surgeon-Major MacCormack and Dr. Farquharson, M.P., much interest in the questions is being aroused in Parliament; and a conference will be held this week, from which practical results may be hoped.

SIMPLE AND ASEPTIC OVARIOTOMY.

Two important papers have recently been sent to us, which assist in the discussion of one of the most interesting questions of the practical surgery of our own time. The first paper is by Professor Kocher of Berne, on "Ovariotomy in Switzerland", published in the number of the *Revue Médicale de la Suisse Romande* of the 15th April, founded on a paper by Mr. Alban Doran, which appeared in our own pages on the 28th January last. The second paper is a reprint from the *American Practitioner* of last November, entitled "On Ovariotomy, by Thomas Keith, M.D.", but really written by Dr. Yandell, who explains in a prefatory note that, in a visit to Dr. Keith, "I had a stenographer take down such questions as I put, and the answers Dr. Keith made to them.....The paper has not had the benefit of Dr. Keith's revision." Of course the last statement lessens very materially the authority of the paper; but, even with this reservation, it affords ample material for instructive study.

In the first place, then, let us compare the results of ovariotomy before and after the use of antiseptics in the Listerian sense in Switzerland and in Dr. Keith's practice. Professor Kocher estimates the total number of ovariotomy cases in Switzerland up to the present time as 300, and the mortality 23 per cent. Quoting Doran, he takes 55 as the number of non-antiseptic cases, with 35 deaths—a mortality of 63 per cent.; while the mortality of the cases treated antiseptically is only 11 per cent. Going on to the experience of individual operators, he shows that the six surgeons who have done the largest number of operations, and have operated both before and since the adoption of the Listerian precautions, "have diminished the mortality one-half since their use of antiseptics"; and he urges that it is a very strong argument in favour of the antiseptic treatment that it has enabled "twenty-three different operators, some of them with very small experience, to arrive at a result superior to that which Spencer Wells attained before the method of Lister". Putting aside a rare exceptional case of death from some accident—collapse or obstructed intestine, for example—nearly all the deaths are from peritonitis, which means infection. A death from peritonitis is, therefore, "a great reproach to the operator"; for we are now by antiseptics enabled certainly to avoid peritonitis as a sequence of ovariotomy.

If we ask what precisely are the antiseptic precautions on which Professor Kocher mainly relies, we observe a remarkable accordance with those of Mr. Spencer Wells, as detailed by him at the Royal Medical and Chirurgical Society in February 1881. Mr. Wells then wrote: "I feel still doubtful about the spray"; and he alluded to its "chilling effect" and said the "misty cloud occasionally obscures the field of operation"; and he argued that "comparative observations made under similar conditions with and without spray" were required before we could ascertain "what is the share which the spray, among other additional antiseptic precautions, has had in obtaining the better results which have undoubtedly accompanied their combined employment". It is interesting to find that Professor Kocher has given up the spray in private practice as "injurious in the conditions where it is not indispensable". He believes our precautions should be concentrated on the idea of avoiding "infection by contact, that is, direct contact with macro- (not micro-) scopic bodies"—complete disinfection of everything which comes into contact with the wound or the peritoneum. With this idea, he uses the spray before operation, to moisten the walls and the room so as not to operate in a cloud of dust. Passing over the spray question, we may say briefly that the precautions as to sponges, instruments, etc., and the dressings, are in Switzerland very much what Mr. Spencer Wells has adopted since 1878.

Now we pass to the very remarkable experiences of Keith, as recorded by Yandell. They may be stated thus. In 230 ovariotomies done in fourteen years, without antiseptics, the mortality was nearly one in seven; but in the five years immediately preceding the use of the spray, the mortality was only one in ten and a half; and in the last year before using the spray, there was but one death in twenty-one cases—"the mortality was steadily diminishing all that time". In the first eight cases under antiseptics, there were two deaths, and then there was a run of eighty without a death. "The solutions used at first were not very strong. As we went on, and got to operating in the hospital, we began to use them strong", and went on to use the regular 5 per cent. solution. Then high temperatures—104° to 107°—never observed before antiseptics, were very often observed, and were explained by the absorption of carbolic acid. And death with convulsions and bleeding from the kidneys was regarded, no doubt rightly, as evidence of carbolic poisoning. And then Dr. Keith found that he himself was poisoned by the carbolic acid, and suffered from bleeding from the kidneys until he gave up the spray. Since March 1881, he has not used antiseptics in ovariotomy, "in the proper sense of the word. Sometimes I do use very weak carbolic solutions, but not as spray; at other times, I use water alone". Since leaving off the spray, and including twenty-six other cases done without it, Dr. Keith says: "I have had but a single death in a total of fifty-two cases done without antiseptics."

All this affords ample material for serious reflection. If in Switzerland antiseptics have been followed by a remarkable diminution in the death-rate, if Dr. Keith had one run of eighty cases treated antiseptically without a death, is an occasional death from carbolic acid poisoning (which may, perhaps, be avoided by not using solutions unnecessarily strong, or by the use of some other agent) to justify a surgeon in operating without more than ordinary protection against infection? What does recent experience in London say on this point? Has the mortality after ovariotomy in our large hospitals been smaller of late years than it was before? If so, can the diminution be explained by the increasing experience of the operators? On this point, the registrars of our general hospitals may give some important evidence; and in the special hospital which may still be regarded as the head-quarters of ovariotomy—the Samaritan—the experience of the year 1881 should afford an array of important facts. In that hospital, the patients are very much of the same class of life, and are treated under very similar conditions by three operators of large special experience. Two of these surgeons use the spray of carbolic acid in every operation of a strength of 1 in 40, and follow out in the strictest manner all the precautions of the Listerian method. The third, after gradually diminishing the strength of the spray till water alone was used, gave it up altogether. Here, then, were the "comparative observations made under similar conditions with and without spray", proposed by Mr. Spencer Wells, carried out under singularly favourable conditions. And what has been the result? We have been informed that the committee has expressed a strong opinion against the performance of ovariotomy for the future without full antiseptic precautions; and the experience of 1881 would seem to justify this recommendation, however objectionable it may be to admit of any interference by a committee of laymen in practical details. Still, if in the same institution, at the same time, by operators of equal experience, the same operation with antiseptics is followed by a mortality of about 7 per cent., and without antiseptics by one of about 20 per cent., the fact deserves very serious consideration, and is rendered additionally important by the apparently contradictory results of experience in Switzerland and in Edinburgh which have now led us to direct the attention of our readers to the matter.

DR. MEYMOTT TIDY, Lecturer on Chemistry and Forensic Medicine the London Hospital, has been appointed, on the nomination of the President of the Royal College of Surgeons, Scientific Analyst to the Home Office in cases of poisoning, jointly with Dr. Stevenson of Guy's Hospital, nominated by the President of the College of Physicians.

DR. BARNES, who for some years held the office of Physician to the Seamen's Hospital (late *Dreadnought*), has been unanimously elected Consulting Physician to the hospital, in the room of the late Dr. Budd.

AT the request of the President of the Royal Medical and Chirurgical Society, Mr. Watson Cheyne and Mr. E. M. Nelson will, at the close of the next meeting on Tuesday, May 23rd, exhibit Dr. Koch's specimens of the bacilli of tubercle, and other pathogenic bacteria.

IN consequence of the increase of the number of students of medicine and natural science in the University of Cambridge, it has been found necessary to add to the new museums further provision for the teaching of these subjects; accordingly, rooms are to be built for the study of morphology and histology. A professorship of animal morphology was founded by a grace of the senate passed on May 11th.

THE list recently published of the nine new baronetcies conferred by the Government will have caused some disappointment to members of the medical profession, who have good reason to think that the claims of medical science of such distinction have recently been much overlooked. We might have expected to find more than one name of men who have rendered inestimable service to humanity by their discoveries and work in surgery and preventable medicine in this list; and it is with some disappointment that it will be noted that seven of the nine are purely political creations.

INTERNATIONAL MEDICAL CONGRESS.

THE Executive Committee held their final meeting on the 15th instant; Sir J. Risdon Bennett, F.R.S., in the chair. The Treasurer presented the balance-sheet of receipts and expenditure, signed by the auditors, Dr. Pitman and Professor J. Marshall, F.R.S., from which it appeared that about £9,030 had been received, and £8,730 expended—leaving a balance in hand of £300; which the committee directed to be handed over to Dr. S. Wilks, F.R.S., Treasurer to the Association for the Advancement of Medicine by Research. The Treasurer stated that 3,180 entrance fees had been paid, amounting to nearly £3,300, besides subscriptions from 1,105 persons, amounting to more than £5,700; and that £1,200, which had been promised as a guarantee fund in case of need by 126 subscribers, had not required to be called upon. It may be added that the volume of abstracts prepared for use at the sitting of the Congress, and the four volumes of *Transactions* published after an interval of less than five months, a copy of which has been presented to every member, cost about one-half of the whole amount received. The meeting terminated by the passing of a cordial vote of thanks to the Honorary Treasurer, Mr. W. Bowman, F.R.S., and the Honorary Secretary-General, Sir W. Mac Cormac.

THE METROPOLITAN PROVIDENT MEDICAL ASSOCIATION.

A MEETING was held at the Mansion House on the 26th ult., under the presidency of the Lord Mayor, to make known the principles of the Metropolitan Provident Medical Association, and to help in extending self-supporting and self-governing provident dispensaries throughout London. The meeting was addressed by some leading philanthropists and medical men, and it is evident that the association is making steady, if not rapid, progress. Eight provident dispensaries have been opened. Two of these were previously in existence, and have been transferred to the association in order that they might be enlarged and worked under its rules. One was only opened last month, so that it has supplied no returns. But the other seven have a total of 8,353 members, and the total yearly subscription of members amounts to £1,512 13s. The income of the Croydon Dispensary is already very nearly sufficient for its maintenance, and it is believed that the Lamb's Conduit Street and other branches will soon become self-supporting. The statement speaks hopefully of the enterprise; and the Association believe that ere long they will be able to provide suitable medical attendance and medicine for the working classes, in every district of London, on the principle of mutual assurance, by means of their dispensaries.

DISCUSSION ON SCLEROTOMY FOR GLAUCOMA.

At the last meeting of the Ophthalmological Society, the President, Mr. Bowman, announced that a discussion on Sclerotomy would be held on June 8th. This operation, we may remind our readers, has been strongly recommended in recent years as a substitute for iridectomy in glaucoma. In 1867, the operation was foreshadowed by Wecker, who held that if, in iridectomy for glaucoma, an incision could safely be made in the sclerotic without removing any iris, that would be the best course. In the following year, Stellwag carried this advice into practice in two cases. The theory upon which the operation was recommended and performed was, that the efficacy of any operation for glaucoma depended on the interposition between the lips of the wound of a layer of new and more porous tissue, and that such a layer was only to be obtained when the scar lay in the sclerotic. This, which came to be known as the "filtration scar" theory, was severely criticised by Schweigger; and, at the International Congress in London last year, Professor Schoeler reported experiments on animals which appeared to disprove it. (The discussion will be found at page 596 of our last volume.) The operation itself has varied much in the hands of different surgeons. Stellwag, and, later, Quaglino (*Annal. d'Ocul.*, 1871) made a peripheral wound with an iridectomy knife; Wecker performed a subconjunctival operation, and, fearing prolapse of the iris, left the central third of the sclerotic undivided. In England, the first writers on the subject were Messrs. Bader (*Ophthal. Hosp. Rep.*, vol. viii) and Spencer Watson; the latter, in a paper read before the Clinical Society in 1876, advocated its employment in acute glaucoma; but, as a rule, operators seem to have confined the operation to chronic glaucoma in its various forms. A very full summary and bibliography of the subject has been published by Mauthner in Knapp's *Archives* (vol. vii). It is proposed in the discussion to deal, firstly, with the various manners of performing the operation; secondly, with the forms, stages, and complications of glaucoma to which the several methods of performing the operation are applicable; and, thirdly, with the *rationale* of the treatment. Should such an explanation be forthcoming, it would no doubt throw much light on the two former heads of the discussion.

CASE OF POISONING BY CARBOLIC ACID.

An extraordinary case of poisoning has just occurred at Stonehouse. From the evidence, it would appear that a child, about six months old, being weak and delicate, was taken by its mother to the Royal Marine Infirmary to see the doctor. The little patient was seen by the surgeons, who prescribed confection of senna in half-teaspoonful doses, and a lotion of carbolic acid and glycerine—one part of the former to five of the latter—to be rubbed into the head. The prescription was taken to the dispensary by the father—a bandsman in the Royal Marines—who received a box containing the confection, and a bottle of lotion, both, it is said, without label or directions of any kind. On reaching home, he appears to have been in doubt—in the absence of any definite information or instruction—as to what should be done with the preparations which had been placed in his hands. He consulted his wife, and they not unnaturally came to the conclusion that the mixture in the bottle was to be taken, and that the thick stuff in the box was an ointment to be rubbed into the child's head. This was accordingly done, the unfortunate mother holding the child whilst her husband poured down its throat a quarter of a teaspoonful or more of the poisonous lotion. The result may be imagined; the child was terribly burnt about the mouth and throat, and, after lingering on in agony until the following day, died in great suffering. At the inquest, the fatal termination was attributed to "exhaustion and natural causes." The dispenser said he was not in the habit of labelling medicines, and had no labels with the words "for outward application only." The witness is described as giving his evidence in such an unsatisfactory manner, that he was severely rebuked by the coroner and some of the jury. In summing up, the coroner said the case had assumed a very serious aspect, and, if the medicine were the cause of death, they would have to determine whether it resulted from misadventure or from negligence amounting to manslaughter. After a long consultation, the jury returned a verdict of "Death from natural causes," and expressed their regret that the medicine had not been properly labelled. Regarding the case from a purely medical point of view, we must confess that the verdict appears open to question. It is difficult to account for death on the theory of "exhaustion and natural causes." A quarter of a teaspoonful of the lotion would contain from three to four minims of carbolic acid, and this would surely prove fatal to a delicate child less than six months old. It is well known that, even in adults, very serious symptoms have been produced by a dose of from six to seven drops. A daily contemporary, commenting on the case, says: "Such a transaction cannot be called an accident; some one must be grievously to blame. This occurred in a Government establishment, supported by ample funds. If it had occurred in a small chemist's shop in the poorest part of the town, what an outcry would have been raised!" In these strictures it is difficult not to concur.

SALE OF POISONS.

We commend the following story, which we extract from the *Colonist* newspaper of April 18th, to the attention of our home authorities and legislators. It purports to be a report of an inquest on a man who committed suicide by drinking half a pint of laudanum. A witness deposed: "I keep a drug-store near to the residence of the deceased. I received an order from a child, in the deceased's handwriting, and with his signature, for half a pint of laudanum, which I supplied—believing that it was to be used for some scientific purpose. Subsequently, hearing that the deceased had taken laudanum, I went, and found him sleeping. I tried to arouse him by means of smelling salts and shaking but could not do so. I tried to give him an emetic, but he could no swallow. I then sent to the police-station, and some officers came and removed him in a cart; and I did not see him again." This is a graphic story of the free and open sale of poisons. The description of the supply of the drug, the feeble and unavailing efforts made to counteract its effects, and the carting of the patient to the hospital, cannot be improved upon by any comment of ours.

GAS IN LIVING-ROOMS.

The discomfort experienced in apartments where gas is used for lighting may be attributed to two causes: first, to the vitiation of the air by the disengagement of the products of combustion; secondly, to the enormous quantity of heat developed during combustion, as well as the notable quantity of carbonic acid and of watery vapour which are given off. The hydrocarbons of gas likewise yield much carbon. The use of heating by gas should be adopted only with great caution in all rooms which are habitually lived in, because existing apparatus only burns the gas in an imperfect manner, tends to vitiate the air, and induces considerable humidity, especially when the external air is cold and damp. Where gas is used to warm living-rooms, the gas-pipes should be carefully and completely ventilated. Gas-fires assuming to be so arranged as to dispense with flues for carrying off the products of combustion are scientifically faulty.

PROSECUTION UNDER THE BIRTHS AND DEATHS REGISTRATION ACT

On Friday, the 12th instant, at the Thames Police-court, before Mr. Chance, Mr. Thomas Gray, of 12, Mountague Place, Poplar, surgeon to the Poplar Union Workhouse, was charged, at the instance of the Medical Defence Association, with having, on March 28th, issued a false certificate concerning the death of Minnie Lucy Wadsworth. Mr. Pridham, solicitor to the Association, who prosecuted, stated that the defendant had in his employ an unqualified assistant, named Bell, who attended the child from the commencement of her illness to her death on March 26th, she not being seen by any other person. On March 28th, the mother applied for a certificate of the death, and received one signed by the defendant, in which he stated that he attended Minnie Lucy Wadsworth, that he last saw her on March 26th, and certified the cause of death as pertussis. Mr. Montagu Williams, who appeared

or the defence, said that he could not deny the facts, but his client had erred in ignorance of the law. Although the assistant, Mr. Bell, had no legal qualification, he had had great experience, and patients were safe in his hands. There had been no intention on the part of he defendant to deceive. Mr. Chance said that it appeared to him hat a serious offence had been committed by the defendant, and inquired whether Mr. Pridham was content to accept a plea of "Guilty." Mr. Pridham replied in the affirmative, stating that his clients had no indictive feeling in taking up these prosecutions, their object being merely to establish important matters of principle. Mr. Chance said he case was clearly made out to his mind, but, as the prosecution was ot pressed, he would impose a penalty of £5 and £2 2s. costs.

SPREAD OF TYPHOID FEVER.

ANOTHER instance of the spread of typhoid fever through the agency f milk is recorded by Dr. Fenton, in his last report on the health of Coventry. The outbreak occurred in the latter part of last year, the medium of infection in the first instance being some water obtained om a local well, which had become polluted by leakage from an imerfect sewer. The matter was further complicated by the use of this ater in a dairy, and subsequent infection, by means of the milk, of milies in other parts of the city. Dr. Fenton fears, from his experince in this case and from inquiries in others, that due precautions ere not taken in the examination of premises prior to their registration s dairies, and he rightly suggests that they should be all re-examined s early as possible.

PROTECTING INFLUENCE OF VACCINATION.

DR. J. H. RAYMOND, Health Commissioner of Brooklyn, furnishes the Brooklyn *Eagle* with the following interesting statement regarding the rst hundred cases of small-pox that have come under the observation f the Health Department since the 1st of January last, which, he onsiders, should set at rest all questions as to the utility of vaccination.

"From January 1st to February 26th, there were reported to the department 112 cases as small-pox cases. Of this number, 98 were found on examination to have the disease, and 14 not to have it; and 2 cases eported to be chicken-pox proved to be small-pox. Of the 14 cases hat were examined and found not to have small-pox, one was scarlet ever, 4 chicken-pox, 3 measles, one German measles, and 5 were cases f skin-disease. Of 100 who had small-pox, 45 had never been vaccinated, 27 of whom died. Eight others had pale, indistinct, and imperect marks of vaccination, and were probably never vaccinated—using he term as it should properly be used. Of them four died, so that e may say that 53 had never been vaccinated, or that 31, or 58 per ent., died. Of the 47 who had been successfully vaccinated, 6, or 12 er cent., died. Twenty-four of this number were adults, who had not een vaccinated since infancy; 3 of them died. Of the 23 who were upposed to be protected by vaccination, 20 had a mild attack of variloid; one aged 3 years, who had been well vaccinated in infancy and gain later, died; two children, aged respectively 5 and 8 years, members of the same family, and having good marks of vaccination, died. he youngest person attacked was three months and the oldest sixty ears old."

A LUCKY ESCAPE.

AN interesting case, showing the caprices of scarlet fever poison, is entioned by Dr. Robertson in his last annual report on the Penrith ural District. A pauper woman, who had a family of four children, ccupied one small damp room, with one bed for her four children and erself. The eldest child, a girl of about twelve years of age, took arlet fever; she had a profuse rash, and smart fever for a few days, d was attended by the parochial medical officer during the period of week before Dr. Robertson heard of the case. This girl continued sleep with the other three children and her mother, none of whom d ever had the fever. At the expiry of a week, from the appearance the rash, the girl was removed to the hospital, where she made an mirable recovery, and not one of the family subsequently took the ver. Dr. Robertson adds, that he has repeatedly seen cases of arlet fever removed from a bed in which other children have also en sleeping, and one night had been passed with the rash fully out, and still no infection conveyed to the others. He has, however, never seen a week pass, with such overcrowding, and no ill results follow.

FILTRATION OF WATER.

THE recent controversy as to the action of filters, originating with so high an authority as Dr. Frankland, has made disclosures which are somewhat disquieting to the householder who reposes a simple faith in filters as a means of purifying the drinking-water supplied by public companies from the "moving organisms" which are so frequently found in it, and figure so strikingly in the official reports. The faith in charcoal filters has been very urgently impressed upon the public mind, without due stress being laid upon the fact that fresh filters and stale filters made with this material differ widely as to their powers; and now comes Professor Frankland, whose authority is of the highest, to inform us that his experience has been that "myriads of minute worms were developed in the animal charcoal and passed out with the water when these filters were used for Thames water, and when the charcoal was not renewed at sufficiently short intervals." This unpleasant but instructive information has further elicited a counter-statement from another gentleman, who resents Professor Frankland's announcement, but who does not refute it, only adding the additionally unsatisfactory one that "he has practically proved that animalculæ emanate quite as much from another filter as from one containing animal charcoal." This "other filter" is one which has been regarded as the best of modern filters, and is so reported by the eminent chemist in question. The result is to confirm the dictum to which physiologists and physicians have always been more disposed to attach capital importance than chemists, that it is of the highest necessity that the first causes of impurity and of the breeding of lower organisms should be kept away from the water; and that drinking-water should be from the first of absolute purity, and springing from a pure source. The notion of allowing impurities to be introduced into the sources of our drinking-water, and trusting to artificial contrivances to filter them away, is radically wrong. We must keep our sources undefiled; for, once sewage has been mixed with water, or germs of disease introduced into it, and the art of the chemist is really unreliable in endeavouring to free it from such pollution, or even to detect in all cases the germs which are the elements of danger. In the well known and well-observed epidemic at Reigate, it was shown that the presence, in an enormous reservoir under repair, of one man suffering from typhoid diarrhœa, sufficed to pollute an enormous body of water subsequently admitted to such an extent as to raise an extensive but thoroughly localised epidemic. It is hardly probable that in this case, serious and convincing as was the physiological test unwittingly applied, the art of the chemist would have discovered any traces of excess of organic ammonia in the vast body of water so triflingly but yet so fatally polluted.

PHYSIOLOGICAL SCHOLARSHIPS.

A VALUABLE addition to the encouragements and facilities for physiological study has been made at Owens College, Manchester. The Charity Commissioners, as trustees of the fund bequeathed by Mr. Robert Platt some years ago for the foundation of certain scholarships in connection with the study of physiology at the College, have prepared a draft scheme for the management and regulation of this fund, which scheme, unless opposition be offered, will receive final approval a month hence. By its provisions, the whole of the funds accruing from the legacy are vested in the College authorities. There are to be maintained out of the yearly income under the trust two scholarships, to be called the "Platt Physiological Scholarships," each of the annual value of £50, or of such less sum as the income shall pay. The authorities may, however, in case of accumulation of existing funds, or accretion of fresh capital, raise the value of the scholarships to £100, or some lower figure if the additional income will not warrant such an increase. Each scholarship will be offered for competition in alternate years, care being taken that one of them may be open in each year.

They can be competed for, in addition to Owens students, by persons who do not attend the College laboratory; but one condition of tenure is that the holder shall, for the first year, study in that laboratory, and, in the second, in such other laboratory in Europe as the Council shall determine. Students will be examined by three professors, in human physiology, comparative anatomy and histology. In case the scholarships, or one of them, are not, for some satisfactory reason, bestowed in any year, the Council have the option of giving two exhibitions, value £15 each, at the end of the summer session of the medical department of the College, together with the £50 scholarships, these being entitled respectively the "Junior" and "Senior" Platt Exhibitions. Any residue of income may be applied to the purchase of instruments and appliances for the purposes of physiological research, or for the encouragement, by prizes or otherwise of students engaged in the pursuit of medicine. Such encouragements for biological students are much needed in this country.

UNIVERSITY COLLEGE, LONDON.

On Wednesday last, May 17th, the distribution of prizes in the Faculty of Medicine, University College, took place; the Earl of Kimberley, President of the College, being in the chair. In reading the report, the Dean, Dr. Roberts, announced that the medical department of the College was in a highly flourishing state, 106 students having entered during the session. The prizes and certificates were distributed by Mr. J. E. Erichsen, F.R.S., formerly Professor of Surgery, who stated that it was probably the last opportunity he would enjoy of counselling those just about to start on the arena of life, and of bidding those who had been unsuccessful not to be disheartened; for, in learning by such experience the deficiencies which had caused them to fail, they may have gained what would be of greater future profit to them than a pocketful of medals. The conquerors, on the other hand, must follow up their victory, and never rest, or failure must, sooner or later, overtake them. To be prompt in abandoning effete ideas, and in learning new truths, was never more needed than in the present day of perpetual progress in intellectual development. Lord Kimberley, in proposing a vote of thanks to Mr. Erichsen, expressed his satisfaction in finding that several students, who obtained high distinctions, were natives of the British Colonies. Nothing proved more clearly the widespread utility of such an institution as University College. He also dwelt upon Mr. Erichsen's reference to the great changes in modern ideas, and the astonishing discoveries of new facts of benefit to mankind, during the present century. But, important as it is to be conversant with the most recent discoveries, the welfare of the nation, and of every individual, must still depend on the practice of the old virtues of kindness, honesty, patience, temperance, and perseverance.

HÆMATO-CHYLURIA.

Owing to the very small number of cases in which necropsies have been made on the bodies of persons, the subjects of filarial disease, a peculiar interest attaches to the very thorough and careful examination made in Dr. Stephen Mackenzie's case. The patient, who was a young bombardier, was shown to the Pathological Society in October of last year. He then seemed in pretty good health, but every night his blood swarmed with the embryo filariæ. It was calculated that somewhere about forty million embryos circulated in his blood nightly, while by day they entirely disappeared. It was found that, by reversing his habits, by making him turn night into day, the filarial periodicity could also be reversed. How the embryos vanished, whether they were periodically destroyed, or whether they lay hid in the pulmonary vessels, as Dr. Patrick Manson supposes, was a mystery; and a mystery it still remains: for all signs of the filariæ disappeared after a rigor, from which the patient suffered three months before his death. The fatal result was due to exhaustion after double pleurisy, empyema, and cystitis. At the last meeting of the Pathological Society, a dissection of the thoracic and abdominal lymphatics from this case was shown. All the vessels were greatly dilated, and the thoracic duct was occluded for some distance. At the same meeting, Mr. Shattock showed a beautiful specimen of adult filariæ, involved in a large clot in the right auricle of a human heart. The parasites projected from the clot in every direction, looking like long coiling strands of whipcord. The progress of our knowledge of this curious and interesting disease has been retarded by the facts, that, of the countries in which it is most prevalent, in India it is difficult, and in China it is well nigh impossible, to obtain leave to make a *post mortem* examination.

SAMARITAN FREE HOSPITAL.

The Biennial Dinner Festival in aid of the Samaritan Free Hospital for Women and Children was held in Willis's Rooms, on Tuesday, May 16th. His Grace the Duke of St. Albans was chairman, and was supported by the President, Lord Leigh, and a distinguished company, making a total of one hundred and eighteen, including forty six ladies. In the course of the dinner, the Secretary, Mr. Scudamore, announced subscriptions and donations to the amount of nearly £1,300.

BURNING OF THE HYGIENIC EXHIBITION AT BERLIN.

The Grand Hygienic Exhibition of Berlin, which was to have been opened by the Crown Prince on the 15th instant, was, we regret to learn, completely destroyed by fire on May 12th. The conflagration, which was first discovered at a quarter to seven, and was favoured by a strong breeze, in less than three hours reduced the handsome wooden structure and all its valuable contents to a heap of smoking ruins. A number of wagons on a siding, laden with a variety of ambulance-appliances, which had just arrived at the exhibition from Vienna, were completely destroyed. The loss of this lives, which was reported at the outset, has not, we are glad to say, since been confirmed. The pecuniary loss, which must be very great is, however, of small importance in comparison with the blow which such a disaster must inflict upon the advancement of sanitary science. The exhibition, which was contributed to largely by American and European States, had received comparatively few articles from England; but we learn that, conspicuous among the displays, was an admirable collection of hygienic apparatus of various kinds.

COMPULSION IN MEDICAL EDUCATION.

The pages of our Journal have, of late, contained intelligence from the various examining boards of new regulations made with the intent of benefiting the British and Irish public by the supply of future members of the medical profession more thoroughly educated than heretofore. The public judge of a young medical man by their own ideas of professional excellence; and they criticise sharply, since their tenderest personal interests are at stake. They distrust foreign degrees; and not without reason, for they fear that such qualifications may be obtained without adequate proof of any professional competency in practice. On the other hand, if patients take a fancy to one particular new doctor, they trouble very little about his qualifications, and often discover that some of his rivals, holding diplomas of higher value, are inferior to him in every other respect. This tends to lower the public belief in qualifications, prizes, and examinations; and, what is of more interest to ourselves, it is a great source of discouragement to many worthy and industrious young strugglers who find that they are totally defeated in the fierce struggle for practice by old fellow-students who never distinguished themselves at their medical schools. In their disappointment, they may despairingly wish that they had been educated under the old apprentice system. They admit the success of their successful scientific rivals; allow that the public are right in according confidence to the latter; and then all three, public, unsuccessful beginners, and successful young medical men, join in expressing a belief that examinations are useless, or are, at least, far too hard in the present day, in that they totally fail in heir object. Many malcontents doubt that examiners comprehend at all what the object of the examinations may be. On the other hand, the entire system of hospital education is at the present day more highly organised than it ever was, great though my

e the room for improvement. Our medical schools have large staffs f active young demonstrators of anatomy, house-surgeons who can ach both clinical and pathological surgery, and members of the per- anent staff who have taught for many years, and have had practical xperience of the value of different methods of medical training, having ved to see how far students reared under each system have fared after ualification. It is only those in such a position who can be real uthorities in medical education. They are almost unanimously of pinion that success under any method of technical education will ever ainly depend on the individual learner; but that an examination ystem is not only necessary, but ought even to be extended beyond s present limits. This fact was illustrated by the reply of over ninety er cent. of medical teachers consulted in 1880 by a subcommittee of ie Metropolitan Counties Branch of the British Medical Association, ith regard to a question bearing immediately on the discipline of a udent's medical education; and the recent resolution adopted by the ouncil of the College of Surgeons urges the same principle. A udent should spend two years in medical, surgical, and obstetric udies, after previous work at anatomy and physiology. These last two ears must not be entrenched upon by any anatomical work undertaken uccessfully after one or more previous failures before the board of exa- iners. This appears to be rather despotic, but it must be necessary, herwise it would not have been urged so strongly by competent men. eachers admit that examinations cannot do everything that the public ant; they cannot manufacture graduates endowed with an unusual nount of common sense, high social qualities, and the power of spiring confidence. The examining boards can, however, enforce a ie expenditure of time for the study of the scientific and the practical oundwork of medical education. The profession knows fully the ils of an imperfect knowledge of anatomy and physiology; and a ir education in those sciences is imperative. The public must at ast believe in the thorough instruction of students in clinical work. truth, independently of party opinions, both sections of professional ucation are required for the future doctor; both require time; and no account must the time expended in the later part of a student's reer be shortened by circumstances partly, at least, within his con- ol. Hence the principle of this new feature in medical educational scipline is undisputably good; and it is remarkable that it has given e to much adverse comment. It is only the unsuccessful student io will be the sufferer; and the unsuccessful student is, to a certain tent, a public enemy or a mild social evil. Two years' failure in atomical examinations will at least imply the necessity of delaying e study of medicine and surgery for two years; and the sum of six ars is not so very long for the study of such a profession as the me- al. Students enter the medical schools when very young in these ys, and they lose little by qualifying at twenty-three instead of at enty-one. As for those who spend three or more years in unsuc- ssful attempts to pass anatomical examinations, it becomes a serious estion as to whether they ought to continue in their medical studies all. Lastly, ample allowance will be made for the cases of diligent dents who might be unfairly obstructed by such regulations. If resolution become law, those who recommended and those who orced it must, on the other hand, bear responsibilities of no light racter. The examiners have for several years treated physiology as cience in itself. In actual fact, it is a very complicated science, and ch that is expected of a student will most decidedly be of no use him in the practice of his profession. It will, in short, be most air to force a young man to spend several more months of his life in lage, simply because he is not proficient in deep questions of physics elation to physiology, and shows ignorance concerning the construc- of sphygmographs, manometers, or hæmadynamometers, and cannot rly demonstrate different varieties of muscular contractions, etc., means of somewhat complicated diagrams. Such difficulties have iled defeat on many students during the past few years. Under the regulation, the examiners will be much to blame if they continue e too exacting in this respect. Lastly, now that teachers as well as practitioners have urged strongly the importance of certificates of two years' instruction in medicine, surgery, and midwifery, let them be certain that the letter is carried out in spirit. Let them be sure that clinical instruction is readily given to clerks and dressers by the visiting staff. The afternoon walk round the wards must include instruction in the nature and treatment of the commonest diseases, and not only in the study of one or two cases where major operations have been performed, or where some remarkable thoracic disease can be puzzled out by auscultation.

GUY'S HOSPITAL BIENNIAL FESTIVAL.

THE Guy's Hospital Biennial dinner was held at Willis's Rooms on Thursday last, when Mr. Edward Cock presided at a large and enthusiastic gathering of the medical staff, and past and present students of the hospital. The health of the chairman was proposed in felicitous terms by Mr. Lund of Manchester. In responding, Mr. Cock said that he was able to boast that, wherever he went, he always found an old Guy's student to welcome him. Dr. Wilks replied to the toast of "The Acting Medical and Surgical Staff of the Hospital"; and, in doing so, referred to the growing constitutional government, which was now again raising the school and hospital to its proper position among the medical and surgical teaching bodies of the metropolis.

THE NOTIFICATION OF INFECTIOUS DISEASES.

IN view of the attention which this important subject is receiving on all sides, it may not be inopportune to place on record some of the sources of information of such diseases in a large and populous district where the system is not in force. An excellent example is afforded by Mr. May, health-officer of Aston Manor, in a recent report, which contains some interesting statistics on the subject. Early information of infectious diseases was sought for from medical men, householders, and school-board visitors. Information was thus received of 261 cases, concerning which it was deemed advisable to institute inquiries. This information was obtained from the following sources:—From parents and friends, 30 cases; medical attendant, 45; union surgeon, 21; neighbours, 67; school-board officers, 12; and from the death-registers, 86. The large majority of cases which occurred were heard of without any payment; but Mr. May states that a considerable number of them—53 out of a total of 192 cases of scarlet fever, and 33 out of 69 other cases—were only known from the registers after they were dead, and perhaps buried, instead of at the beginning of the outbreak.

SCOTLAND.

THE GLASGOW FACULTY LECTURESHIP.

THE third course of Faculty lectures is at present being delivered by Dr. D. C. McVail, who has been appointed the lecturer for this year. He has chosen for his subject the Physiology and Pathology of Respiration. His first lecture, which was delivered on the 5th instant, was taken up with an historical account of the development of the sciences of anatomy and physiology, in so far as these had relation to the respiratory function; and he also dwelt on the views held from time to time by the leading men of different eras. Considerable attention was given to those propounded by Bamberger in his celebrated essay, where it is assumed that the thoracic mechanism is, for all practical purposes, in its movements, comparable to the movements possible to parallel structures. The lecturer showed that this assumption is in many points unwarranted; that the thorax departs largely from the parallel form, the spinal origin of the ribs forming a considerable curve, and the sternum being very much inclined to the spinal column. This introduced mechanical difficulties in the movements of the thoracic walls, which have been got over by means of the provision made for the widening of the costo-cartilaginous angle. In the second lecture, the points discussed were, the manner in which the thorax reaches its greatest internal capacity, and the amount of mechanical force expended in making the respiratory movements.

ABERDEEN UNIVERSITY.

PROFESSOR ALLEYNE NICHOLSON gave his introductory address on Tuesday, May 9th, in the Anatomical Class-Room, Marischal College. Every available inch of space was filled with students, who gave the new professor a warm and most enthusiastic reception. The lecturer, besides giving a general sketch of zoology and its relations to cognate sciences, referred to the four great epochs in the history of zoology, as represented by Aristotle, Linnæus, Cuvier, and Darwin. He also paid a high tribute to the work of Professor Owen. All the classes are well attended, and we believe the number of students who have begun medicine this summer is larger than on any previous occasion; so that this augurs well for the continued prosperity of this school.

THE GLASGOW INSTITUTION FOR THE DEAF AND DUMB.

THE annual meeting and examination of the pupils of the above institution was held on the 4th instant. The report, which was read and approved, showed that the total number of inmates on the roll for the past year was 140, exactly the same as for the previous year. Of these, 21 left in the course of the year, and had found suitable employment in various ways. The usual Government examination was held, with very fair results. The ordinary income of the institution for the past year was £3,011, and the expenditure £2,835; so that its financial position is at present satisfactory. While the old system of teaching is not entirely given up, the lip-style of reading is now an established feature in the course of training at the institution; and at present fully two-thirds of the pupils are found more or less capable of getting benefit from this method of instruction; and one of the most pleasing features of the examination was the skill of the pupils in lip-reading.

THE LATE DR. FYFE JAMIESON.

IN order to commemorate the worth of Dr. Jamieson, whose death we recorded lately, it is proposed to raise a sum of money such as will yield a sufficient sum annually to found a scholarship, or obtain a gold medal, to be competed for in the department of anatomy in Aberdeen University, where Dr. Jamieson was demonstrator. A large and representative meeting has been held in Marischal College, where it was resolved to proceed with the collection of subscriptions for the above object. Subscriptions may be intimated to Dr. Mac Gregor, Union Street, Aberdeen.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending May 6th, it appears that the death-rate in the eight principal towns during the week was 23.7 per 1,000 of estimated population. This rate is 2.3 above that for the corresponding week of last year, but 0.4 below that for the previous week of the present year. The lowest mortality was recorded at Leith, viz., 15.6 per 1,000; and the highest in Perth, viz., 27.5 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 4.0 per 1,000, or 0.1 above the rate for the previous week. Whooping-cough was the most fatal epidemic in Glasgow, and measles in Edinburgh. Acute diseases of the chest caused 117 deaths, or six less than the number recorded during the previous week. The mean temperature was 46.9°, being 2.0° above that of the week immediately preceding, and 0.7° above that of the corresponding week of last year.

HEALTH OF THE PRINCIPAL SCOTCH TOWNS.

IN the eight chief Scotch towns, there were registered, during the month of April, the deaths of 2,267 persons—1,144 of these were males, and 1,123 females; after allowing for proportionate increase of population, the total number is 475 below the average for the same month during the preceding ten years. The respective death-rates of the towns were, per 1,000 of their population: Leith 15, Dundee 17, Edinburgh and Greenock 21, Aberdeen and Perth 22, Glasgow 25, and Paisley 27. Forty-two per cent. of the entire mortality was of children under five years of age, and the respective per centage was: Perth 33, Greenock 37, Aberdeen 38, Edinburgh 39, Dundee 44, Glasgow 45, Paisley and Leith 46. It is worth noting that Leith, with the lowest general death rate, and Paisley, with the highest, are equally placed as regard infantile mortality. Deaths due to zymotic diseases constituted 15. per cent. of the entire mortality; but this rate was much exceeded i Paisley and in Leith—in the former 8.7 dying from measles alone, an in the latter 9.9 from scarlet fever. As usual, whooping-cough was mo fatal, having occasioned 4.4 per cent. of all the deaths. To fever w attributed 38 deaths, and of these 9 were registered as typhus, 28 enteric, and one as simple continued fever. Measles contributed 6 diarrhœa 42, scarlet fever 31, croup 19, diphtheria 18, metria 19, an dysentery 3 deaths. Cardiac diseases caused 146 deaths. Apople 44, paralysis 49, hydrocephalus 76, and premature birth debility deaths. Phthisis pulmonalis caused 280 deaths, equal to 12. per cent. of the entire mortality; while inflammatory affections the respiratory organs, other than those already mentioned, cause 482 deaths, or 21.3 per cent. Of sixty-seven deaths by violenc five were suicidal. Three females and two males were ov ninety years of age at their death, the oldest, a widow, being ninet six. The births of 3,578 children were registered during April—1,8 males, and 1,730 females. The principal feature in the meteor logical conditions in the month, was the arrest in the monthly a vance of the mean temperature. April this year was no warm than March; and it exhibits the only mean temperature of any the months this year, in which there is no increase as compar with the average in former years. The wind has been mc frequently in the east than usual; but there has, notwithstanding, be a heavy rainfall. The mean barometric pressure was less by 0.1 inch, its monthly range greater by 0.162 inch; the mean temperatu less by 0.8°, its mean daily range less by 1.0°; the mean humidity le by 2; the rain-depth in inches greater by 0.45 inch; and the win pressure greater by 0.70 lb. than the average of the same mon during the preceding twenty-five years. The highest mean te perature, 45.8°, was at Paisley; and the lowest, 43.6°, at Dundee.

IRELAND.

ADDRESSES were presented to Earl Spencer on his resumption of t office of Lord Lieutenant of Ireland by the President and Fellows the King and Queen's College of Physicians, and by the University Dublin, on Tuesday last. In his reply to the Royal College of Ph sicians, the Lord Lieutenant said:—"I have a grateful recollection the important work which your college performed during my previo residence in Ireland. Within the last year it has been my duty, President of the Council, to consider questions of great moment cc nected with the medical profession. I trust that the commission whi was appointed on my advice, and on which Ireland was influentia represented, may be able to recommend measures for the solution of t many difficult questions connected with medical education and diplom I know how important this is to your college and to the country large. Public attention is every day more and more directed to t public health and sanitary reform. I am satisfied that your distinguish body will continue in the future, as in the past zealously, energetical and efficiently to further those beneficial objects than which none ha a closer connection with the well being and happiness of the co munity."

THE MURDER OF LORD FREDERICK CAVENDISH AND MR. BURKE

THE following is the text of a resolution adopted at the speci meeting of the Fellows of the Royal College of Surgeons in Irelan held on the 11th inst.:—"Resolved: That the President, Vice-Preside Council, and Fellows of the Royal College of Surgeons do record th deep horror and indignation at the atrocious murders of the Chief Sec tary for Ireland, Lord Frederick Cavendish, and the Under Secreta Mr. Thomas H. Burke. That this College, while expressing una mously its abhorrence of an act so inhuman, also declares its lo devotion to the throne and government of Her Majesty the Que

inst which this outrage was directed; and earnestly trusts that the rts to restore peace and order to this country, and to vindicate the iority of the law against the perpetrators of this crime may prove cessful. That the college expresses its warmest sympathy with the eaved families of the gentlemen thus suddenly cut off in the per- nance of their duty, and records its conviction of the severe loss ch the country has sustained by the foul crime of which they were victims." At a special meeting of the Court of Directors of the othecaries' Hall in Ireland, held on the 11th inst., the following olution was unanimously adopted: "That this meeting denounces he strongest terms the awful murders of Lord Frederick Cavendish Mr. Thomas H. Burke, on Saturday, the 6th inst., in the Phœnix k, which outrage has brought disgrace upon this country and in- ted untold anguish and irreparable loss on their bereaved families. at this meeting begs most sincerely to tender to the afflicted relatives Lord Cavendish and Mr. Burke their heartfelt sympathy under such errible trial and sorrow, earnestly trusting that the guilty perpetrators these atrocious crimes may speedily be brought to justice." At pecial meeting of the Council of the Pharmaceutical Society of land, held on Saturday last, it was unanimously resolved: "That s Council desires to express its abhorrence of the atrocious and ital murders of Lord Frederick Cavendish, Chief Secretary, and Mr. omas Henry Burke, Under Secretary for Ireland, which have formed culminating point of a series of unspeakable outrages perpetrated this country during the past two years. The Council earnestly trusts t God in His mercy may so strengthen the hand of authority in this ntry as to bring the perpetrators of this awful crime to speedy tice. The Council also desires to convey to the relatives of Lord ederick Cavendish and of Mr. Thomas Burke its heartfelt sympathy this their hour of bereavement and sorrow."

COMPLIMENT TO AN IRISH MEDICAL WORK.

e are glad to learn that the sixth edition of the favourably known nical Lectures on Diseases peculiar to Women, by Dr. Lombe thill, Master of the Rotunda Lying-in Hospital, have been trans- ed into French by Dr. P. Lavoie, and published by the house of Lauwereyns.

CORK NORTH INFIRMARY.

a meeting of the trustees last week, a letter was received from Dr. rby, resigning his position as assistant-surgeon to the institution, in nsequence of having been elected surgeon to the Mercy Hospital. veral of the trustees spoke in high terms of Dr. Corby's abilities, and his many services to the infirmary. A vote of thanks was unani- usly passed to Dr. Corby, and it was decided to advertise for his cessor.

THE DOCTOR HIS OWN PHOTOGRAPHER.—Attention is called by e *Philadelphia Medical News* to a recent invention by means of which otographs may be made by the medical man. "Medical men very quently want photographs in cases of injury, deformity, tumours, ., but the trouble and expense have been serious bars to obtaining em; and many patients, too, cannot go to the photographer. Drawings e often even more expensive, and labour under the disadvantage of ssible inexactness. Recently, however, the introduction of the ry plate' process has so simplified the method, avoided the former ngers, and reduced the expense, that any one of ordinary intelli- nce and means can now take all the photographs he wants at a oment's notice. At the Cincinnati meeting of the American Asso- ation for the Advancement of Science, last August, Mr. Walker, of chester, New York, showed a 'pocket camera', which, according Professor Lattimore, supplies every want of the inexperienced ateur. Its weight is only two pounds. 'Dry-plate outfits' are now be had at a cost of 10 dollars and upward, which are excellent. ovided with one of these instruments, the doctor would always be epared to photograph any case he desires, at his office or in the sick om. Our hospitals, especially, should be provided with such an tfit, so that cases and specimens could be photographed at any time, en by a resident. Our microscopists would also find it exceedingly eful to make permanent many a transient preparation not suitable preservation."

SELECT COMMITTEE ON THE CONTAGIOUS DISEASES ACTS.

ON Friday, the 21st, and Tuesday, the 25th, of April, Mr. Daniel Cooper, Secretary to the Rescue Society, was called and gave evidence against the Acts. Mr. Cooper was one of the witnesses called before the Royal Commission in 1871, and his evidence on the present occasion was substantially the same as that given by him previously.

The Society with which Mr. Cooper is connected has eleven homes in which young women and children are received. The home at Hampstead is combined with a hospital, and the patients are transferred to the home department from the care of the medical attendant, when they are well enough to take a share in the ordinary routine duties. Five of the homes are for the unfallen, and may be said to be preventive in character. There is altogether accommodation for about two hundred, though they did not always have that number, as they were sometimes deficient in funds, and the reception of inmates was limited accordingly.

Owing to the Society's disapproval of the Contagious Diseases Acts, they refused to receive women who had been on the register, but such women were often "smuggled" into their homes by indirect means. Another reason for the exclusion of such women was that they were very difficult to deal with, and exerted an evil influence on the other inmates of the home.

The witness handed in a return showing the number of women and girls received, and the applications rejected, during the whole period of the Rescue Society's existence. From this, it appeared that, during the past twenty years, the number of applicants had diminished by one-half. This diminution Mr. Cooper attributed to the decrease of prostitution generally, brought about, to a large extent, by the action of the various rescue societies, and those co-operating with them.

The witness explained that, in the return handed in by him, he included under the head of fallen women not only avowed prostitutes, but also such as might have gone astray only once. He admitted the returns had been prepared in the office, and had not been checked by anyone unconnected with the Society.

He saw no unfairness in comparing registered women, who were avowed prostitutes, with the unregistered class which included those who endeavoured to earn a livelihood respectably, and only practised prostitution occasionally. Questioned as to how he would know whether a woman had been registered or not, as the register was kept strictly private, he replied that reliance was placed on the woman's own statement. On her admission to the home, she was questioned in a careful but friendly way, and he believed the truth was generally elicited.

Considerable stress was laid by Mr. Cooper on the bad results of the Acts, in enabling women to continue longer in a life of prostitution in the subjected districts than they could do in the unsubjected. He asserted that, in the unsubjected districts, the average length of a woman's career on the streets was only twelve months. At the end of that period, almost invariably the life became so intolerable, that relief from it was sought by some means or other.

Mr. Cooper did not state by what means his knowledge of this fact was arrived at, and it must be presumed that it was only an inference. Some questions were put to Mr. Cooper as to the method of examination employed before patients were admitted to the Society's hospital. He explained that the women were in every case admitted to the home first, and there was no system of compulsory medical examination. Many of the women voluntarily admitted their disease; in other cases, it was detected by what he called "the discriminating observation of the matron". He was obliged to admit that many women might not know that they were diseased—the hard sore particularly being often quite painless. Moreover, a woman who did not choose to disclose her condition might, by eluding "the discriminating observation of the matron", remain for a considerable time without treatment, thereby aggravating her malady by neglect.

With regard to Lock hospitals, he thought that ample accommodation on the voluntary system might be provided and supported without difficulty by public subscription, in the same manner that the Rescue Society's hospital was maintained. It was true that they only had twenty-five beds, but they did not wish to have more at present. If they did, funds would, no doubt, be forthcoming from the Christian and benevolent public.

Direct charges were made by Mr. Cooper against the officials, medical and otherwise, connected with the Contagious Diseases Act, not to mention the insinuations conveyed by many of his answers. Women had told him that they had been detained in hospital after they were cured, in order to benefit the hospital in some way; and he had not a shadow of reason to doubt their statements. They were, of

course, based on the women's own opinions, but, when they had been cared for during some months, and brought under Christian influences, it was found that they told the truth. At his establishment, the women were not allowed to prescribe for themselves, nor did they conduct their own medical treatment.

Another and graver charge made was, that women were sent into hospital although they were not diseased at all. This, he explained, might be done with a benevolent intention, as *e.g.*, to enable reclamatory influences to be brought into play. He was informed that a woman was always sent to hospital at her first examination.

Another point was, that a woman's stay in the hospital was pecuniarily advantageous to the institution, as the daily Government allowance for each woman was sufficient to leave a profit to the establishment. Of course, he did not mean to insinuate for a moment that the hospital authorities had any profit by the transaction.

Mr. Cooper discussed the principles and practice of the Contagious Diseases Acts, to which he is, of course, strongly opposed, at great length.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL:

NOTICE OF QUARTERLY MEETINGS FOR 1882: ELECTION OF MEMBERS.

MEETINGS of the Committee of Council will be held on Wednesday, July 12th, and October 18th. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary not later than 21 days before each meeting—viz., June 22nd, and September 27th, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

November 4th, 1881. FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.—The annual dinner will take place at the St. James's Restaurant, Regent Street, on Friday, June 2nd, at 6.30 P.M.; Dr. Farquharson, M.P., Vice-President of the Branch, in the chair. Tickets 7s. 6d. each, exclusive of wine. Members of the Branch intending to dine, or to introduce friends, are requested to give notice to the Honorary Secretary as early as possible.—H. NELSON HARDY, Honorary Secretary, The Grove, Dulwich, S.E.—May 15th, 1882.

SOUTH-WESTERN BRANCH.—*Preliminary Notice.*—The annual meeting will be held at Barnstaple, under the Presidency of Mr. Joseph Harper. Special notice will be sent to the members as soon as the day is fixed.—S. REES PHILIPPS, M.D., Honorary Secretary.—Wanford House, Exeter.

STAFFORDSHIRE BRANCH.—The third general meeting of the present session will be held at the Bell Medical Library, Cleveland Road, Wolverhampton, on Thursday, May 26th, at 3 P.M.—VINCENT JACKSON, General Secretary, Wolverhampton.—April 24th, 1882.

SOUTH MIDLAND BRANCH.—*Preliminary Notice.*—The annual meeting of this Branch will be held in the Committee Room of the Northampton General Infirmary, on Thursday, June 1st, at 2.30 P.M. Gentlemen who are desirous of reading papers, or of exhibiting pathological specimens, are requested to communicate at once with the Honorary Secretary.—G. F. KIRBY SMITH, Honorary Secretary, Northampton.—April 24th, 1882.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of the above District will take place at the Castle Hotel, Wellington Square, Hastings, on Wednesday, May 24th, at 3.30 P.M.; Dr. Trollope, of St. Leonard's, in the chair. Dinner at 5.30 P.M.; charge six shillings, exclusive of wine. The following communications have been promised. Dr. Humphreys: On the Treatment of the Febrile Condition. Mr. Baber: Adenoid Vegetations of the Naso-Pharynx. Mr. Campbell: Two cases of Hip-Joint Disease. Mr. Mansell (for Mr. Duke): Notes of a case of Empyema. The Honorary Secretary will be glad to receive notice of any other papers. Visitors, whether members of the Association or not, will be gladly welcomed. It is particularly requested that gentlemen intending to dine will give two days' notice to the Chairman or to the Honorary Secretary.—T. JENNER VERRALL, Honorary Secretary, 95, Western Road, Brighton.

BORDER COUNTIES BRANCH.—The spring meeting of this Branch will be held at Moffat, on Friday, June 2nd. Gentlemen intending to read papers are requested to communicate at once with one of the Honorary Secretaries.—J. KENDAL BURT, Kendal; J. SMITH, Dumfries, Honorary Secretaries.

EAST ANGLIAN BRANCH.—The annual meeting of this Branch will be held at the Rectory Room, Beccles, on Thursday, May 25th, at noon, under the presidency of W. M. Crowfoot, M.B. The President will deliver an address upon the Germ-Theory of Disease. Mr. W. Cadge, F.R.C.S., will read a paper upon Nerve-Section in the Treatment of Neuralgia. There will be a discussion upon a paper read at the Southwold meeting by H. J. Benham, M.D., upon the Treatment of Intestinal Obstruction, in which several members have promised to take part. *Dejeuner* at 4 P.M., at the King's Head Hotel; tickets, exclusive of wine, 5s.—W. A. ELLISTON, M.D., Ipswich; M. BEVERLEY, M.D., Norwich, Honorary Secretaries.—May 8th, 1882.

BATH AND BRISTOL BRANCH.—The sixth ordinary meeting of the session will held at the Museum and Library, Bristol, on Wednesday afternoon, May 24th, 4.15 P.M.; David Davies, Esq., President. The afternoon will be devoted to a d cussion on Bone-setting, which will be opened by F. Richardson Cross, M.B.—MARKHAM SKERRITT, R. S. FOWLER, Honorary Secretaries.—Clifton, May 168

EAST YORK AND NORTH LINCOLN BRANCH.—The annual meeting will be h at the Infirmary, Hull, on Wednesday, May 24th. Gentlemen who intend to ma any communication, or to propose any resolution, are requested to inform the Sec tary not later than the 14th instant.—E. P. HARDEY, Honorary Secretary, 17, Bru wick Terrace.—May 3rd, 1882.

SOUTH-EASTERN BRANCH: WEST SUSSEX DISTRICT.—The next meeting of t District will take place at the Infirmary, Worthing, on Wednesday, May 31st; W. J. Harris in the chair. Members intending to read papers, or bring forward s jects for discussion, are requested to send notice to G. B. COLLET, Honorary Sec tary, 5, Steyne, Worthing.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: SPRING MEETING.

THE spring meeting of this Branch was held at the Town Ha Tredegar, on April 20th; Mr. EVAN JONES (President-elect), a afterwards Mr. PEARSON R. CRESSWELL (President), in the chair.

New Member.—Mr. Wyndham Randall of Bridgend was elected member of the Association and Branch.

Papers.—The following were read.

1. Mr. G. A. Brown (Tredegar) described Nine Cases of Trach otomy in Croup, in which four lives were saved. A discussion followe by Messrs. Fiddian, Steel, Dyke, A. Davies, H. N. Davies, D. Davies, and Evan Jones.

2. Dr. Redwood (Rhymney) showed a male patient, aged 20, wi enormous uniform enlargement, mostly solid, of the Abdomen.

3. Mr. S. H. Steel (Abergavenny) showed the following specimen *a*. Villous Growth in the Bladder; *b*. Large number of Calculi, *in sit* in the Ureter and opposite Kidney, with Conversion of the Kidney in a Cyst. There had been no acute symptoms of pain, so far as cou be gathered from the patient, who was only seen ten days before deat

4. Mr. Hall (Swansea) showed a Phosphatic Calculus, weighing 2 ounces, which had ulcerated through the bladder and vagina, in a p tient aged 70, who had repeatedly refused to have the stone remove She lived two months afterwards.

5. Dr. SHEEN read notes of two cases of Aneurysm of the Comm Femoral Artery, which he had had in his infirmary practice within few days of each other, and in which he tied the external iliac arter Both cases recovered perfectly, and had done hard work since.

6. Mr. D. Arthur Davies (Swansea) showed an instrument by whic he had reduced a completely Inverted Uterus, of two years' standin and promised notes of the case for the next meeting.

7. Mr. Davies also mentioned, at the request of Dr. Griffiths, t value of iodoform in certain eye-diseases.

Collective Investigation Committee.—Dr. Sheen mentioned that D Mahomed, the Honorary Secretary, had spent his Easter holidays visiting Gloucester, Bristol, Taunton, and Cardiff, in order that might meet men who would be likely to be interested in the wor After describing the objects for which this committee had been forme and the manner in which it was suggested the work should be carri out all over the country, Dr. Sheen moved, and it was resolved unan mously: "That the following gentlemen, with power to add to the number, form the Collective Investigation Committee of this Branch viz., Messrs. Fiddian, W. Price, D. A. Davies, Fry, Webster, War D. J. Williams, H. N. Davies, G. A. Brown, Talfourd Jones, Blig Evan Jones, G. A. Davies, W. H. Davies, and H. Mulligan." D Sheen undertook to act as Honorary Secretary, *pro tempore.*

Homœopathy.—A long communication was read from the Honora Secretary of the South-Western Branch, on the question of expellir homœopaths from the Association; and Dr. Sheen explained the view held on this question by the Committee of Council. After discussio the following resolutions were passed unanimously.

1. Moved by Dr. A. DAVIES, and seconded by Dr. SHEEN: "Th this Branch desires to express its approval of the action recently take by the Committee of Council, with reference to the case mentioned the circular now read from the Secretary of the South-Western Branc of a member practising as a homœopath. At the same time, it recor mends that more effective steps should be submitted to the next gener meeting of the Association, with a view to prevent the election homœopaths in the future, and for the disqualification of a member the event of his practising as a homœopath subsequently to su election."

2. Moved by Mr. A. P. FIDDIAN, M.B., and seconded by D SHEEN: "That, whilst advocating the policy of not disturbing t present members of the Association who practise homœopathy, th

nch desires to express its entire disapproval of the sentiments ex-ssed by the readers of addresses, on the subject of homœopathy, at last annual meeting of the Association held at Ryde."

Resolution of Sympathy.—On the motion of Mr. G. A. BROWN, it resolved unanimously: "That the members present express their p sympathy with Mr. T. G. Anthony in his recent and severe be-vement."

Luncheon and Dinner.—Mr. G. A. Brown hospitably entertained the nbers to luncheon on their arrival; and, at 4 P.M., the members and eral visitors partook of a most excellent dinner, provided by the host the Castle Hotel.

OUTH-WESTERN BRANCH: QUARTERLY MEETING.

E quarterly meeting was held on April 17th, at Liskeard; pre-t, Dr. HUDSON (Redruth) President, in the chair, and twelve mem-s and a visitor.

Professor Ferrier.—A letter from Professor Ferrier was read, thank-the Branch for the resolution passed by the last meeting.

Homœopathic Practitioners and their Relations with the Association. The Honorary Secretary reported that, in accordance with his in-uctions, he had attended a meeting of the Committee of Council on ril 12th, and moved this resolution: "That, as it has been resolved the annual meeting of 1852, and reaffirmed by the annual meetings 1858 and 1861, that there are 'three classes of practitioners who ght not to be members of the Association, viz.: 1, real homœopathic ctitioners; 2, those who practise homœopathy in combination with ier systems of treatment; 3, those who, under various pretences, et in consultation or hold professional intercourse with those who actise homœopathy', it be an instruction to the President of the Com-ttee of Council to request Dr. —— to withdraw his name from the t of members of the Association;" that the resolution was not carried, e chief argument used by the majority being, that any action would, making martyrs of them, bring the homœopaths into the notoriety ey desired.

It was proposed by Dr. HUDSON (Redruth), seconded by Mr. C. B. NDLE (Liskeard), and carried unanimously:

"That this meeting heartily approves of the resolutions relative to mœopaths passed at the Plymouth meeting of the Branch; that it grets that the Committee of Council have not yet seen their way to pel an avowed homœopath, when requested to do so by the unani-ous vote of one of the oldest Branches of the Association."

It was proposed by Dr. ALDRIDGE (Plympton), seconded by Mr. G. ERSWILL (Looe), and carried unanimously:

"That this meeting requests members of the South-Western Branch help on any movement for obtaining such remodelling of the con-tution of the Committee of Council of the Association as shall ensure at the Committee of Council will carry out unhesitatingly resolu-ons that have been adopted by the Association at its annual meet-gs."

New Members.—Messrs. J. H. Jenkins (Liskeard) and E. W. Walter Redruth) were elected members of the Association and Branch. Dr. . S. Reed (Pool, Camborne) and Mr. J. Blamey (Penrhyn), already embers of the Association, were elected members of the Branch. r. C. Curd (Redruth) and Mr. F. J. Pearse (60, Warwick Street, W.) were elected members of the Association.

Collective Investigation Committee.—A letter from Dr. Mahomed was ad. A Subcommittee was appointed to further the work of collec-ve investigation.

Communications.—The following were made:

1. Dr. Hudson: *a.* Tumour of Orbit; *b.* Congenital Encephalo-le; *c.* Traumatic Frontal Meningocele; *d.* Two Cases of Foreign dy in the Eye.
2. Mr. C. B. Rendle: Spina Bifida.
3. Dr. Bampton: Nerve-Stretching for Supra-orbital Neuralgia.
4. Dr. Sanctuary: Two Cases of Sponge-grafting.

MYOPIA IN FRANCE.—It is stated in the report of the committee, nich was appointed some time ago by the French Government to in-ire into the prevalence of short-sightedness amongst the youths at e great Government schools in France, that the cause of the infirmity to be found in the fact that the school books are printed in type which too finely cut, and further, that the custom of printing upon white per is still more hurtful. They recommend, therefore, that the autho-ies should consider the advisability of substituting thicker characters the books, and also printing in white letters upon tinted paper.

CORRESPONDENCE.

SUPERINTENDENTS OF IMBECILE ASYLUMS.

SIR,—I read with interest your notice of the Institution for Imbecile Children at Larbert, of March 4th, and the correspondence to which it has given rise. I should not trouble you with any remarks of mine on the subject, were it not that Dr. Wood, in his letter of April 17th, I consider, most unjustly implies that the late medical superintendent neglected the ordinary details of management, for which he assumes he was not by "nature qualified", "and on which the comfort, and even the health, of the inmates so much depend", in order that he might write the results of his medical experiences.

As an intimate friend, having on several occasions had opportunities of observing the working of the institution, and seeing the interest and care which the superintendent took in the medical treatment of the inmates, his anxiety for their comfort and well-being, and also the intimate knowledge he had of each individual, I can truly offer my testimony that Dr. Wood's remarks are founded on erroneous assumptions. A mind naturally formed for, and long trained to, minute scientific observation, and gifted with a remarkable power of deductive reasoning, enabled the late superintendent to produce literary results which might well seem to have necessitated seclusion and close application; but it is well known to many that they were produced under physical difficulties which render sedentary habits impossible. This power of observation is certainly not incompatible with ability to enter into details of practical management; and that the efforts made to promote the welfare of the establishment were not made in vain, was amply proved by the flourishing condition of the institution at the time of the late superintendent's resignation, and the acknowledgments received by him subsequently.—I am, etc.,

T. L. ERSKINE, M.D.Ed., Deputy Surgeon-General A.M.D.

Bournemouth, May 8th, 1882.

SIR,—Equally with Dr. Wood, I consider that the question we have been discussing "concerns the interests of a valuable class of institutions . . . . in the management of which the strictest economy consistent with efficiency is essential"; and for this reason I cannot allow the statements he has made, in your issue of May 6th, to pass unnoticed.

Dr. Wood does not give the argument with reference to the treatment of epileptics correctly. His statement was, that the management of epileptics during convulsions could be quite well trusted to trained attendants; and to this I replied that I did not think that such an opinion would commend itself to the general body of the profession, and that I did not agree with him. I do not consider that the argument required me to say that the resident doctor should be summoned to every epileptic fit, and that he should remain with the patient until it is over. My point was, that the serious condition into which many epileptics fall, in consequence of their numerous fits, required the presence of a resident physician, and that one living at a distance could not give the requisite attention. I say that a doctor, who only visits the institution, cannot give either proper attention or supervision, for he may be miles off, vising his private patients, when his presence is required at the asylum. Dr. Wood may, perhaps, not be aware that many epileptic imbeciles suffer from mania after or before the fits, being perfectly quiescent in the intervals; and for this reason, too, a resident physician is necessary. "The family physician in large practice" does not take charge of a large number of epileptics; and Dr. Wood's argument, therefore, falls to the ground.

Dr. Wood is of opinion that the complaints from which idiots suffer are "chiefly chronic, where the alterations are usually slow, and such emergencies comparatively unfrequent"; but I can assure him that such is not the case. It is because the changes are so sudden and unexpected, and the diseases so acute—conditions which Dr. Wood thinks only exist in an asylum for lunatics—that a resident physician is required. As I have had to take charge of lunatics in an asylum where a considerable number of acute cases were admitted, I am not speaking without the requisite experience, and I say that the changes are quite as much unexpected in idiots as in lunatics. The above is, however, only one side of the question. As I have before said, the groundwork of the training and treatment of imbeciles must be physiological. In answer to this, Dr. Wood adverts to the training of deaf-mutes; but the two cases are perfectly dissimilar. Deaf-mutes, properly so called, do not suffer either from a defective condition or disease of the brain, such as exists in imbeciles. All that is necessary is to train them to use the muscles required for speech. In imbeciles, on the other hand, there is a defective brain to be developed, and a general physical condition to be im-

proved. In those of very low type, the senses, including the muscular, have to be developed, the muscles generally have to be strengthened, and the brain improved. In fact, the essential basis of the successful treatment and training of imbeciles is physical, and, as such, belongs to the physician rather than to the schoolmaster or house-governor. The schoolmaster must, of course, carry out the orders of the physician, who must give time and attention to the cases individually, such as a visiting physician cannot do. Dr. Wood's method may be an economical one, but it will be at the cost of efficiency.

His conception of a superintendent not fitted by nature to attend to petty details of management, must be peculiarly his own. Certainly it does not refer to Dr. Ireland, who not only gave his own time, but that of his relatives, to the management of the Larbert institution, which, instead of deteriorating under his management, was raised to a high state of efficiency.—I am, etc.

FLETCHER BEACH, M.B., M.R.C.P.,
Medical Superintendent, Darenth Asylum.

ACONITINE.

SIR,—In a lecture on aconitine-poisoning delivered before the Balloon Society of Great Britain on the 5th inst., Dr. Springmühl is reported to have said that on the occasion of the Lamson trial neither of the scientific experts pointed to the great difference between English and foreign aconitine, nor was it mentioned by the prosecution or defence.

It is to be regretted that Dr. Springmühl has made these incorrect statements. You have already pointed out in an editorial note that in my evidence I did lay down the distinctive difference between the so-called German and English aconitine; and I repeat what has been already said in your columns, that at the trial I spoke of German and English aconitine as being quite different substances. In cross-examination as to the medical dose of aconitine, I said that certain doses laid down in the text-book were applicable to the German and not to the English article.

Dr. Springmühl, perhaps relying upon imperfect newspaper reports, has thought fit to revive an unfounded charge against myself and Dr. Dupré, which could never have been made by anyone well versed in the facts of the trial, or who had read the officially printed short-hand writer's report taken for the court, in which I am made to state in evidence (p. 579) that German aconitine is very different from English aconitine.—I am, etc.,

THOMAS STEVENSON.

London, May 16th, 1882.

ETHER AS AN ANÆSTHETIC.

SIR,—In the BRITISH MEDICAL JOURNAL of May 13, Dr. Saundby refers to the report of a case in which I removed the kidney, and the patient died with suppression of urine, as an illustration of one of the dangers of ether as an anæsthetic. No mention is made in that report of the anæsthetic employed; which happened to be chloroform. However valuable and interesting therefore the question raised by Dr. Saundby may be, my case can scarcely serve as an illustration of it.

The danger of administering ether for the purpose of tapping an empyema is, I believe, a very real one. I have myself, after opening the chest, seen very alarming symptoms, attributable to the ether, in a case where the respiration was already considerably impaired; in this instance prompt blood-letting appeared to save the patient's life.—I am, etc.,

RICKMAN J. GODLEE.

18, Wimpole Street, W., May 15th, 1882.

ANIMAL VACCINE LYMPH.—In a recent report on several vaccine farms in the United States, Dr. James Law observes that the taking of the virus early seems to be a very essential condition of securing it pure. He was assured that up to the seventh day the unbroken vesicle contains no superadded products, and will convey cow-pox uncomplicated. Later, when granular and pus cells appear, and above all when the ruptured vesicle becomes the seat of septic and other bacteria, the virus cannot be sent out with the same confidence. If, as Palasciano and others claim, the intensity of the virus is greatest from the third to the seventh day, and if at the same time its purity can be guaranteed in a way that cannot be accorded to it at a later stage of the eruption, the mere fact of a larger yield cannot justify the practice of collecting the virus at a more advanced stage. The lessened supply may enhance the cost of the virus, and the method may necessitate the National Board of Health cultivating its own virus, yet Dr. Law thinks it should not be a valid argument for the sanction of an article, the purity of which is not guaranteed by every possible precaution.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

THE NOTIFICATION OF INFECTIOUS DISEASES.

THE following is a summary of the replies to the circular from t Local Government Board, from the towns and boroughs where p vision has been made for the notification of infectious disease, publish as Parliamentary Papers by the Government.

Mr. C. F. Preston, the Town Clerk of Barrow-in-Furness, writ in reply to the circular, under date April 1882, that his local author are so far quite satisfied with the working of the provisions of Barrow-in-Furness Corporation Act, 1881, relating to notice bei given of persons suffering from certain infectious diseases. The p vision has acted beneficially in regard to the health of the town; t cases of small-pox have been quickly isolated, and the disease did r spread. The local authority further believe that the spread of scar tina and typhoid fever have been prevented by the operation of t Act. The number of cases reported from September 18th, 1881, March 31st, 1882, was 480. The authority pay for each certificate t sum of 1s. 6d., making an aggregate of £36. The medical officer this authority entirely concurs in the expression of opinion as to t good results following the working of the provisions in question.

Mr. W. E. L. Gaine, Town Clerk of Blackburn, testifies to t satisfaction of his authority with the working of the compulsory not cation provisions; and states that the immediate notification of inf tious disease was the means of preventing the spread of small-pox the borough, when it broke out on April 19th of last year. In no sin case did a second one arise in the dwelling of those where infectio disease had been previously reported, and the patient removed to t hospital provided; and no other case in the borough could be trac to these. Four hundred and twenty-two medical certificates of not cation were received during the year ended March 25th, 1882, a 2s. 6d. paid on each one, amounting to £52 15s.

Mr. H. P. May, Town Clerk of Blackpool, replies, that it is t unanimous feeling of the Town Council that the powers obtained the Blackpool Improvement Act, 1879, for the compulsory notificati of infectious disease, are most valuable. The medical attendant ser in his certificate to the medical officer of health, and a fee of 2s. 6d. paid to the medical attendant for his certificate. In the last twe months, these fees amount to £13 2s. 6d.

Mr. R. G. Hinnell, Town Clerk of Bolton, reports that the inform tion furnished by the certificates of disease under the Bolton Impro ment Act, 1877, Section 87, has been a very valuable aid in checki the spread of infectious disease, as they have been thereby enabled every case to adopt precautionary measures. The number of cases infectious disease notified to the sanitary department for the year endi March 31st, 1882, was 668; and the amount paid for certificates the nine months ending March, 31st, 1882, £74 15s. The medi officer of health reports for 1880, that the compulsory notification infectious disease has, during the past fifteen months, given every sat faction, and proved of immense value in limiting the spread of co tagion. The cases reported amounted to 1,646.

Mr. T. N. Whitehead, Town Clerk of Burton-on-Trent, writes, reply to the circular, that the provisions in force in that borough the compulsory notification of infectious disease have been fully work out for three years, and have proved satisfactory. The number of ca reported for the year ending March 25th, 1882, was 167; and t amount paid therefore, at 1s. each, was £8 7s.

Mr. Joseph Jones, Clerk to the Sanitary Authority of Derby, sta that the working of the powers for the compulsory notification of inf tious disease given in the Derby Improvement Act of 1879, has be satisfactory; 460 certificates have been received, and £51 15s. vs paid in fees. The Medical Officer of Health, Mr. Iliffe, subjoins elaborate report on the working of these provisions, in the course which he says that two years' experience of the working of the co pulsory notification of the infectious disease clauses in the 1879 Act l given additional weight to his previous opinion, that they are of i mense importance and value to the inhabitants of the borough.

Mr. Joseph Bayley, the Town Clerk of Huddersfield, writes t the corporation of the borough are thoroughly satisfied with the work of the provisions referred to in Sir John Lambert's circular, and belie that they have been of great value in the prevention of the spread infectious disease, and in minimising the suffering and deaths wh have occurred. The number of cases reported for the fifty-two we ending December 31st, 1881, was 255.

Mr. W. S. Daglish, the Town Clerk of Jarrow, replies, on behalf the Town Council, that they are satisfied with the working of the rrow Improvement Act relating to the compulsory notification of in-ctious disease, but suggest that, in any future public or private legis-tion on this subject, the words "infectious disease" should be more early defined. The number of notifications of the existence of infec-ous disease supplied by medical practitioners amounted to 331, at a st of 1s. per case, or £15 11s.

Mr. Swanson, the Town Clerk of Lancaster, states that the cor-oration of that city are satisfied with the working of the provi-ons respecting which information is sought by the Local Govern-ent Board. Seventy-two cases of infectious disease were reported uring the year ending March 25th, the aggregate amount of fees paid eing £9.

Mr. Storey, Town Clerk of Leicester, writes that the sanitary com-ittee of that town are thoroughly satisfied with the principle of notifi-ation, and are quite satisfied that, since they have obtained such ower, they have stamped out at the very commencement what would therwise have proved small-pox epidemics. The total number of cer-ficates and the cost for the year ending March 25th, 1882, were: cer-ficates, 1,898; total cost, £230 12s. 6d.; 53 certificates, for various auses, not having been paid for.

Mr. T. T. Marks, Town Clerk of Llandudno, replies that the com-issioners are satisfied with the working of the provisions obtained by he Llandudno Improvement Act, 1879; but suggests some alterations n the detail of working them. Thirty-five cases were reported during he last year; and the fees paid were 2s. 6d. each, making a total of £4 7s. 6d.

Mr. John Leigh, the Medical Officer of Health, replies for Man-hester, and records his perfect satisfaction with the working of the Act for the compulsory notification of infectious disease in that city. Since February 1st, 1882, to April 1st, 262 cases of infectious disease were reported to Mr. Leigh by medical practitioners of the city.

Mr. H. B. Miller, the Town Clerk of Norwich, informs Sir John Lambert that the local authority are quite satisfied with the provisions contained in the Norwich Improvement Act, 1879, with regard to the clauses respecting the compulsory notification of infectious diseases. During the year ending March 25th, 1882, there were 469 cases of in-fectious disease reported, at an expense of £58 12s. 6d.

Mr. S. G. Johnson, Town Clerk of Nottingham, notifies that, after some difficulties with the medical men of the town, provisions in the Nottingham Improvement Act, 1878, as to the notification by the medical attendant of cases of scarlet fever and small-pox, were put into force; since which time (February 22nd, 1882), the medical men have worked most amicably with the medical officer of health; 416 notices of infectious disease have been served on the medical officer of health, and 72 cases of infectious disease have been removed to the hospital erected specially for these cases.

Mr. H. Booth, Town Clerk of Oldham, states that his sanitary committee have up to the present time every reason to be perfectly satisfied with the working of the provisions in the Oldham Improvement Act, 1880, relative to the compulsory notification of infectious diseases; and believe that they have had a beneficial effect in arresting the spread of infectious diseases in the borough. The number of cases notified during the year ended March 25th, 1882, was 656; and for each certificate 2s. was paid, making a total of £82.

Mr. H. Hames, Town Clerk of Preston, replies to the circular that his authority are satisfied with the working of the provisions relating to the compulsory notification of infectious diseases in the borough, but suggest the omission from the list of infectious diseases of measles and whooping-cough. The number of cases of infectious disease reported during the year ended March 25th, 1882, was 1,517, the expense of which, at 2s. 6d. per certificate, was £189 12s. 6d.

Mr. Henry Day, Town Clerk of Reading, reports that his corporation are satisfied with the working of the provisions for the compulsory notification of infectious disease. From August 1881 to March 31st, 1882, 122 cases of infectious disease, including measles, have been notified by the medical practitioners in the town. The amount of fees payable from August last to March 25th has been £6 2s., the fee being 1s. per case, and was fixed at 1s. because measles is included in the category of infectious diseases, in consequence of the difficulty of diagnosis in some mild cases between that disease and scarlet fever. The Medical Officer of Health also records his opinion that, unless the duty of notifying infectious disease is imposed upon the medical attendant as well as upon householders, the notification would be delayed or evaded, and any regulations relating to this important matter would practically become inoperative.

Mr. Samuel Brown, Town Clerk of Rotherham, states that the regulations now in existence as to infectious disease have hitherto worked satisfactorily. The number of cases reported for the year ending March 25th is 1.057, and the cost has been £132 2s. 6d.

Mr. M. F. Blakiston, Town Clerk of Stafford, replies that his authority is satisfied with the working of the compulsory Act. The number of cases reported for the year ending March 25th, 1882 was 15, and the fees paid 2s. 6d. in each case.

Mr. Buckley, Town Clerk of Stalybridge, states, in reply to the Local Government Board circular, that the sanitary committee of Stalybridge are quite satisfied with the working of the provisions contained in the Stalybridge Extension and Improvement Act, 1881, relating to the compulsory notification of infectious disease, and believe that many cases of infectious disease would remain undiscovered but for the compulsory powers referred to. The number of cases of infectious disease reported from August 11th, 1881 to March 31st, 1882 was 117, and the amount paid for the reports was £14 12s. 6d.

Mr. W. H. Brook, Town Clerk of Warrington, states that the working of the provisions relating to notification of infectious disease has been most satisfactory. The number of notices given in 1882 is 451, and the amount of fees paid £45 7s. 6d.

In Edinburgh, the duty of notifying to the local authority cases of infectious disease is laid by the Municipal Police Act upon the medical attendant of the patient; whereas in Greenock the duty rests with the householder. Dr. Littlejohn reports, in regard to Edinburgh, that, since the clause in the Police Act rendering it imperative on all practitioners in the burgh to report cases of epidemic disease became law, in November 1879, reports of about 11,400 cases have been sent in to him, and a sum of over £1,450 has been paid to medical practitioners in the city. He further states that the clause, so far as Edinburgh is concerned, has been a great success, and the medical men of the city now unanimously approve of it. Dr. Littlejohn's report, which contains some striking illustrations of the value of prompt notification of infectious disease, is well worth perusal by all interested in this question. Dr. Wallace gives the results of compulsory notification of infectious disease by the householder, which are by no means satisfactory, by reason of the neglect of many householders to report cases of infectious disease, and in many cases the failure to call in a medical man. Nevertheless, striking results in the direction of diminished death-rates from infectious diseases have been obtained, even with the present imperfect method of notification; and Dr. Wallace, who is strongly in favour of the duty of notification of the existence of infectious disease being laid upon the medical attendant, anticipates great benefit to the community should the Bill brought in by Mr. Hastings and others become law. This view is supported by many cogent arguments drawn from his experience of the working of the present regulations in Greenock, which the space at our disposal precludes us from reproducing, but which are all well worth consideration at the present juncture.

SCARLATINA IN DURHAM.

THE terrible mortality from scarlatina in the county of Durham has almost passed into a byword amongst sanitarians. Various speculations have been made as to the causes of this exceptional prevalence—many of them ingenious, but all of them at the best but partially accounting for what is admittedly a grave etiological problem. Some years ago, when Mr. Simon was comparatively unfettered in the inquiries that he organised, he gave a commission to Dr. Buchanan to make an exact and systematic study of the conditions which determine the spread and intensity of scarlatina; but, owing to departmental and other changes, Dr. Buchanan never got any further than the preparation of a number of maps showing graphically the incidence of the disease upon the several English counties during the two previous decades. Although it was then shown that Durham had by far the heaviest mortality from the disease—a fact which had already been pointed out by Mr. Haviland—it apparently has not yet been possible to grapple with the question in any comprehensive fashion. But that inquiry is urgently necessary, is evident from the fact that, for the last thirty years, Durham has, in each quinquennial period, shown a scarlatinal mortality-rate higher than that of any other county in the kingdom. Whilst the average rate for England and Wales is 0.87, that for Durham during the last thirty years is 1.4; and the rate is not diminishing. Almost all the registration districts share in this excess; at least, there are only three exceptions. Darlington has an average rate for the period named of 0.81 per 1,000; Teesdale an average rate of 0.73, and Weardale one of 0.85; in all the others, the mortality is sustained at an excessive ratio, varying from 1.33 at Houghton-le-Spring, to 1.62 at Bishop Auckland.

To some small extent, no doubt, this excess may be explained away by the larger proportion of children living in Durham, as compared with the average English county; and, to a further extent, it may be

accounted for by a variety of unwholesome conditions, notably of lodgment, that mining villages too often exhibit in fullest intensity; and significance may be granted to these two considerations as affording some reason why scarlatina is exceptionally fatal in Durham, beyond the rate of fatality customary to the disease in other communities. It is obvious, however, that these circumstances do not satisfactorily account for more than a small proportion of the mortality, and there is evidently some other agent at work, of which we as yet do not appreciate the importance.

Mr. Spear, in the course of a recent report to the Local Government Board on a serious epidemic of the disease in the Durham Registration District, has been at pains to collect particulars as to the circumstances of as many of the cases as possible. Thus, 451 attacks occurring in 176 different families, most of them during the year 1880, were carefully inquired into. As many as 422 of these cases were found to be in children between the ages of one and fifteen years; 4 occurring in children under one year, and 25 in persons above the age of fifteen. In the 176 infected families, there were 31 infants under one year of age, who were exposed as much as the older children to risks of infection; but, while it was exceptional for the latter, if unprotected, to escape, of these 31 infants, only 4 were known to be affected. The women of the Durham colliery villages, who certainly have abundant opportunity for forming an opinion, say that "suckling infants rarely take the fever." The evidence seems also to point to adults as really possessing a certain immunity, apart from that accorded by previous infection. Thus, amongst 42 persons above the age of eighteen, who were very positive of not having suffered previously from the disease, and who were living in infected rooms, there were only 7 distinct attacks; 11, however, suffered from slight sore-throat and *malaise* during some period of their exposure, a fact again suggestive of relative immunity in their case, for rudimentary or abortive attacks in children are far less common.

In all but 46 of the 176 infected families, the attacks were multiple; and, in almost all cases, there was a distinct interval between the first and second attacks in a family, a circumstance itself going to show that the disease was spreading mainly by personal intercourse, and not by any common influence of food-supply or the like. The type of the epidemic, judged of by the rate of mortality alone, was not a severe one, for the proportion of fatal attacks was about 9 per cent. of the whole; but the moderateness of the mortality seems rather to have been due to the comparative absence of fatal sequelæ, for, in respect of the original infective process, the facts would rather suggest exceptional severity. Thus, the duration of the illness is recorded in 207 of the 295 fatal cases; in 57 of these, the fatal termination occurred on or before the third day; in 106, within a week; in 45, in from one to two weeks; in 26, in from two to three weeks; and in 30 cases, after a longer time. Again, in 75 of the 295 cases (these all rapidly fatal), the deaths are recorded as from malignant scarlatina, or from scarlatina with one or other of the cerebral symptoms that indicate at this early stage deep infection; in 49 cases, the disease is spoken of as "scarlatina anginosa", and in 8 cases as scarlatina with diphtheria. On the other hand, in only 18 of the 295 cases is dropsy mentioned as contributing to the fatal result. Mr. Spear doubts, however, in spite of certain authoritative opinions to the contrary, whether the type of an epidemic, as a whole, of scarlatina, can often be properly spoken of. In this, as in most outbreaks, "malignant" cases, and cases of extreme mildness, were seen side by side; the one apparently giving rise to the other. Certain localities, it is true, suffered to an exceptional extent; and it is very probable that the virulence of the disease in such cases was in a measure determined by local sanitary conditions. In a district, however, where such conditions are, as a rule, so generally unsatisfactory, it is too hazardous to draw comparisons for the purpose of speaking definitely on this point. Mr. Spear mentions also that, in the course of the inquiry, suspicion arose that the prevalence of scarlatina might be in some way related to the pre-existing prevalence in the locality of measles; and it seemed as if those who had recently passed through an attack of the latter disease exhibited a higher susceptibility than others not so circumstanced to the contagion of scarlatina. The observation is not altogether new, for a somewhat similar one is recorded by Kostlin and Löschner in the course of their epidemiological studies at Stuttgart; but our information on the point is as yet too meagre to warrant any conclusions being drawn from the coincidence.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

ASTON.—In his report for the year ending 31st December last, Mr. Henry May, the medical officer for Aston, states that the population at the last Census was 53,844, showing an increase of 19,896 in ten years. The total number of houses in the district was 12,188, of which 10,780 were inhabited, and 1,306 were void. There had been a large increase in the number of children, of which the very high annual birth-rate up to 1879, nearly 44 per thousand, was the chief explanation. The report gives particulars as to the mode of obtaining information upon infectious diseases, and the means adopted to prevent their spread, including isolation and house-to-house inspection and attention to the water-supply. Fully three-fourths of the houses are supplied with the fairly good water of the Birmingham Corporation. The number of births registered during 1881 was 2,039—viz., 1,050 males and 989 females, as compared with 2,064 births during 1880. There had been a constant though varying increase in the number of births during each year for eight years until 1880; but during 1880 and 1881, there has been a decrease. In 1876 the birth-rate was nearly 44 per 1000, but in 1880 it had fallen to 39.28, and this year it has fallen still lower—viz., 37.5. The decrease in the births is general in the neighbourhood, and corresponds with a decrease in the birth-rate of the country, which has fallen from 17.6 per 1000 in 1873, to 14.9 in 1880 and 1881. There have been 882 deaths registered in the district during the year 1881—viz., males 446 and 436 females, being 32 less than in 1880, giving a death-rate for the year of 16.2, as compared with 17.3 during 1880. The diminution of the death-rate is chiefly in consequence of the absence of any serious epidemic or excessive mortality from any outbreak of disease. There were 148 deaths registered from the seven principal zymotic diseases, as compared with 163 during the previous year, and amounting to 16.8 per cent. of the total of deaths. The zymotic death-rate was 2.7 per 1000 living, being 1.5 below the average of nine preceding years. There have been no deaths from small-pox in Aston Manor for seven years. Scarlet fever caused 33 deaths, and 191 cases were reported, in 1881, against ten deaths out of 62 cases in 1880. Measles caused 8 deaths, typhoid fever 6, diphtheria 23, whooping-cough 43, and diarrhœa 45.

ALNWICK AND CANONGATE.—Dr. McEwen, in his first annual report, makes it abundantly clear that he intends to do his utmost to rouse the sanitary authority to a sense of duty. He condemns the water-supply as dangerously open to contamination, and animadverts on the practice of keeping animals (especially pigs) in dirty and overcrowded parts of the town. He desires to see better by-laws for common lodging-houses, and strongly urges the provision of a small hospital for the isolation of cases of infectious disease. He regards the unduly large mortality from phthisis (12 per cent. of the total deaths) as connected somewhat nearly with the unsanitary state of many of the dwellings, especially of the poorer classes in the town. As he well observes, "in those yards or alleys where the houses are huddled together, and where there is more or less overcrowding, and where darkness, damp, and dirt prevail, there are conditions highly favourable to the development of pulmonary consumption. That there are too many such houses, no one will deny; and that such houses draw to them a class of tenants who despise sanitation and encourage filth and disease, is a subject which cannot be considered without at the same time being reminded that frequently such 'properties' belong to parties who must be aware of the extent of mischief which they allow to exist." Dr. McEwen has here touched upon what is perhaps the greatest impediment of sanitary progress in small towns—the neglect and often positive refusal of small-property holders to spend the money necessary to put the tenements they own into reasonably habitable condition. There were no special features in the mortality of the year, which was equal to a death-rate of 21.8 per 1,000.

KING'S NORTON (RURAL).—Mr. Hollingshead has again to report a satisfactorily low death-rate of 17.2 per 1,000, which is a slight decrease upon that for 1879. The zymotic death-rate shows a marked decline, the total number of deaths registered from these causes being 21, against 36 for the previous year. These rates are, however, exclusive of the workhouse deaths, which in 1880 were 31. The total births were 590, and the total deaths 295, which, based upon a population of 15,343, give rates of 38.45 and 17.2 per 1,000 respectively. Of the total deaths, 91 were under five years of age; and of these, sixty had not completed their first year of existence. Whilst admitting this to be an unduly large percentage of the mortality, Mr. Hollingshead holds improper feeding to be responsible, rather than any defect in sanitation. He states: "It is a very common practice among the poor part of the community to give their children scalded bread with sugar made into a kind of pap, and which is kept stewing on the hob most part of the day. Sometimes a little sugar is added to it, but generally it is quite plain. The bread used is frequently new, and consequently, when made into food, is little better than dough." On this ground, the health-officer advocates the establishment of *crèches*, where infants could be properly nursed in the absence of their mothers. Small-pox, which had for some time been entirely absent from the district, be-

ne prevalent during the latter part of the year, and altogether nine es occurred, three of which terminated fatally. The health-officer rets the absence of any system requiring the compulsory notification cases of infectious disease, and of any isolation accommodation ter than that afforded by the Birmingham Hospital, which is a long tance from many of the villages in the district. Many improvements re been effected by the recent system of drainage, which, however, re- res ventilation and additional flushing. The water-supply, too, ds extension, since in many cases an analysis of the well-waters has wn them to be unfit for domestic use. The general sanitary work the district has been well attended to; but an alteration in the tem of scavenging seems desirable.

WEST SUSSEX COMBINED DISTRICT.—Dr. Kelly again presents a ies of interesting reports upon the various districts forming this ensive combination. Not the least interesting or valuable part is the mmary which he has appended to the present report, in which are tements of the births and deaths for the preceding six years, their pective rates and causes, and a general history of the meteorology l temperature of 1880. Dr. Kelly has omitted, however, any state- nt showing the sanitary state of his combination; nor is any mention de of improvement in water-supply and drainage. This may arise m the fact that there may be little to chronicle in this respect; but a tement as to sanitary progress would considerably enhance the value the concluding portion of the report. Amongst an estimated popu- on of 16,146 souls, there were 2,614 births and 1,287 deaths during year 1880, giving rates of 30.3 and 14.9 per 1,000 respectively. A siderable increase is shown in the zymotic deaths, the rate per 1,000 ng 1.9, against 0.9 in 1879, 1.6 in 1878, and 1.1 in 1877. This h zymotic death-rate arose chiefly from the prevalence of whooping- gh, diarrhœa, and measles; no less than 127 of the total number 71 deaths from zymotic causes being due to these three diseases. ooping-cough was largely prevalent in the Wakeham Rural Dis- t, where 24 deaths were registered from that disease. Eleven more pened in the Steyning Rural District, and 6 at Worthing. Diar- ea was also very fatal at Steyning, where 20 deaths from it occurred. asles was most prevalent at Steyning and Horsham. Scarlatina sed 9 deaths, diphtheria 12, enteric fever 15, and typhus 1. No ths from small-pox were reported during the year; but 130 deaths re registered from phthisis, 204 from chest-diseases, and 90 from rt-disease. The infantile mortality was at the rate of 101 deaths every 1,000 births, against 107 for the preceding two years. Dr. lly has little to report in the way of sanitary improvement; but signs not wanting that progress may be expected. Petworth is in the uliar position of having a thorough system of drains lying useless the want of water, which has not yet been provided. At Worthing, re has been a marked improvement in the ventilation of house- ins; and West Zarring (in the East Preston District) is about to be vided with water. The outbreak of enteric fever at Worthing, due infected milk, has already been dealt with in these columns.

CERTIFICATION OF IMBECILE PAUPERS.

,—Will you kindly inform me if it is usual for medical officers of workhouses to harge 2s. 6d. each quarter for certifying to imbecile paupers resident in the house? find many of my medical brethren do so without comment by guardians or uditor.—Faithfully yours, NEMO.

*** It is generally held that, as by the terms of the appointment the workhouse edical officer engages to make tri-weekly, or it may be daily, visits, that the writ- g of all certificates, whether they relate to apprentices or quarterly returns of armless or imbecile lunatics, come within the terms of his contract. The only xceptions as regards fees to workhouse medical officers are those which relate to he removal of acute lunatics; and in order to obtain these, he must have been equired to visit and certify under the order of the justices or a stipendiary magis- rate. Midwifery is also excepted from the contract—a fee, which is laid down in ne general order, being accorded in each case. It is true that, in some instances, ne 2s. 6d. fee has been paid, but that has arisen from special arrangement having een made at the time of the appointment, or by an oversight on the part of the lerk and auditor. Our correspondent should look at the wording of the contract e has signed, as that will determine the terms on which he holds office, and will overn the fees to which he should be entitled.

A NEW VESICANT.—Dr. José Armengue of Barcelona has lately ought to the notice of the profession a new vesicant, which in many pects would appear to be far superior to cantharides. The new terial is derived from the *Œnas afer*, a coleopterous insect, which certain seasons of the year appears in enormous quantities in many ts of Spain. From experiments which Professor Armengue has tituted on his own person, and on that of several medical students, is led to claim for the *Œnas afer* as a vesicant the following advan- es over cantharides: it is cheaper; it acts without appreciable pain; s equally powerful; and it does not, so far as his experiments have shown, affect the genito-urinary system. If its non-inflammatory ion can be established by further experiment, it is probable that *Œnas afer* will be a valuable addition to the materia medica.

MILITARY AND NAVAL MEDICAL SERVICES,

AMALGAMATION OF THE INDIAN AND ARMY MEDICAL DEPARTMENTS.

WE extract the following from a recent number of the *Indian Herald*, published at Allahabad.

"The Secretary of State for India has, it is stated, agreed to the recommendations of the Government of India for the amalgamation of the Indian and Army Medical Departments. It is now intended to create a new medical corps for India, to be composed of all Indian medical officers who joined the service after 1860, and all army medical officers at present serving in India who volunteer to join the new corps and are under fifteen or twenty years' service. Older officers of the Indian services who joined the Indian service before 1860, are to be on the new list, for the purpose of regulating promotion, but not to be amalgamated with the Army Medical Department, because they have each a covenant, which gives them the right to serve only in India; whereas younger officers have only the Queen's commission, and no special agreement restricting service to India. After the amalgamation, all medical officers on the new list will ordinarily be employed in India, but will be liable for service in any part of the British Empire."

We have reason for believing that the amalgamation of the Indian and Army Medical Department is by no means the accomplished fact which it might be inferred to be from the foregoing paragraph. There still exists many difficulties to be overcome before the arrangements for uniting the two services—a union which, we have no doubt, will be arrived at in course of time—can be sufficiently advanced for public announcement.

SIR,—In answer to "A.M.D.", in the JOURNAL for March 2nd, you say that "the whole subject of medical service in India, and especially the mutual relations of the Indian and British medical services, are under anxious consideration". Perhaps it may assist those who are considering the matter, in rendering the junior branch of our department justice, if they know some of our prominent grievances. A surgeon, when gazetted in the Army Medical Department, ranks as captain, and in England gets good pay and draws captain's allowances for lodgings, etc., amounting in all to nearly £300 a year. Before he is allowed to enjoy this any length of time, he is sent abroad, the majority being sent to India. He arrives at Bombay, and is sent to his station. A warrant is given for the journey, and if he travel up country with troops, as a rule, his baggage is taken up free; but if he travel alone, only four and a half maunds (a little over three hundredweight) are allowed on the warrant for himself, and half a maund for each servant. This, of course, falls far short of the weight of his necessary "kit" brought out from England, and the surplus has to be paid out of his pocket. When he joins his station, he may consider himself fortunate if he be left there three or four months. Each time he moves he has to break up his establishment, sell furniture, etc., at a loss, and pay for any extra luggage beyond the four and a half maunds he may carry about. Or he may be sent into camp some distance from the station, and has to pay for the carriage of all he takes out, no allowance being given for these moves. In England, a surgeon is always able to get his travelling allowance, ten shillings a day, and carriage of goods. I quite allow this is all supposed to be covered by his consolidated pay in India; but what is that pay? 317 rupees 8 annas a month—not by any means equivalent to £300 a year in England. I have been now nearly a year in the country. From the first station at which I joined, I was sent to do a surgeon-major's work for three weeks. There I was in medical charge of a draft from an English regiment, and a whole native regiment, besides staff duties. For this work nothing extra was allowed, I was informed. Thence I was sent back to my original station; and after a few days was sent to a new station, where I remained a fortnight; thence to another station, and after remaining there three months, I was sent to a musketry camp, where I am at present. I suppose I may consider myself fortunate, as I have had only six journeys to make; each move, however, has cost me money, and as these moves are by no means optional, why should I be obliged to pay for them? Now-a-days, gharries, bullock-carts, and coolies are more expensive than formerly, and yet our pay is not increased, but is the same as in former days when we ranked as lieutenants.

Again, our work is much increased; the Native Army Hospital Corps require instruction, and lectures have in consequence to be given; and we are informed that we must do any extra work we are ordered to do. Horse-allowance has also been taken away since the station hospital system has been introduced. Why should not Government give us the same pay that captains receive, and also give us allowance for travelling? Our work is increased, and our duties more onerous; surely the labourer is as worthy of his hire now as he was formerly.—I am, sir, your obedient servant, SURGEON A.M.D.

Bengal, March 28th, 1882.

SIR,—At the concluding portion of the leader in your issue of February 25th, the writer seems to be labouring under a delusion, if he thinks that, "whenever a separate medical organisation for the civil medical duties of the various provinces of India becomes an accomplished fact, all real difficulties in the way of the Indian Army Medical Department coalescing with the British Army Medical Department will have disappeared...."

Pray understand that men who have entered the time-honoured Indian Medical Service did not do so for the purpose of being "coalesced" with the other service. They entered it with the expectation of remaining in a service where they would hold permanent civil and military appointments, with the privilege of transfer from the one to the other, and *vice versâ*. Those who would have preferred the other service had their option of entering it, and could easily have done so with the marks with which they entered the Indian service. There are the majority of Indian

medical officers who would dislike any such move. Others, who may seem to like it, do so under the erroneous idea that they are going to be gainers, but will begin to complain when the real position is disclosed. What the service wants, in the interests alike of its present and future members, and the sepoy and pauper (the people of India), is, to be left alone. "Hands off" should be the watchword to all would-be reformers. No such radical reform is called for. The service, since the new warrant of better pensions, shows a tendency to regain its popularity with medical students, some of the best of whom it still attracts. It is absurd to believe that, from the proposed mixture, you would expect to find the fittest men for the duties of civil surgeons, superintendents of lunatic asylums, gaols, etc., professors, or medical officers for native regiments. It is absurd to think that any unification, and the abolishing of the regimental system, would work to the advantage of the public service in the native army. I have not met a single combatant officer of British regiments who did not tell me that he would like to see the good old regimental system reintroduced, for regiments to have their own doctors; for the men to know their doctor, and the latter his patients. It is nonsense to think that the sepoy will not take advantage of the "unification" in feigning disease to escape duty whenever he so feels inclined, knowing full well that the doctor who came to his hospital yesterday may be off to-morrow, would know nothing about his previous habits, and probably care less; and so he will be master of the position, and he can then smile at his commanding and other regimental officers, and all that would bid fair to discipline. A man must know the native character to treat natives, be they sepoys or others. He must also know individuals, to be an efficient regimental surgeon.

Why not, on the same grounds, amalgamate the Indian Staff Corps officers with those of British regiments? That would bear a semblance of economy, real or imaginary. These promises of economy end in myth. The British army, including the Indian, is being meddled and muddled with to such an extent, as is most disheartening to everybody. Schemes after schemes turn up, and what real good has ever been the legitimate outcome? Why not also amalgamate the Naval Medical Service also, for there are Royal Naval medical officers in the different harbours?

Now there is no "friction" whatever between medical officers of the British service and those of the Indian service. Some of the deputy surgeons-general are of the one, and others of the other. An Indian medical officer in military employ holds his regimental or other military appointment; he is, like combatant officers, under the control of the commanding officer; and, in medical matters, under the divisional deputy surgeon-general and of the surgeon-general of Her Majesty's forces, who belongs to the Army Medical Department. Those in civil employ are under the control of the civil authorities, and, in medical matters, under the civil surgeon-general. If an officer want to get a civil appointment, *i.e.*, get transferred from the military to the civil department, he can apply for it, and the civil surgeon-general advises the Government as he thinks fit; and, if he be appointed to the civil appointment, if there be a permanent vacancy he gets it permanently, and only acting if the vacancy be temporary, in which latter case he would have to return to his regiment when the medical officer for whom he was acting in the civil appointment returns to it. No one complains of this. Then why have such medical changes, which are not called for?—I am, etc.,

A VOICE FROM THE JUNGLES OF INDIA.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS, Friday, May 12th.

Patent Medicines.—Mr. WARTON called attention to the subject of patent medicines, and said that, by an Act of the 52nd of George III, it was provided that inventors of patent medicines should no longer be obliged to take out patents, which they had up to that time been obliged to do, but that they should be required to pay stamp duties. A great deal of quackery was promoted by the Government stamp now levied on these medicines, the price of which was often advertised as 1s. 1½d. with the Government stamp. An apparent sanction was thus given by the Government to these medicines; and Mr. Warton suggested that, if the Chancellor of the Exchequer still thought fit to levy those duties, there ought at least to be some words placed on the stamps indicating that they were levied for fiscal purposes only, and were no guarantee for the goodness of the medicines. Another point which he urged was that at present, although restrictions were placed by the Pharmacy Act of 1868 on the sale of poisons properly so called, and although no one, unless he were a medical man, could get certain poisons without very great difficulty, yet it was open to any vendor of patent medicines to sell those medicines, although they might contain any quantity of poison. The sixteenth section of the Pharmacy Act seemed to reserve the rights of persons making or dealing in patent medicines. The seventeenth section, no doubt, said that it should be unlawful to sell any poison, wholesale or retail, unless the bottle or packet containing it was distinctly labelled "poison"; but he doubted whether those words overrode the special exemption in the sixteenth clause as to patent medicines.—Dr. FARQUHARSON said the subject was one of great interest, connected as it was with looseness in the sale of poisons. Patent medicines were within the section under which it was necessary to label everything containing poison; but the provision was neglected. There were patent medicines that contained virulent poisons, and some more than one, with the occasional result, perhaps, that antagonistic poisons neutralised each other. One of the most dangerous compounds was an essence of linseed, containing a large quantity of morphia, from the use of which painful cases of poisoning had occurred. An established druggist had something to lose by negligence; but these medicines were sold by booksellers and grocers, who had not the same sense of responsibility. The anomalous state of the law was illustrated by the fact that the pharmaceutical soluti of chloral could not be sold except by registered chemists, whil patent medicine containing a solution of double the strength was fre sold by grocers and others.—Mr. HIBBERT said that Mr. Warton h done good service in pressing the point whether the Government sho allow medicines over which they had no control, and the ingredient which they could in no way guarantee, to be sold labelled with Government stamp, producing the erroneous impression that sc guarantee was thereby given. He was further doubtful whether it w right to allow mixtures of this kind, containing poisons, to be sold medicines, without being labelled in the same way as poisons were quired to be labelled, so as to indicate at least the extent to which t were poisonous. He could not make any promise as to what Government would do, and could only express a hope that the ma would be fully considered by them, and that some better system wo be adopted than that which was now in force.

Army Hospital Corps.—In Committee of Supply upon the Ar Estimates, Sir R. LOYD-LINDSAY expressed the opinion that the sh service system did not work well when applied to the Hospital Cor also he thought there would be great advantage in an increase of number of female nurses both at home and abroad.—Mr. CHILD mentioned that the first question was receiving attention from Director-General; and he regretted the employment of female nur which gave rise to very serious difficulties and scandals, especially time of war.—Mr. A. O'CONNOR and Colonel COLTHURST commer upon the high rate of mortality in some of the military prisons.

Tuesday, May 16th.

Kilkenny Union Infirmary.—The ATTORNEY-GENERAL FOR I LAND, in answer to a question from Mr. MCCOAN, said a sum £89 1s. 10d. *per annum* was paid by the Government to the Kilke County Infirmary, among others, under 14 and 15 Vict., cap. 68, long as the medical officers holding office at the time of the passing that Act continued in office. No representations relative to secta appointments of officers, or to the management of this institution, been made to the Government.

Patent Mixtures of Coffee and Vegetable Matter.—Mr. REDMO asked the Chancellor of the Exchequer whether Section 6 of the C toms and Inland Revenue Bill, 1882, was intended to annul let patent under and pursuant to which mixtures of coffee and vegeta matter were prepared and sold as such mixtures.—Mr. GLADST said he was not aware, nor was the Revenue Department aware any patent rights such as were referred to in this question.

The Suspects in Cork Prison.—In reply to questions by Mr. HE with reference to the health of the suspects now confined in Cork G the ATTORNEY-GENERAL said that all these prisoners had two ho daily exercise, exclusive of the time occupied in going to and retur from the exercise-yard. The prisoners had not complained of ins cient exercise, and the medical officer had not found their he suffer. The heating apparatus was discontinued in April in each y subject to the advice of the medical officer. The closets were c nected with pipe-laid sewers, and were constantly flushed and clean inside with gas-tar.

Second Readings.—The second reading of the Vaccination A (Compulsory Clauses Repeal) Bill is set down for June 21st.—T second reading of the Vivisection Abolition Bill is appointed for J 28th.—Mr. Arthur Balfour has given notice that, on the second re ing of the Vivisection Abolition Bill, he will move that, while provision should be made for preventing the infliction of unneces pain on animals, it is inexpedient so to limit scientific investigatio to hinder discoveries which must result in a great diminution of hu suffering.—The second reading of the Contagious Diseases Acts Re Bill is set down for July 19th, and Mr. Warton has given notice of intention to move that it be read a second time upon that da months.

The Carriage-Tax.—Petitions for the exemption of medical pr tioners from the carriage-tax have been presented from Garr Faversham, and Horley.

UNIVERSITY OF BRUSSELS.—The Secretary of the Universit Brussels write to inform us that at the recent examination for the De of M.D. of the University, Mr. Herbert Collier, L.R.C.P. Lon and Edinburgh, M.R.C.S. England, L.S.A., London. came out with "grande distinction" in the first doctorate; first with "d tinction" for the second doctorate; and finally, first with "gr distinction" for the third doctorate, which carried with it the De of the University.

OBITUARY.

SIR JOHN ROSE CORMACK, M.D., F.R.C.P., F.R.S.E.,

PHYSICIAN TO THE HERTFORD BRITISH HOSPITAL, PARIS.

WE much regret to have this week to record the death of a well-known and highly esteemed member of the medical profession, Sir John Rose Cormack. He had for some time suffered from chronic disease of the prostate and bladder, and died on Saturday, the 13th instant, at his residence, Rue St. Honoré, Paris.

John Rose Cormack was born on March 1st, 1815, at Stow, in Midlothian, of which place his father, the Reverend John Cormack, D.D., was minister. After receiving a sound general education, he pursued his medical studies in the University of Edinburgh, where he graduated as M.D. in 1837. On his graduation, a gold medal was awarded to him for his inaugural thesis on the Presence of Air in the Organs of Circulation. This essay, which was founded on carefully conducted experiments on animals, as well as on literary research, established Dr. Cormack's reputation as an authority on the subject, which was one in which he continued for many years to take much interest. Previously to this, in 1836, he had gained the Harveian prize for an essay on Creasote, the result also of much study and experimental research. In 1837, he was the senior president of the Edinburgh Royal Medical Society, and occupied the chair at the centenary festival of that society.

After his graduation, Dr. Cormack visited Paris, where he attended the lectures of Andral and Velpeau, and afterwards spent some time in travelling in Italy and Spain. Having returned, he settled in Edinburgh, and commenced physician's practice. In 1841, he was admitted a Fellow of the Royal College of Physicians of that city; and, not long afterwards, was appointed a physician to the Royal Infirmary. During the epidemic of relapsing fever in Edinburgh in 1843, he was physician to the Fever Hospital, and there made a series of careful clinical and pathological observations, which he published in the form of a treatise on the *Natural History, Pathology, and Treatment of the Epidemic Fever, at present prevailing in Edinburgh and other towns.* He also for some time lectured on Forensic Medicine in the Extra-academical School of Edinburgh.

In 1847 he left Edinburgh, and for several years followed general practice at Putney. Afterwards, he resided in London until 1866, in which year he left England, and went to Orleans. In 1869, the death of of Sir Joseph Oliffe having caused a vacancy in the ranks of the British medical men in Paris, Dr. Cormack entered on practice in that city. In order to acquire full legal right to practice in France, he graduated as Doctor of Medicine of the University of France in 1870, selecting as the text of his thesis a subject cognate to that of his Edinburgh essay: namely, *De l'Entrance de l'Air par les Orifices Béants des Veines Utérines considereé comme Cause de Danger et de Mort subite peu de temps après la Délivrance.* He had previously, in 1850, written on the same subject in the *London Journal of Medicine.*

On the approach of the German army to Paris in 1870, Dr. Cormack dismissed several of his family to England, and, with his wife, one son—the late Dr. J. R. Baillie Cormack—and one daughter, remained throughout the siege, during which he rendered eminent service, not only to the wounded both on the field and in the ambulances, but also as one of the committee formed for the purpose of affording relief to the distressed British residents—an object in which much valuable aid was rendered by the liberal generosity of Sir Richard Wallace. During the terrible scenes of the Commune, he remained at his post, affording professional aid to the wounded of both sides, some of whom he received in his house in the rue d'Aguesseau, while others were placed in a house in the vicinity occupied as a hospital. After the restoration of peace, his services to the French and to his countrymen were recognised by the Governments of both countries. In 1871, the French Government made him a chevalier of the Legion of Honour; and in 1872, Her Majesty the Queen conferred knighthood on him. In the letter informing him of his enrolment as a member of the Legion of Honour, M. Jules Favre, the Minister of Foreign Affairs, wrote to him: "For the devotion with which you have cared for the French wounded and dying, whom you have sought on the field of battle, and so faithfully attended in the British Ambulance, France is grateful to you." When the Hertford British Hospital was established in Paris through the munificence of Sir Richard Wallace, Sir John Rose Cormack was appointed one of the physicians, and held office up to the time of his death. From 1871 to the present time, he had a considerable amount of practice, and was held in high regard both by his patients and by his English and French professional colleagues. In 1872, he was elected a Fellow of the Royal College of Physicians of London.

Sir John Rose Cormack possessed much literary ability, and was the author of several valuable contributions to medical periodicals. Among them may be mentioned "Notes on the Pathology and Treatment of Cholera" (*Association Medical Journal*, November 1853): "Puerperal Convulsions, their frequent dependence on Toxæmia" (*London Journal of Medicine*, June 1849): "The Value of the Dark Abdominal Line as a sign of Recent Delivery" (*Edinburgh Monthly Journal of Medical Science*, February 1844), etc. In 1876, he published these with his Edinburgh thesis, several papers on Air in the Veins, Diphtheria, etc., in two volumes of *Clinical Studies, illustrated by Cases observed in Hospital and Private Practice.* Four of the volumes of the New Sydenham Society's translation of Trousseau's *Lectures on Clinical Medicine* (the first being by the late Dr. V. Bazire) were written by him. He had a great liking and possessed much aptitude for editorial work. In 1841, he established the *Edinburgh Monthly Journal of Medical Science*, and conducted it up to the time of his leaving Edinburgh. That periodical, long afterwards known and referred to as "Cormack's Journal", became in a few years amalgamated with—or rather, we believe, absorbed—the old Quarterly Medical Journal published in the northern metropolis, and has now for many years held firm ground as the *Edinburgh Medical Journal.* While residing at Putney, he established another monthly periodical, the *London Journal of Medicine;* among the contributors to which were Drs. Golding Bird, Garrod, Marshall Hall, Bence Jones, Parkes, Peacock, Quain, Sibson, C. J. B. Williams, Mr. (afterwards Sir William) Fergusson, and Messrs. Bowman, White Cooper, Prescott Hewett, H. Lee, Curling, and many other well-known men. This was discontinued towards the end of 1852, when, after the decision to remove the publication of the journal of the Provincial Medical and Surgical Association to London, he was appointed editor of that journal. He continued to conduct the *Association Medical Journal* with much ability until 1855, when, it having been decided at the annual meeting to separate the office of secretary—to which he had been appointed in the previous year—from that of editor, he announced his desire to retire from his editorial duties as well—a decision which was received with much regret. He took a deep interest in the prosperity of the British Medical Association, and was a steady advocate of all measures which he believed to be calculated to secure its welfare and increase its efficiency.

Sir John Cormack was always a firm supporter of the honour and dignity of his profession. In practice, he was a careful clinical observer; judicious and moderate in the use of medicines; assiduously attentive to cases which he judged to be severe and to require his careful supervision; and always acting in such a way as to gain the confidence and esteem of his patients and their friends.

Sir John Rose Cormack married, in 1841, Eliza Anne, second daughter of Mr. William Hine, of Hampshire, Trelawney, in Jamaica, and had eleven children—four sons and seven daughters. His widow, one son, and four daughters, survive him. His second son, Dr. Baillie Cormack, a young man of much promise, assisted his father during the sieges of Paris, and died in 1876. His only surviving son is a student of medicine in Paris.

We will conclude this notice by extracting a few sentences from an article in *Galignani's Messenger* of Monday last; remarking merely, that a long and intimate knowledge of him enables us to endorse all that is there said of the excellence of his character.

"In the death of Sir John, the English colony in Paris has lost one of its most distinguished representatives, one most widely known and respected.....For more than thirteen years he has lived in our midst, meeting the duties of his great profession with rare skill and fidelity, and commanding the respect of all by his sterling integrity and consistency of character. He was a true and earnest man, a noble servant in every call of duty. We, who knew him well and loved him in the closest friendship, will miss him through life. What we particularly noted in his character, apart from his abilities as a physician and a writer, was his high spiritual attainments, his simple and devoted Christian faith, his intense love for his Master, his profound sympathy for his fellow-men, and his unswerving fidelity to duty. Universally respected, he leaves many to mourn him. As husband, father, physician, friend, he was all that could be—more than most men are. He has passed from us and entered upon his great reward. Blessed be God for the record of such a faithful life, and for ever blessed be the honoured memory of this good and earnest man."

JOHN BROWN, LL.D., M.D., F.R.S.ED.

DR. JOHN BROWN, who died of pneumonia on the 11th instant, in his seventy-second year, was born at Biggar on September 22nd, 1810. His father, grandfather, and great-grandfather, were all well known ministers of the Scotch Kirk. He received his general education partly at home, and partly at the High School and University of Edinburgh. He commenced the study of medicine as a pupil of Professor Syme,

and followed it at the University, where he graduated as M.D. in 1833. After the completion of his studies, and previously to graduation, he acted for a year as assistant to a surgeon in Chatham; and, after graduation, he commenced to practise in Edinburgh. In that city he continued to reside for the remainder of his life, leaving it very rarely, and only for brief periods. Although, in course of time, Dr. Brown attained a very fair practice as a physician, and was greatly valued by those whose sick-rooms were brightened by his visits, yet it is probable that the literary instincts which manifested themselves in contributions to the *North British Review*, *Good Words*, and the *Scotsman*, and other newspapers, stood somewhat in the way of his professional success. His practice did not increase after he published his first series of *Horæ Subsecivæ*. These essays were strictly the work of his leisure hours; but people seemed to think that a professional man's leisure should be spent in thinking of their cases, or on anything rather than writing books that would amuse and profit them.

From an early stage in his career, Dr. Brown had become a noted personality in Edinburgh literary circles; and the efforts of his pen soon came to be eagerly looked for by an appreciative public. The first series of *Horæ Subsecivæ*, which contained, among other papers, the famous "Rab and his Friends", was published in 1858. A second series, dedicated to Andrew Coventry Dick, W. Makepeace Thackeray, and John Ruskin, and embracing "Our Dogs" and "Notes on Art", was issued in 1861; to be followed, in the same year, by a second edition of the work in two volumes. New issues were called for from time to time; and since the commencement of the present year, there appeared a volume comprising the essay on John Leech and other papers, which is already in its third edition. A reissue, with additions, of professional papers published in 1866 has just left the press. The additional papers here given include a brief notice of Sir R. Christison, and a warm eulogium on the author's old master, Professor Syme. No writer, it may be safely said, has met with prompter or more cordial recognition. His name became a household word, not only here at home, but even more in America. As an author of rare gifts, he became the friend and correspondent of Mr. Gladstone, Ruskin, Thackeray, Motley, Wendell Holmes, and others of foremost rank in our day. From his Alma Mater, in 1874, Dr. Brown received the honorary degree of LL.D.; and, two years later, a pension of £100 a year from the Civil List was accorded in recognition of his literary services. A Fellow of the Royal College of Physicians, and of the Royal Society of Edinburgh, he was twice appointed by Mr. Gladstone as his assessor when Lord Rector of the university, while Government made him a member of the Education Commission. Though honours in his case did not prove synonymous with wealth, he went meekly and modestly on his way, certainly never complaining, saying rather that he had been far better used by the world than he ever deserved.

As regards his ecclesiastical sympathies, Dr. Brown was a member of the United Presbyterian Church. After having worked himself into a good professional standing, Dr. Brown in 1840 married Catherine Scott. Mrs. Brown died a good many years ago, but a son and daughter survive their distinguished father.

MEDICAL MAGISTRATE.—Dr. R. B. M'Clelland has been appointed a magistrate for the County Down.

SANITARY CONDITION OF MOZAMBIQUE.—The sanitary condition of Mozambique, though slightly improved by many public works, continues in a very unsatisfactory state; and the last hot and rainy season from November to April, proved an exceptionally bad one. In November there were twenty-four deaths among the European community which does not exceed 500: and the death-rate among the blacks was equally large. The illness most dreaded is the "febre perniciosa" or pernicious fever, which generally carries off its victims in from one to five days or six days; and bilious disorders. The latter, though common to all trophical places, are aggravated on this island by its limited size, which prevents proper exercise being taken. Various reasons have been assigned for the endemic fevers of Mozambique, and amongst them that of the escape of malarial gases from the disintegrated coral in the quarries at the southern extremity of the island. It is an ingenious theory, and Hong-Kong, when granite was quarried and fever was rife in it, is quoted in support: but it does not find much favour amongst the medical men of the place. The true reason seems to lie in the crowded state of the island and the filthy habits of the black population and lower class of whites, including Hindoos, Arabs, half-castes, with the complete absence of anything like a drainage system upon it. Everything is cast out on the beach, often above high-water mark to lie and fester in the burning sun, and, when below, to remain till the repeated washings of the tide have removed it.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in Anatomy and Physiology, at a meeting of the Board of Examiners, on the 11th instant, and when eligible will be admitted to the pass examination.

Messrs. William E. C. Musson, Reginald T. Bowden, Thomas M. Beale, and Frank S. Barnett, students of St. Bartholomew's Hospital; Philip M. Scatliff and Henry P. G. Elkington, of St. George's Hospital; Thomas W. Morgan and William H. Kelson, of the London Hospital; Sidney R. Alexander, of Guy's Hospital; and Frank Harvey, of the Middlesex Hospital.

Ten candidates were rejected.

The following gentlemen passed on the 12th instant.

Messrs. E. S. Stone Davis, Ernest Noad, Robert T. Fetherstonhaugh, Frederick W. Morison, and Francis H. Thornton, of St. Bartholomew's Hospital; E. Kynaston Alderson, Frank W. Manby, and John Emery, of Guy's Hospital; Duncan McArthur and Herbert T. Bury, of University College; Frederick J. Jaynes and Walter Wise, of the Middlesex Hospital; H. G. Lewis Stevens, of the Charing Cross Hospital; Frank Verdon, of King's College; John James, of the London Hospital; and H. Haynes Lovell, of St. Mary's Hospital.

Twelve candidates were rejected.

The following gentlemen passed on the 13th instant.

Messrs. Edward A. W. Hope, Charles E. Robbs, Henry H. Fisher, Edward Vaughan, and William H. Bell, of St. Bartholomew's Hospital; Edward J. Sheppard, of University College; Herbert T. Crosby, of St. Thomas's Hospital; Francis R. Humphreys, of Guy's Hospital; Dina N. P. Datta, of King's College; and George Creswell, of the Westminster Hospital.

Five candidates were rejected.

With this meeting the primary examinations were brought to a close. Of the 167 candidates examined, 64, having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their anatomical and physiological studies for three months, including six who had an additional three months. One candidate was sent back for six months, having been detected in copying.

The following gentlemen, having undergone the necessary examinations, were admitted Members of the College at a meeting of the Court of Examiners on the 15th instant.

Messrs. John Sinclair, L.S.A., Kingsclive, Berks; John C. Watson, M.B.Aber., Sunderland; Mahendra N. Banerjea, L.S.A., Calcutta; John W. Dearden, L.R.C.P.Ed., Laidmoor, near Bradford; Isaac Scarth, L.S.A., Stanghow, Yorkshire; George Stoker, L.K.Q.C.P.I., Cheyne Walk; Michael W. Russell, L.S.A., Aberdare; Arthur W. Cadman, L.K.Q.C.P.I., Spondon, Derby; Frederick H. Kenny, L.S.A., Norwich; William Case, L.S.A., Wells, Norfolk; John F. McMillan, L.S.A., St. John's Wood; Arthur A. Lipscomb, L.S.A., Forest Hill; Daniel E. Anderson, L.S.A., Mauritius; John Jones, L.S.A., Euston Road; and Herbert A. H. McDougall, L.R.C.P.Ed., Winchester.

Nine candidates were rejected.

The following gentlemen passed on the 16th instant.

Messrs. Loftus R. Wilkin, L.K.Q.C.P.I., Dublin; H. Astley Phillips, L.S.A., Leinster Square, W.; G. Stratton Aslett, L.R.C.P.Ed., Oaklands, near Carmarthen; H. Maxwell Sloggett, L.R.C.P.Ed., Godalming; George R. Green, L.R.C.P.Ed., Modbury, Devon; Edward Corner, L.R.C.P.Ed., Bath; Robert F. Fox, L.S.A., Stoke Newington; J. Atkinson Hosker, Dalston; William R. Buckell, Romsey, Hants; John H. Booth, Chesterfield; Frederick E. Hubbard, Margate; John W. Walker, Wakefield; F. de Courcy Skeete, Barbadoes; Herbert W. Knowles, St. Helen's, Lancashire; H. Poole Berry, Amwell Street, E.C.; Sidney H. C. Martin, Kingston, Jamaica; Frank J. Allen, B.A.Cantab., Shepton Mallet; R. D. Delahaye Williams, Llanedy, Carmarthen; and Henry D. Waugh, Stockwell.

Twelve candidates were rejected.

The following gentlemen passed on the 17th instant.

Messrs. Arthur W. Wheatly, Brailes, Warwickshire; Robert J. Collyns, Moretonhampsted; Joseph Clegg, Manchester; John S. Moreton, Tarvin, near Chester; John W. Hopkins, Leeds; and William Davies, Llechwedd, Aberystwyth.

Fourteen candidates were rejected.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, May 11th, 1882.

Dyson, Herbert Jekyl, 19, Tyndale Place, Islington.
Fox, Robert Fortescue, Lordship Terrace, Stoke Newington.
Jones, Owen Clayton, 48, Philpot Street, E.
Potts, Walter Alfred Beevor, Amersham, Bucks.

The following gentlemen also on the same day passed their Primary Professional Examination.

Carter, Arthur Joseph, Guy's Hospital.
Munckton, Alfred, University College.
Thomas, Arthur William G., Charing Cross Hospital.
White, Thomas Harry, St. Bartholomew's Hospital.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At a meeting of the Court of Examiners, held on April 21st and following days, the under-mentioned gentlemen, having passed the required examination for the letters testimonial, and having taken the declaration and signed the roll, were admitted licentiates of the College.

Morris Asher, William V. Barre, Edmond M'W. Burke, Hugh J. Byrne, Thomas

S. Campion, Sydenham D. Chandlee, Roderick Cusack, William T. Cuthbert, Frederick W. Elsner, Francis C. Evans, John A. O'Finegan, Vicars H. Fisher, George H. J. Fisher, Richard W. Gilmore, John B. Greene, John Griffin, Robert J. Gubbins, David Hamilton, John M. Harrington, Alexander F. Harper, Pierce C. Hayes, Robert J. Heatly, Robert Hickson, Allen M. Irwin, William G. Kennedy, James J. Kerr, John R. Mallins, John M'Cabe, Michael M'Hugh, Thomas M'Inerney, Fitzjames Molony, William F. Morgan, Frederick H. Moore, Robert G. Nesbitt, John R. Nolan, William Nolan, Claudius O'Donel, Peter O'Donnell, James J. Phelan, William H. K. Pollock, George C. Porter, William J. Robinson, Joseph F. Russell, Robert Simpson, William F. Smartt, Noble L. U. Somers, William H. S. Walker, Samuel R. Wills, George T. Wilkinson, Michael T. Yarr.

UNIVERSITY OF DUBLIN: TRINITY TERM, 1882.—At the First Summer Commencements, held on Wednesday, May 3rd, in the Examination Hall of Trinity College, the Senate of the University conferred the following amongst other degrees.

Doctor in Medicine.—Charles Patrick Baxter.

MEDICAL VACANCIES.

The following vacancies are announced :—

ADDENBROOKE'S HOSPITAL, Cambridge.—House-Physician. Salary, £65 per annum. Applications by June 6th.

BRISTOL FORESTERS' DISPENSARY.—Qualified Medical Practitioner. Salary, £120 per annum. Applications to E. L. Burgess, 34, Horfield Road, Kingsdown, Bristol, by the 29th instant.

BUCKINGHAMSHIRE GENERAL INFIRMARY, Aylesbury.—Resident Surgeon and Apothecary. Salary, £80 per annum. Applications to Mr. George Fell, Solicitor, Aylesbury.

CHELSEA HOSPITAL FOR WOMEN.—Assistant-Physician. Applications by June 1st.

CHELSEA HOSPITAL FOR WOMEN.—Two Physicians. Applications by June 1st.

CORK UNION.—Apothecary or Pharmaceutist for North District Branch Dispensary, at a salary of £90 per annum, with residence. Election on the 23rd instant.

HACKNEY UNION.—Resident Medical Officer. Salary, £200 per annum. Applications by the May 29th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Resident Clinical Assistant. Applications by June 3rd.

KINGTON UNION, Kington, Herefordshire.—Medical Officer. Salary, £30 per annum. Applications by May 22nd.

LANCASTER INFIRMARY AND DISPENSARY.—House-Surgeon. Salary, £120 per annum. Applications by May 29th.

LIVERPOOL NORTHERN HOSPITAL.—Assistant House-Surgeon. Salary, £70 per annum. Applications by June 3rd.

NATIONAL HOSPITAL FOR THE DEFORMED, 234, Great Portland Street.—Surgeon. Applications by May 29th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Four Examiners in Medicine and Two Examiners in Midwifery. Applications by the 25th instant.

ROYAL FREE HOSPITAL, Gray's Inn Road.—Junior Resident Medical Officer. Applications by the 24th isntant.

ROYAL HANTS COUNTY HOSPITAL, Winchester.—House-Surgeon. Salary, £100 per annum. Applications by June 10th.

ROYAL PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL.—House-Surgeon. Salary, £100 per annum. Applications by May 25th.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL, St. George's Circus, S.E.—Clinical Assistant. Salary, £25 per annum. Applications by the 27th instant.

SLIGO DISTRICT LUNATIC ASYLUM.—Resident Medical Superintendent. Candidates must be doubly qualified, and not over forty years of age. Applications to be forwarded to the Under Secretary, Dublin Castle, on or before the 22nd instant.

ST. PANCRAS AND NORTHERN DISPENSARY.—Physician-Accoucheur. Applications to the Committee at the Dispensary by June 1st.

TORBAY HOSPITAL AND PROVIDENT DISPENSARY, Torquay.—Junior House-Surgeon and Dispenser. Salary, £90 per annum. Applications by May 22nd.

TOWCESTER UNION—Medical Officer for the Blisworth District. Salary, £50 per annum. Applications by the 19th instant.

WARNEFORD, LEAMINGTON, AND SOUTH WARWICKSHIRE HOSPITAL.—Honorary Physician. Applications by May 22nd.

MEDICAL APPOINTMENTS.

ARCHER, A. M., M.B., appointed Visiting Surgeon to the Chester General Infirmary *vice* W. H. King, M.D., resigned.

BAILEY, W. E., L.R.C.P., appointed Resident Assistant Medical Officer to the Township of Manchester, *vice* J. H. Pettinger, L.R.C.P., resigned.

BRADSHAW, Oswald G., L.R.C.P., M.R.C.S., appointed Clinical Assistant at the Royal South London Ophthalmic Hospital.

BRUNTON, C. E., M.B., appointed second Assistant Medical Officer to the Metropolitan Asylum at Leavesden, near Watford, Herts, *vice* H. B. Runnalls, M.R.C.S., resigned.

CLAREMONT, C. C., M.B., appointed Medical Officer to the Royal Portsmouth, Portsea, and Gosport Hospitals.

CLUNN, T. R. H., M.R.C.S.E., appointed Assistant Medical Officer to the Cambridge County Lunatic Asylum, *vice* R. J. Boyd, L.R.C.P., resigned.

COTTON, Charles, M.R.C.P., M.R.C.S.Eng., appointed Surgeon to the Admiralty at Ramsgate, *vice* J. B. Thomson, M.R.C.S., resigned.

DONNELLY, Thomas, M.B., appointed Assistant-Surgeon to St. Joseph's Hospital for Sick Children, Upper Temple Street, Dublin.

MIVART, F. St. George, L.R.C.P.Ed., M.R.C.S., appointed Surgeon to the City Dispensary.

NASH, W. G., M.R.C.S.Eng.L.S.A., appointed Medical Officer of Health to the Daventry Union, *vice* A. Haviland, M.R.C.S.Eng., resigned.

STEWART, C. W., M.B., appointed House-Surgeon to the Leith Hospital, *vice* G. M. Johnston, M.B., resigned.

UNDERHILL, F. E., M.B., appointed Member for the Honorary Medical Staff to the Guest Hospital, Dudley, *vice* A. Jones, M.R.C.S., deceased.

WOOLLETT, Sidney W., M.R.C.S., L.S.A., appointed Junior Assistant Medical Officer to the Banstead Asylum.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., *which should be forwarded in stamps with the announcements.*

BIRTHS.

EMERSON.—May 12th, at 4, Park Side, Cambridge, the wife of P. H. Emerson, Esq., M.R.C.S., Clare College, of a son.

WILKINS.—On the 9th instant, at Castlehold, Newport, I. W., the wife of Robert Bird Wilkins, of a son.

DEATHS.

CORMACK.—On May 13th, Sir John Rose Cormack, M.D., Physician to the British Hertford Hospital, M.D. of Paris and Edinburgh, at his residence, 364, Rue St. Honoré, Paris.

NORTH.—On the 11th inst., at Horsemonden, Kent, after a few days' illness, of pneumonia, John Cunningham North, M.B., C.M.Edin., eldest son of John North, Esq., of Brecon, aged 34 years.

ROWLAND.—May 16th, at Gloucester House, Malvern Wells, Worcestershire, Hugh Mortimer Rowland, M.D., in his 48th year. Australian papers please copy.

THE PHARMACEUTICAL SOCIETY.—The eleventh annual dinner of the Pharmaceutical Society of Great Britain was held, under the presidency of Mr. Greenish, on Tuesday night at the Freemasons' Tavern, when among those present were Dr. Buchanan (the Master of the Society of Apothecaries), Professor Abel (President of the Institute of Chemistry), Dr. Michael Foster, Sir Philip Cunliffe-Owen, Dr. Gilbert (President of the Chemical Society), Mr. E. Saunders (President of the Metropolitan Counties Branch of the British Medical Association), Mr. Sutherland Edwards, Mr. Danvers, and Mr. Bremridge, the secretary. The chairman in proposing "The Medical Profession," dwelt upon the importance of an intimate relation subsisting between pharmacy and medicine. Mr. E. Saunders, replying, remarked that whatever advance might be made in pathology, the healing art could not keep pace with that advance unless the pharmacist made corresponding progress. Dr. Buchanan gave the toast of "The Pharmaceutical Society of Great Britain." The president, Mr. Greenish, in reply, said the progress of the society depended upon the education of the individual pharmacist. In August last, the pharmacists from every part of Europe had come to this country. For a long time they had been making attempts to form an international pharmacopœia; and he believed that, through the influence of the Pharmaceutical Society of Great Britain, the object would now soon be accomplished.

INSANITY FROM DRUGS.—Members of the medical profession, especially those having had dealings with the insane, are earnestly requested to answer the following questions, fully, yet concisely. The subject is one of so much importance, medico-legally, and otherwise, and so very little is to be found upon it in works on insanity, that it merits the attention asked for it. 1. Have you ever seen any cases of insanity, temporary or permanent, or any deviation from the normal mental or moral state that could be traced directly to the use of a single large dose, or the continued use of opium, or any of its preparations or alkaloids? 2. Of what type was such insanity? Give symptoms. 3. State patient's age, sex, civil condition, and occupation. 4. What was its duration and result? 5. State colour of patient's hair, eyes, and complexion. 6. Was there any hereditary tendency to insanity, or any history of alcoholism, grave nervous disease, or any drug habit in the patient's ancestors? 7. What amount of the drug was used, and for how long a time? 8. What line of treatment was pursued? 9. Please answer the same questions regarding the use of chloral hydrate. 10. Please answer the same questions regarding the use of bromide of potassium, or any other drugs. In all cases requested, communications will be considered strictly confidential. Reprints of the article, embodying the results of statistics, will be sent to each correspondent. Communications are to be sent to Dr. H. H. Kane, De Quincey Home, Fort Washington, New York City.

WATER SUPPLY AND DEATH-RATE.—The *Weiner Mediz. Blätter*, No. 14, contains an abstract of a paper, read by Professor Drasche, on the influence of the high pressure service of water on the health of the population of Vienna, in which he takes as an index thereto, the rate

of mortality from typhus [typhoid?] The new supply was commenced late in the year 1873, and extended to over 2,000 houses in the following year, to 6,000 in 1876, and to 9,430 at the end of 1881, when 23 per cent. of the houses remained still supplied from private wells or other services. Prior to 1855 the deaths from typhus [typhoid?] were 2 or 3 per 1,000. At that time some improvement appeared, due probably to the demolition of the walls of the city, the widening of the streets, and other sanitary measures; but it was more marked when the new water service came into operation. Thrice only between 1790 and 1874 had it fallen below 1 per 1,000, but since that time it has never risen above 1, and latterly has stood at 2 per 1,000. Between 1853 and 1863 no fewer than 48,689 cases of "typhus" were admitted into the three principal hospitals; from 1863 to 1873, 32,000, and in the last decenniad only 10,000, of which 3623 cases and 803 deaths occurred in the short period prior to the introduction of the new water supply. Until 1878 or 1879 the houses which drew their water from private wells or other sources showed a mortality from twice to ten times as great as those provided by the company's water, but of late years this difference has disappeared, probably because those having private wells are now mostly well arranged suburban villas. A like reduction in the number of cases of gastric and intestinal catarrhs received at the various hospitals has been observed in the case of all parts of the city to which the new supply has extended. But an even more conclusive proof of the benefits derived therefrom was furnished by the fact that when during the droughts of 1876-7 some of these districts were for a time provided with water from the old Ferdinand canal they immediately showed the highest mortality of all. During the epidemic of "typhus" of 1877, these areas had a death-rate of 28.7 per cent. of the whole, while those receiving only the pure water had but 4.8 In the entire garrison there were 109 cases, of which 86 came from the barracks, snpplied at the time from the Ferdinand canal, and in two barracks containing almost precisely equal numbers of men, similar in age, clothing, and other circumstances, but supplied the one from the canal and the other from the new waterworks, the cases were respectively 80 and 2.

HEALTH OF FOREIGN CITIES.—The recent health and sanitary condition of various foreign and colonial cities may be inferred from the following facts and figures, derived from a table in the Registrar-General's last weekly return. According to the most recent official returns, the annual death-rate was equal to 34.0 in Madras and 26.5 in Bombay; cholera caused 17 and small-pox 9 deaths in Madras, while 48 fatal cases of measles were recorded in Bombay. During the first week of May, the death-rate in Alexandria was equal to 33.5, and 10 of the 136 deaths were fatal cases of typhoid fever. In twenty-three European cities, the death-rate averaged 29.7, and exceeded by no less than 8.5 per 1000 the average rate prevailing last week in the twenty-eight large English towns. The death-rate in St. Petersburg was equal to 58.0, and showed but a slight further decline from the still higher rates in previous weeks; the 745 deaths included 49 from typhus and typhoid fevers, 35 from scarlet fever, and 28 from diphtheria. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate averaged 20.9; measles caused 7 more deaths in Copenhagen. The death-rate in Paris was equal to 26.5, and the 1140 deaths included 68 from diphtheria and croup, 36 from typhoid fever, and 20 from small-pox. The Brussels death-rate was equal to 24.3, and 4 deaths resulted from small-pox; the death-rate in Geneva, however, did not exceed 23.3. In the three principal Dutch cities, the death-rate averaged 27.2, the highest rate being 28.1 in Amsterdam, where 8 fatal cases of measles and 6 of whooping-cough were recorded. The Registrar-General's table includes returns from nine German and Austrian cities, in which the death-rate averaged 30.3, and ranged from 23.6 and 24.8 in Berlin and Hamburg, to 36.4 and 39.2 in Vienna and Buda-Pesth. Small-pox caused 44 more deaths in Vienna and 17 in Buda-Pesth; diphtheria continues somewhat fatally prevalent in Berlin and Dresden. The death-rate averaged 32.0 in the four Italian cities, and ranged from 28.4 in Rome, to 33.9 in Naples. The returns from Naples and Rome relate, however, to weeks ending in December and January. Scarlet fever caused 11 deaths in Naples, and both typhoid fever and diphtheria showed fatal prevalence in Turin. The annual death-rate in three of the largest American cities averaged 23.9, and ranged from 22.6 in Philadelphia to 25.5 in Brooklyn; the usual return from New York does not appear to have been received. Scarlet fever and diphtheria showed fatal prevalence in Brooklyn, and typhoid fever caused 19 deaths in Philadelphia.

BEQUESTS AND DONATIONS.—Mr. W. H. Lyall has given £63 to the Metropolitan Convalescent Institution.—Mr. Edward Pugh, of Wolverhampton and Bilston, has bequeathed £1,000 each to the Wolverhampton Eye Infirmary and the Wolverhampton and Staffordshire Hospital.

OPERATION DAYS AT THE HOSPITALS.

MONDAY..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.3 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ea Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Laryn W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o. Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædi W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu.F., 9.30; o.p., T F., 2; Eye, Tu.F., 9.15; Ear, M. Th., 2; Skin, Tu.Th., 1.30; Throat, M. Th., 1.4 Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.3 Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9. Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical daily, 1.30; Obstetric, Tu. F., 3; Eye, M Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Mr. T. Holmes: On Thyrotomy for the removal of foreign bodies impacted in the interior of the Thyroid Cartilage. Dr. Felix Semon: Two cases of Laryngeal Growths in which the neoplasms were successfully removed by Endolaryngeal Operation with the aid of the Galvano-caustic Method. Mr. Watson Cheyne and Mr. E. M. Nelson will exhibit Koch's specimens of the Bacilli of Tubercle; etc.

THURSDAY.—Harveian Society of London, 8 P.M. Mr. Osman Vincent: Case of Hysterical Spine. Mr. G. Eastes: Physiological Rest in the treatment of Medical Cases.

FRIDAY.—Clinical Society of London, 8.30 P.M. Report of Committee upon Hyperpyrexia in Acute Rheumatism. Dr. Greenhow: Cases of Rheumatic Fever treated with Iodide of Potassium and Sulphate of Quinine. Dr. Crocker: Case of Prurigo of Hebra. Dr. B. O.Connor: Cases of Ichthyosis involving the entire surface of the Body (patient shown). Mr. Golding-Bird: Case of Congenital Hernia in the Adult; Radical Cure after Kelotomy. Dr. S. Mackenzie: Case of Lupus Psoriasis. Dr. Churton (Leeds): Sequel to a case of Double Hæmorrhagic Pleurisy with formation of Cholesterine. Mr. Walsham will show a case of Excision of the Wrist. Dr. Althaus will show a case of Cerebrospinal Syphilis.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

PRACTICE WITH SINGLE QUALIFICATION.

SIR,—Will you kindly inform me whether a practitioner with only one qualification, that of the College of Surgeons, can be permitted to practise both medicine and surgery, and charge for the same as a general practitioner? and, if not, through what channel can a remedy for such irregularity be had recourse to.—Yours truly,

VETO.

*** It was shown by a paper handed in to the Select Committee of the House of Commons by the Registrar of the General Medical Council, that a very considerable proportion of the medical practitioners of the United Kingdom (nearly one-fifth, in fact) are practising with a single qualification; and as the diploma of the College of Surgeons is the one most sought after, many of these will be in the position described by our correspondent, *i.e.*, practising both medicine and surgery, and, of course, charging for both, though only authorised by their diploma to practise surgery. There is nothing in the Medical Act of 1858 to prevent this; but the thirty-first section enacts that a registered practitioner shall only be entitled to recover his charges in a court of law, "according to his qualification or qualifications". The surgeon who possesses no medical qualification is, therefore, not entitled to recover for medical cases, nor the physician, who is without a surgical diploma, for surgical cases. With regard to the supply of medicines, the Apothecaries' Act of 1815 would, before the passing of the Medical Act of 1858, have been applicable to the case; but the last named Act provides that the registered practitioner may recover both his professional charges, and also the cost of all medicines and medical or surgical appliances; and it is quite certain that the Apothecaries' Society would refuse their sanction to the prosecution of a registered surgeon on account of any supposed infringement of their Act. In this, we think they would be right; the true remedy for the irregularity complained of by our correspondent being rather to be sought in the amendment of the Medical Act, and the adoption of the one portal system of examination, than in the promotion of litigation between members of the same profession.

PRURITUS VULVÆ.

SIR,—In answer to "H. H. O.", I am not inclined to think with him that the distressing symptom he alludes to is in his case due to a diabetic condition of the urine. "H. H. O." describes his patient as being strong and robust in appearance. Now, I have noticed that the symptom of pruritus—or, in other words, irritation and inflammation about the orifice of the urethra—does not, as a rule, show itself until quite the last stage; in fact, when the patient is dying from inanition. I should fancy there was some local cause, and should recommend the application of liquor sodæ chlorinatæ diluted to half its strength.—Yours very truly,

Fareham, May 13th, 1882. E. T. CROUCH, M.R.C.S.

SIR,—A correspondent, "H. H. O." asks for a remedy for pruritus vulvæ. In the case of a patient of mine, a single application of a saturated solution of boracic acid effectually released her from this affection, from which she suffered in an intense and most distressing degree for weeks previously, and which various applications, including lead and strong nitrate of silver solutions, failed to relieve.—I am, sir, faithfully yours, THOMAS DRAPES, M.B.

Enniscorthy, Ireland, May 15th, 1882.

MR. JAMES STARTIN suggests that, provided there be no mechanical cause, small tumour, uterine or otherwise, "H. H. O." should try a drachm of cajeput oil to the ounce of vaseline, and apply it after bathing with warm water every night. It may cause a little smarting at first; but, in Mr. Startin's experience, it has proved valuable in many instances.

MEDICAL QUALIFICATIONS.

SIR,—Now that so much has been said for and against the Edinburgh colleges as qualifying bodies, is it not time that something was said and some attention drawn to the lamentable fact that the English practitioner is compelled to seek for medical degrees outside his own country? The best of our general practitioners, and some of our most distinguished physicians, in the laudable desire to possess medical degrees, are compelled to seek them from foreign universities, or to cross the Tweed, unless, indeed, they choose to wait for the degree at Durham, and accept, at the age of forty, fifty guineas' worth of professional distinction. At forty, it matters little to a man what his qualifications are. He has, at that age, made his mark or missed it; and any degree, no matter how high, is of secondary importance to him.

Had Durham been sufficiently liberal as to offer its M.B. to men of ten years' standing, and the M.D. afterwards in the usual course, it might have done much to deserve the thanks of the profession. It is surely too hard that, year after year, our best men are compelled to seek at the hands of foreigners what they are denied at home. Looking through the *Directory*, I was astonished to see what a number of men, men of high standing in public and professional estimation, would have been driven to seek the degrees abroad. Cannot the voice of the profession rouse the universities to a sense of the injustice of their restrictions? Will they not see, until too late, that honour and profit are passing away from them? Should the present exodus continue, the Government will be compelled to take the matter up; then who can tell how far the reform may go? Agitation may bring this question within the range of practical politics.—Yours, etc., L.R.C.P.

FAREWELL, MAY 6TH, 1882.

To Sir William M. Muir, M.D., K.C.B., Director-General Army Medical Department, 1874–1882.

What burning words can fitly tell how beat our hearts to-day
For his loved name who made us free, who struck our bonds away!
Who found us weak and powerless, and ever night to fall,
Split up in many a petty group, and held in irksome thrall;
Who leaves us strong and stalwart, and full of life and hope,
Prepared alike in peace or war with pain and death to cope.
The foremost he in the long list of men so true and tried
Of England's soldier-doctors—the names that are our pride;
He stands the first, the best of all; his name shall live secure—
The name that was our rallying cry, the honoured name of MUIR.

Can we forget the bitter fight, the struggle, and the pain
He bore, to free our own loved corps from dull tradition's chain?
He fought the fight most gallantly; he won, and we are free—
Free to develop perfect work and ordered liberty.
He built for us a fortress, with ramparts broad and great—
A castle where we ever knew a strong man held the gate;
A fortress where we dwell secure if duty's calls are met;
And his loved name who built the fort we never must forget.
To-day he yields to other hands the keys he kept so sure;
May CRAWFORD hold the gate as well as it was held by MUIR;
And may the garrison within stand loyal, firm, and true,
United in the Godlike work it is their lot to do.

But we must now a sad farewell to our loved leader say,
To the bold captain whom so long we followed in the fray.
Farewell! May truly honoured rest still crown thy years to run.
The fight is fought, the conquest sure, the victory is won.
Cease from thy heavy tasks to-day; its cares, its toils, resign;
But the great memories of the work are all, are wholly, thine.
Thy name upon our annals shall in clear distinction stand—
A man complete at every point, heroic, matchless, grand;
The greatest soldier-doctor; the strong clear head and true;
The boldest, bravest, staunchest heart our annals ever knew;
We lose thee. But through all the years undying shall endure,
Undimmed by time for evermore, the well-loved name of MUIR.

May 1882. I. V. R. C.

FLEAS.—In answer to "Tormented's" query in the JOURNAL of May 13th, Dr. Poole writes to say that he will find lavender water, or lavender used in the shape of pomade or wash, a great preventive to the approach of fleas.

A. B. K. refers "Tormented" to page 214 of Mr. Pye Chavasse's *Advice to a Mother on the Management of her Children*, where he will find efficient directions both for the prevention of, and means of relieving the effects of flea-bites.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following were the questions submitted to the 167 candidates at the written portion of the anatomical and physiological examination which was commenced on the 5th instant, when they were required to answer four, and no more, of the six questions. *Anatomy.* 1. Describe the surfaces of Bone which enter into the formation of the floor of the Orbit. 2. The Uterus: describe its position and its ligaments; also the divisions of the organ, its cavity, and the openings into it. 3. Describe the second portion of the Subclavian Artery, and the Dissection by which you would expose it. 4. Describe the Synovial Membrane of the Knee-joint, and mention the various synovial bursæ which are found in the neighbourhood of this articulation. 5. State the position which the Heart and the arch of the Aorta bear in reference to the walls of the thorax and the roots of the lungs. 6. Name in order the parts which would be divided in removing the Hand at the Wrist-joint by a transverse incision from before backwards.—*Physiology.* 1. Describe the Structure and Functions of the Submaxillary and Parotid Salivary Glands. 2. How does Striated Muscle in a state of rigor mortis differ from similar muscle when living and in a state of rest? What conditions affect the period of onset and the duration of rigor mortis? 3. The production of Heat in the Body has been compared to the process of combustion. State in what particulars the comparison is valid. By what circumstances is the production of Heat in the Body modified? 4. What are the extrinsic and intrinsic muscles of the Eyeball? What are these functions? and what nerves supply them? 5. Describe the Coagulation of the Blood, and state the mode in which the fibrin factors can be obtained. 6. Describe the structure of the Testis.

G. S.—A medical man cannot legally refuse to give a certificate of death on the ground that his account will not be paid.

BLAIR'S GOUT PILL.

SIR,—I shall feel obliged if any of your correspondents can give me some idea what is the chief or active ingredient of Blair's gout pill; or could you refer me to any book where I could find its composition approximately given, as I am aware it is a patent medicine?—I am, etc., M. B. M. A.

INQUIRER asks whether a Fellow of a Royal College of Physicians is correct in adding the prefix "Dr." to his name. The following is a copy of a resolution passed at a general meeting of the Royal College of Physicians of London, held April 10th, 1876. "No Fellow, Member, Extra-Licentiate, or Licentiate of the College, is authorised or entitled by virtue of any Diploma or Licence granted by the College to assume the title of Doctor, or to append to his name the title of Doctor of Medicine, or the initial letters M.D., or any other letters indicating that he is a Graduate in Medicine of an University, unless he has obtained a Degree in Medicine from an University recognised by the College, and legally entitled to confer such degree."

THE MEDICAL DEFENCE ASSOCIATIONS.

L.R.C.P., who asks for particulars relating to these Associations, will find the names of the office-bearers, and a full statement of the objects both of the Medical Defence and Medical Alliance Associations, in Churchill's *Medical Directory*. Briefly stated, the object of both societies is to repress the practice of medicine by unqualified persons, and to procure an amendment of the Medical Act of 1858, especially as regards its penal clause. Both societies have done good work, the Medical Defence having, *inter alia*, established branches at Nottingham, Norwich, Newcastle, Shrewsbury, Sunderland, etc.; while the Medical Alliance has instituted more than thirty prosecutions, and introduced, we believe, several Bills for the amendment of the Medical Act into Parliament.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

THE CARRIAGE TAX.

WE are glad to learn from Dr. Robert Sinclair, Secretary of the Forfarshire Medical Association, that Mr. Barclay, the member for Forfarshire, intends, after the second reading of the Customs and Inland Revenue Bill, to put an amendment on the paper for committee, embodying an exemption for the medical profession; and it is sincerely hoped the medical members of Parliament will give him their support in his generous efforts on their behalf. Numerous communications have also been addressed to us, promising support of members of Parliament, who have been interested in this subject through the efforts of the Parliamentary Bills Committee, of the secretaries of Branches, and of individual members of the Association.

SIR,—In the BRITISH MEDICAL JOURNAL for May 13th, there is a letter from "M. R.", proposing that doctors and clergymen should avoid the tax by painting their names on their carriages. If, indeed, this were all, the difficulty could be met (though I fear it would be thought "*infra dig.*" thus to advertise oneself) but is it not a fact that, to avoid the tax, it is needful to declare that the conveyance is used for business only, and that the rule is so strict that a doctor would not be allowed to take his wife with him unless she acted as groom? In country districts, where the journeys are long and the fees small, a doctor's wife finds it impossible to afford visits to health-resorts, and her only escape from the constant care and worry of family and household is the occasional drive with her husband to some distant patient. But this must be abandoned, unless, indeed, the wife takes the reins; even then, she dare not take a child with her, but must leave all to the care of some young servant; for few of us can either afford or obtain a competent staff of domestics. My husband has a wide club and union practice; he is fully employed all day, and often most of the night; and my only chance to talk over any matter of importance is to drive out with him. Many, I am sure, are in the same circumstances; and I protest, in the name of the class, against any rule which robs us of our one cheap luxury.—I remain, etc.,

A COUNTRY DOCTOR'S WIFE.

INSURANCE AGENCIES.

SIR,—In January last, I was treated in a manner precisely corresponding with that described by "A Young Norfolk Surgeon", in your last Saturday's issue. I am inclined to the belief that, in both cases, the "gentlemanly individual" (whose card I inclose) was one and the same person.—I am, sir, yours faithfully,

A SUFFOLK SURGEON.

ASSOCIATE KING'S COLLEGE.—Professor G. F. Yeo will commence his course of three lectures on the Relation of Experimental Physiology to Practical Medicine in the theatre of the Royal College of Surgeons on Friday, the second proximo, at four o'clock.

MR. B. G. MORISON will, we believe, obtain all necessary information by writing to the Secretary of the Belgian Academy of Medicine at Brussels.

A NEW USE FOR SOLUTION OF IODINE.

SIR,—The new use of iodine to which I am to refer is not strictly a medical application, but is of interest to the chemical members of our Association. On March 2nd, when disinfecting my hands with a weak solution of iodine, about five grains to the ounce of water, a drop happened to fall upon a piece of paper, and I observed that a stain was produced similar to that given by the starch reaction. It immediately occurred to me that I had found a new writing-ink, and I accordingly made a memorandum to test the effect of time. The writing became very light-brown in six days; but now, after the lapse of more than two months, is apparently permanent, and quite legible. This fading I find to be retarded by subsequently brushing the writing over with a dilution of liquor ferri perchloridi, two drachms to the ounce of water.

Professor Crum Brown of Edinburgh University has informed me that he found the writing easily washed out with solution of hyposulphite of soda. I found liquor ammoniæ to have the same effect. This fading and easy bleaching would evidently result in an economy of paper where unimportant matters were concerned. Beyond this, I need make no remark.—I remain, etc.,

A. DRUMMOND MACDONALD, M.B. & C.M. Edin.

3, Peel Street, Dingle Hill, Liverpool.

TELEPHONE.—We are unable to answer the question.

DR. W. ANDERSON.—The matter is entirely one for the Committee of Council, and not for the Editor.

NITRITE OF AMYL AND THE CATAMENIAL FLOW.

SIR,—I should be pleased to hear, through the medium of your valuable paper, whether any of your readers have observed what I believe to be a hitherto unrecognised physiological action of the nitrite of amyl.

I have at present under my care a patient suffering from angina pectoris, who has been in the habit of inhaling the vapour of the nitrite to allay the spasm of that distressing complaint; and a married sister of the patient, who is suckling an infant, informs me that, on entering the room, the atmosphere of which is impregnated with the vapour, the menstrual flow at once commences; and that on her leaving the room, and being no longer under the influence of the drug, it immediately ceases.

The reason is, of course, perfectly obvious, but I cannot find any mention of it in my books of reference. I have mentioned this to Dr. Clifford Allbutt, who has kindly seen the case of angina with me; and he suggests that, as the drug might be used in such cases as puerperal convulsions, when such an action would possibly be in the highest degree prejudicial, I should be justified in giving publicity to this interesting fact.—I am, sir, faithfully yours, A. T. BACON.

36, Kirkstall Road, Leeds, May 3rd, 1882.

A DANDELION CATHETER.

SIR,—I was sent some distance into the country to catheterise a paralysed elderly woman. Finding I had forgotten my catheter, I asked for a goose-quill; but the nearest procurable approach to it being a quill pen, and not caring to risk the scratching this would cause, I resolved to try a dandelion-stalk, the only other suitable thing I could think of. By choosing a strong one, and passing the most rigid end first, I managed to draw off the urine.—I am, etc.,

Eagle House, Dursley. GEORGE R. MOORE, M.R.C.S.

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BOOKS, ETC., RECEIVED.

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REPORTS

TO THE

SCIENTIFIC GRANTS COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION.

ON THE

INFLUENCE OF THE GALVANIC CURRENT ON THE MOTOR NERVES OF MAN.

By A. WALLER, M.D., and A. DE WATTEVILLE, M.A., B.Sc.

The results of our experiments, together with the sources of the fallacies to which they were liable, and the methods adopted by us for the elimination of errors and the confirmation of facts elicited, have been embodied in a memoir, which is to appear shortly in the *Philosophical Transactions* of the Royal Society. In the present report we shall, therefore, confine ourselves to giving an amplified version of the Abstract read before the Royal Society, and published in the *Proceedings* for February 1882.

The attempts hitherto made to demonstrate on the living nerve of man the laws of electrotonus, established by Pflüger for the exsected frog's nerve, have been desultory, and the results they yielded contradictory or negative for the most part. Of these results, such as were considered as concordant with the data of physiology, were either explained as depending on physical fallacies in the mode of experimentation, or could not be confirmed by subsequent investigation.

The results of Fick were purely negative. Those of Eulenburg and Erb, concerning the descending extrapolar electrotonus, were in each case uniform, but diametrically opposite to one another. Those of Samt and Cyon, on the same point, were very irregular. Brückner and Runge obtained, with the method used by Pflüger for testing the "total excitability" of the nerve, results fragmentary but uniform, and in consonance with some of the facts as observed by us: in their interpretation, however, they join issue.

Erb is the only observer who perceived the truth and importance of Helmholtz's axiom, "that, owing to the rapid current diffusion among the tissues, the polar state of the nerve will be, at a short distance from the electrode placed over it, of the opposite electrical sign to that of the electrode"; and his second series of experiments gave results concordant with the theory. Remak, on the other hand, observed the influence of changes of resistance in the tissues upon such investigations, and was the first to use the galvanic test for the effects consecutive to the polarisation of a nerve.

The fundamental condition to be fulfilled in testing the alterations of nervous excitability is the exact coincidence of the points of excitation with one of the zones of polar alteration. These zones correspond to the points of application of the anode and cathode of the polarising current. These points are, in the exsected nerve, identical with the points of application of the actual electrodes; whereas in the normal living nerve, lying deeply embedded among various tissues, these points cannot be determined so accurately. They exist wherever the current enters and leaves the nerve; hence their distribution is regulated in each case by the relative position of the electrodes on the surface, and the diameter and conductivity of tissues surrounding the nerve.

When, as in our experiments, one electrode only is applied over the nerve (the other resting on some distant part of the body), the part of the nerve nearest to the electrode is permeated by a current of a certain density; whilst in neighbouring parts, owing to the rapid diffusion due to the better conductivity of surrounding tissues, the electrical density is much less considerable. To these nerve-regions, we give the names of polar and peripolar respectively.

Since, by the definition of the words anode and cathode, with reference to the nerve, we must understand, not the actual electrodes, but the points of entrance and exit of the current into and from the nerve itself, it is obvious that the polar and peripolar zones will be of opposite electrical sign; the polar zone being always of the same sign as the electrode placed on the skin over it. And, since the law of diffusion is the same for all currents, in order to secure coincidence of their respective polar and peripolar zones, it is necessary that the polarising and testing current should be applied to the same spot on the surface. Hence we have, in our experiments, joined both currents in the same circuit, and applied them by means of the same electrode.

From the same premises, together with the considerations (1), that the stimulation on making the current starts from the cathode, on breaking it from the anode, (2) that an induction shock acts as a cathodic make only, we have interpreted our results on the principle, that any alteration of irritability manifested on making and breaking the testing current, arose from changes effected by the polarising current in the one bone in which fell the stimulus.

Generally speaking, the alterations observed are always better marked in the polar region—a fact easily explained by the greater electrical density obtaining in this nerve.

It has been objected to the method of uniting the polarising and testing currents in the same circuit, that the effects are accounted for by "a summation of the electro-motive forces." This objection, in the case when the two currents flow in the same direction, contradicts the known laws of electricity; and is, moreover, invalidated by the demonstration of electrotonic changes by means of mechanical stimulation. It is more specious in the case where the two currents (faradic and galvanic) flow in the opposite direction. The following experiments sufficiently refute it. (*a*) When a tetanising induction current (200 interruptions in the second) has its effect suspended by the closure of a galvanic current opposed to it, it is found that, on suddenly short circuiting the latter, the contraction produced by the release of the former has a latent time considerably longer than that observed with a simple closure of the current. Now here, by the known laws of current-diffusion, the faradic stimulus falls upon a series of anelectrotonised points; and we know that the anodic opening contraction has a long latency, owing to the persistance of anelectrotonus after the opening of the circuit. Hence, it is clear tnat the release of the tetanising faradic current is physiological, not physical. (*b.*) A subminimal faradic stimulus is made effective by making a galvanic current in the opposite direction; on gradually increasing the latter, a certain point will be reached, where contractions appear. These continue increasing with stronger polarisation.

The most important sources of fallacies in experiments on the human body such as those we are describing, are electrolytic changes, and the consequent development of electro-motive force in the electrodes and tissues; changes of resistance in the circuit; alterations of nervous excitability due to the effect of the testing currents. The first two give rise to accidental variations in the strength of the currents employed. These alterations may be controlled by constant reference to the galvanometric readings, or eliminated by the introduction of large additional electro-motive forces and resistances in the circuit. Both these means were constantly resorted to by us in all our experiments.

In order to eliminate the disturbing effects of the testing currents, we took a series of observations which enabled us to establish certain propositions. The excitability of the nerve is regularly diminished or increased during a series of electrical stimuli according to their strength and their rhythm (*i e.*, their number in the unit of time, and the relative duration of the periods during which the current is made and broken respectively). Further, we found that, in every series of anodal opening contractions, a point is soon reached at which the contractions diminish, and finally disappear.

Our results were obtained (1) by the method of minimal stimuli; (2) chiefly by that of varying effects with uniform stimuli. The muscular contractions which served to estimate the degree of nervous excitability were uniformly registered on a revolving cylinder. Three kinds of stimuli were used: (1) make and break induction currents; (2) makes and breaks of the galvanic current; (3) mechanical stimuli. Each of the several polar combinations possible yielded a number of data which will be found individually described and interpreted in our full memoir, as well as illustrated by myographic tracings. We give here our final conclusions only.

(*a*) When the stimulus falls on an anodic bone, whether polar or peripolar, there is diminution of excitability. When it falls on a cathodic bone (polar or peripolar), there is increase of excitability. This statement holds for weak and moderate current-strengths; and, within these limits, the alterations of excitability bear a certain proportion to the strength of the polarising and testing current. Beyond this, we observed phenomena which apparently point to an invasion of the anelectrotonic by the catelectrotonic influence—the opposite of that which obtains in Pflüger's intrapolar region of the frog's nerve. The effect of a uniform stimulus first suffers diminution, then increase (relative or absolute) by anodal polarisation of the zone on which it falls.

(*b*) The state of diminished excitability in the anodic zone gives way on breaking the current to a state of increased irritability of considerable duration.

The state of increased excitability in the cathodic zone gives way on breaking the current to a condition of diminished excitability of appreciable duration, and which gradually passes into a state of in-

creased excitability of very considerable duration. The condition of diminished excitability is best observed after cathodic influence of a certain intensity and duration, and may extend to complete unexcitability to moderate stimuli during several seconds. It thus appears that electrotonic and post-electrotonic phenomena in man are similar in kind to those observed on the exsected frog's nerve.

In conclusion, we would mention that the facts are demonstrated on the human nerve with great ease and uniformity of result.

ABSTRACT OF LECTURES
ON THE
ANATOMY, PHYSIOLOGY, AND ZOOLOGY OF THE EDENTATA.

Delivered at the Royal College of Surgeons of England.

By W. H. FLOWER, F.R.S., LL.D.,
Hunterian Professor of Comparative Anatomy.

Lecture IV.

The family *Megatheriidæ* contains a considerable number of species distributed into several genera, now all extinct, and which were exclusively inhabitants of the American continent, both North and South, and which flourished in the quaternary, post-tertiary, or pleistocene period, as it is termed by different geologists. The paucity of the remains of Edentates in American true tertiary formations presents a remarkable contrast to their great abundance afterwards. The characters of few extinct animals are so well known as some of this group, owing to the excellent state of preservation in which their bones are found in the alluvial formations of the pampas of the Argentine Republic. They are all of large size compared with any of their living representatives; many of them may be truly termed gigantic, being exceeded in bulk and weight only by the Proboscidians among land mammals. By their dental and osteological characters, they are clearly allied to the Sloths; but, having been adapted for a different mode of life, they differ in many of the details of their organisation from those animals, and show many transitional characters towards the *Myrmecophagidæ* or Ant-eaters, or perhaps it might be more correct to say, towards a more generalised edentate type.

Although many of the essential structural peculiarities of some of the more striking members of the group had been pointed out by Cuvier, it is to the researches of Owen upon material, mostly contained in the Museum of the College of Surgeons, that we are indebted for a very detailed knowledge of their organisation, and for a full elucidation of their mode of life, as far as it can be inferred from the structure of the skeleton. Further researches by Leidy, Burmeister, Gervais, Reinhardt, and others, have added greatly to our knowledge of some of the previously less known forms.

The *Megatherium*, as the largest and most completely known, may be described first. The best known species is *M. Americanum* of Blumenbach; *M. Cuvieri* of Desmarest. Its remains have been found in many parts of South America, but most abundantly in the neighbourhood of Buenos Ayres, whence came the skeleton mounted in the Museum of the College, partly composed of real bones and partly of casts from bones in the British Museum. A closely allied, if not identical, species (*M. mirabile* of Leidy) has been found in Georgia and South Carolina. The head is small for the size of the animal, but presents a general resemblance to that of the sloth. The anterior part of the mouth is, however, more elongated, and the malar bone, though branched posteriorly in the same way as that of the sloth, meets the zygomatic process of the malar, completing the arch. The lower jaw has the middle part of its horizontal ramus curiously deepened, so as to admit of implantation of the very long-rooted teeth. In number, the teeth exactly resemble those of the sloths, being five above and four below on each side of the lower jaw; and they are confined to the lateral parts of the mouth, regions where molar teeth are usually found. They resemble those of the sloths also in their persistent growth, and in their composition of three tissues—vaso-dentine, true dentine, and cement; but they are of prismatic or quadrate form, and the constituent materials of different densities are so arranged that, as they wear, two transverse ridges of hard dentine remain at a greater elevation than the rest of the tooth, producing a very efficient triturating apparatus.

The vertebral column consists of seven cervical, sixteen dorsal, three lumbar, five sacral, and eighteen to twenty-four caudal vertebræ. The spinous processes are much better developed than in the sloths, and are all directed backwards, there being no reversing of the inclination near the posterior end of the dorsal series, as in most active-bodied mammals. In the lumbar region, the accessory zygapophyses, rudimentary in the sloths, are fully developed. The tail is large, and its basal vertebræ have strong lateral and spinous processes, and chevron bones. The scapula resembles that of the sloths in the union of the acromion with the coracoid, and in the bridging over of the suprascapular notch. The clavicle is complete, and very large, much resembling that of man on a large scale. The fore limbs are longer than the hind limbs. The humerus is not perforated on the inner side above the condyle. The radius and ulna are both well developed, and have a considerable amount of freedom of movement. The hand is singularly modified. The first digit is represented only by a rudimentary metacarpal, but the three next are large, and terminate in immense claws, especially the middle one. The outer or fifth digit has no claw, and it may be considered certain that the weight of the foot was, in standing and walking, chiefly thrown upon this, and that it was supported by a callous pad, as in the great anteater; while the other claws were curved inwards towards the palm, and only came in contact with the ground by their outer surfaces. The mechanical arrangements by which the weight of the body is thrown upon the outer side of the foot are very curious, and fully described in Professor Owen's memoir. The pelvis is remarkably wide, much more so than in the elephant; but in principle, it is like that of the sloth. The femur is an enormously flattened bone, the tibia and fibula short and strong, and united together at each end. The hind foot, contrary to the usual rule in Edentata, is even more singularly modified than the hand. The ankle-joint is formed on a peculiar plan, but quite unlike that of the sloths. The calcaneum projects nearly as far backwards as the fore part of the foot does forwards. There is no trace of hallux, nor of its corresponding cuneiform bone. The second toe is rudimentary. The third has an enormous ungual phalanx, which, like those of the hand, is remarkable for the immense development of the bony sheath which is reflected from its proximal end around the base of the claw. The two outer toes have large and very peculiar shaped metatarsals, but only small phalanges, and no claws. The creature probably walked on the outer edge of the sole, so that the great falcate claw of the third toe did not come into contact with the ground, and so was kept in a state of sharpness ready for use. The foot is therefore formed on quite a different principle than that of the anteaters or sloths; though more like the latter, in having two of the toes aborted. From such a combination of structures, it is not difficult to infer the food and habits of this enormous creature. That it was a leaf-eater there can be little doubt; but it is not probable that it climbed into the branches of the trees like the existing sloths, but raised itself up upon its powerful hind limbs and tail, and tore down the boughs with the claws of its fore limbs, and so brought the leaves within reach of its mouth.

The next genus of megatherioid animals is called *Mylodon;* and of this the College possesses a perfect skeleton. It is smaller than the *Megatherium*, being eleven feet in length from the snout to the end of the tail. Its skull and teeth much more resemble that of the sloths. A remarkable peculiarity of the vertebral column is the complete ankylosis of all the lumbar vertebræ. The feet of both extremities differ from those of *Megatherium* in having more digits completely developed. Thus the fore foot has five, and the hind foot four toes. Its habits were probably similar to those of *Megatherium*. Another allied form is called *Scledotherium*, and another *Megalonyx*. In the last, and in *Lestodon*, the anterior teeth of both jaws are separated by a considerable interval, and have a caniform development, like those of the two-toed sloths (*Cholæpus*).

The *Cælodon*, from the caves of Brazil, differs from all the other known *Megatherüdæ* in possessing only $\frac{4}{3}$ teeth on each side. It was also one of the smallest of the group, scarcely exceeding the existing Great Anteater. The greatest point of interest of all these animals is their presenting so many characters which connect the now widely divergent forms of sloths and anteaters, and point to a common origin for both these groups.

The North American Edentata of an earlier date (pliocene and miocene) are only known from fragments; but they are said by Marsh to differ so much from the *Megatherüdæ* that he puts them in a different family, *Moropidæ*. No remains of the order have as yet been found in eocene formations. There is some evidence to lead to the supposition that North America was the original head-quarters of the gigantic sloth-like edentata, and that they subsequently passed into the southern division of the continent, where they flourished to such a prodigious extent in the post-pliocene times.

ON SOME POINTS IN THE DIFFERENTIAL DIAGNOSIS OF INTRACRANIAL DISEASE, GENERAL PARALYSIS OF THE INSANE, AND TABES DORSALIS.

By THOMAS STRETCH DOWSE, M.D.,
Formerly Physician Superintendent of the Central London Sick Asylum.

[*Concluded from page 732 of last number.*]

we may be allowed to judge from pathological evidence alone, we ould, I think, come to the conclusion that in some cases a sclerosis the posterior root-zones of the spinal cord may exist, to a certain tent, without locomotor ataxy; and a chronic degeneration of the grey atter of the cortex of the antero-parietal lobes may exist without the ental derangements which are common to general paralysis. Westhal does not believe that there is any direct relation between the orbid process in the cord and the morbid process in the brain, which equently co-exists in the general paralysis of the insane; he believes at they are the expression of an excessive proclivity to disease of the ervous system; and Hammond, in his valuable work on *Diseases of e Nervous System*, corroborates this view of Westphal, and states at locomotor ataxy is by no means uncommon in patients affected ith other forms of insanity; and although I am inclined to question is doctrine of Westphal, yet, so far as I am aware, we have no direct athological proof to upset it.

We find that, in locomotor ataxy, the mental functions—intelligence, emory, etc.—are for a long time, if not permanently, unaffected during e whole course of this troublesome and trying disease; and this leads s to infer that sclerosis of the posterior columns of the cord is for the ost part secondary to the brain-changes in the general paralysis of the sane. I cannot agree with those observers who maintain that there no relation of causality between these two conditions; for there are any and striking clinical features which are common to the two ffections, and which it may be wise to consider as manifestations of a ore or less diffuse process of disease extending over a great part of the entral nervous system.

There is a growing desire on the part of neurologists (and justly so) y the aid of advanced pathological and clinical research, to localise hanges to distinct areas of grey and white matter in the brain and pinal cord in accordance with certain well known and recognised rules; nd we can now tell with a fair amount of accuracy the seat of the esion which has given rise to a definite train of signs and symptoms; et I must admit that we are still most wofully in the dark concerning he nature and value of many and important initiatory symptoms which ay exist for years before any serious lesion has implanted itself on the rain and nervous centres; and we cannot find any better example to ustify the truth of my assertion, than that which is found in tabes dorsalis and general paralysis of the insane. I may say with truth that o no living man are we more indebted than to Dr. Hughlings Jackson, for he valuable work which he has done in the field of ophthalmology. n the paper on Optic Neuritis in Intracranial Disease, which he read efore the Ophthalmological Society, March 10th, 1881, he makes the ollowing remarks; and although they do not exactly bear out in practice the precise value of my observations, still they are of important nd relative worth. He states: "A man whom I thought to be ypochondriacal until I looked into his eyes, who gave only a vague istory of twitching of one lip, had double optic neuritis with good ision. He seemed, superficially regarded, to have nothing the matter with him. He became suddenly apoplectic, with hemiplegia, and died. A woman who had double optic neuritis with good vision, and some other vague nervous symptoms, got well, except that the neuritis remained, vision being still good. She then had attacks of giddiness, in some of which she would fall. She, however, looked perfectly well, and yet died in a few minutes one night." I should most strongly advise all those who are interested in the study of intracranial disease to read the paper of Dr. Jackson to which I have just referred, for the reason that sufficient attention is not usually given to many of the initiatory subjective symptoms of locomotor ataxy and of general paralysis of the insane. I am led to believe that much of the evidence in reference to the occurrence of these two conditions in their relationship to each other, in regard to their origin and association, is untrustworthy and of little value.

Dr. Mickle says: "Broadly speaking, in general paralysis, the rule is that cerebral symptoms precede the spinal symptoms;" and I am bound to receive the dictum of so careful and distinguished an observer with due deference, but we must not forget that a man may suffer from tabes dorsalis, and yet be free from ataxy in locomotion, and when a man once becomes a general paralytic it would not advance clinical research if we paid any attention to his statements in regard to what may or may not have been the initiatory symptoms before the grandiose mania became developed; and, as I before stated, a man may be an insane general paralytic although the grandiose mania has proved abortive. I believe it is the unqualified experience of most observers "that headache more or less persistent and attended with elevation of temperature, optic neuritis, or atrophy, is indicative of gross organic change within the cranium; that pupils which do not contract to light but contract during accommodation (with or without atrophy of the discs), when associated with an absence of knee-reflex, and with the existence of dysæsthesia and analgesia of the lower limbs, are indicative of sclerosis of the posterior columns of the cord; that either of these states just mentioned, or the two combined, when associated with marked labial and lingual tremor and the *délire des grandeurs*), are indicative of the general paralysis of the insane. If a man dies from some intercurrent affection during what is called the stage of grandiose mania, and we examine the nervous centres, we shall most probably fail to find any extensive gross change, and we are thus led to believe that, during this stage, there is an instability and retardation in the normal sensory and motor reflex processes, due to an impairment of nutrition, which ultimately leads to organic dissolution and general paralysis with the pathology of which we are now quite familiar; and I feel quite sure that there are also stages in tabes dorsalis where no pathological change could be detected in the posterior columns of the cord. If a man lose his reason, and declare that he is the Emperor of Morocco and brother to the Sultan, he passes at once into the hands of the psychologist, who tests his mental condition, and classifies him accordingly; but little knowledge is gained of the antecedent features of the patient's case from a psychophysical point of view, and all hearsay evidence is valueless in reference to the formation of scientific clinical deductions, although I must admit that, for all practical purposes and for treatment, no such knowledge is imperatively demanded.

I will now draw attention to some of the disturbances of reflex action common to general paralysis of the insane and tabes dorsalis. Possibly the most important initiatory sign in all the reflex processes of the body is that which is connected with the pupil of the eye. This condition, known as spinal myosis, has long been fully recognised, and is unquestionably due, as pointed out by Erb, to some morbid inactivity in the reflex processes which normally exist between the optic nerve, the medulla oblongata, and the cilio-spinal centre; and here would demonstrate a point which I consider to be of some importance in relative diagnosis. In tabes dorsalis, we invariably find pupillary immobility more or less marked, and such is often the case in the general paralysis of the insane; but in the former we find the reflex action of the skin retained, whilst in the latter we find that it is partially lost; and the same condition may be said to exist in reference to common sensation, although the reverse is sometimes found in regard to the tendon-reflex.

The abolition of the reflex action of tendons in tabes dorsalis is, with very few exceptions, an accepted doctrine; but it is very questionable whether the absence of tendon-reflex is found in the general paralysis of the insane without some change in the posterior columns of the cord. Erb states that the tendon-reflexes stand in no demonstrable relation to cutaneous or muscular sensibility, nor to the reflex action of the skin. He says that he has seen the reflex action of tendons fail when the cutaneous and muscular sensibility were entirely intact, and that they were greatly diminished when the reflex action of the skin was normal, raised, or lowered. I need scarcely say that these are facts borne out by our every-day experience. Disturbances of vision are common both to the tabetic and to the general paralytic; and I have verified the assertion of Gräfe that patients who are suffering from diplopia in tabes show slight tendency to the blending of images in binocular vision; but the reverse, in my opinion, often occurs in the vision of the general paralytic. With regard to degenerations of the optic nerve, I am sorry that my experience in this respect is extremely limited in the general paralytic; but Hammond states that ophthalmoscopic examination will very generally detect degeneration of the papilla at a very early stage of this disease, together with retinal and choroidal anæmia. We know that atrophy of the optic nerve is common in the initial stage of tabes, and may exist, according to Charcot, for many years as an initial sign of ataxic symptoms. In the third case which I reported, the grey degeneration of the optic nerve, which was associated with severe headache, increase of temperature, and emotionability, was rapidly succeeded by sclerosal atrophy; and, although there was scarcely a trace of vision, yet the pupils contracted slightly to light and during accommodation. I am, however, greatly inclined to believe, from some cases which I have under my observa-

tion, that those cases of ataxy which are preceded by sclerosal changes in the optic nerve are frequently cases of abortive general paralysis, and which are decidedly cerebro-spinal, rather than purely spinal; and, furthermore, when the acute symptoms set in, they become more or less rapidly fatal. When the sensory division of the fifth nerve is involved in association with amaurosis due to sclerosal atrophy of the optic nerve and other signs of tabes dorsalis, we must be guarded in making a diagnosis and in giving a prognosis. Now, in making a diagnosis, we have to study very carefully the head-pains, which are very diagnostic in the general paralysis of the insane, as they differ from those of tabes dorsalis, which are equally diagnostic. In the former case, the headache is primarily of medullary origin, is more diffuse, and invariably associated with marked elevation of temperature; but it may appear and disappear suddenly; and it differs altogether from the chronic form of headache which supervenes and becomes more localised and persistent as organic changes ensue in the later progress of the disease. In tabes, when the fifth nerve is involved, the pains are rapidly migratory, and resemble more the pains of neuralgia; and, what is most important to remember, they are not accompanied by an increase of temperature of the head. The fifth nerve is more frequently implicated in the general paralytic than in the tabetic; hence we find disturbances of sensation in those parts supplied by the sensory division of this nerve more frequent in the former than in the latter. I have seen patients with commencing general paralysis who have stated that their teeth felt like so much India-rubber; and I have also found that, throughout the whole distribution of this nerve, there has been a decided retardation in the conduction of sensations as well as of the sense of pain.

It is generally considered that the seventh is, of all the cranial nerves, the first nerve to be objectively involved in general paralysis, and especially those branches which serve for the mimetic movements of the mouth and lips; and this is unquestionably true as far as the objective signs are concerned; but more recent observation has led me to conclude that the deficiency in normal sensation of those parts supplied by the fifth nerve precedes the exaggerated and inco-ordinate movements of the lips in articulation, which are strikingly characteristic of general paralysis, and which distinguish this condition of disease from tabes dorsalis; and the same may be said of an associated lingual tremor and muscular inco-ordination. The special senses of taste and hearing are more defective in the general paralytic than in the tabetic. The varying morbid reflex actions and trophic disturbances which produce the different crises in tabes are for the most part of spinal origin, and are common to other degenerative changes in the spinal cord, and cannot be said to be due entirely to sclerosis of the posterior columns; at all events, they are not found to exist in the primary stages of the general paralytic. In tabes dorsalis, ataxy, and not paralysis, is the essential and characteristic disturbance. This disturbance is usually first manifest in the lower extremities.

In the general paralysis of the insane, the first sign of ataxy is usually seen in some derangement of those complicated and combined movements of the tongue and lips in articulation; but we find more than mere disturbance in the co-ordination of these movements, for there is, in addition, actual muscular paresis; and the power for the engenderment of individual and simple movements is greatly lessened, and no sustained muscular effort can be supported.

THE PHYSICS OF NERVE-STRETCHING.

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On the 15th May 1878, I read a paper on the above subject before the Medico-Chirurgical Society of Edinburgh. At that time, the operation of nerve-stretching was chiefly resorted to for severe and intractable cases of sciatica. Having seen the greater sciatic nerve stretched by several of the Edinburgh surgeons, and the limb with part of the trunk lifted from the table by the nerve, I thought it would be useful to ascertain the amount of force that could be applied to the nerve without any liability of rupturing it.

On consulting the various text-books of anatomy and physiology, little or no information could be obtained. Thus Hermann, in his *Human Physiology*, translated by Gamgee, dismisses the subject with the remark, that "the mere mechanical properties of nerves have, as a rule, no interest, physiologically speaking;" but, in view of the operation we have mentioned above, they would appear to have some interest surgically. In Valentin's *Physiology*, translated by Dr. W. Brinton (page 20), there is a table, showing the relative cohesion of the tissues of the body. These are stated as follows, in kilogrammes, per square millimètre of section: muscle, .06; arteries, .14; veins, .23; nerves, .96; tendons, 5.3; bone, 8.0. It will be noticed that tendons are given as about six times as strong as nerves. In the *Annales de Clinique et de Physique*, for 1847, is a valuable "Memoire sur l'elasticité et la cohesion des principaux tissus du corps humain," by Wertheim. At the end of his paper, he gives, in a tabular form, the result of his experiments upon various tissues. In the list of nerves, there are four great sciatics. The following was the method he employed, and the result obtained. As long a portion of the great sciatic nerve, presenting a tolerably uniform size, as could be obtained, was removed from the body, measured and weighed. One end of it was then fixed, and a weight attached to the other; the increase in the length of the nerve was observed; and, the weight being removed, its length was taken immediately, and again after a short interval. This process was repeated, the weight being gradually increased each time, until the nerve was broken. This was accomplished in a man, aged 35, by 47 lbs., and in one aged 74 by 51 lbs.; in two females, aged respectively 21 and 60, by 59 lbs. and 39 lbs. From experiments on various nerves, he came to the conclusion that, in proportion to their size, the branches of a nerve were stronger than the main trunk. These experiments of Wertheim did not appear to give the surgeon a reliable guide to the amount of force he might safely apply in the ordinary operation of nerve-stretching; and that mainly for two reasons.

1. His experiments being made chiefly with a view to ascertain the elasticity of the nerves, these were subjected to a considerable amount of stretching for some time before a force sufficient to rupture them was applied; and, as is well known, *time* is an important factor in testing the cohesion of a substance.

2. The nerves being first removed from the body, his experiments afford no information as to the strength of the upper and lower attachments of the nerve.

In order to obviate these objections, I made a series of experiments, in which the force was applied, as nearly as possible, in a manner similar to that in the operation of nerve-stretching. The subject being placed on its face, the nerve was exposed at the point where it is usually stretched—viz., at the lower border of the gluteus maximus. One end of a strong S-shaped hook was passed beneath it, special care being taken to include the whole of the nerve. The body was then turned on its back, and the buttocks supported on one table and the knees upon another. To the lower curve of the hook, weights were then rapidly attached until the nerve gave way. By this means, the force was applied at right angles to the thigh, as in the operation when the limb is lifted by the nerve; and, by the rapid addition of the weights until the nerve ruptured, the force acted only, as in the operation, for a short time.

Experiments.

Experiment 1.—Male, aged 37, well-developed, but lower limbs œdematous; heart and lungs healthy; liver markedly cirrhotic; a clot in left iliac vein. During life, the left limb had become dropsical before the right one. Right sciatic: 100 lbs. failed to break, even after it had been on for fifteen minutes; had no heavier weights at this time. Left sciatic: 100 lbs.; the nerve came away, with its connections to the spinal cord, in less than one minute.

Experiment 2.—Female, aged 50, of average size and muscular development; aortic disease; lower extremities slightly œdematous. Right sciatic: 100 lbs.; came away from spinal cord in less than a minute. Left sciatic: 100 lbs.; came away as on right side, but almost immediately.

Experiment 3.—Male, aged 22, well developed. Right sciatic: 126 lbs; failed to break. Left sciatic: 126 lbs.; failed to break. I had no more weights, but turned the body, and lifted the lower extremities and as much of the trunk as I could by the nerve, and I failed to break the nerve.

Experiment 4.—Female, aged 17, small for her age and ill-developed. Died of phthisis, waxy disease, etc. Right sciatic: 98 lbs.; gave way in less than a minute from spinal cord. Left sciatic: 84 lbs.; same result as above.

Experiment 5.—Male, aged 36, well developed; aortic disease; slight dropsy of lower limbs. Right sciatic: 158 lbs.; nerve broke across immediately at the point of attachment of the hook. Left sciatic: 154 lbs.; same result.

Experiment 6.—Female, aged 60. Died from fracture of skull. Right sciatic: 140 lbs.; broke as in Experiment 5. Left sciatic: 126 lbs.; the same result.

Experiment 7.—Female, aged 36, well developed. Died of cardiac disease. Right sciatic: 145 lbs.; immediately broke from the spinal cord. Left sciatic: 160 lbs.; same result as on right side.

Experiment 8.—Male, aged 40, very muscular; height, six feet. Died from injury of head. Right sciatic: 176 lbs.; broke immediately at the point where the hook was applied. Left sciatic: 170 lbs.; same result.

Experiment 9.—Female, aged 35, very well developed. Right iatic: 160 lbs.; detached from the spinal cord in less than a minute. he left sciatic could not be tested at the time.

In all these cases, the experiments were performed from one to three ys after death. In applying the weights, an amount rather less than was considered probable would be needed to rupture the nerve was st attached to the hook; and then, with the help of assistants, small eights were rapidly added until the nerve gave way. Excluding Exeriment 4, all the subjects were adults; and in these, the average eight required to rupture the nerve was 140¾ lbs. In Experiment 1, ie nerve gave way with an exceptionally small force—viz., 100 lbs.; it, in the other two male subjects (Experiments 5 and 8), the average eight required was 164½ lbs. On an average, a loop of the great iatic would, I think, bear for a short time nearly the entire weight of .e body.

Even more interesting than the amount required to rupture the nerve, as the position at which it gave way. Out of the fourteen cases in the ble, six broke at or near the point where the hook was applied. In e other eight cases, the nerve itself did not break; but its connections ith the spinal cord and its membranes were detached. All the speciens thus obtained presented essentially the same appearance, and nsisted of the nerve-roots of the last lumbar and first and second .cral nerves. These were torn at the point where they joined the inal cord. Tracing these nerve-roots downwards to the dura mater, small portion of this membrane was found connected with each pair spinal nerve-roots, a short time before the latter joined. The dura ater, in fact, was torn near the point where it is prolonged from the ain sheath on to each nerve. Then, the anterior primary divisions of e last lumbar, and two upper sacral nerves, could be traced down to e point where they become continuous with the great sciatic. The anch from the fourth lumbar, to join with the fifth to form the lumbo-.cral cord, was always present. The posterior primary divisions, and her small branches, were broken near their origin.

Remarks.—The experiments detailed above were not published at ie time the paper was read, as I intended, before doing so, to conduct more extensive and carefully planned series of experiments. Circumances have hitherto prevented me from working much further at the subct. As, however, the operation of nerve-stretching is now becoming a mparatively common one, both for central and for peripheral nervous fections; and as I believe the results I obtained may prove, not merely seful to the surgeon, by affording him some guide to the amount of rce he may safely apply, but also because I think they have a value connection with the question of nerve-stretching in central lesions, venture to lay them before the profession.

My experiments clearly show, that the great sciatic nerve is able to ithstand a considerable strain; but they also indicate the necessity for ution; more especially in the downward traction of the nerve. I have veral times attempted to break this nerve in the dead subject, but ave invariably failed, although the nerve was greatly stretched, and I metimes heard suspicious crackling noises. The suggestion of Dr. ohn Cavafy, in the Journal (December 17th, 1881), that surgeons ould come to some more definite idea of the amount of force employed, ould certainly be acted upon. There are several points in connection ith the operation of nerve-stretching, which have not apparently been fficiently considered. If a nerve, such as the great sciatic, having an lmost direct origin from the spinal cord, be pulled downwards, an natomical examination will show at once that almost the entire strain borne by the dura mater. If the vertebral canal be opened from beind, so as to expose the spinal dura mater, and at the same time the reat sciatic be stretched, a slight downward movement of the lower art of the dura mater is at once visible. By careful measurement, owever, I find that it is not displaced more than an eighth of an inch. he dura mater possesses very little extensibility; and, further, the erve-roots piercing it nearly opposite the intervertebral foramina, the tretching of the great sciatic rather tends to displace the dura mater terally. Even a cursory examination will at once show that this canot occur to any appreciable extent. If the dura mater be opened in he lumbar region, and the roots examined, it will be evident that the light displacement produced by the stretching of the dura mater can ave no appreciable effect in increasing their tension, and thus enabling hem to act directly upon the spinal cord. The dura mater thus serves s a very efficient protector of the delicate spinal nerve-roots; but, hould it be torn, an extremely small force would suffice to detach them om the spinal cord. It therefore appears evident that stretching a erve, such as the great sciatic, produces no direct mechanical action pon the spinal cord. Stretching a nerve less directly connected with he spinal cord, such as the median, is still less likely to affect directly he spinal cord; and, of course, there is no danger, in case of rupture, f its being detached from the cord. In the few experiments I have made upon this nerve, it always broke at the point where the force was applied.

The manner in which a beneficial effect is produced by the operation of nerve-stretching is very obscure. In some cases of sciatica, it may be due to the breaking up of adhesions, etc., pressing injuriously upon the nerve. In cases of central lesions, it probably acts upon the same general plan as other counter-irritants.

There is abundant clinical evidence to show, as one would expect, that the operation of nerve-stretching produces a powerful local action —not unfrequently being followed by temporary paralysis. Then, again, it produces a marked effect upon distant nerve-centres, such as the respiratory and cardiac, as is shown in Langenbuch's cases. As a counter-irritant, it stimulates, not merely the nerve, but also its connecting trunk and branches.

In the operation, many surgeons attach special importance to the downward traction of the nerve—apparently believing that, by this means, they produce some direct mechanical action upon the spinal cord. This appears to me, as I have before stated, to be an erroneous idea: the nerve-fibres, as far up as the dura mater, being put upon the stretch, but not the spinal nerve-roots beyond.

Dr. John Cavafy, in the British Medical Journal (December 17th, 1881, page 974), objects to the "nerve-stretcher" of M. Gillette, partly on the ground "that the extension must affect the peripheral and central portions of the nerve itself." If my view be correct, this is rather an advantage than otherwise, as a longer tract of nerve-fibres is thus stimulated. Furthermore, by stretching a loop of the nerve, the force is divided between the peripheral and central ends—so that there is less liability to rupture. Traction upon the peripheral end of the nerve can be employed with more safety than upon the central end, the former being the stronger; and the nervous stimulation would probably be as great, if not greater.

CASES BEARING ON CEREBRAL LOCALISATION.

By JAMES SHAW, M.D.,
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Case 1. *Idiocy with Congenital Aphasia, Dextral Hemiplegia, and Contracture and Atrophy of Right Limbs. Destructive Lesion and Atrophy of Left Cerebral Hemisphere.*—H. C., admitted April 21st, 1879, aged 10, was described, in the statement appended to the "order for admission", as an epileptic whose insanity was congenital. The "medical certificate" stated that he was quite incoherent and unintelligible; dirty and destructive in his habits; idiotic in appearance and manner; easily excited, when he tore his skin with his nails.

On April 24th, he was observed to be a deformed lad. He squinted slightly inwardly with the right eye. The right side was chiefly affected, both arm and leg being as stiff as if the joints were ankylosed. He had an idiotic expression of countenance, and did not seem to have any intellect; and was very wet and dirty in his habits. He had had several fits since admission. His appetite was good, and he was fairly nourished. July 22nd. He had a prolonged attack of syncope after an epileptic seizure a few days ago. The fits increased in frequency and severity. The condition on February 22nd, 1880, was as follows. His chest was deformed, narrow, and projecting; his head very large, twenty-three inches in circumference, and of the hydrocephalic conformation. He knew those about him, took notice of them, and evinced a considerable amount of jealousy, joy, grief, anger, etc. On February 23rd, 1881, his right arm was paralysed and contracted; the elbow bent and stiff; the hand bent back on the arm; the wrist stiff; the fingers were flexed on the palm of the hand. The right leg was paralysed and contracted, and strongly flexed at the knee-joint. The ankle was stiff, and the sole of the foot turned in. The right arm was atrophied; the right leg also, but not so much. He moved the left arm, hand, and fingers freely. He moved the left leg, and could stand when supported on the right side. He displayed some pleasure by his facial expression when spoken to, and screamed when annoyed, but had never been known to utter any articulate sound. On March 1st, he was paler and thinner and did not take food well. On March 10th and 11th, he had a series of severe and prolonged epileptic seizures, in which the convulsions were bilateral, and the eyes turned upwards and to the left. He died March 12th, 1881.

Necropsy.—An abnormally large quantity of serous fluid was found in the cranial cavity. The right lateral ventricle was greatly dilated. A gelatinous-looking mass was found attached to the left cerebral hemisphere laterally and inferiorly; this proved to be an enormous cyst containing serous fluid. The convolutions of the region over which the cyst was situated were completely destroyed, and the portion of the centrum ovale underneath was represented by a thin lamina, in

some places translucent. The missing convolutions were: the posterior half of the second frontal, the greater part of the third frontal (the orbital portions of the convolutions being intact), the inferior halves of the two ascending convolutions, the supramarginal and angular gyri, the whole of the first and second temporal, the convolutions of the island of Reil, and most of the external surface of the occipital lobe. The left central ganglia were atrophied. There was secondary degeneration of the left cerebral peduncle, and of the left half of the pons Varolii and medulla oblongata. The middle portion of the peduncle was very much flattened in comparison with the same part of the right peduncle. The pons Varolii was asymmetrical, and very much smaller on the left side. The left pyramid, viewed superficially from before, was hardly a third of the right in breadth. The medulla oblongata was asymmetrical, on section through the middle of the olivary bodies. The prominence formed normally by the pyramid being absent on the left side; the restiform body was apparently slightly more massive on the left than on the right side. The right cerebral hemisphere was very large proportionately to the dilated lateral ventricle, but apparently normal as to membranes, convolutions, and cortex. The weight of the different portions of the encephalon, free from membranes, is as follows:

Left hemisphere of cerebrum	2,830 grains.
Right ,, ,, ...	8,074 ,,
Left half of cerebellum	996 ,,
Right ,, ,, ...	750 ,,
Pons and medulla	248 ,,
Total weight of brain ...	12,898 ,,

REMARKS.—In this case, the lesions were too extensive to throw any light on the localisation of the centres for individual members, or on the exact limits of the motor area; yet it is perhaps worth recording, as tending at least to support the theory of the cross action of the cerebral hemispheres through the pons and medulla, and of the localisation of motor centres for the limbs of each side in the opposite half of the brain, especially as Dr. Brown-Séquard insists on the rejection of these generally received views. The third left frontal, or Broca's convolution, was almost completely destroyed, and the faculty of speech was absent. The aphasia was not the *aphasie d'hébétude* of M. Jaccoud, as the patient, for some months before his death, displayed a considerable amount of intelligence, with powers of perception, attention, and memory superior to those of many idiots capable of articulating.

The only abnormality observed in the muscular movements of the neck, face, eyes, mouth, or tongue, was the slight internal strabismus of the right eye; there may have been slight differences in the two sides which passed unnoticed. It is also possible that the muscles of one side in this region being influenced more by those of the opposite side than a left limb by a right, or a right by a left, the motor centres in the right hemisphere more readily acquire the functions of those destroyed in the left half of the brain. He could see, hear, feel, and taste fairly well, but the comparative acuteness of the special senses on the two sides was not investigated, nor was the cutaneous sensibility tested.

With regard to the cerebellum, the right and left hemispheres were to each other almost exactly as three to four (750 grains and 996 grains). Were the functions of the cerebellum purely motor, and limited to the muscles of the same side of the body, the difference should be much greater, as there was an entire absence of movement in the right arm and right leg, and therefore no co-ordination required in those members. For the same reason, this case does not seem to support the view of Dr. Charlton Bastian, that it is a "supreme organ for the reinforcement and regulative distribution of outgoing currents." On the other hand, the patient could maintain himself in the sitting posture in a chair, except when he was seized with an epileptic fit. The case, therefore, seems to support Dr. Ferrier's theory, that the cerebellum is an organ of equilibration.

CASE II. *Dementia with Sinistral Hemiplegia and Contracture: Lesion of Right Ascending Convolutions at their Upper Extremities, and of Base of Superior Frontal Convolution.*—E. O., a housewife, aged 50, was admitted on September 4th, 1879, in very feeble physical health, affected with heart-disease, and suffering from dementia. No previous history could be obtained; and the statement appended to the order for admission afforded no information as to duration, cause, etc.

The medical certificate stated her to be incoherent, irrational, and stupid, constantly muttering unintelligible nonsense, and shouting day and night "that her body was dead, that she was dying", etc. On September 10th, 1879 (six days after admission), the pupils were equal, the pulse feeble. A systolic cardiac bruit was heard loudest at the apex and to the left. She suffered from constipation. There was hemiplegia of the left side, affecting the face and both members; the latter being at the same time contracted. The power of attention was very feeble. She was incapable of answering or conversing, and muttered incoherently. She was restless and noisy at night. She was confined to bed. On September 24th, she was weaker, and had an uncontrollable tendency to contract bed-sores. On October 1st, though feeble, she was at times very noisy, shouting out the names of her friends; and she was worse on alternate nights. On November 8th, she was weaker and thinner. Although she had a water-bed and the most careful nursing, she could not be kept free from bed-sores. She died on November 11th, 1879.

NECROPSY.—The brain was well developed, with the convolutions apparently normal as to size and configuration. The only lesions in the right hemisphere were: 1. A patch of softening, brown in colour, with loss of substance caused by a clot now absorbed at the junction of the ascending frontal with the ascending parietal, about three-quarters of an inch long from before backwards, about a quarter of an inch broad in the perpendicular direction, and an eighth of an inch deep, with the adjoining portion of the ascending parietal tinged yellow; 2. A superficial brown patch, a quarter of an inch long antero-posteriorly, and an eighth broad, on the superior ramus of the first or superior frontal convolution (the third frontal of Meynert), near its origin; 3. Two small brown spots, little longer than the head of a pin, on the inferior ramus of the same convolution, near its origin; 4. A small brown spot, not larger than those above mentioned (3), near the commencement of the middle third of the inferior ramus. The diseased portions of cortex were in the region supplied by the median branch of the anterior cerebral artery. In the left hemisphere was a small lacuna, free from abnormal colour, and measuring about one-twelfth by one-sixteenth of an inch, near the commencement of the middle third of the inferior ramus of the superior frontal convolution. This may have been caused in removing the membranes. There was no other visible abnormality in either hemisphere.

REMARKS.—Here, the lesion was purely cortical, and situated for the most part between the præ-frontal and pediculo-parietal sections of M. Pitres, in the superior part of the region included between them. The existence or non-existence of secondary degeneration was not ascertained; but the permanent contracture which M. Charcot ascribes to it was present. Speaking of secondary degenerations, or descending scleroses, he says (*Leçons sur les Localisations dans les Maladies du Cerveau et de la Moëlle Epinière*): "Il faut, à mon avis, leur rapporter, pour la majeure partie, la contracture permanente, dite tardive."

He further says that lesions of slight extent in the region of the giant pyramidal cells, viz., the paracentral lobule and the upper part of the ascending convolutions, give rise to well marked secondary degenerations. Had there been brachio-crural monoplegia with contracture, and without facial paralysis, the case would have been typical according to the generally received notions about cerebral localisation, whether from the point of view of the histologist, the clinician, or the experimentalist on the higher mammalia. But the facial paralysis is unaccounted for by any visible cerebral lesion, unless, indeed, it is sometimes a symptom of lesion of the superior portions of the median convolutions, and not of their inferior extremities. It may, however, have been the result of the patient's general physical weakness, which was very marked.

The great tendency to contract bed-sores is characteristic of lesions of the right hemisphere. It is noteworthy that the very serious affection of the intellectual faculties, the power of attention being very feeble, was coincident with lesions limited to the ascending and first frontal convolutions, and extending in the latter beyond the motor area anteriorly, thus assisting to bear out the opinion of Dr. Ferrier and Dr. Crichton Browne, that the functions of the anterior and middle parts of the frontal lobes are purely psychic, and that in these lobes are localised the centres of inhibition, the physiological substrata of the faculty of attention.

HISTORY OF A CASE OF MYXŒDEMA.*

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THE patient I am about to introduce to your notice is a woman sixty years old. She is the mother of eight children, and has had two abortions. There is no history of syphilis. Her father and mother lived to the ages of eighty-four and seventy years respectively. She always enjoyed excellent health and spirits until ten years ago, when she received a violent shock, caused by her second daughter being seized with puerperal convulsions while in labour; and from that she dated

* Read before the Northumberland and Durham Pathological Society.

ıe commencement of her ill-health. Two years later, she ceased to ıenstruate: and for some months previous to this cessation she had onsiderable losses at her monthly periods.

In May 1873, she first consulted me for the disease from which she now suffering. Her general appearance caused me to suspect renal ıischief; but repeated chemical and microscopical examinations of er urine invariably demonstrated it to be free from albumen, casts of ıe uriniferous tubes, or renal *débris*. The excretion occasionally was xtremely scanty, measuring at times only thirty-three ounces in seventy-wo hours; it was of specific gravity 1029, and contained considerable uantities of urates. As a general rule, however, it was in all respects ormal. Further, there was an absence of those nervous and dys-eptic phenomena which are characteristic of Bright's disease. The bsence of these symptoms, and the presence of others which I am bout to detail, caused me to think I had something other than ;right's disease to deal with. Her condition gradually got worse; nd in the latter part of the year 1877 she suffered severe family be-eavement, which had an evil effect upon her. The following was her :ate at that time.

Objective Symptoms.—The hair had almost entirely disappeared from her ead and axillæ. Her face was swollen, broad, and expressionless. This welling was most marked above the eyebrows, and around the eyes, 'here it formed a translucent bag hanging under each eye. There was a right patch on the cheeks, in marked contrast to the pallor of the rest of ıe face. There was a discharge of clear fluid from the nose. The lips 'ere swollen; the speech slow, difficult, and interrupted by frequent fforts of deglutition. The saliva trickled down the angles of the ıouth while she spoke. The cutaneous surface was absolutely dry, nd the hands and chest rough, like sand-paper. Around the middle art of the body were numerous brown warty spots, some of them as ırge as a sixpence. The posterior triangles of the neck had a swollen ppearance, most marked over the supraclavicular triangles, and appa-ently of the same character as the facial swelling. The thyroid body ould not be felt. The hands were swollen, harsh, and lined, and did not it on pressure. The feet were not much affected. The heart-sounds were oft, slow, and regular. The apex-beat was in its normal position; here was no hardness, twisting, nor evidence of fibrosis or other struc-ural change in the arteries. The pulse was 55 to 60 beats in a minute; he temperature 94.5° to 95.2° Fahr. The lungs were healthy, the ɔreathing normal, and digestion good. The gait was awkward and taggering; and the patient could not walk without the aid of some-ne's arm, which enabled her to walk fairly well. She answered ques-ions intelligently, but in a slow ponderous manner; and seldom took ɔart in a conversation, unless directly addressed. Her teeth were ;ood, considering her age; but she complained that one of her molars vas loose, and she requested me to extract it. This I did, and I eared she would die from the hæmorrhage that followed. Styptics were tried in vain; but ultimately I succeeded by means of a wedge of :ork fitted into the cavity, and the opposing tooth kept fastened down ɔn it. An ophthalmoscopic examination of her eyes revealed nothing ıbnormal.

Subjective Symptoms.—The patient stated that she had a constant rouble at the top of her head, and, if she turned her eyes upwards, she ell down. She had a fear of falling when she walked. Her memory ıad become bad. Her hands felt stiff; and she could not "fathom" ıer fingers, which rendered her unable to pick up coins, etc. This :aused her to feel quite useless both in her business of grocer and in ɔerforming her household duties. Her hearing was normal; but her ;ight was defective, unless she wore strong convex glasses. She had a ;ood appetite, and slept too soundly, and was liable to fall asleep at ıny time. She had frequently to shake the old cells of the epidermis rom her underclothing. She occasionally was extremely irritable, and ıt other times felt much depressed. She constantly suffered from a eeling of cold, and her disease invariably became aggravated in winter.

Treatment.—Previously to June 1879, the patient had taken per-:hloride of iron with quinine, Fowler's solution of arsenic, Parrish's ;yrup, nux vomica with gentian, and bromide of potassium, but without ıny benefit. At that date, I prescribed perchloride of iron, strychnia, ınd dilute phosphoric acid, from which she obtained relief. This reatment, together with warm clothing to head and body, was con-inued for some months, with marked benefit. Her present condition 'ou have now an opportunity of seeing. All the symptoms I have lescribed are still well marked. The hair, however has partially re-grown. She can use her hands comparatively well, and can walk vithout assistance, but still staggers. Her temperature is now 95.2°; ınd her urine is quite normal.

A few weeks since, some cases of a similar character were shown by Dr. Ord before the Clinical Society of London. To these he gave the name of "myxœdema", which I have ventured to apply also to this case. He believes that there is a great increase in the interfibrillar mucin-yielding cement of the skin, which, padding the touch-corpuscles and nerve-ends, interferes with the ready reception of peripheral impressions. The brain, thus receiving sensory stimuli slowly and imperfectly, falls into a state of increasing torpor.

EFFECT OF THE RHEUMATIC DIATHESIS UPON THE INITIAL LESION OF SYPHILIS.

By C. B. LOCKWOOD, F.R.C.S., etc.

Most observers are agreed that the course of syphilis may be greatly modified by the diathesis of the patient. Reference to the writings of authorities on syphilis, and to their discussion at the International Medical Congress, shows that their observations are extended chiefly to the later stages. I am not aware that anyone has recorded observations showing that the rheumatic diathesis can modify the initial lesion. Primary syphilitic sores come under notice, which at first present ordinary characters. They afterwards become "inflamed and phagedænic" (Hill and Cooper, *Manual of Venereal Diseases*, London, 1881, p. 466) and may cause considerable destruction of tissue. Many attempts have been made to explain this occurrence (*Ibid.*, p. 468); debility, patients' habits, position of the sore, and peculiarities of the virus have all been adduced. In the cases mentioned below, all of these can be eliminated except the last. If the infecting virus in such cases as these be peculiar, it must expend its peculiarities upon the sore, for the other manifestations are not unusual. Moreover, these sores do not cause similar ones when inoculated. It therefore remains to explain what Messrs. Hill and Cooper state, and what personal observation has frequently confirmed, why "patients are met with who, but for the rapidly necrosing chancre itself, present every sign of good health" (*Ibid.*, p. 469). The following cases may suggest a cause. They are not numerous, but seem to be more than coincidences.

A patient, aged 26, came under my care in September 1879. He had what appeared to be an excoriation near the frænum. Ordinary applications had no effect upon it. By the end of September, the sore was larger and considerably indurated; not inflamed or particularly ulcerated. The inguinal glands were indurated. About the beginning of October, the character of the sore changed. It became inflamed, very painful, and excavated. There was a profuse, thin, and slightly sanguineous discharge. Small sloughs occasionally separated, and the ulceration extended until about a quarter of the glans penis was destroyed. The appearance of the disease at this time was quite characteristic. The sore was acutely inflamed and phagedænic. In November, there was acute inflammation of the dorsal lymphatics of the penis, with roseola over the chest and belly. The treatment adopted locally, during the whole course of the disease, was the use of warm baths and the application of iodoform. Constitutionally, two and a half grains of blue pill were administered night and morning. The effect of mercury was to cause the sore to spread, and increase the pain. Iodide of potassium with tartrate of iron was given in increasing doses. Opium was administered to relieve the pain. Improvement was rapid and continuous, and the sore healed. Afterwards, the patient had a slight tubercular syphilide and ulcerated throat. These were relieved by increased doses of iodide of potassium (30 grains) three times a day, and calomel vapour baths (15 grains) every other night. About February 1880, he discontinued the iodide of potassium, and took half a grain of green iodide of mercury each night for a few months. He is at present free from symptoms.

There did not appear to be anything to account for the course of this patient's disease. He had not taken mercury before the inflammation began. He appeared strong and healthy. His circumstances were comfortable, and his life regular. The following case seemed to throw some light upon it. About December 1880, W. H., aged 25, a bookbinder, came under observation in St. Bartholomew's Hospital. He had an inflamed and phagedænic chancre, which resembled in all its characters that of the first patient. He also had lymphatic engorgement and roseola. His throat was ulcerated. Mercury increased the ulceration, which had destroyed about a quarter of the glans penis. Iodoform was therefore applied to the sore, and iodide of potassium and tartrate of iron were administered internally. By the end of January 1881, the sore was healed, the patient left the hospital, and has not been seen since. There was nothing about this patient which would account for the inflammation and phagedæna. He, like the other, appeared strong and healthy. However, I remember that the first patient was very rheumatic. He had suffered from rheumatic fever twice, and from one or

two slighter attacks. He had had endocarditis and iritis. Upon inquiry, it was found that W. H. had been laid up in the London Hospital seven years before, suffering from rheumatic fever. He said his heart had been affected, but no murmur could be detected. There was no family history of rheumatism. Two other cases, in which hard sores became inflamed and phagedænic, have come under notice. In one, there was a clear history of previous rheumatism. The other had never had rheumatism; but his father had had rheumatic fever, and his mother suffered from chronic rheumatism. This case is progressing favourably, iodoform being applied to the sore, and $\frac{1}{32}$ grain of bichloride of mercury given three times a day. It may be mentioned that he had inflammation of the dorsal lymphatics of the penis. This occurring in two cases denotes the intensity of the inflammation. Mr. Hutchinson, in the *Medical Times and Gazette* (quoted by Hill and Cooper, page 469), has attempted to account for the origin of phagedæna. "He considers the patient's temperament. Certain persons have special proclivities to acute inflammation; and such a patient, if attacked by a chancre, would be more likely to have a phagedænic form of chancre." Bearing this in mind, and remembering how prone rheumatic patients are to inflammations, it might be anticipated that in them chancres would become inflamed. Four cases form insufficient materials from which to draw sound conclusions. But these are suggestive, and serve to bear out theoretical considerations.

As regards the treatment of these cases, in two mercury certainly did harm. The third was not under observation a sufficient time to form any conclusion. The last is improving under very small doses of a mild preparation. He had never had rheumatism himself, and his predisposition was probably least. Experience teaches not only that phagedæna is seldom benefited by mercury, but also that iodide of potassium is good for rheumatism. It can, therefore, be understood why these cases were so amenable to treatment by the latter. Therefore, in cases of syphilis, in which the initial lesion is inflamed and phagedænic, and in which there is a history of rheumatism, it is probable that iodides will be of service at an earlier stage than usual. Mercury should be administered with the greatest caution, if at all.

SURGICAL MEMORANDA.

A NEW METHOD OF PERFORMING INCISION OF THE CHEST.

As the treatment of empyema is now receiving prominent attention, I beg to submit to the notice of the profession a safe and easy method of incising the chest.

At the point selected for the operation, I introduce my No. 2 antiseptic trocar (see BRITISH MEDICAL JOURNAL, February 25th, 1882), which serves the purpose of an exploring instrument, and then forms the sheath of a probe-pointed knife. Under Listerian precautions, the India-rubber case is removed, and the inner tube withdrawn; then in its place the knife is introduced, which accurately fits the trocar, and projects a cutting edge of one inch and a quarter in length. The trocar is thus converted within the chest into a probe-pointed bistoury, and with it the required incision can be safely and rapidly made. This modification renders the performance of the operation very easy; on the other hand, an incision from without inwards is often delayed by the dense layer of lymph lining the costal pleura.

JOHN WARD COUSINS, M.D.Lond., F.R.C.S.,
Surgeon to the Royal Portsmouth Hospital.

ATTACHMENT OF PENIS AND SCROTUM.

IN the JOURNAL of May 10th, reference is made in the report of a case of this kind to its unfrequency. I met with a case some time ago. The penis was closely adherent by its under surface to the anterior part of the *raphé* of the scrotum in the same way as described by Mr. McDougall. The mother refused to have anything done for it, on the assurance that there was no immediate interference with the health of the child. In Bryant's *Surgery* (1879) no case of the kind is mentioned.

JOHN DOUGALL, M.B., C.M., York.

DR. MCDOUGALL'S communication regarding the above malformation recalls to me a somewhat similar case, which I have seen lately in a child eight months old. In my little patient the penis is tied down in the greater part of its length, but it is bent not directly downwards, but considerably towards the left, while it is also turned a quarter round on its own axis, so that the slit-like orifice of the glands looks right across, and the urine is passed straight to the left. The preputial orifice is unusually large, and the amount of loose bulging foreskin on the upper and right aspects much in excess of the normal. The child's health is not such as to warrant interference at present.

D. MITCHELL, M.B., C.M., Renton, N.B.

THE PLASTER-OF-PARIS JACKET FOR SPINAL DISEASE.

THE series of interesting papers published in the JOURNAL of May 13th, induces me briefly to state that I have found no reason to modify my opinion as to the advantages of applying the plaster-of-Paris jacket for spinal disease, in the recumbent posture, by the method which I suggested some years since, which was demonstrated at the Association meetings at Bath and Cambridge, and which I fully described in the JOURNAL of March 1st, 1879.

Many surgeons who have adopted my method complain of the weakness behind of the jackets thus applied. To obviate this Dr. B. Lee, of Philadelphia, has suggested that, after one layer of bandage has been applied, the patient should be turned to the prone position for the application of the second, the third being applied in the dorsal position. This modification of the steps described in the paper referred to I have adopted, and recommend to others.

THOMAS JAMES WALKER, Surgeon to the Peterboro' Infirmary.

THE code of directions which Mr. Golding-Bird gives in the JOURNAL of the 13th instant as a guide in the treatment of spinal disease appears to me to require some slight modification.

With regard to disease of a chronic or subacute character affecting the spine between the third cervical and the sixth dorsal vertebra, it is stated that "the deformity being mostly from the weight of the head support must be given to it"—it refers, I conclude, to the head, not to the deformity. Now certainly deformity in such cases, as in all other cases of Pott's disease, is directly dependent upon destruction of bone, and the only means by which deformity can be prevented is by arresting the existing disease. It is universally acknowledged that treatment in such cases must be to place the affected vertebra in a condition of complete rest. The term rest includes not only absence of movement, but also relief from pressure. Mr. Golding-Bird rules that treatment should consist in supporting the head, which object is to be "attained (1) by a chin and occiput rest, acting crutch-like from a suitable leather corset below; (2) by a chin and occiput band, acting as a suspender from a steel spring rod arched over the head, and rising from a plaster-of-Paris corset (this is Sayre's jury-mast)." Mr. Golding-Bird prefers the latter appliance "because it permits rotation," a quality which should rather condemn its employment, for, if the vertebræ be not prevented from rotating, they are not placed in a condition of rest A further distinction is drawn between the two appliances in reference to their mechanical action. The first is described as a "dead push up;" the second as giving "constant elastic extension." Practically, they act in the same way, since in each case the fulcrum is the same the extending force must necessarily be the same.

Disease of the spine as high as the third dorsal vertebra, it is ruled, may be treated by means of the plaster jacket alone; "the downward weight of the head is not obviated, but the spine is kept still by the fixation of the upper ribs." Even supposing that the upper ribs can be fixed by the jacket, which is very doubtful, it must be remembered that they are not immovably connected to the vertebræ, whilst relief from pressure is as necessary here as in the case of disease of any other portion of the column.

I regret to find that Mr. Golding-Bird so completely condemns the curative power of the poroplastic felt jacket, because I am strongly of opinion that the success of the jacket treatment of Pott's disease of the spine depends upon our finding a suitable appliance that can be removed when necessary, for examination of the seat of disease. I can only add that my own experience is directly opposed to that of Mr. Golding-Bird.

FREDERIC R. FISHER.

TOXICOLOGICAL MEMORANDA.

POISONING BY BELLADONNA AND ACONITE.

ON April 27th, I was called in great haste to see a man who was stated to have taken some poisonous lotion by mistake. On arriving, I found that he was an out-patient at the Infirmary, suffering from rheumatism, and had been prescribed a lotion containing compound liniment of belladonna and aconite liniment, together with a mixture. When I

irst saw him, he was lying on the sofa in great agony; he was quite ensible, but unable to speak. He pointed to his stomach and bowels, nd also to his tongue. His face was very much flushed; he was foaming at the mouth and nose; his pupils were contracted. The pulse was ery fast and irregular, and the respiration hurried. His hands were lenched, and the legs almost paralysed. The skin was cold and lammy. There was great muscular twitching. He had vomited before ny arrival, but was quite unable to swallow. He died in about half n hour, in convulsions. He was sensible to the last. Judging from he size of the glass used and the remaining contents of the bottle, I hould say about two tablespoonfuls of the lotion had been taken; this vould correspond to the dose of his mixture. The relatives objected o a *post mortem* examination. The lotion was sent out from the Infirmary in a blue bottle, and was labelled "Poison".

W. S. SIMPSON, M.R.C.S., L.R.C.P., Worthing.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

HOSPITAL FOR SICK CHILDREN, GREAT ORMOND STREET.

WO FATAL CASES OF TYPHOID FEVER IN CHILDREN: NECROPSIES.

(Under the care of Dr. GEE.)

[Reported by Dr. ANGEL MONEY, Registrar.]

CASE I. *Perforative Peritonitis.*—John B., aged 9½ years, was admitted on December 19th, 1881. He had suffered from diarrhœa for bout three weeks; for a fortnight he had complained of pain in the "bowels", headache, and thirst; he had lost appetite, and had had a bad cough; for a week he had been delirious. His condition on admission was unfavourable; the abdomen was slightly tympanitic, and was tender, especially in the right iliac fossa and in the splenic region, the pupils were dilated, but reacted to light, the pulse was 120, soft, and dicrotous. He breathed thirty-four times in the minute, and a few coarse *râles* were to be heard in the chest; the temperature in the evening was 103.6°, on the following morning it was 101.6°, the tympanites had increased, and he had passed only one stool. On December 21st two rose-spots were noticed; but the eruption was not well marked. On December 23rd the temperature had fallen to 99 4° in the morning, and on the four days during which he had been in hospital the evening temperature had fallen a degree each day; at the same time the pulse had grown feebler and more rapid. From December 25th to December 27th the temperature steadily mounted, without evening remissions, and was 104° on the evening of the latter day. On December 30th it was 104.6° in the morning, the pulse was 144, the abdomen and the lower part of the chest were tender, the tongue was dry, and he had been vomiting, the vomit containing some bile pigment; percussion over both pulmonary bases was impaired, and the urine contained albumen. The temperature remained high, the vomiting and other symptoms continued, and he died at 6 P.M. on the following day.

At the *post mortem* examination, which was made eighteen hours after death, the peritoneum contained much purulent fluid mixed with milk; the parietal layer of the peritoneum was covered by a thin layer of lymph, and presented many minute extravasations, chiefly on the lower part of the left side. The small intestines were matted together by soft yellow lymph, which lined also the pelvic cavity and coated all the contained organs; this lymph also extended upwards to the spleen, stomach, and under surface of the left side of the diaphragm; in this manner an irregular cavity, coated by recent lymph, and containing a purulent fluid was formed. A very complete layer of lymph also lined the pleural surface of the left diaphragm. The lower fifteen inches of the ileum contained many ulcers, one of these, situated just seven inches from the ileo-cæcal valve, had given way; the perforation was a narrow slit at right angles to the longest diameter of the ulcer; the gut at the seat of the perforation was quite free and overhung the pelvic cavity from the right side. The ascending colon also showed numerous ulcers; both in the large and small intestine, many of the ulcers were apparently healing.

CASE II. *Severe Symptoms; Hyperpyrexia and Death at beginning of Third Week.*—Thomas G., aged 7 years, was admitted on January 20th, 1882. He had been ill for about a week, suffering during that time from pain in the head and belly, and from diarrhœa; for two days he had been slightly delirious. His mother stated that there were "plenty of cases in the neighbourhood", and that one man who lived at the top of the same house was affected with the disease. The patient's brother was admitted, shortly afterwards, also suffering from enteric fever. On admission, the tongue was foul and coated, the abdomen was tender, and the spleen enlarged; the pulse was 120 and dicrotous, a few coarse *râles* were heard in the chest, and he had some cough; there was no distinct eruption. The temperature was 103.2°, and rose to 104.6° on the following evening. On January 26th it was noted that his condition had been very serious, the temperature, taken every four hours, showed a continued pyrexia (for the most part above 103°); there was much diarrhœa, the stools were very watery, and were passed unconsciously; the tongue, the teeth, and the lips were coated with black material, the abdomen was swollen, and was generally tender; the spleen was large, but there was no rash. On the following day the temperature fell in the morning to 100.8° (lower than on any previous morning); later in the day it rapidly rose and reached 105.6° in the evening; the excessive diarrhœa disappeared somewhat suddenly (the bowels acted only twice during the day), the belly was apparently tender all over, and there was much tympanites; the pulse was 164, and the patient was unconscious, with subsultus tendinum, and picking of the bedclothes. The temperature remained high; and, finally, just before death, which occurred at 2 a.m. on January 28th, reached 109°.

A *post mortem* examination was made fourteen hours after death. Blood was extravasated into the upper half of the recti muscles, especially on the left side, and also into the subperitoneal tissue; the hæmorrhage had been so considerable that the skin at the upper and left part of the abdomen was discoloured. The spleen was very large and of a deep purple colour; it weighed 9¼ oz. The ileum, for about two inches above the ileo-cæcal valve, was most extensively diseased, the ulcers in this situation were in a sloughy condition, the sloughs having brownish, yellowish, and blackish tints; the ileum for the next two feet contained numerous ulcers with yellow sloughy bases. Above this, there was only slight swelling and congestion of the lymphatic structures. In the large intestine many of the solitary glands were swollen and red, and a few had a sloughy surface. There was no perforation, and no peritonitis. On the surface of the lungs beneath the pulmonary pleura were scattered some extravasations of a bright black colour, glistening and raised above the surface; they varied in size from a pin's head to a quarter of an inch square; there was no pneumonia and no pleurisy. The heart was not evidently diseased. In the larynx there was slight superficial ulceration about the vocal cords; the bronchial glands were much congested and swollen.

REMARKS BY DR. MONEY.—Statistics show that death from typhoid fever occurs much less frequently in children than in adults. The cases recorded here are of further interest in the contrast they afford between two modes of death from enteric fever. Perforation and sequent fatal peritonitis is in children a very unfrequent termination; in the case in which this accident happened, it was noted that the seat of rupture was quite free and overhung the pelvic cavity, and so allowed a very free escape of the intestinal contents, with a correspondingly large area of inflammatory action. In CASE II, death was most probably due to the intense general affection, and occurred at that period of the disease to which such a mode of dissolution is usually assigned, viz., about the beginning of the third week. This case also bears witness to the fact which, looking only to statistics, might be doubted, that children are capable of having severe typhoid fever; and, *à priori*, there is no reason either in the total, or detail structure, or function of the human or animal growing organism, which denies such a possibility.

QUEEN'S HOSPITAL, BIRMINGHAM.

A CASE OF CHLOROFORM-POISONING: UPWARDS OF THREE OUNCES SWALLOWED: COMA LASTING SEVEN HOURS: RECOVERY.

(Reported by JAMES OLIVER, M.B.Edin., late House-Physician.)

Now that some controversy has been going on amongst the members of our profession regarding anæsthetics, the record of this case of chloroform-poisoning may prove of some interest.

The patient, a Frenchman, of rather slender build, was brought to the hospital one evening, about eleven o'clock. His condition then was as follows. Respiration had ceased; the pulse, numbering twenty per minute, was hardly to be felt at the wrist; the surface of the body was quite cold, and of a dusky pallor; the lips were livid, and the pupils widely dilated. The odour of chloroform was distinct. The patient had been seen at his own home by two medical men, and an hour and a half elapsed after swallowing the poison before he was removed to the hospital. Artificial respiration was immediately begun,

and excited incomplete and feeble respiration, which was principally diaphragmatic, the throrax itself moving but slightly. A powerful magneto-electric machine was used, the wetted sponges being applied, one over the root of the neck on the left side, the other over the precordia. Enemata of beef-tea and brandy were given, whilst ether was injected subcutaneously over the region of the heart whenever the pulse showed signs of failure.

About 2 A.M., the surface of the body being still pale and cold—although every endeavour was made to regain and maintain animal heat—and no sign evidencing returning sensibility, five drops of nitrite of amyl were administered as an inhalation on a piece of lint; this seemed unequivocally to improve the breathing, but only temporarily. About 3 A.M., the condition of the patient being still apparently unchanged, half a drop of nitrite of amyl in rectified spirit was injected subcutaneously, but with no marked result. About 5 A.M., artificial respiration and galvanism for six hours having been employed, ceasing only at intervals, the eye for the first time became slightly sensitive to touch, whilst, at the same time, there was evidence of general improvement by the respirations becoming less shallow, and the return of warmth to the surface of the body. Fifteen minutes more elapsed before he could be roused sufficiently to permit of his removal to the ward, after which recovery was gradual and uninterrupted.

For several days afterwards he complained of pain in the epigastrium and throat, sickness, and intense thirst. White membranous-looking patches were distinct on and under the tongue, as also at the back of the pharynx; they gradually disappeared in about four days. The urine passed was acid, of a pale amber colour; it contained no albumen, and emitted no odour of chloroform. Sugar was not tested for. The odour of chloroform was distinct in the breath for two days.

REMARKS BY MR. OLIVER.—Chloroform, when taken internally, is a narcotic poison, and has been known to cause sickness and vomiting when given in large doses. In this case, upwards of three ounces of undiluted chloroform were swallowed, and yet no emesis resulted. This absence of vomiting I attribute to the local anæsthesia produced by the contact of the drug with the mucous membrane, and to the rapidly diffusible nature of the poison. During the stage of complete anæsthesia from chloroform, the pupils are, as a rule, contracted. It has been noticed, in those cases of supposed death by cardiac failure, that, just before the fatal termination, the pupils, which previously had been contracted, became suddenly dilated. The pupils in the above case were widely dilated, and remained so during the comatose state; contracting, however, on applying the sponges from the battery, but only to dilate again on the removal of this stimulus. It has been alleged that, during the administration of chloroform by inhalation, the amount of oxygen in the blood is not appreciably altered, or, at all events, that it is not diminished. The hypothesis, nevertheless, seems feasible that death in many cases during anæsthesia results from a detention of carbonic acid in the blood. Situated in the medulla oblongata is an inhibitory centre, which exerts its influence on the heart, through the pneumogastric nerve. Should the blood contain excess of carbonic acid, even relatively, this inhibitory centre becomes irritated, the result being a slowing, and, finally, a cessation of action of the heart in a state of diastole—just such a concurrence of phenomena as have been noted in cases of death during the administration of anæsthetics.

In using galvanism as a restorative in apparent death from an anæsthetic, the continuous current has usually been recommended; the interrupted, however, will probably be found more efficacious. The nervous conduction during induced anæsthesia is materially diminished; the electricity therefore, to be of any effect, must be powerful: hence the need for approximating the poles from the battery, and not applying them to parts of the body far removed from each other. The full benefit of the stimulus is also obtained by using contracted conductors. Nitrite of amyl I employed as a remedial measure, the indication for its use being an apparent spasmodic condition of the capillaries and small arteries. On a former occasion, I was tempted to use this remedy when a similar state of the vessels seemed the cause of impending death, and with marked benefit; the case was one of mitral regurgitation, with dilatation of the right heart—a cardiac lesion which is supposed to contraindicate its use. The odour of chloroform, as I have already stated, was distinct in the breath of my patient for two days—a fact showing how completely most, if not all, the tissues of the body had become saturated by the drug, and confirmatory also of its great penetrability when applied to a broken surface or mucous membrane.

[At page 604 of our first volume for last year will be found a note on a paper by Dr. Mygge of Copenhagen, dealing fully with this subject.]

THE GENERAL HOSPITAL, BIRMINGHAM.

THREATENED DEATH FROM CHLOROFORM.

By GILBERT BARLING, M.B., F.R.C.S., Pathologist to the Hospital.

As the question of anæsthetics is still being discussed, I think the following note of a case, which recently gave me some anxiety, may be of interest.

A man, aged 66, was placed on the table for removal of his upper jaw. I administered chloroform, as is commonly done in such cases, by means of a nasal catheter. The patient took the anæsthetic well; but, in a short time after the commencement of the operation, I noticed his respiration becoming shallow, and it eventually ceased; the heart's action, which I was carefully watching, keeping up its vigour and rapidity. Artificial respiration was commenced, and after the lapse of two or three minutes was desisted from, to see if the patient made any attempts at natural respiration. He did not; and the artificial method was again resorted to, and again stopped, but without arousing any effort at respiration on the part of the patient. It was not until nearly ten minutes after respiration failed that he breathed by his own powers; and to this he was aroused by tickling his sides, as he was by this time become quite sensitive to external stimulation. The operation was then proceeded with; only a small quantity of the anæsthetic being administered, the respiration occasionally threatening to cease. I should mention that, at the time respiration failed, the patient was barely anæsthetic, as slight reflex movements of the eyelids could be obtained. The pupils were moderately contracted. Death occurred two days after the operation, apparently from exhaustion, when it was found that both lungs were very emphysematous, and the right was adherent. Slight fatty degeneration of the heart-muscle existed.

This case illustrates what is sometimes denied; viz., that death from chloroform may be caused by failure of respiration. This case reminds me of another in which the heart failed first.

A young man was being operated on for cleft palate. He had been on the table for nearly an hour, when I noticed his pulse flagging, and eventually it could not be felt at the wrist. Cessation of respiration then followed; but, on removing the gag and lowering the head, preparatory to artificial respiration, both pulse and respiration were re-established. This patient was not deeply under the influence of chloroform, as I considered it advisable to be cautious, owing to his depressed condition from vomiting and loss of blood, the latter being considerable. It impressed on my mind the advisability of always watching the pulse as well as the respiration when administering chloroform, as in this case I certainly obtained the earliest indication from the pulse that the patient's condition was one of danger. I mention this, because I know that some teachers of repute state that attention to respiration only is necessary, and that the pulse may be neglected.

RESPONSIBILITY OF THE INSANE.—The *Medical and Surgical Reporter* queries: "Should sick men be hung?" Well, only sometimes; but the treatment should not be allowed to degenerate into routine practice.

A MODEL DAIRY.—The new buildings erected by Messrs. Welford and Sons in the Elgin Road, St. Peter's Park, closely adjoining Westbourne Park Station of the Metropolitan Railway, have now been opened. The increasing business of Messrs. Welford and Sons has necessitated the erection of these new buildings, which were inspected by a large number of gentlemen mostly connected with the medical profession, who are interested in the important work of providing pure milk for the metropolis. It was pointed out to them that the new buildings had been constructed with all the modern hygienic improvements, as well as with all arrangements requisite to make a dairy as model an establishment as possible. The building has been erected at a cost of upwards of £20,000. All sanitary matters have been placed in the hands of Dr. Mahomed, who makes frequent examination of the persons employed in milking, carrying, etc., and also, in conjunction with Mr. Vigors, the sanitary engineer, investigates the water-supply and sanitary conditions of the farms. The services of Mr. R. Ward have been obtained as veterinary inspector of the various herds in town and country. Frequent examinations of the milk are made by their analyst, Mr. A. Stokes. At a *déjeûner* that was given after the inspection of the buildings, Mr. Welford presided, and was supported by Mr. D. Grant, M.P. (Marylebone), Dr. Richardson, and others. The proprietors of the new building were complimented on the measures they had taken to supply a good and a plentiful supply of milk for the metropolis, and wished success in their undertaking.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MAY 23RD, 1882.

JOHN MARSHALL, F.R.C.S., F.R.S., President, in the Chair.

Two Cases of Laryngeal Growths, in which the Neoplasms were successfully removed by Endolaryngeal Operations with the Aid of the Galvano-caustic Method. By FELIX SEMON, M.D. Berlin, M.R.C.P. Lond.—The first of these two cases was one of multiple, sessile, in part subglottic, recurrent papillomata, occurring in a young lady, aged 20, after a common cold, and giving rise to complete aphonia and slight dyspnœa on exertion. The supraglottic portion of the growths having been removed with forceps, and the tendency towards recurrence, which at first was most markedly manifesting itself, having been gradually exhausted after repeated removals, the subglottic papillomata, which it was found could not be removed by any endolaryngeal method, were destroyed with the aid of a suitably bent galvano-cautery, which was introduced between the vocal cords during the act of deep inspiration. The patient completely recovered her voice, and has been free from recurrence of the growth for more than four months. The second case was one of a very large and hard broad-based fibroma, originating from the anterior commissure of the vocal cords and the anterior third of the right vocal cord, occurring in a man, aged 33, and causing complete aphonia and dangerous dyspnœa, filling up, as it did, almost the whole of the glottic cavity. The growth was to be traced for the last ten years. It was removed by the aid of a galvano-caustic loop passed round it, and was found to be one of the largest benign laryngeal growths on record. The patient completely regained his voice, and is now quite well. Rossbach's method of producing local anæsthesia of the larynx, by directing two ether sprays simultaneously against the points of entrance of the superior laryngeal nerve into the thyro-hyoid membrane, was resorted to, but not found, in this case, to afford any material advantage over the simpler expedient of directing the patient to suck lumps of ice some time before the operation. Dr. Semon stated that he had brought these cases before the Society because they practically proved that certain qualities of laryngeal growths, such as multiplicity, subglottic position, tendency towards frequent and quick recurrence, and, again, excessively large size, broad base, and great hardness, which were generally looked upon as so many contraindications against the performance of any endolaryngeal operation, were in reality no serious obstacles to endolaryngeal interference, even if several of them occurred together. He discussed at some length the comparative advantages and disadvantages of extra- and intralaryngeal operations in cases of benign laryngeal growths, showing that thyrotomy gave no guarantee against recurrence of papillomata, and that this operation in itself, as conclusively shown by Paul Bruns, was very dangerous to the vocal function. He admitted that the galvano-caustic method ought not to be used in the larynx as long as the same ends could be achieved by simpler methods; but maintained that, in such cases as the two brought forward, it was of the highest value, because it could not be replaced by any other method. On the whole, he thought that no hard-and-fast rules could be laid down which should govern our decision to the choice of the method in every given case of laryngeal growths. Exclusive adherence to either side was to be deprecated, and he thought that the struggle between the partisans of the extralaryngeal and endolaryngeal methods might be settled, with advantage to everyone concerned, by the general adoption of the rule, that no extralaryngeal operation for the removal of benign growths should be performed, unless an experienced laryngoscopist had unsuccessfully attempted endolaryngeal removal. Instruments, drawings, and the second patient referred to above were shown to the Society.—Dr. GEORGE JOHNSON, who had the opportunity of seeing the first of these cases in the early stage, thought the case, from the great number and wide distribution of the growth, the most difficult to deal with he had ever met with. When he saw her after treatment, the voice was quite normal, and the only evidence of disease was a slight irregularity on one cord. On the whole, the risk of endolaryngeal operations appeared to be less than that attaching to extralaryngeal.—Dr. DE HAVILLAND HALL remarked on the great difficulty of dealing with these growths, owing to their sessile attachment and great number. With regard to the second case, he had himself felt confident that tracheotomy would be necessary, owing to the great dyspnœa present. But the removal of a small piece of the growth at the first operation was followed by great relief, and now the patient appeared to breathe and speak quite naturally. He congratulated Dr. Semon on the success of these operations, and hoped that they would encourage surgeons to endeavour to remove these growths *per vias naturales*, and not by making any artificial opening.—Dr. DOUGLAS POWELL asked whether the galvano-cautery had any action in causing the absorption and disappearance of these growths, after they had been removed in part.—Dr. SEMON, in reply, said that it gave him great pleasure to record a fact which had been brought to his notice by Mr. Berkeley Hill. It was generally supposed that Middeldorpf of Breslau had been the first to introduce the galvano-cautery into surgery, whereas he had been able to satisfy himself that the credit of its introduction was really due to Mr. Marshall, the President of the Society. He had not seen any absorption of the growths after cauterisation; on the contrary, he found that they never disappeared until they had been thoroughly removed. It was an important question whether the frequent use of instruments, and of the cautery in these cases of multiple benign papillomata, tended to produce malignant disease. He did not believe that this was the case with true papillomata. He showed to the Society a man, who, fourteen years earlier, had been operated on for papillomata of the larynx. Lately, the growths had begun rapidly to recur; in such a case he would suspect a malignant tendency, and would act with great caution. He referred to another case which came under his care five days earlier, with great dyspnœa; he had removed a good deal of the growth, and the dyspnœa was now very slight. His object in bringing forward the cases was to show that the endolaryngeal method was available in a class of severe cases, to which it had been supposed to be inapplicable.

On Thyrotomy, for the removal of Foreign Bodies Impacted in the Interior of the Thyroid Cartilage. By T. HOLMES, F.R.C.S.—This paper related the history of a case in which a large and rough piece of rabbit-bone was impacted in the neighbourhood of the left vocal cord for seven days before its removal. On the failure of attempts to extract it with the laryngeal forceps from the mouth, laryngo-tracheotomy was performed on the fifth day; and, as the bone was still immovable, the thyroid cartilage was divided on the seventh day, when the piece of bone was at once extracted. The patient had suffered rather severely from inflammation of the mucous membrane of the larynx and trachea before the operation, and this did not subside after the operation, but spread gradually down to the lungs, until finally a gangrenous abscess formed in one lung, and the patient died nine weeks after the operation. *Post mortem* examination showed evidences of intemperate habits, which was indeed also known from the patient's history. The voice had almost entirely returned before the patient's death, and the wound had contracted to a very minute fistula. The parts concerned in the operation were exhibited, and showed hardly any unnatural appearances. There was slight ulceration of the left vocal cord, caused by the foreign body, and a very minute perforation still existed in the thyroid cartilage, above the glottis; but the wound, which extended from the upper border of the pomum Adami to the second or third ring of the trachea, was represented only by a faint line of union, and the vocal cords showed no sign whatever of having been interfered with. The general subject of the indications for thyrotomy, the method of performing it, and its results, in cases of impacted foreign bodies, was discussed, and the following conclusions were arrived at. 1. Very large substances may be impacted, either in the ventricle or between the alæ of the thyroid cartilage, without causing any symptoms of immediate urgency. 2. When such substances are rough or pointed, they sometimes give rise to a spreading inflammation of the mucous membrane, and in such cases should be removed as soon as possible. 3. If they can be seen and touched, they can usually be removed from the mouth, either whole or piecemeal. 4. When this is found impossible without tracheotomy, an opening should be made through the crico-thyroid membrane and upper rings of the trachea. 5. After this operation, it is quite possible that the spasmodic condition of the parts about the glottis may subside, and a renewed attempt at extraction be successful. 6. If this be impossible, the foreign body may perhaps be either extracted or displaced from the tracheal wound, so that a preliminary tracheotomy is always advisable. 7. On the failure of such attempts, the thyroid cartilage is to be laid open in the middle line—partially, from below upwards, if the body is small, and can be felt lying near the wound—entirely, and from above downwards, if the body is large, firmly impacted, and lying out of reach from the tracheotomy wound. 8. The operation of thyrotomy involves little danger to life, and not much to the integrity of the voice; at least, the risk of damage to the vocal cords is much greater from the protracted irritation of the foreign body than from the operation.—Mr. DURHAM opened up the larynx in two cases in which foreign bodies had become impacted; in both cases, the operation was successful, and the patients recovered. In the first case, which was published in the *Guy's Hospital Reports*, the foreign body was a cherry-stone; on opening the larynx, it was clearly seen that there could have been no reasonable chance of removing the stone by endolaryngeal methods, owing to the fact that it was involved between the false and

the true cords, and firmly retained, owing to the swelling of the tissues. The second case was that of a young man, who got a portion of bone into his larynx; sudden dyspnœa followed, which, however, quickly subsided. The bone could not be seen with the laryngoscope, as it was concealed by enormous œdema. Thyrotomy was performed, and the bone was found tightly wedged. He thought that the rule referred to by Dr. Semon applied to foreign bodies, as well as to new growths. In certain cases, thyrotomy was the best operation that could be performed. He had been represented as advocating the splitting of the thyroid, in opposition to all endolaryngeal operations; this was entirely opposed to what he meant to maintain; it was only when endolaryngeal methods failed, that the external operation should be attempted; but, where required, there ought to be no hesitation in undertaking it. The deaths after the operation had been due to the disease, and not to the operation. He objected to the word thyrotomy, as applied to all operations in which the laryngeal cartilages have been cut up; in some cases the cricoid, in others that cartilage and some of the rings of the trachea, had been divided in addition to, or independently of, the thyroid. He would propose the term laryngo-chondrotomy. Mr. Durham showed a pair of endolaryngeal forceps, which he had found exceedingly convenient.—Mr. CROFT had performed this operation once on a patient who had been in hospital three weeks beforehand, and the result was successful, so that he did not think that the view put forward by Mr. Holmes, that the death in his case was due to the interval between the impaction of the body and the operation, could be maintained. In the case in which he had operated, the foreign body was a walnut-shell. He wished to ask Mr. Holmes, what connection he traced between the abscess in the lung and the laryngeal trouble; if much hæmorrhage had occurred at the time of the operation, some blood might have entered the lungs, and, by its decomposition, led to the abscess.—Mr HOWARD MARSH referred to a case in which, after tracheotomy, he had been unable to remove the laryngeal tube: he therefore performed thyrotomy, and the operation was not difficult, and did not at all deteriorate the condition of the patient, who was a child of three years.—Dr. SEMON said that in some cases he thought results were attributed to operation, which were properly traceable to the disease set up by the foreign body; for instance, in Mr. Croft's case the left half of the larynx was quite ankylosed, and the right arytenoid was dislocated, so that the patient was obliged to wear a tube; this was evidently due to the inflammation set up by the foreign body, and not to the operation.—Mr. HOLMES said that the foreign body in his case was of a really enormous size; far larger than appeared on laryngeal examination. In such a case it was quite impossible to remove the body through the mouth owing to this fact. He thought that death was due to a diffused inflammation which started in the trachea before the operation was performed, and the abscess, which formed eight or nine weeks later, was not in any way due to blood lost at the operation; very little could have entered the trachea, owing to the excellent way in which the tampon worked. He agreed with Dr. Semon that much had been attributed to the operation which was really due to the disease or to the foreign body. He brought this case forward to show, especially, how little deformity might remain after thyrotomy; the vocal cords were in their normal relation to each other, and the wound was hardly perceptible on the inner aspect of the larynx.

Micro-organisms in Disease.—Mr. WATSON CHEYNE showed a large number of microscopical sections illustrating the micro-organisms present in the tissues in various diseases, and also a still larger number of micro-photographs lent by Professor Lister. Among the specimens there of greatest interest were the following:—I. *Tubercle* (*a*). Two specimens stained by Dr. Ehrlich and sent by him to Professor Tyndall, the first showed the bacilli in tubercular sputum under a high power (×900), the second, bacilli in bovine tuberculosis, involved in the giant cells; this latter specimen was under a low power (¼ inch), and the clearness with which the organisms might be perceived showed that a proper illumination was even more important than a high magnifying power. These specimens were stained by a new method, the details of which Mr. Cheyne did not know, and were of quite singular beauty and distinctness. (*b*). Two specimens stained by Koch's method; the first was a specimen of miliary tubercle in man, taken from the lung and spread out on a cover glass, and stained with methylen blue and vesuvin, the bacilli appeared as blue rods on a brown ground; the second was from a case of induced tubercle in the guinea-pig. These specimens could not compare in distinctness and beauty with those prepared by Dr. Ehrlich by his method. II. *Spirillum Fever.*—A microscopical specimen of the blood of a patient suffering from spirillum fever. The specimen had been stained with methyl violet, and the "corkscrew" spirilla were well seen. Microphotographs of the blood and of a section of the brain of a monkey, showing a spirillum in a blood-vessel, were also shown. III. *Leprosy.*—A microscopical specimen from a leprous nodule from the skin showing numerous bacilli, in many cases filling up and destroying the nuclei. IV. (*a*). Specimens and photographs showing the organisms found in the pyæmia, and in the septicæmia, of rabbits. (*b*). A specimen of the organisms found in a form of septicæmia common to mice, rabbits, and birds (under a very high power, the bacteria which were stained blue, were oval, transparent in the middle, and had a blue spot at each end). (*c*). A specimen and photographs showing the progressive formation of an abscess in the rabbit; this specimen as seen under the low powers showed a line of dense reddish (stained) masses between the healthy and diseased tissue; under a high power these masses were seen to be composed of minute micrococci. V. Specimens and photographs demonstrating the *Bacillus anthracis* in man and in the rabbit; a section of a lymphatic gland from a rabbit which had been inoculated with anthrax showed very plainly the bacilli in enormous numbers in the lymph sinuses. VI. Photographs and specimens showing the organisms in small-pox, erysipelas, osteomyelitis, ulcerative endocarditis, etc.—Mr. V. A. H. HORSLEY also showed a number of microscopical specimens of (1). Bacterium Termo; (2) Organisms in Puerperal Septicæmia; (3) Bacilli in the Peritonitic Fluid of a Guinea Pig: the peritonitis was induced by the injection of nitric acid, and the intestines were in a state of acute enteritis; (4) Micrococci from an abscess, where the pus was yellow and sweet, and contained much iodoform; (5) Micrococci from a case of umbilical pyæmia; (6) Omentum from a case of splenic fever; some of the capillaries were choked with the bacilli; (7) Slices of potato, with various centres of mucoid and bacterial growth, to illustrate the method of growing and separating micro-organisms introduced by Cohn and employed by Koch.—Dr. DODSWELL: Micrococci from a peculiar form of septicæmia known as Devaine's.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, MAY 3RD, 1882.

J. MATTHEWS DUNCAN, M.D., F.R.C.P., President, in the Chair.

Uterine Fibroids removed by Laparotomy.—Dr. BANTOCK showed two specimens of uterine fibroids removed by abdominal section, one of them weighing six pounds. In both cases, the pedicle was secured by Kœberlé's *serre-nœud*. Both patients were doing well. He had now had sixteen cases, with four deaths.—Dr. SAVAGE asked whether Dr. Bantock's method of securing the pedicle was more easily effected when the tumour reached high up within the abdomen.—Dr. BANTOCK said that the size of the tumour made very little difference. In reply to Dr. Routh, he said he had not used a drainage-tube in these cases, because there was nothing to drain.

Myxoma of Peritoneum.—Dr. JOHN WILLIAMS showed a dermoid cyst of the ovary, with myxomatous disease of the peritoneum. In reply to Dr. Routh and Dr. Heywood Smith, he said that there had been no symptoms indicating rupture of the cyst, and that the peritoneal disease had been diagnosed during life by the result of tapping.

Dr. MAITLAND COFFIN showed an *Anencephalous Fœtus*.

The Corpus Luteum.—A paper by Dr. W. A. POPOFF of Pensa, on the above subject, was read. He described two cases. The first was that of a prostitute, aged 21, who died from prussic acid poisoning. In her ovary a fully ripe corpus luteum was found, although she was neither pregnant nor menstruating. The difference between the corpus luteum of pregnancy, and that of menstruation, was usually ascribed to the increased amount of nourishment received by the follicle in the pregnant state. In this case, he thought that prostitution was probably the cause of the increased nutrition and development of the follicle. The second case was that of a woman aged 41, who died from gangrene of an uterine fibro-myoma. The ovary contained a true corpus luteum, and in other respects resembled the ovary of a pregnant woman. In this case, he thought the increased determination of blood to the part, in consequence of the fibroid, was the explanation of the size of the corpus luteum.—The PRESIDENT said that it was important to have the view confirmed that a corpus luteum having all the characters of that met with in pregnancy occurred in women who were neither pregnant nor menstruating. He had seen such a corpus luteum in an aged woman who was believed to be salacious, and he had dissected cases of pregnancy with complete absence of corpus luteum.

The Natural History of Dysmenorrhœa.—A paper was read by Dr. JOHN WILLIAMS on the above subject, of which the following is a summary. 1. Dysmenorrhœa should be studied first under the least complex conditions—in single women. 2. In single women, it is rarely acquired; it is almost invariably primary—*i.e.*, it appears with the menstrual function. 3. In a few, but rare, cases, it ceases spontaneously a few years after puberty. 4. Marriage, if sterile, aggravates the

disorder in many cases; it is only very seldom that it relieves the pain. 5. Child-bearing cures a large number of cases; and it is not improbable that, were all puerperal complications excluded, it would cure every case. 6. The proportion of sterile to fertile women, subjects of primary dysmenorrhœa, is one to twelve. 7. Menstruation begins in women who become sufferers from primary dysmenorrhœa at about the estimated average age for the appearance of that function in London. 8. Menstruation is regular in about two-thirds of the cases, and irregular in about one-third. 9. The menstrual fluid is profuse in about two-fifths of the cases, scanty in about one-half, and contains clots or shreds in about three-fourths. 10. The changes which take place in the fluid in the course of dysmenorrhœa are various, aud cannot at present be classified. 11. The uterus is imperfectly developed. It may be too short, or too small in volume, or it may be defective in both respects. The cervix may be conical, and the os small and round; but stricture of the canal in any part of its course is infinitely rare. 12. The changes in the uterus due to dysmenorrhœa are, slight hypertrophy, erosion and eversion of the mucous membrane of the cervix, and catarrh. The cavity increases but little in length; for, after years of suffering, it measures rarely more than two inches and a half in length. In the early stages, the tissues of the uterus are in some cases soft; in more advanced, hard. 13. The hypertrophy of the uterus is probably the result of periodically increased muscular action. 14. Ovaritis and perimetritis are possible consequences of dysmenorrhœa. 15. The menstrual pain is the result of spasm of the uterus, excited by the separation and expulsion of shreds of decidua and clots, in an organ whose sensitiveness in the performance of its function is enhanced by inappreciable conditions of tissue dependent on imperfect development, often associated with others, such as anæmia.—Dr. SAVAGE said that the broad ligaments were never unsymmetrical; the uterus was always the centre of it. Apparent elongation of one side was due to deficient uterine development on that side. Uterine casts never contained glands, but only circlets of cells surrounding the apertures of glands. Fragments of casts, more or less minute, always came away with menstrual fluid.—Dr. RORERT BARNES agreed that imperfect development of the uterus was a factor in dysmenorrhœa, though he thought Dr. Williams's estimate of the proportion was too high. The frequency with which pregnancy followed the treatment of dysmenorrhœa showed that the uterus was fairly developed. He believed also that Dr. Williams had underestimated the frequency of acquired dysmenorrhœa in single women. From retroversion or other causes, dysmenorrhœa might be produced. The two most frequent causes of dysmenorrhœa and sterility, in his opinion, were a narrow os externum uteri and flexion. Where one or both of these conditions were present, dysmenorrhœa would commonly persist until they were remedied. He was pleased that Dr. Williams did not adopt the unphilosophical doctrine of spasmodic dysmenorrhœa as a primary or essential condition. Enlargement of the uterus was due not only to excessive muscular action, but to constant congestion of the organ from its impeded circulation. This produced a subacute endometritis and the shedding of dysmenorrhœal membranes. By the enlargement of a narrow os externum, access was gained to the uterine cavity, so that the unhealthy mucous membrane could be directly treated.—Dr. WYNN WILLIAMS could not agree that displacements were not acquired in virgins. He had noticed that falls on the back commonly produced retroflexion; on the face, anteflexion. In his experience, the most frequent and persistent cause of dysmenorrhœa was anteflexion, which could only be cured by permanently straightening the uterine canal; and this, he believed, could be done. He agreed with Dr. Barnes as to the importance of a small os externum. He thought the author had not laid sufficient stress on metritis and fundal endometritis as causes of dysmenorrhœa.—Dr. GRAILY HEWITT had remarked the frequency with which general malnutrition, involving also the uterus, was observed with uterine symptoms. In these cases, during the early part of their course, the uterus was soft, incapable of maintaining its proper shape and position, and hence became flexed, prolapsed, or compressed upon itself. Probably some of the cases described by Dr. Williams as cases of imperfect development were of this latter kind. One of the symptoms that arose was dysmenorrhœa, due to difficulty in the escape of secretions, owing to the altered shape of the organ. All cases of uterine distortion were not accompanied with dysmenorrhœa, nor was dysmenorrhœa always due to uterine distortion. The circulation of the uterus was often much interfered with, and the congestion might cause pain. He hardly ever failed to relieve dysmenorrhœa by measures to keep the uterus in proper position, and its canal straight; and this seemed to him conclusive as to the connection between the distortion or displacement and the dysmenorrhœa. He thought, in opposition to Dr. Williams, that dysmenorrhœa was often secondary.—The discussion was adjourned till the next meeting.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

FRIDAY, APRIL 21ST, 1882.

J. W. TRIPE, M.D., President, in the Chair.

The Notification of Infectious Disease.—Dr. VINEN read replies from Sir Trevor Lawrence, M.P., and Dr. Farquharson, M.P., to a letter forwarding resolutions of the Society on the Compulsory Notification of Infectious Diseases Bill. Sir Trevor Lawrence urged that the duty of notifying should rest upon the medical attendant, while Dr. Farquharson stated that this point would be considered by a Select Committee. The Society then adopted a report of the Council on this subject. They recommended: 1. That the Act should apply to the metropolis; 2. That erysipelas should be excluded from the list of diseases to be notified; and 3. That the duty of notifying should rest on the person in charge of the sick person, or his house; but that it should be a legal obligation on every medical practitioner in attendance to give immediate written information concerning the nature of the disease to the person responsible for reporting it to the sanitary authority.

Sanitary Legislation for Prevention of Infection by Milk.—Mr. FOSBROKE, President of the Birmingham and Midland Association of Medical Officers of Health, brought up the following resolutions: the first, "That the sanitary supervision of dairies and milkshops, and the carrying out of any legislative enactments for the prevention of the spread of human infectious disease by milk, should come under the jurisdiction of the sanitary officers of the locality in which the dairy or milk shop is situated." This was carried; and it was referred to the Council to advise what further steps should be taken to give effect to the resolution.

Closure of Schools affected with Infectious Disease.—The second resolution was as follows: "That this meeting, feeling that some dangerous infectious diseases are disseminated through the agency of public elementary schools, approves of the action of the Educational Department in investing sanitary authorities with the power of requiring the closure of such institutions, with a view to preventing the spread of such diseases." This resolution was also adopted, and a copy of it was ordered to be sent to the Educational Department.

Suggestions for the Re-organisation of the Sanitary Service.—Dr. E. F. WILLOUGHBY read a paper on this subject. The author began by pointing out the shortcomings of the Public Health Acts of 1872 and 1875, which had failed to provide the country with a class of trained health-officers, or of men devoting their whole time and attention to sanitary questions; even the few rural combinations, from which much might have been expected, having been broken up whenever the medical officer of health chanced to give umbrage to influential offenders. He insisted on the importance of medical officers of health being free from private pracice, and the necessity of their being independent of the local authority—arguing that their duties were those of inspectors of the public health, and they were not servants or agents of the local boards, as were surveyors, parish surgeons, etc. They ought to be appointed by the Central Government, as much as Her Majesty's inspectors of mines, shipping, etc., whom it would be deemed absurd to place at the mercy of the persons over whose acts they have to watch. The medical officer of health ought to show proof of a knowledge of physics, chemistry, engineering, and sanitary science generally—subjects which form no part of the education or examination of the ordinary medical student; in other words, he should possess a certificate in sanitary science, as well as diplomas in medicine and surgery, which are all that are required of him at present. Such certificates, he thought, ought to require an examination in forensic medicine, and the law of evidence also; in fact, to cover the whole ground of State medicine. Poor-law medical relief he maintained to be a department of the public health; and, as such, it ought to be separated from pecuniary relief, and transferred from the guardians to the sanitary authority. The medical officers of health and the parish surgeons would thus be drawn closer together, and the former would gain access to much valuable information—*e.g.*, as to the prevalence of diseases other than infectious, which are no mean indications of the hygienic conditions of a district. Dr. Willoughby could not agree with those who advocated the creation of a minister of health, who would, in this country at least, not be a medical man. The director of the public health must be a permanent officer, independent of changes of political parties; in fact, a permanent under-secretary of State. He would propose the division of the duties and functions of the Local Government Board between two co-ordinate departments: a Poor-law board and a board of health; the latter taking cognisance of all matters in any way affecting the public health, including sanitary works, medical poor-

relief, and a few matters at present referred to other branches of the Government; the Poor-law Board retaining those relating to finance, poor-relief, workhouses, etc., not of a sanitary character. Each should be under a vice-president, responsible only to the President for the time being of the Local Government Board. The vice-president of the board of health should always be a physician, chosen for his special knowledge and administrative ability; and the board would consist of six other members—three medical men, two engineers, and one chemist. The present medical officer and senior inspectors would constitute the first board, future vacancies being filled by selection from inspectors and medical officers of health. The whole country should be divided into urban and rural sanitary districts; the former comprising only towns of 80,000 or 100,000 inhabitants; the latter consisting of large rural areas, each with a considerable central town, and, as far as possible, even by readjustments, division of other, especially registration, districts should be avoided. He did not think that the medical officers of single parishes over the country would lose anything by being superseded; such as desired to qualify themselves for the sanitary service would be promoted, and the position of those at present devoted to it would be improved; the rest had much better retire altogether. The local boards, though no longer appointing the medical officer of health, ought to have some acquaintance with the nature of his work. He proposed that in each sanitary district, urban or rural, there should be a local board of health, composed partly of members elected by the rate-payers, and partly of others nominated by the Board of Health in Whitehall. The latter would, of course, be men known to be interested in sanitary work or specially versed in some collateral science; the former should, by preference, be medical men, architects, engineers, and the like. Registration of births and deaths originally bore only on the descent of property; but, since the value of vital statistics had begun to be recognised, the present system was sure to be very imperfect. A large proportion of the causes of death were untrustworthy, being either "uncertified" and furnished by the friends, or suggested by the registrar (?); while many of those certified by medical men were most unsatisfactory. The correction (?) of the returns by a non-medical superintendent registrar was worse than useless; and, though the medical officer of health was often able to revise the duplicates furnished to him for the use of the sanitary authority, his corrections did not reach the office of the Registrar-General. The appointment of medical men as superintendent registrars had been proposed, and seemed unobjectionable; but the same end would be attained, and perhaps better, if the superintendent registrar had his office in the same building as the medical officer of health, and all district registration returns were first submitted for examination to the latter. Information of death should be given sooner than was now required; and, in all cases of uncertified or doubtful causes, the medical officer of health would institute an inquiry on the spot—giving a corrected certificate if perfectly satisfied, or reporting the case to the coroner if not. There would thus be more inquiries, but fewer inquests; and many cases of foul play would probably be brought to light, which were at present concealed by the practice of accepting uncertified causes. The nosological value of the Registrar-General's reports would be greatly enhanced. The whole method of taking medical and scientific evidence in court was radically wrong. The equality, in the eye of the law, of all medical and scientific men was a mischievous fiction; but the fundamental mistake lay in the custom of retaining medical and scientific men as witnesses for the prosecution and defence, thus inevitably converting the expert into the advocate. The function of the expert should be to assist the court by stating, without reserve and regardless of either side, scientific facts, which judge and jury could not otherwise know, in language scientifically accurate, and, at the same time, intelligible to unscientific persons, avoiding excess of confidence or of caution, and in accordance with the sometimes arbitrary laws of evidence. To do this with credit, demanded study and practice; and there was an urgent need for a class of trained and skilled medical experts. Though questions of insanity, of the remote consequences of railway accidents, and a few others, would still require the services of specialists, experts in forensic medicine generally, and the allied scientific subjects, would be ready to hand in the persons of medical officers of health, such as had been described, versed in every branch of State medicine, and familiar with the methods of scientific investigation. If the local authorities were deprived of the right of appointing medical officers of health—a power which they had often shown themselves unfit to exercise—they would not be called on to provide their salaries; but the change would afford a Ministry an opportunity of granting a much desired relief to the local burdens. The case of the metropolis, which did not come under the Local Government Act, need not present any real difficulty: since, if the medical officers of health were paid by the State, it could be divided into more equal districts, each under its medical officer of health, just as it now was apportioned among Her Majesty's inspectors of schools.

HARVEIAN SOCIETY.

April 27th, 1882.

Henry Power, Esq., F.R.C.S., in the Chair.

Scarification in Acne Rosacea.—Mr. Malcolm Morris gave a short account of the treatment of severe acne rosacea by scarification. He pointed out that, under the name of acne rosacea, there were two classes of cases: the one consisted of acne spots surrounded by red patches, the nose being considerably enlarged from hypertrophy of the tissues; in the other, there was flushing of the nose, erythema, a varicose condition of the veins, and hypertrophy without acne. It was in the latter class of cases Mr. Morris advocated scarification. This condition of nose occurred in persons with feeble circulation, whose hands were generally cold, and who were easily affected by changes of temperature; in a hot room, the nose itched, and caused great discomfort; when exposed to cold, there was intense pain. Mr. Morris performed the scarification thus: first of all, he filled the nostrils with cotton-wool, and made the skin tense; next, he slit up all the blood-vessels that could be seen on the nose throughout their length by a knife, the extremity alone of which was sharp on both edges; and then, by an instrument having a number of fine blades close together, he thoroughly divided the vessels transversely; free hæmorrhage followed, which was beneficial, and encouraged; the clots and serum were absorbed with blotting-paper; and the patient was enjoined not to touch the nose for several days. In a few days, the scarification had all healed, no scars being left. This operation was to be repeated a number of times, eight or more, until the nose was reduced to a normal size. Mr. Morris had scarified in twenty-eight cases successfully; one, which he did as far back as 1879, had remained well ever since. He considered, by destruction of the vessels, resolution of the hypertrophied tissues was obtained.—Mr. Power inquired if there was any general diathesis in these cases, any connection with gout?—Dr. Royston asked if acne of the face could be similarly treated.—Mr. Morris, in reply, stated there was no special diathesis, or connection with gout, and acne could not be treated by scarification.

Rötheln.—Mr. H. Cripps Lawrence read a paper on this subject. He confined his attention to remarks upon the etiology, diagnosis, prognosis, and treatment of the disease. The author concurred with the views held by Hildebrand and Schönbein, who recognised the origin of rötheln *de novo*, due either "to an infecting agent of a special nature, generated outside the organism during the simultaneous prevalence of epidemics of measles and scarlet fever;" or, "to a simultaneous infection with both contagions." Special reference was made to the researches of Dr. Cheadle on rötheln. The chief points of diagnosis were discussed, with regard to the temperature, enlargement of the cervical and other glands, and desquamation, as aiding the differential diagnosis between rötheln and its congeners, measles and scarlet fever. In referring to prognosis, the author dwelt upon the necessity of realising that rötheln may assume a form of considerable severity, a dangerous and even a malignant type, attended by sequelæ which, if not necessarily dangerous, may seriously retard convalescence. Rötheln was auto-genetic. Mr. Lawrence remarked that authors paid treatment as scant attention as they did prognosis in rötheln; he advocated the reduction of pyrexia and development of the eruption, as speedily as possible, by use of the warm bath and diffusible stimulants, and considered chlorate of potash and nitric ether valuable adjuncts. Purgatives, given early, hindered the development of the eruption. Quarantine was necessary as regards infection. The part played by desquamation, in propagating rötheln by contagion, the author considered *sub judice*.—A discussion was carried on by Mr. Power, Mr. Malcolm Morris, Mr. Rayner, Dr. Royston, who treated cases with carbonate of ammonia and chloric ether, Mr. W. H. Evans, and Mr. Lant, who found the period of incubation in two cases to be twelve and in another fourteen days.—Mr. Lawrence replied; and the meeting then adjourned.

METROPOLITAN COUNTIES BRANCH: NORTHERN DISTRICT.

April 27th, 1882.

T. Morton, M.D., in the Chair.

On the Treatment of Phthisis by Inhalation.—Dr. Stretch Dowse read a paper on this subject. He prefaced his paper by referring to the recent very valuable discovery of Dr. Koch, concerning the tubercle-bacillus; and he thought that the inflammatory theory of tubercle, and Dr. Sanderson's recent lectures at the College of Physicians on Inflammation, tended to support rather than to detract from the results of Dr. Koch's original investigations. Dr. Dowse, through the kindness of Dr. Blake, was enabled to show to the members present many forms

of respirators, including one of Dr. Blake's invention, which were useful and adapted for the purposes of inhalation. Dr. Dowse said that it was more than ten years ago when he first began to treat pulmonary consumption by inhalation; and he regretted that, until recently, he had not carried out his experiments with that care which so important a subject demanded. During the months of September, October, November, and December, 1881, he had treated his patients, in the North London Hospital, for consumption, by several forms of inhalation; and he almost invariably had good results. He thought, however, that the process of inhalation was far from perfect, and he hoped for better results in the future. Short histories and notes of several cases were brought forward, as evidence in favour of this mode of treatment. He spoke particularly of the value of acetic ether as an inhalant; in fact, he went so far as to say this drug was, in his opinion, capable of dissolving nascent tubercle. The mixture which he generally used had the following composition: ℞. Thymol. ʒiij; ætheris acetici ʒiij; ætheris sulph. ʒi; creasoti ʒiij; acidi carbolici ♏xv; terebine ad ʒiv. Ten drops to be used at a time for an inhalation. He laid great stress upon continuous inhalation: for instance, two hours morning, afternoon, and evening, as well as during the whole night. The subject appeared to be of considerable interest. A lively discussion followed.

Radiating Veins in Chest.—Dr. BLAKE exhibited some very interesting drawings, showing small and distinct venous radiating tufts, which took the course of the diaphragm, from the epigastrium centrally to the hypochondria, on each side. He said that these prominent veins were most surely associated with an emphysematous lung, and probably with a dilated right heart.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: PATHOLOGICAL SECTION: ORDINARY MEETING.

APRIL 28TH, 1882.

J. F. WEST, F.R.C.S., in the Chair.

Spinal Abscess.—Mr. J. F. WEST showed a young woman, who, after walking from London to Coventry, was attacked with symptoms like rheumatic fever; and, after a month in bed, presented great tenderness of the large dorsal region, with flexion of the left thigh on the abdomen, and deep-seated fluctuation in the upper part of the thigh. Aspiration failed to detect any pus; but, on incision, it welled up profusely. Under drainage and antiseptics, the abscess cavity healed; but, as the pain in the back continued, a Sayre's jacket was applied. She was now quite cured, and about to be discharged from hospital.

Malignant Infiltration of Breast.—Dr. H. G. BARLING showed the patient from whom the tumour was removed, which he had described at the last meeting, and upon which some discussion had taken place. The tumour had unfortunately recurred, so that all doubt as to its malignant nature must cease.

Central Necrosis of Os Calcis.—Mr. FURNEAUX JORDAN showed a specimen of central necrosis of the os calcis, for which he had performed Syme's amputation.

Lateral Half of Tongue, and Submaxillary Gland, Removed by Whitehead's method.—Mr. BENNETT MAY showed these specimens, which were removed for epithelioma. The patient died of septicæmia, in spite of antiseptics. His experience led him to think that Mr. Whitehead over-estimated the advantages of his method in avoiding hæmorrhage; and he would, in future, tie the lingual arteries before operating.

Scirrhous Cancer of Stomach.—Mr. JORDAN LLOYD showed this specimen, removed from the body of a man who supposed himself to be in fair health, and died suddenly with symptoms of internal hæmorrhage. The cancer was situated near the cardiac end of the stomach, and caused hæmorrhage by eroding the coronary artery.

Fatty Embolism in Fractures and Diabetes.—Dr. SAUNDBY and Dr. BARLING read a paper, illustrated by microscopical specimens and drawings, in which they stated that they had found embola in the lungs, as a rule, in all cases of fracture, though usually only to a limited extent. In one case only were there symptoms present during life, which pointed to this condition, and in that the embola were very numerous. In diabetes, with fatty blood, embola were not often found, probably because the fat was too fairly divided; and it was doubtful whether the appearances which had been figured as such, by some observers, should not be regarded as simple *post mortem* thrombi, in which some globules of oil were entangled. There was very little evidence in support of the view, that the striking phenomena of diabetic coma could be correctly attributed to fatty embolism.

Syphilitic Iritis.—Mr. EALES showed a patient, in whom gummatous nodules of large size had formed very rapidly on both irides, and had caused absolute glaucoma of one eye, but the other was in a fair way towards recovery.

Talipes Calcaneo-Valgus.—Mr. HASLAM showed a child presenting this rare deformity. He was hopeful that the condition could be improved by tenotomy and the use of suitable boots.

MEDICAL SOCIETY OF THE COLLEGE OF PHYSICIANS IN IRELAND.

WEDNESDAY, APRIL 5TH, 1882.

J. W. MOORE, M.D., Vice-President, in the Chair.

The late Sir Edward B. Sinclair.—Dr. FITZPATRICK, Vice-President, proposed, and Dr. HENRY KENNEDY seconded, the following resolution, which was adopted in solemn silence. "That at this, the first meeting of the Medical Society held since the lamented death of Sir Edward B. Sinclair, M.D., who filled the position of Honorary Secretary for two sessions, when this Society was known as the Association of Fellows and Licentiates of the College of Physicians, and who was afterwards appointed a member of Council, all the time taking an active part in furthering its best interests, the Society desires to place on record the great loss which the medical profession in this city has sustained by his demise; and the members wish to convey to Lady Sinclair their heartfelt sympathy with her and the other members of his family in this their sad hour of trial."

Peculiar Form of Sensory Paralysis.—Dr. WALTER SMITH exhibited a patient affected with a peculiar form of sensory paralysis of the left side. He was a labourer, aged 27, and applied at the dispensary of Sir Patrick Dun's Hospital, on account of numbness of the side, of six months' duration. He worked at the Ringsend Bottle Works, and could assign no cause for the affection. Down the left side, from neck to hip, and accurately limited by the middle line, he was scarcely able to appreciate painful impressions or changes of temperature. Thus, he could not distinguish between two test-tubes, one containing cold and the other boiling water, nor did a strong induction current, directed upon the skin by a wire brush, cause him any uneasiness. Yet he would distinguish a blunt from a sharp object, and his sense of localisation seemed to be unimpaired. The motor system was unaffected, and there were no alterations of nutrition.—Dr. NIXON said the case was of interest as affording evidence that there must be a special nerve-tract for the transmission of painful impressions, as distinct from ordinary tactile impressions.

Peritonitis caused by Caseous Mesenteric Glands.—Dr. C. J. NIXON showed the thoracic and abdominal viscera of a girl, aged 13, who died of peritonitis, after six days' acute illness. Some years ago, she had a scrofulous enlargement of the glands of the neck, which suppurated and discharged for a considerable time. Afterwards, what was apparently a strumous ulcer, about as large as a crown-piece, formed in the centre of the sternum. As there were also physical signs of disease in the apex of the left lung when symptoms of peritonitis set in, it seemed natural to conclude that some strumous or caseous ulceration in the glands of the intestines was going on, and that one of these ulcerations had reached the surface of the peritoneum, and set up peritonitis. After death, the intestines were found matted together. The patches of Peyer were unusually well marked; and, towards the ileo-cæcal valve, some of them presented the appearance known as the "shaven beard", but there was no ulceration in the intestines. The mesentery was enormously thickened; and, in the thickened portion of the peritoneum, there were greatly enlarged mesenteric glands, some of which had undergone caseation, and some even calcification. One of these glands had, at one point apparently, ulcerated through the peritoneum. On examining the thoracic organs, the left lung was found to present a very good example of fibroid phthisis or cirrhosis of the lung. The lung is considerably reduced in size; and a through section of it discloses an enormous development of fibroid tissue with very well marked bronchiectasis.—Dr. WALTER SMITH said that Dr. Nixon's theory of the peritonitis having been caused by perforation produced by an eroding caseous mesenteric gland, found an analogy in what sometimes, although rarely, took place in the chest when there was an erosion of the bronchus by a caseous tracheal gland. He had seen a case of gangrene of the lung caused by the sucking in of a portion of the rotten gland through an ulcerated bronchus. Dr. Gee some years ago recorded a series of such cases in the *St. Bartholomew's Hospital Reports*.

Acute Diphtheritic Endocarditis in Chronic Valvular Disease.—Dr. C. J. NIXON exhibited the heart of a patient who had suffered from very well marked aortic patency with mitral regurgitation. The case was probably one in which acute diphtheritic endocarditis supervened on a chronic valvular lesion. The extension of valvulitis from the

posterior segment of the aortic valve to the anterior flap of the mitral valve by contiguity was well shown. The specimen further presented a good example of acute aneurysm of the mitral valve, projecting into the auricle. There was "sago"-spleen, and the kidneys showed amyloid degeneration.

Skeleton Respirator for Antiseptic Inhalations.—Dr. E. M. COSGRAVE exhibited and described a respirator—or, more properly, an inhaler—for use in antiseptic inhalations. It simply consisted of a light cage, the four sides of which were completely open, so that the air could pass through them. There was a grating in front for holding the piece of lint, which was to be saturated with the antiseptic solution. In the first place, this respirator prevented the breathing again of foul air. The expired air was diffused from the vicinity of the mouth, and fresh air was drawn in, which was a great advantage in cases in which the lungs were much affected. Again, it did not heat the air in the way in which Dr. Coghill's respirator did, nor did it cause any oppression of breathing. It could be used in cases in which Dr. Coghill's respirator could not, because the latter interfered with the breathing, especially in cases of young persons who had serious lung-disease, and who had a nervous dread of anything interfering with their respiration. It allowed the patient to speak without its being removed, it was very light, and the lint had not to be recharged nearly so often as with other respirators. It was being used at present by several physicians in England; and he had notes of cases in which it had been used with success, especially by Dr. Mackey of Brighton.—A discussion ensued, in which the Vice-President, Dr. Tweedy, Dr. Duffey, Dr. Walter Smith, and Dr. Doyle took part.—Dr. COSGRAVE, in reply, said he should more properly have called the instrument which he had submitted an inhaler. No doubt it was sometimes an advantage that a respirator should heat the inspired air, but there were other cases in which it was desirable to apply antiseptic vapour to the lungs without heating the air; where it was desirable to heat the air, he thought Coghill's respirator the best. He considered carbolic acid quite a sufficiently strong antiseptic. No doubt breathing through the nostrils was the normal process, but people sometimes did not do it; and, when they were suffering from some affection of the chest, it was no time to teach them to do so. They would then require some kind of antiseptic respirator in front of the nose and mouth.

SURGICAL SOCIETY OF IRELAND.

FRIDAY, APRIL 14TH, 1882.

JOHN K. BARTON, M.D., Vice-President, in the Chair.

Myeloid Tumour of Right Upper Jaw.—Mr. ORMSBY showed a myeloid tumour of the right upper jaw of a woman aged 60, which he had recently removed. The swelling of the jaw was noticed for the first time about last Christmas; since then it had greatly increased. It was removed by Fergusson's incision for excision of the lower jaw. Considerable hæmorrhage occurred during the operation, which was restrained by the use of the actual cautery, and plugs of wood, which were driven into the bone and left there.

A Case of Ablation of Fundus Uteri by Abdominal Section.—Dr. ATTHILL read a paper on ablation of the uterus, in which, after contrasting the various operations in use for the partial or complete removal of the uterus, and the results obtained by different operators in each method, he gave the details of a case in which he had recently performed a modification of Porro's operation. The patient, a woman aged 58, was first seen by Dr. Atthill in October 1881. The os and cervix uteri were healthy; but the fundus was enlarged, the sound passing two inches and a half. A clot of blood was daily expelled from the uterus when the pain came on. Not being certain of the condition of the fundus uteri, Dr. Atthill dilated the os and cervix, but found no tumour, as he had partly expected from her previous history. He therefore concluded that the disease was malignant, and advised removal of the uterus above its insertion into the vagina. The operation was performed on January 16th, 1882. An incision commencing one inch above the umbilicus served to open the pelvic cavity; the fundus uteri was seized, whilst a ligature was passed round the suspensory ligament at either side. The ovaries were found atrophied, but were not removed. A ligature was passed round the neck of the uterus; the fundus cut off; and the raw surface of the stump was touched with the actual cautery, and allowed to go back into the pelvis. The wound in the abdomen was then sewn up. The operation lasted an hour and a half. At 7 P.M. on the day of operation, the temperature was 99°, and the pulse 108; and within twenty-four hours the woman died. The walls of the fundus uteri were thickened and epitheliomatous; and the stump, which had been thrown back into the pelvis, was not free from epithelioma. This was the first case of epithelioma of the cervix uteri which he had seen. It was, therefore, a rare affection; so that he was not certain of the exact nature of the case up to the end of the operation. He regarded the operation by abdominal section as a safer one than that through the vagina, though the latter was usually done for epithelioma.—Dr. W. SMYLY referred to two cases recorded by Dr. Müller of Bern, in one of which, the greater part of the cervix having been removed subsequently to the amputation of the fundus, the peritoneal cavity was closed above it with sutures. The clamp was used in the second case. Both recovered. It had been advised by Ruge and Veit, in cases where the disease was limited to the body of the organ, first to amputate, then to excise the cervix, and lastly to close the upper end of the funnel-shaped cavity thus left by means of sutures. Where the cervix was also diseased, the entire organ should be removed by the vaginal method, as practised by Billroth and Czerny. Freund's operation, as shown by statistics, compared very unfavourably with those of the vaginal method.—Mr. BENNETT said the cause of death was evidently a septic peritonitis, caused by the remains of the stump lying as a fœtid source in the pelvis. It was, therefore, of vital importance in such cases that the stump should be as perfectly disinfected as possible. The great difficulty experienced by Dr. Atthill in finding and securing the bleeding vessels was of interest in the general question of the treatment of punctured wounds of the abdomen; for if, in a case like that, there was difficulty, how much greater would it be in cases of bullet-wound, etc., of the abdomen, in which Dr. Marion Sims had recommended enlarging the wound and tying the bleeding vessel.—Mr. CORLEY did not think that there would be such great difficulty in finding a bleeding vessel in an abdomen; for, in a case in which he had opened the abdomen for obstruction, he could with ease examine every portion of the intestine, and could certainly have discovered the seat of a hæmorrhage.—Mr. THORNLEY STOKER thought it a matter of vital importance that the pedicle should be kept outside the abdominal wound, so that it should not act as an infective centre, as in the case recounted, where it was thrown back into the pelvis.—Dr. ORMSBY also spoke; and Dr. ATTHILL, in reply, said the fixing of the stump in the abdominal wound was in his case an impossibility. He thought that the best and safest thing to do in all cases of malignant disease of the uterus was to remove the whole uterus like a cyst, as there was nearly always disease in the cervix as well as in the fundus.

Stricture of the Rectum treated by Colotomy.—Mr. KENDAL FRANKS read a paper on this subject. The patient, a man aged 33, was admitted to the Adelaide Hospital on the 12th of November last. In 1867, he contracted a soft chancre, but had never had any evidences of syphilis. In the same year, he was attacked with dysentery, and suffered from it for four months. Afterwards, he frequently passed fæces tinged with blood and pus. In 1876, he had a slight return of dysentery at Singapore, and in 1879, he was troubled with diarrhœa. Since that time, he had been troubled with frequent calls to defæcate—about five in the day. The evacuations were preceded by some watery discharge; and the fæces, which were expelled with a great amount of straining, appeared squeezed. About nine months previous to admission, while he was straining at stool, a gush of flatus escaped through the urethra, and this was followed by some fæcal matter. Since that time, the discharge of wind and fæces *per urethram* had continued, and two days rarely passed without its occurrence. When he tried to pass urine, he felt the urine passing back into the rectum, and this frequently was passed unintentionally *per anum*. On admission, he was carefully examined. There were no abdominal symptoms. No distension and no tumefaction were discovered. A rectal examination was made. The finger passed easily up to the second joint, about two inches; it was here arrested by a rough ring, into which the tip of the finger could just enter. Below this obstruction, the rectum was quite healthy. A small catheter with a bulbous point (No. 6) was used, to try and get through the stricture; but, after passing through the lower part, it could be got no further. Some blood and pus came away on the end of the finger. It was concluded that the stricture was the result of dysenteric ulceration in the rectum. On November 22nd, the patient was placed under the influence of ether, and an incision was made in the oblique direction recommended by Mr. Bryant. It began two inches from the spine on the right side, about a finger's breadth below the last rib, and was carried downwards and forwards to a point three inches and a half posterior to the anterior superior spine of the ilium. It measured seven inches in length. A point was previously marked on the skin three-fourths of an inch behind the centre of the crest of the ilium, as a guide to the situation of the colon. Everything was divided on a Fergusson's director, layer by layer, till the fascia transversalis was exposed. Only one vessel required to be ligatured. The fascia was then seized, and divided on the director in the direction of the original incision. The peritoneum, containing some fat, at once protruded through the wound. It was carefully re-

turned. The colon then appeared; it was collapsed, but was recognised by a longitudinal band. Three double ligatures were passed through it and through the margins of the wound. It was then opened for about an inch over the sutures, which were one by one drawn forwards, divided, and secured. There was no escape of fæces or flatus. The intestine was further secured in its position by numerous points of carbolised catgut sutures. A long drainage-tube was then inserted, passing behind the sutures on one side of the intestine, and protruding at each end of the wound. The margins of the original incision were then brought together with catgut. During the operation, the spray was not used; but otherwise it was conducted on strict antiseptic principles. The wound was dressed in the following manner. A carbolised sponge was inserted into the opening of the gut. Lint soaked in carbolic oil was placed on each side of this over the line of incision, and extending well beyond it. A large and thick pad of carbolic tow was applied over all, and an ordinary bandage was used to keep everything *in situ*. The case progressed most satisfactorily. On the third day, the whole length of the incision was firmly united by first intention; the drainage-tube was removed next day; and in two days the openings where it had been were completely sealed up. The bowel was firmly united in its new position. The highest temperature recorded was 100.4°, on the second day. There was no inflammation, and no pus was ever observed. On the second day, the bowel was cleaned out by means of an enema, when a large quantity of fæces came away. On the fourth day, there was a spontaneous evacuation through the artificial opening. On the eighth day, he was allowed up on the sofa; and in two days more he was able to walk about the ward. He was now kept in hospital with the view of dilating the stricture, so as ultimately to allow of external rectotomy being performed; but, when Mr. Franks had succeeded in dilating the stricture so as to admit a rectal bougie about a quarter of an inch in diameter, the patient refused to remain longer in hospital, and accordingly left on the 4th of January last. On February 3rd, he walked from Dublin to Kilkenny, and thence to Waterford, and back again to Dublin. On the 25th, he applied for readmission, as he was anxious to have the stricture cured, and the opening in the loin closed. The opening looked perfectly healthy. There was no prolapse, and the functional powers were under perfect control. On several occasions, he obtained permission to go out for a short time, each time returning under the influence of drink. He was consequently refused a pass out for the future, and accordingly on March 3rd he left the hospital. By this time, all appearance of vesico-intestinal fistula had gone; the urine was perfectly clear. He occasionally passed small soft pieces of fæces through the normal anus.—Mr. TUFNELL suggested the use of a guiding bougie in the treatment of rectal strictures, similar in principle to that used in Hutton's railway catheter.

The VICE-PRESIDENT made a speech, in which he gave a *résumé* of the work done during the session which had just terminated, and congratulated the Society on the number and merit of the papers and specimens which had come before it. He also alluded to the question of the amalgamation of the Medical Societies in Dublin, and stated that the Council of the Surgical Society did not court the scheme, but would, if amalgamation took place, wish to retain their old name of "The Surgical Society of Ireland".

THE STATISTICAL SOCIETY.—At the seventh ordinary meeting of this society, Mr. Burdett read a paper on The Relative Mortality after Amputations in Large and Small Hospitals and the Influence of the Antiseptic System upon such Mortality. Mr. Burdett's contention was that the rate of mortality after serious surgical operations was lower when such operations were performed in small hospitals, or those of the cottage class, than in the large general hospitals of the country. Mr. Burdett also showed that the antiseptic treatment of such cases had resulted to a great extent in equalising the death-rate in the cottage and larger hospitals. A short discussion followed the reading of the paper.

CEYLON.—The rumour current in England, that chinchona planting in the colony is likely to be a failure consequent upon large numbers of the trees originally planted having died out, is strongly contradicted in the colony. It is asserted that the variety *officinalis*, which formed the bulk of the original planting, is the only one which has been found to be unsuited to the climate, it being a very delicate variety, and only flourishing in very carefully attended nurseries. But the *succirubra* and *ledgeriana* are doing well wherever they have been planted, and although the industry received a temporary check by the unexpected failure of the original growth, these two latter varieties will soon have everywhere supplanted it, and the estates will become more flourishing than ever. We hear of *succirubra* plants about four years old selling freely in any quantity offered at ten-shillings each.

REVIEWS AND NOTICES.

PHYSIOLOGIE DES MUSCLES ET DES NERFS. Par CHARLES RICHET, M.D., D.Sc. Pp. 924, and 100 Figures. Paris: Germer Baillière. 1882.

THE work before us consists of twenty-four lectures delivered at the Paris Faculty of Medicine. They do not cover the whole field of the general physiology of nerves and muscles, but deal chiefly with the subject of irritability. The author embodies in them the results of his original labours, and to these we shall refer here more particularly. His experiments on the muscle of the crayfish are of special interest. The comparative study of physiological phenomena in the lower animals is a fruitful field of research, and will throw much light upon the complex manifestations of life displayed in the higher organisms.

After giving an account of the irritability of simple cells, the author passes to the consideration of muscular contraction. Authors vary in their estimation of the latent time of excitation. This does not imply that their measurements are erroneous, but that this period varies greatly. Tracings from the crustacean muscles show clearly that the strength of the stimulus, the fatigue, load, temperature, are very important factors. Dr. RICHET has obtained important results, showing the influence of previous subminimal stimuli; they shorten the latency to a minimum of .002 sec. (Compare Sewall, *Journal of Physiology*, vol. ii, p. 164.) Certain poisons have the same influence when given in small doses (veratria, strychnia). The muscular latency varies greatly in different species of animals, and, according to Mendelssohn, in various pathological conditions of the human subject. A simple geometrical construction shows, on myographical tracings, that the rate of ascent during the first half of the rise is much more rapid than during the second half, and is the more rapid the more protracted the muscular contraction. The shape of the muscular curve, and the relative length of the ascent and descent, vary greatly with the temperature, fatigue, and load. A strong single stimulus throws the crayfish-muscle into a state of contracture. The phenomenon of idio-muscular contraction, or contraction localised at the point of stimulation, is observed in many invertebrata; in man, a similar phenomenon occurs (myœdema) in certain diseases. Under the name of "secondary wave", the author describes a spontaneous contraction which follows relaxation after a period of electrical tetanus. Different muscles contract differently. In the crayfish, the muscles of the tail and claw differ, the former giving a rapid, the latter a slow contraction, in accordance to their physiological uses. The number of excitations required to obtain tetanus of the tail is greater than that required with the claw—a fact which illustrates a general axiom in physiology. Fatigue and other conditions diminish the stimulation frequently necessary for the production of tetanus. The duration of tetanus is short for the tail-muscles, but indefinite for the claw, where it may pass directly into cadaveric rigidity. The author thinks that the initial contraction is a physiological, and not a physical phenomenon, governed by the strength rather than by the rapidity of the interruptions. The tracings obtained from the crayfish are very interesting, and show also the phenomenon of rhythmical tetanus, which he explains by alternatives of increasing and diminishing excitability.

The subject of muscular elasticity is treated at a considerable length. Dr. Richet considers the two factors of elasticity separately—extensibility and retractility. Experimentation is made here difficult by the indefinite duration of the phenomena, and the alterations they suffer under varying conditions, physical or vital. For Dr. Richet, indeed, muscular retractility and contractility are the same; and he brings together many facts and arguments to prove that there is a great difference between the elasticity of muscles and that of inert substances. He discusses the "latent contraction" of the muscle in the lobster, in which the relative influences of increasing load and stimulus are much better known than in the frog's muscle; and from the influence of load on the myographic curve he concludes, with Weber, that the contraction is a sudden change in the elasticity.

In the lectures on muscular irritability and excitability, the author gives a summary of the chief facts concerning these important points. He describes some interesting experiments, made on the human subject, on muscular anæmia produced by means of an Esmarch's band. The electrical stimulation of muscle is, perhaps, not so fully adverted to as one might expect in a work like the present. This curious sentence occurs at page 252: "We call electrotonus this peculiar chemical state provoked by the polarisation of the electrode." It may be also noted, *en passant*, that Dr. Richet persists in speaking of "*le* cathode". Many expressions occurring in the book betray the comparative neglect in which electro-physiological studies have hitherto been left in France.

We pass over the chemistry of muscle and the phenomena of rigor mortis, which the author discusses without bringing any original experiments to bear upon them. With reference to the thermic manifestations accompanying muscular contractions, he found that, in dogs tetanised by means of powerful faradic currents, the temperature rose from 38° to 44° or 45° Cent. (100° to 111° or 113° Fahr.) The cause of death under such circumstances must be this excessive temperature; for, if it be checked by keeping the animal in cold water, no serious consequences follow. Another factor, however, is not to be lost sight of in death from general tetanus; and that is the excess of carbonic acid in the blood. This, rather than actual interference with the respiratory movements, Dr. Richet says, explains the very rapid death of tetanised rabbits.

Though much has been written about the electrical organs of certain fishes, much remains to be done to elucidate their functions. The author's view, however, is that there is a fundamental analogy between these mysterious structures and muscular fibre. In both, we find an enormous internal energy set free by identical processes of nervous stimulation. Many physiological problems connected with nerve and muscle are beyond the reach of our experimental methods, and we agree with the author that they are best studied in certain pathological conditions—Nature's own vivisections. We only wish the lecture devoted to this subject had been longer and fuller.

The second half of the book is devoted to the nervous system. An account is given of the general phenomena of transmission (or vibration), irritability, and excitability. Here, again, we have evidence of the scanty attention paid to electro-physiological facts already alluded to. On the other hand, the question of reflexes is treated at great length; and this part of the work will be read with special interest by the physician. Pflüger's "laws" of reflexes are reduced by Dr. Richet to two—those of localisation and of irradiation; and he adds two accessory laws, of co-ordination and of prolonged excitement. The highly complex phenomena of co-ordinated reflexes observed in certain of the lower animals deprived of their hemispheres have been accounted for by some physiologists on the assumption of a "spinal consciousness". It is certainly a very difficult task to explain such adapted movements, varying with the stimulus, on the principles of reflex action pure and simple. The author recognises this, but wisely abstains from premature hypotheses. The manifestations of "prolonged excitement" are compared by him to "an elementary form of spinal memory". The discussion of the various conditions modifying reflex action is of considerable practical interest, as well as the account of the most important reflexes (iris, heart, respiration, vaso-motor, deglutition, vomiting; intestinal, genital secretory, trophic inhibitory reflexes).

Two interesting lectures deal with the conditions of cerebral life and cerebral irritability. In the former, an account of our present knowledge of the physiology and pathology of cerebral circulation is given; in the latter, we find many important facts concerning the electrical stimulation of nerve-centres. The objections made to the experiments of Ferrier and others, that the current does not excite the cortical substance, but, by diffusion, the subjacent white matter, appears to be satisfactorily refuted by the results of Franck and Pitres (quite recently confirmed by Bubnoff and Heidenhain) that the latent period of stimulation is much longer when the current is applied to the grey than when applied to the white matter. Moreover, the effects are not the same in both cases. In the former, the excitation produces, first localised movements, than an epileptiform attack, which does not occur in the latter case.

The author has used on the crayfish what he calls the gangliomuscular method of excitation. One electrode is applied to the nerve-centres; the other to the nerve. His results lead him to conclude that the response of nerve-centres is much more prolonged (about ten times) than that of the nerve or muscle. In the frog, stimulation of the brain diminishes the neuro-muscular irritability; ablation of the hemispheres increases it—a fact which points to a cerebral influence inhibiting muscular contraction. Dr. Richet has measured the time which elapses between a sensory stimulation and the volitional response in the frog. The minimum time was found to be .15 second. Repetition of the experiment considerably lengthens this period, which at the fifth stimulation extended to two seconds, owing, probably, to the rapid exhaustion of the centres. Powerful excitations act as inhibitory influences upon voluntary movement.

From what precedes, the reader will be able to form an idea of the contents of the volume before us. Many facts recorded by Dr. Richet are new, and require confirmation before they are definitively accepted; the more so that, in his conclusions from them, the author appears to us occasionally premature or wavering. At the same time, his views are frequently suggestive, and the book will amply repay perusal by physiologist and physician alike. If not equal in style and diction to the lectures of a Claude Bernard, yet it possesses the clearness we are in the habit of finding in French writings of its class, and contains copious references to all the recent results in English and German physiology.

Recherches Cliniques et Thérapeutiques sur L'Épilepsie, L'Hystérie, et L'Idiotie. Par Bourneville et H. D'Olier. Paris: Aux Bureaux du *Progrès Médical*. 1881.

The first part of this small work relates to M. Bourneville's struggles to improve the condition of the idiots and imbeciles at Bicêtre. The sanitary evils so prevalent in French hospitals and infirmaries have been dealt with by M. Bourneville courageously and successfully. The filth and misery to which the unfortunate inmates of Bicêtre were subjected only a few years ago was so revolting, that a distinguished English physician remarked, during a visit to the institution, "that such a disgraceful condition of affairs would not be tolerated in London for twenty-four hours."

Following in the steps of Seguin of New York, M. Bourneville devoted himself to the moral and hygienic amelioration of his hapless patients. Unfortunately, the authorities failed to render the assistance which might reasonably have been expected. In spite of difficulties and lay opposition, the condition of Bicêtre is remarkably improved, as we know from personal experience. In the clinical part of this work, a somewhat rare case of congenital cardiac disease is described. After death, the foramen ovale was found patent, the aorta taking origin from the common ventricle, and the pulmonic orifice much contracted. But the most interesting point in this anomalous condition was extreme narrowing of the ventricular orifice of the infundibulum. In fact, the infundibulum constituted a kind of supernumerary ventricle. Contrary to the experience of many observers, M. Bourneville finds the temperature generally subnormal in these cases of congenital heart-disease. Indeed, he asserts that the temperature becomes progressively lowered until death. An interesting case of "cretinism with myxœdema" is described and discussed by MM. Bourneville and D'Olier. The condition of the patient presented a great resemblance to that of myxœdema. The affection was congenital, the subject being a young man aged 19, with the development of a child two or three years old. Cases of prolonged abstinence from food are not uncommon among certain hysterical and melancholic patients; but a "fasting idiot" is certainly rare. The boy whose history is narrated in this work abstained on several occasions from all food for intervals varying from three to twenty-eight days, and drank nothing but a little water.

The cause of this condition is quite unknown, but it is worthy of remark that the influence of mystical or melancholic ideas cannot be given in explanation. A case of hystero-epilepsy with hemianæsthesia in a boy is described by M. Bourneville, with the object of proving that this affection exhibits identical symptoms in both sexes. The inhalation of bromide of ethyl has been found by M. Bourneville to arrest hysterical attacks with great promptitude. The administration of this drug during the tonic period of an epileptic attack occasionally brought about complete muscular relaxation. The daily use of the drug was very efficacious in diminishing the frequency of the fits.

Two cases of epilepsy, dependent in one instance on asymmetry of the hemispheres, and in the other on partial cerebral atrophy, are carefully described by M. D'Olier. This gentleman, also, narrates a case, with the necropsy, which corroborates M. Bourneville's idea that there is a special form of idiocy dependent on generalised cerebral pachymeningitis. This work, we must allow, gives an excellent *résumé* of the most interesting cases observed in Bicêtre during the year 1880.

A Treatise on the Continued Fevers. By James C. Wilson, M.D., Physician to the Philadelphia Hospital, etc. With an Introduction by J. M. Da Costa, M.D., Professor of the Practice of Medicine and Clinical Medicine at the Jefferson Medical College, etc. Low's Library of Standard Medical Authors. London: 1881.

This work is similar in arrangement to the great standard work of the late Dr. Murchison, to which, also, it owes not a little of its material. In addition to the fevers discussed in Dr. Murchison's treatise, there are here included under the somewhat meaningless term "continued fevers", influenza, dengue, and cerebro-spinal meningitis.

In the chapters allotted to enteric fever, considerable space is devoted to the etiology of the disease. The exciting cause the author believes to be a contagium vivum, which is eliminated solely by the fæcal discharges, and is incapable of reproducing the fever without undergoing certain changes outside the body. We are surprised to find in a work of this sort a statement so dogmatic, and that, too, with scarcely a reference to the numerous opinions of an opposing character. That the poison of this fever is, at least partly, excreted with the stools, no one will be prepared to deny; but if pathological lesion indicates the

ath by which the poison is thrown off, then, inasmuch as the larynx is ften affected as well as the intestine, it is at least conceivable that some f the poison may also pass off in the breath. The assertion that the tools, before becoming capable of reproducing the fever, must first decompose, cannot be held to be proved. Analogy would lead us to preume that the poison would be most powerful on its first exit from the ody, and that the longer it was exposed to the decomposing influence f the atmosphere, the less powerful it would become. Most of the acts, also, seem to us to point to this conclusion; for, when drains are eld to be the cause of the spread of the fever, it is because the drains are locked, or, in other words, because the poison has not been so exposed. Moreover, it is a fact that attendants on patients suffering from this ever do contract the disease; and several cases have been recorded by Piedvache, Collie, Sharkey, and others, which, if they do not prove that he disease is directly contagious, seem at least to prove that decomposition is not a necessary element to the contagion. At present, the "drain theory" is the fashion; but, when the profession recognise that the drain is not the fountain of all evil it is now supposed to be, other factors in the spread of disease may have a chance of a hearing.

The chapter on the treatment of this fever is comprehensive, and contains an appreciative analysis of all the most recent methods. One or two of the minor points we cannot approve. Thus, in view of the danger of perforation, we doubt the wisdom of advising "palpation and percussion twice daily" over the suprapubic region, to discover the necessity for catheterisation, and of "frequent explorations of the chest by methods of physical diagnosis." The existence of retention may be discovered by other and less dangerous means than palpation and percussion of the bladder; and the degree of congestion of the lungs may be readily learned, without disturbing the patient, from a study of his face alone.

The description of typhus is full, succinct, and, on the whole, accurate. In the chapter on treatment, the recommendation that "never more than four or six together" should be placed in the same ward is somewhat absurd, and the value of alcohol (not as a stimulant only, but as a food) is underestimated.

Our space will not permit us to enter into greater detail; but we must not omit all mention of the masterly introduction by Dr. Da Costa on the treatment of fevers. This short essay forms not the least valuable part of the work.

On the whole, notwithstanding some inaccuracies of statement and a few blemishes in style, the book is one we can heartily recommend.

NOTES ON BOOKS.

A Visit to Madeira in the Winter 1880-81. By DENNIS EMBLETON, M.D., F.R.C.P. London and Newcastle: 1882. 8vo. Pp. 90. In the form of two lectures, delivered at Newcastle, Dr. Embleton has given us a pleasant account of a recent visit to Madeira. He records the very favourable impression which the island made on him, and the benefit which it did to the health of a son who accompanied him. He has brought together, almost with enthusiasm, a large mass of information about the island, its early history, its geology and botany, its institutions and products, and its present condition, which is well worthy of the attention of intending visitors. There is a tolerably full account of the climate, chiefly as contrasted with the inclement winters of the north of England. There is not much that is purely medical in the book; but it gives an account of the various hospitals, including a well managed modern one for consumption, which had, at the time of his visit, but few occupants, although that disease is by no means rare in Madeira. The old leper hospital seems to be a curious specimen of what these institutions were in the middle ages. Its condition was not very pleasant. It was capable of holding twenty or thirty patients, but there were only eight or nine in the home. There is no hint as to the increase or decrease of leprosy in the island.

ON the evening of May 10th, Mr. Edwin Saunders, the President of the Metropolitan Counties Branch, gave a *conversazione* to the members and a number of guests at the South Kensington Museum. About twelve hundred visitors were present, among whom were Sir Thomas Gladstone, Sir Edmund Lechmere, Sir Charles McGrigor, and a large number of ladies. The band of the Second Life Guards, conducted by Mr. Winterbottom, performed a selection of musical pieces; and madrigals, glees, and part-songs were sung by Mr. Edwin Moss, of the Foundling Chapel, and his assistants. The meeting was very successful; and the company departed much gratified with the friendly reception in which they had taken part.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1882.

SUBSCRIPTIONS to the Association for 1882 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, MAY 27TH, 1882.

THE ROYAL COLLEGE OF SURGEONS IN IRELAND.

A QUESTION of great importance which has lately arisen, involving the expenditure of some thousands of pounds of the funds of this College, was discussed at a special meeting of the Fellows, summoned by requisition, on Thursday, May 25th. Owing to the time at which we are obliged to go to press, we are unable to give the result of the meeting; but the circumstances in connection with the expenditure alluded to are of such special interest, that we deem it right to place them before our readers.

For some years past, the school connected with the College has diminished in the number of its students; consequently, soon after the appointment of the new anatomical professor, Dr. Cunningham, a special School Commission was appointed by the Council, from amongst its own members, to inquire into the working of the various departments of the school. This Commission, composed in large part of the professors of the school itself, held a number of meetings, and came to certain conclusions. What these are is not yet known; but an "interim report" was laid before the Council at the end of last month. This report did not give any information as to the matters directed to be inquired into, but recommended the immediate expenditure of a sum, which may be roughly estimated at £3,000 at least, on buildings and additional teaching appliances for the use of the school. Although this interim report was only laid before the Council at the time stated, it was immediately adopted—not, however, without protest from some influential members of the Council; and in less than a fortnight all the arrangements connected with this large outlay were practically completed. Several members of the Council and many Fellows believed that these proceedings, involving such vital consequences to the College, were forced on with undue haste and without sufficient deliberation, especially as the yearly election of a new Council takes place on June 5th. It was, therefore, urged that such an important matter should not be decided without the full knowledge of the Fellows, and an expression of opinion from them as to its advisability or necessity. The majority of the Council, however, would hear of no delay; and it required a formal notice of motion to have the question of postponement even considered. Such a motion was at last reluctantly agreed to; and on Thursday week, when it was passed, a requisition was handed in, in compliance with which Thursday's special meeting was summoned.

The main reason advanced for the postponement and further discussion of the matter by the Fellows at large was, that the pecuniary resources of the College are extremely limited. Its fixed income is only £400 a year, the interest on a mortage of £10,000; and, but for this interest and the money obtained last year from the rather questionable granting of some hundreds of dental diplomas, the College would be absolutely in debt. As the granting of these dental diplomas, although so profitable in the past, will practically cease this year, a financial difficulty also threatens in the immediate future. Besides this, the effect of the new education scheme recently adopted by the College, which many think likely to be pecu-

niarly injurious to it; the probable effect of the recommendations of the Royal Commission; and the formidable rivalry of the new Royal University, with its cheaper degrees and requirement of fewer courses of lectures, will in all probability still further diminish the income which the College derives from the issue of its qualifications. Under these circumstances, it was considered by some of the independent members of the Council, and by many of the Fellows, that it would be not only inopportune, but opposed to the true interests of a corporation such as a Royal College of Surgeons should be, to alienate for ever a large portion of the only fixed income the College possesses, and by means of which it has lately only been able to meet its yearly liabilities. Whatever can be said of the benefit which may accrue to the particular school connected with the College and to its professors by the proposed expenditure, it is difficult to maintain that it can, in the words of the College charter, be "for the common good of the Fellows" at large, or tend to the more efficient maintenance of their museum and library, or to the advancement in Ireland of surgical science by such measures, for example, as the colleges in the sister countries are in a position to accomplish.

HUNGER AND APPETITE.

M. LEVEN remarks, in a paper read recently to the Société de Biologie, that hunger and appetite are two sensations which have been studied by physiologists, but of which the analysis cannot be made by the experimental method. These two terms are employed indiscriminately one for the other, but they have different significations. Hunger and appetite can only be studied in the human subject, either in a healthy condition or in a state of disease. Pure hunger can only be observed in new-born children during the three or four first months of life. Impelled by the instinct for food, they take the breast of the nurse, draw from it a quantity of milk sufficient to satisfy this instinct, and go to sleep, until the sensation of hunger awakens them, and they again take the breast. Hunger in infants is a simple sensation that milk alone can calm. If any other food be added to this repast, the weak organism of the infant is put into jeopardy. Four or five months should be allowed to pass until the strength of the child is increased; the organs will then be stronger, and eggs and broth, and farinaceous foods, may be added without risk. At this period of existence, the intelligence of the child will show itself; it will accept and refuse on a certain day such and such of these foods, after having consulted the nerves of taste and smell. Its brain becomes active, and only obeys the impressions which are imparted to it by certain substances; so long as it alone drank milk, the brain was passive, impelled only by the instinct of hunger; when the nerves of taste and smell intervened, it was determined by appetite. We must, therefore, distinguish between hunger, which only has its origin in a nerve, and the sensation of appetite which is the result of the sensations provoked by the nerves of hunger, smell, and taste.

Whenever we take a meal when in a healthy condition, these three groups of nerves act simultaneously. The appetite may remain intact in dyspepsia; but, as a rule, it decreases or disappears entirely. The nerves are simultaneously disturbed; food has a disagreeable smell and taste, if taken without hunger. In a great number of cases, the functional disassociation of these nerves occurs, and hunger is observed modified alone, without the nerves of taste or smell being touched; or the nerves of taste alone are attacked, or even the nerves of smell are deranged, when the nerves of hunger and of taste have escaped the influence of dyspepsia.

These different functional disorders may be characterised as follows. In certain patients, so soon as a mouthful of food taken with pleasure, and welcomed by the nerves of taste and smell, is introduced into the stomach, hunger is calmed, and the patient dares no longer to continue the repast; or, if he do so, he has sensations of nausea. In other cases, the hunger incessantly increases, and is as acute when the meal is finished as before it is commenced. This is what is termed bulimia. Nervous and dyspeptic individuals, who feel the necessity of eating, no longer find the normal taste in the food, or else they have a craving for exciting or extraordinary substances, such as vinegar, chalk, and charcoal, and would with pleasure fill the stomach with these materials. Pregnant women show types of these derangements of the taste, in dyspepsia brought on by pregnancy. Finally, there is another category of dyspeptics in whom the nerves of smell only are deranged in action. M. Leven has treated a patient, forty years of age, suffering from dilatation of the stomach, who was hungry, and took meat with pleasure; but for twelve hours it left with him a sensation of putrefaction, which only disappeared when the stomach had recovered its natural condition. The seats of these sensations are in the nerves of the tongue and of the nose. The seat of hunger is, however, a point which is not yet determined. Sédillot and Longet have cut the pneumogastric nerves in dogs, and have seen them eat three or four days after the operation; but they have never been able to cut the great sympathetic. Is it not, therefore, that nerve which, in the absence of the pneumogastric nerves, transmits the sensation to the stomach and to the brain?

Longet and Schiff have maintained that hunger is not seated in the stomach, but in the whole organism; that we hunger throughout all our tissues, in our muscles, and in our nerves; and that a true equation may be established between the degree of hunger and the losses of the organism. It is easy to object to this that some people never feel hungry, and that the greatest wasting of the organism occurs in the febrile condition when there is no hunger.

Schiff has made experiments to show that hunger is not localised in the stomach. He took fasting starving dogs, which howled incessantly. He injected peptones into their veins; the dogs left off howling. All physiologists have, however, observed that, if water be injected into the veins of fasting dogs, they leave off howling, and become quiet, so that nothing can be deduced from these experiments. That, however, which appears certain is, that the sensation of hunger is localised in the stomach, and transmitted to the brain by both the sympathetic and the pneumogastric nerves. In order that hunger should be felt, it is necessary that the mucous membrane of the stomach should not be congested, and that it should be in a healthy condition.

The practical deduction to be drawn from these data is that hunger cannot be restored by medicine, but by an alimentary regimen, by making the number of meals of solid food in proportion to the congested condition of the mucous membrane. Hunger cannot be restored by the use of quinine wine, iron, or bitter preparations, but by treating dyspepsia in a rational way.

THE ELECTRIC LIGHT.

THE influence of the electric light upon the sight is a subject likely to attract much attention. Numerous observations, especially in France, lead to the undoubted conclusion that there is nothing prejudicial in the nature of the rays derived from electric light, but that, on the other hand, this light may be of great benefit by reason of its superior illuminating power. Indeed, it is highly probable that many eye-diseases, myopia among others, are produced, and more are aggravated, by the strain of vision under circumstances of defective illumination. The sense of discomfort experienced even by a possessor of sound eyesight, who reads for some time in the dim twilight, will demonstrate to anyone the probability of what we have said.

On the other hand, there is a risk attendant on the use of too bright illumination. Practically, this is effective only in the case of those whose occupations in connection with electricity lead them into close relation with the light; but, even in such cases, the resulting inflammations, whether of iris or conjunctiva, are neither grave nor lasting. And, in the not far distant days of electric house-illumination, the companies may be trusted, if only for the sake of their pockets, not to do any serious injury to the general public by an excessive supply of light. It may, however, conduce to the peace of mind of nervous persons to know that, even in such a case, glasses, suitably tinted, will give relief. We must remember, however, that electric lighting is still in its infancy. Future scientific improvements may be trusted to remove what now is

more serious drawback to the light in an hygienic point of view than that of which we have spoken, viz., its unsteadiness. This once palliated, we shall find direct benefit, not only from the more perfect illumination, but also from the fact that this will allow of the lights being so placed, that the eyes are protected, especially in near work, from their direct rays.

HER MAJESTY, on her arrival at Perth, on Saturday last, *en route* for Balmoral, was pleased to accept of a basket of orchids from Dr. Patterson, Bridge of Allan.

SIR ERASMUS WILSON is now able to get up during the day, and sit in his room. The warmer weather has relieved the dyspnœa, and considerably hastened recovery.

WE note, as a curious recommendation of the proposed process for preserving meat by injecting boracic acid into the arterial system, that "the acid is stated to have even a beneficial effect on the consumer". It will, however, be as well to know when we are being benefited in this way, and not to be blessed with too much boracic acid unawares.

THE death of Dr. Hodgen of St. Louis is reported. Dr. Hodgen was Dean of the Medical College of St. Louis, and Professor of Surgical Anatomy. During 1881, he was President of the American Medical Association. Dr. Hodgen has been a welcome visitor more than once at our annual meetings, and was widely known and esteemed. His loss is much mourned in his native city.

THE following is an extract from a letter from a medical officer in one of the lunatic asylums in the west of Ireland. The writer says: "It is to be hoped that something will at last be done to restore order in the country. I have had two men admitted here lately who have been driven out of their minds by fear of assassination: one of them, from near this, whose house was fired into because his sons worked for Mr. ——; and the other is the son of the old man ——, who was shot while sitting at his son's fireside."

SIR JOHN ROSE CORMACK.

WE greatly regret to learn that the late Sir John Rose Cormack died in very straitened circumstances, leaving his family entirely without means. An influential committee is being formed, and is raising funds to supply the immediate wants of the family, and to assist in making some further provision. Communications may be addressed to the Hon. A. Herbert, M.D., 21, Rue Miroménil, Paris; or subscriptions will be received at this office. We have to acknowledge the following, received to-day: Dr. Chepmell, £10; Mr. Ernest Hart, £10.

DARWIN MEMORIAL FUND.

IT is felt by the many friends and admirers of the late Charles Darwin that, though his works are his best and most enduring memorial, this should not be the only one; and they are desirous of handing down to posterity the likeness of a man who has done so much for the advancement of natural knowledge. They wish also to establish a fund associated with his name, the proceeds of which will be devoted to the furtherance of biological science. A committee has been formed, which consists, as it is fitting it should, of the most eminent in science and in every rank of society. The honorary secretaries are Mr. T. G. Bonney and Mr. P. Edward Dove, to whom subscriptions should be sent.

MICRO-ORGANISMS.

THE meeting of the Royal Medical and Chirurgical Society on Tuesday last was very largely attended. The papers and the discussion on certain important points in laryngeal surgery were no doubt of great interest, but to most of those who attended the promised demonstration of the bacilli of tubercle was probably the chief attraction. The specimens shown by Mr. Watson Cheyne and Mr. E. M. Nelson were the same as those exhibited at King's College some weeks ago, and described in our columns at the time (p. 709), but with two important additions. Professor Tyndall recently received from Professor Ehrlich specimens of the bacilli, prepared evidently by some new method, for they were stained far more brilliantly and deeply than in Koch's specimens. Under a high power the individual bacilli were beautifully defined, and under a low power—a quarter-inch—their deeply-stained light purple masses showed in brilliant contrast with the comparatively slightly brown-stained surrounding tissue. In the letter which accompanied the specimens Professor Ehrlich did not describe the method he used, but the product is most satisfactory. Mr. Cheyne showed a number of other pathogenic organisms, and Mr. Horsley also contributed an interesting series. Of these latter one was of special interest to the surgeon; it was a specimen of pus taken from an abscess of the breast, which had been opened and treated with iodoform. The pus was laudable, and smelt distinctly of iodoform, yet it was seen to swarm with micrococci; the abscess, however, had been, we believe, recently opened, and this may afford an explanation of the presence of the organisms. On this subject we would refer the reader to Dr. Ogston's paper published in our columns in March 1881.

SIR JOHN HOLKER.

WE understand that the immediate cause of Sir John Holker's death was failure of strength. When he was first seen by Dr. Dobell in 1879, he was suffering from fatty degeneration of the heart. Some months ago, Dr. Dobell discovered a serious condition of the kidneys, which, however, was arrested by treatment. A few days before his death, he was seized with an attack of diaphragmatic pleurisy, which seriously embarrassed his breathing, and thus favoured the accumulation of mucus in the bronchial tubes, and tended to exhaust his little remaining strength. In spite of the serious changes in the structure of the kidneys, there were no symptoms of uræmia throughout. He remained conscious almost to the last moment, bravely struggling against his disease.

THE LATE DUKE OF GRAFTON.

THE death of the Duke of Grafton this week from typhoid fever has once more directed attention to the lurking dangers of infection within the homes of the weathy, as well as of the middle and lower classes. We understand, however, in this case, that the examination of the houses of the Duke of Grafton, both in town and country, does not reveal the sources of infection. It appears, however, that in the neighbourhood of his country house, where he has recently been staying, typhoid had recently been imported, and great carelessness shown in dealing with the excreta containing the poison, which, it is alleged, had been spread upon the fields.

LEAD-POISONING.

THE Guardians of Gateshead-on-Tyne, at their recent fortnightly meeting, discussed the question of lead-poisoning, several cases having recently been brought under their notice, which have been exciting a great deal of interest in the district. It was unanimously agreed that the following resolution be forwarded to the Home Secretary: "As guardians of the Gateshead Union, our attention has repeatedly been drawn to the great fatality attendant upon the employment of females in the whitelead-works of the neighbourhood. Decrepitude, palsy, blindness, and even death, are the frequent results of lead-poisoning. We therefore venture to ask you to establish an inquiry into the method of such employment, with a view to the introduction of machinery to do the most dangerous parts of the work."

MEDICAL MEMBERS OF PARLIAMENT.

CANADIAN medical men take great interest in politics, according to the *Canadian Medical Journal*, and are largely represented in the various Parliaments. There are six physicians in the Dominion Senate, and sixteen in the House of Commons, ten in the Local Parliament of Ontario, ten in Quebec, three in Nova Scotia, two in New Brunswick, and two in Manitoba. They are also largely represented in Municipal Councils.

CHARING CROSS HOSPITAL.

THEIR Royal Highnesses the Duke and Duchess of Edinburgh paid a visit to the Medical School of the Charing Cross Hospital, Chandos Street, on Thursday last, at three o'clock, when they were received by the Dean, Medical School Committee, and staff. The royal visitors were conducted to the lecture theatre, where a report of the Medical School for the past year was read by the Dean. The successful students were presented to Her Royal Highness the Duchess of Edinburgh, and from her received the medals and certificates. A short address was given by the Right Honourable W. H. Smith; after which their Royal Highnesses proceeded to the hospital, and were received by the treasurer, council, and medical and surgical staff. They here visited the wards, attended by the council and staff; and were afterwards conducted to the board-room, and an address read and presented by the treasurer. The ladies who had collected purses were presented to Her Royal Highness the Duchess of Edinburgh, who received the purses. A vote of thanks was proposed to their Royal Highnesses, to which His Royal Highness the Duke of Edinburgh suitably replied.

THE CASTOR-OIL PLANT AS A FLY-KILLER.

OBSERVATIONS made by M. Rafford, a member of the Société d'Horticulture at Limoges, show that, a castor-oil plant having been placed in a room infested with flies, they disappeared, as by enchantment. Wishing to find the cause, he soon found under the castor-oil plant a number of dead flies, and a large number of bodies had remained clinging to the under-surface of the leaves. It would, therefore, appear that the leaves of the castor-oil plant give out an essential oil, or some toxic principle which possesses very strong insecticide qualities. Castor-oil plants are in France very much used as ornamental plants in rooms, and they resist very well variations of atmosphere and temperature. As the castor-oil plant is very much grown and cultivated in all gardens, the *Journal d'Agriculture* points out that it would be worth while to try decoctions of the leaves to destroy the green flies and other insects which in summer are so destructive to plants and fruit-trees. Anyhow, M. Rafford's observations merit that trial should be made of the properties of the castor-oil plant both for the destruction of flies in dwellings and of other troublesome insects.

MEDICINE AS A CIVILISING AGENT.

NEVER does our profession appear to greater advantage than in its dealings with savage or semi-savage nations. We are far from including the people of India in either of the above categories, but it must be admitted that the great mass of the natives of our Indian Empire are grossly ignorant. The part played by the medical profession in reconciling the people of India to the rule of a race alien in blood and religion, from the earliest days of our connection with that country, has been most important, although the Government has never been forward in acknowledging it. When the missionary and educator adds a competent knowledge of medicine and surgery to his other qualifications for his work, he is doubly armed. The present Bishop of Rangoon is a Doctor of Medicine; for many years before he was consecrated bishop of his diocese, he laboured as a missionary in the district of Tinivelly, in Southern India, a district containing the largest community of native Christians in that country. It is a well known fact that the medical and surgical skill of our now right reverend brother gave him an influence far surpassing that of any labourer in the civilising work to which his life has been devoted. We have been led to make the above remarks by the receipt of a copy of the report of the Grey Native Hospital in King William's Town. It does not appear that Dr. Fitzgerald, the Superintendent, is engaged in missionary work; but it is impossible to read the record of his labours for a single year without seeing that, as in India, so in South Africa, the healer is after all the most powerful civiliser; 600 cases of disease were treated in the hospital, and 1,700 as out-door patients. It appears that natives continue to travel very long distances to this hospital for medical aid, coming from beyond the Kei, from Fingoland, Fort Beaufort, Kriskama Hoek, and other distant places. Dr. Fitzgerald relates the following as an instance of the impression made on the minds of natives by the successful application of sound surgical knowledge.

"Only yesterday, a native woman was brought in a wagon from the Bashee, suffering from complete inversion of the entire eyelashes of both upper eyelids; the eyelashes lay on the balls of the eyes, brushing up and down at every motion of the lids, causing intense irritation, which would soon end in the total loss of sight. One can easily understand the suffering which this poor woman endured, if we consider the pain and irritation caused by only one eyelash in the eye. The eyes were very much inflamed. On questioning this woman, I found that she had been suffering from this diseased state of the eyes for some years and that she had consulted several distinguished members of the native faculty without any relief of her suffering. She was informed by her medical attendants that the spirits were angry with her because they never had any food given to them at her expense. In consequence of this opinion, a cow and a young ox were slaughtered, and plentifully partaken of by the doctors and their attendants, and the bones were burnt and offered up as a sacrifice to appease the spirits. The patient's eyes were then covered with cow-dung, and pieces of sticks and leaves sucked out of her eyes and exhibited to her friends, leaving, of course, her eyes as bad as they were before the operation. Not getting any relief from the profession in its uncivilised state, she was advised by a native woman, who had been operated on at this hospital for a similar disease, to come here, and this day all her pain and sufferings were put an end to by an operation; her eyelids and eyelashes restored to their natural state, and she will soon be able to leave here for her distant home, with good sight, and free from pain. Cases of this sort make a great impression amongst the natives, and afford an interesting subject for conversation and wonder at their kraals."

Dr. Fitzgerald urges the Government he serves so well to favourably consider his suggestion to extend the system of medical relief amongst the native tribes, not only on grounds of humanity, but as a powerful means in helping on the civilisation of the native races; in this wise recommendation we entirely concur.

POISONING BY CASTOR-OIL.

AN inquest was recently held by the Coroner for Central Middlesex which serves forcibly to illustrate the necessity for care in the administration of purgatives to children. From the evidence, it would appear that a woman purchased some castor-oil, and gave her child—only a month or two old—"a dose", thinking that its "stomach was out of order", and that it might do it good. A severe convulsion followed in which the child died; and the doctor who was called in expressed a decided opinion that death had resulted from the treatment. The coroner said that the practice of giving young children aperients whenever they seemed unwell was one of the most dangerous and pernicious with which he was acquainted. It could not be too generally known that, when a child vomited, the stomach and intestines became absolutely empty, and collapse might ensue. Parents should be careful to get cold-drawn oil, for many of the preparations sold were only fit for horses, and, if administered to a child, might set up intense irritation and cause convulsions and death. Whilst coinciding with the coroner in his remarks on the necessity for caution in the administration of aperients, we think there is one other point to which it may be as well to call attention. It appears not to be generally known that castor-oil is very commonly adulterated with croton-oil to increase its activity. Cases of death from castor-oil alone are very rare; and we entertain no doubt that, in the case now under consideration, the fatal termination was due to a more powerful irritant.

ISOLATION HOSPITALS FOR INFECTIOUS DISEASES.

IT will be seen, in the report which we publish in another column, that the House of Lords has given judgment in favour of the appeal of one of the managers of the Metropolitan Asylums Board, in the Hampstead Hospital case. The result of this decision will be to re-open the whole case, and to allow the managers to have it re-tried. It is impossible not to sympathise with the managers of the Metropolitan Asylums Board, in the infinite worry to which they are exposed, in their efforts to carry out the highly skilled advice with which they have been provided, and the important public duties on which they are

tent. A battle between private interests and public needs is one hich is fraught with vast importance; and no doubt, also, it is one on hich there is a great deal to be said on both sides. It cannot, how-ver, but be felt that the vast public importance of making adequate rovision for the isolation and treatment of infectious cases entitles the letropolitan Asylums Board to great sympathy and support, in the fforts which they are making to provide adequate isolation of hospitals or the treatment of infectious diseases in the metropolis; and, in some ense, the result of their efforts will be watched as test instances of reat importance to the profession, and to local sanitary administration roughout the country. Litigation will now commence again; and it is to be hoped that the case of the Board will be presented with more ompleteness; and that the evidence discussed by the judges will be a a more satisfactory state than the House of Lords has found that it vas on the last occasion.

STUDENT MEMBERS OF THE CONGRESS.

THE consideration of the executive of the late International Medical Congress might, we think, with advantage be given to the subject of he letter which we publish in another column under the head of "Stu-lent's Grievance". The writer complains that, whereas students were llowed to attend at the Congress at a diminished rate, with some nnouncement and intention of liberality, they were, on the other hand, xcluded from many of the amusements of the members, which, under he circumstances, was unavoidable; and it now appears that they re deprived of the *Transactions*, and compelled to purchase them at he published price. The most permanent and lasting benefit of the Congress is undoubtedly the study of these volumes; and our corre-pondent suggests what will, we believe, be likely to be regarded with nuch favour by the executive, when he says that the claim of the stu-lents to a receipt of the *Transactions*, under some less onerous condi-ions than those now open, should be considered and accepted. The request is, we think, a reasonable and laudable one; and it is hoped hat means will be found of satisfying it. We fear, however, that it comes rather late.

MEDICAL BOOK ADVERTISEMENTS.

WE trust that the practice of advertising medical treatises in the daily newspapers, once much abused, will not be revived. It is open to many and serious objections, which we have more than once discussed at length. Briefly, they are that these works are ostensibly in all cases, really in the majority of cases, addressed to medical readers, and deal with their subject in a technical manner, suitable only for technically informed readers. To the general public, such treatises are not only useless, but mischievous; they could only understand morsels of them, and then only imperfectly; in the hands of other than medical readers, medical treatises and handbooks are wandering lights, which lead those who follow them into various quicksands. Moreover, practically, such books are not purchased by the public; and the advertisement of the books by the author is justly regarded rather as a means of advertising the author's name to the public in connection with the treatment of particular forms of disease, than of fulfilling the legitimate purpose of advertisement of books—namely, the sale of such books. Some years ago, we discussed this subject repeatedly and urgently in the BRITISH MEDICAL JOURNAL, and called for some authoritative expression of opinion on the subject; with the result that several principal corporations passed resolutions expressing their disapproval of the practice of advertising technical medical works in the daily papers, and the leading authors signified their views accordingly to their publishers. The practice has fallen into discredit, and the "quacks'" corner in the papers has now but seldom the countenance of the company of advertisements of medical works of a higher order. The legitimate intimation to public libraries and others of the publication of new books is held to be satisfied by the announcement among "new books". A whole-page advertisement in the *Times* of medical books on the list of a very eminent and scrupulous firm of publishers has, therefore, attracted our attention, with much regret. We find, however, on inquiry, that the authors were in no way consulted in this matter, and are not responsible. The publishing firm were the authors of the advertisement, which they issued as part of their general publishing business, and not suspecting that any objection would be felt in any quarter whatever. No repetition will, we understand, be made; and this exceptional and unwitting breach of a salutary regulation will, we trust, only serve more emphatically to mark the rule.

SANITARY INSTITUTE OF GREAT BRITAIN.

AT the annual general meeting held at 9, Conduit Street, on Wednesday, May 17th, Professor F. S. B. F. De Chaumont, M.D., F.R.S., in the chair, a favourable report was presented by the Council on the progress made by the Institute during the past year. The Chairman gave an address, and the officers for the ensuing year were elected; the President being His Grace the Duke of Northumberland, K.G.; and the trustees Sir John Lubbock, Bart., D.C.L., F.R.S.; Dr. B. W. Richardson, F.R.S.; and Mr. Thomas Salt.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

THE annual general meeting of the society was held on Wednesday, May 17th, at 5 P.M., in the Library of the Royal Medical and Chirurgical Society. The chair was taken by Dr. Pitman, Vice-President, in the unavoidable absence of the President, Sir George Burrows, Bart. On the recommendation of the Court of Directors, Dr. Bisset Hawkins was elected a vice-president in the place of Dr. Billing, deceased; and Mr. Steel, Dr. F. Weber, Dr. Burdon Sanderson, Mr. Evershed, Mr. T. S. Wilkinson, and Mr. Rivington, were elected directors in the place of the six senior, who retired by rotation; the other officers were eligible for re-election, and were re-elected. From the financial statement of the acting treasurer, it appeared that a sum of £2,947 had been distributed, during the past year, to sixty widows, fifteen orphans, and three recipients of relief from the Copeland Fund. The expenses of the year had been £181 15s. 8d. The funded property had been increased by the purchase of £466 Metropolitan Consolidated Stock. No legacies had been received during the year. The report was read, and showed that the number of members of the society had fallen to three hundred and sixty-eight; five new members had been elected during 1881; nine had died, and three had resigned or ceased to be members. The number of widows on the books at the end of the year was fifty-eight, that of orphans nine, and three orphans were on the Copeland Fund. Two fresh widows had been elected; four had died or ceased to be eligible. Six orphans had become, through age, no longer recipients of grants. A discussion followed the reading of the report, on the desirability of considering whether any alteration could be made in the mode of granting relief, and in the admission of members, to make the society more useful and popular; and a resolution was passed, referring the subject to the Court of Directors. A vote of thanks to the editors of the medical journals was carried unanimously. A vote of thanks to the chairman, Dr. Pitman, for his kindness in presiding at the meeting, closed the proceedings.

BÉCHAMP ON MICROZYMES.

M. Béchamp's researches, made twenty years ago, are the origin of his theory "that elements of living tissues, under the form of molecules, or rather cells, so minute that a cubic millimètre contains fifteen millions, form the basis of organic matter." These molecules or microzymes are living, and their vitality is indestructible. After dissociation, different chemical evolutions, decomposition, etc., they constitute a residuum which resists the action of all reagents, and remains unchanged by analysis; under favourable circumstances, the residuum quickly reconstitutes itself, and forms the framework of a living element. Every system, every apparatus, every gland, every tissue, of the animal economy has its special microzyme, the term microzyme signifying small ferment. M. Béchamp believes the microzyme to be the active secreting agent in the primary cells of the gastric glands; it is an insoluble element furnishing soluble substances instrumental in dissolving other elements. Microzymes are capable of developing into

bacteria. M. Gautier admits the value of M. Béchamp's theories; also his priority in the detection of the presence of insoluble granulations in the gastric glands, but refuses to admit their vitality, and states the following reasons. 1. Microscopical examination of these granulations fails to reveal any structure possessing that regular form which denotes vitality; 2. They are not reproductive; 3. When the gastric juice is filtered through a kaolin filter, and the residuum remaining on the filter is treated with ether, and washed for fifteen days to remove the pepsine, an acid substance is obtained, which is soluble in weak soda, and crystallises; the crystals have the form of needles, and are green. This acid substance transforms fibrin into peptone, which, if not perfect, is certainly characteristic. M. Gautier asks if it is possible to suppose that a crystallised ferment is a living substance? M. Béchamp maintains his theory that microzymes are living, and undertakes to prove his assertion in a future communication.

OPIATES AND PERISTALSIS.

PROFESSOR NOTHNAGEL of Vienna recently communicated to a German society the results of experiments on the action of opium and morphia on the intestine. The constipating power of these drugs appear due to their being irritants of the splanchnic, the inhibitory nerve of the intestine. That nerve is specifically influenced by morphia, just as the vagus, the inhibitory nerve of the heart, is acted upon by digitalis; in fact, in both cases, small doses excite, large doses paralyse. It was observed, in a discussion on this question, that the peristaltic action of the intestines is not necessarily the same in man as in animals. Antiperistalsis does not appear to occur in the latter; in our species it is known to exist; though, when obstruction exists, peristalsis in the ordinary direction is quite sufficient to account for fæcal vomiting. Dr. Rosenstein, however, had seen chronic fæcal vomiting in a patient of his where no mechanical obstruction could be found. Professor Preyer stated that he had seen antiperistaltic movements of the small intestine in animals, and pointed out that the filling and emptying of the cæcum, especially of the very long cæcum of some animals, could only be effected by alternate peristalsis and antiperistalsis.

THE DIGESTION OF CANE-SUGAR.

PROFESSOR LEUBE of Erlangen finds, from practical research, that cane-sugar is converted into grape-sugar by the gastric juice in health, and also in disease, as long as the juice is secreted at all. In healthy subjects, the grape-sugar thus formed is rapidly absorbed; in disease, this absorption remains incomplete, much grape-sugar passing into the intestines with the chyme. Professor Leube, in several subjects healthy and sickly, introduced grape-sugar into the stomach, and pumped out some of the contents after a short period, when the glucose was found to have disappeared. He likewise contrived a hollow sound, filled with a solution of cane-sugar and gastric juice; this could be retained for about half an hour in the stomach, into which a solution of cane-sugar had also been introduced by ordinary deglutition. When the sound was withdrawn, its contents, protected from absorption, were found to be charged with grape-sugar, whilst no sugar of any kind could be detected in the contents of the stomach, pumped out at the same time. The gastric juice appears to play the principal, though not the sole, part in this process, by which the kind of sugar most familiar in domestic economy and commerce is changed into the kind more closely associated with the tissues in the animal kingdom.

THE TREATMENT OF WRITERS' CRAMP.

Dr. TH. SCHOTT, of Nauheim, writes to the *Deutsche Medicinische Zeitung* to claim for his brother (Dr. Aug. Schott) and himself, priority in the mode of treatment recently described by M. Romain Vigouroux as Wolff's method, and which was communicated by them to Wolff in 1878. He gives a very clear description of the method, which consists of a combination of gymnastics and shampooing. The gymnastics are active and passive. The latter are performed by the patient alone. They last 20, 30, to 45 minutes. Commencing with the fingers, these are flexed, extended, abducted and adducted; the thumb is treat separately. Then follow four movements of the wrist, flexion ar extension of the forearm, on the arm, and finally movements of bo arms in four directions. Each exercise should be repeated six to twel times, and with sufficient effort to redden the face. After each seri of movements there should be a short pause. In the active gymnasti the same movements are made, but each must be arrested, or rath opposed, by another person, so that for each a distinct muscular effo is required. These exercises should last as long as the preceding serie They should be repeated three or four times a day. In the process shampooing, the operator oils his hands and the patient's limbs, ar commences by light friction over the course of the principal nerv trunks, from the periphery to the centre, gradually increasing the for of the pressure, and again relaxing it towards the end. This part shou last about ten minutes. Shampooing of the muscles is performed b taking the body of a muscle in the hand and rubbing it longitudinal and transversely, without compressing it too much on the subjace bone, commencing with the hand and finishing with the shoulder. Th duration is the same as for the nerves. Care must be taken to avo bruising, which does harm. A single daily shampooing is enoug The improvement which is manifested by the third or fourth wee should not cause a cessation of these exercises, but they should be co tinued for six or eight weeks to ensure a complete cure. In the ear period of treatment the patient should abstain from work, and g back to gradually avoiding all cause of fatigue. To prevent relapse Dr. Schott recommends daily employment of the passive exercise f some weeks, and the use of the local cold douches suggested b Esmarch. He has cured all his patients, and has seen no relapse Most of them were the female pupils of the Conservatoire of Musi at Frankfort, sufferers from pianists' cramp.

INTERNATIONAL HYGIENIC CONGRESS.

AN international hygienic congress is announced to be held at Genev in September next. The arrangements are under the charge of Dr. Lou Dunant. Medical men of all countries, and all who have the advanc ment of hygienic science at heart, will be eligible to attend the sitting provided they send in their names beforehand.

GLANDERS IN THE HUMAN SUBJECT.

IN a recent number of the *St. Petersb. Med. Wochenschrift*, D Zdekauer describes a case where the clinical symptoms of glande were observed, although no distinct history of infection could be ob tained. A lady, aged 46, and in very good health, was attacked, the beginning of January, with swelling of several large joints, an high fever. At the end of three weeks, the temperature continue over 104°, with no eruption, slight enlargement of the spleen, and ver feeble pulse. Dr. Zdekauer diagnosed "latent blood-poisoning com plicated by rheumatic polyarthritis". On January 26th, the face b came œdematous, with pustules as large as a bean; there were gre lividity of the lower eyelids, no glandular swellings, and a typhoid co dition. On the next day, the face was enormously swollen, and larg greyish swellings, with dilated lymphatic vessels between them covered the left lids, the nose, and the mouth. Several pustules, of th size of cherries, with livid bases, were found on the arm; the patien became comatose, and died in the evening.

VACCINATION AND SMALL-POX.

IN his last annual report on Ashton-in-Makerfield, Mr. Nathan Hanna gives a remarkable instance of the efficacy of vaccination as a prophy lactic of small-pox. Small-pox was seriously prevalent in the town and Mr. Hannah made a house-to-house visitation for the purpose revaccinating all who were willing to undergo the operation. In on house, where a child had the disease in a modified form with only im perfect marks of primary vaccination, he requested the other occupant consisting of two families, to be revaccinated. They ridiculed the idea retorting "that the operation was useless, as the prevalence of the di ease, to their mind, showed." On a second case arising in the sam

ouse, Mr. Hannah again urged the necessity for revaccinating the emainder, and, with one exception, they this time acceded to his request; with the result that those vaccinated escaped, whilst the woman that refused contracted the disease, and had a severe attack. The health-officer for Gateshead (Mr. Charles Green) has some instructive figures bearing on the same point in his report for 1881. Reporting on all the cases of small-pox that came under his notice last year, he says that of ten vaccinated persons who were attacked, none had the disease severely, but all were mild cases which recovered. Of fourteen unvaccinated persons attacked, however, twelve had severe attacks, and three died. In five different families, every unvaccinated member of the family who had not previously gone through the disease was attacked by it. The figures given by Dr. Gayton, in his last report on the admissions to the Homerton Small-pox Hospital, point even more strongly in the same direction. Out of a total of 840 patients, 128 had good vaccination marks, of whom 1 died; 424 were imperfectly vaccinated, of whom 27 died; 85 were said to be vaccinated, but had no visible marks, and of these 22 died; whilst 203 were unvaccinated, of whom 64, or nearly a third, died. Figures like these are not to be explained away by any artifices of the antivaccinators, to whose special consideration they may be commended.

MORTALITY IN THE PUNJAB.

DURING 1880, only 274 deaths were registered in the Punjab from cholera, against 26,135 of the epidemic outbreak of the disease in the previous year. A similarly remarkable decrease is shown in the mortality from small-pox, the total deaths amounting to 9,145, the lowest number ever yet registered from the disease since the introduction of the registration system in 1868. These figures show a very complete subsidence of the epidemic activity of the disease during the two previous years, when the number of deaths registered from small-pox rose to 40,271 in 1878, and 49,489 in 1879, against 12,296 in 1877 and 10,254 in 1876, which last was the next lowest mortality from this disease registered in any year since 1868.

VACCINATION IN BRITISH BURMA.

THE total number of persons vaccinated in British Burma during 1880-1 was 47,241, or about twelve per thousand of the population, as compared with 54,320 in 1879-80. The number of vaccinations was greater, and the cost of the department was greater, than in the previous year. Subject to certain exceptions, the supply of lymph was sufficient, and the lymph was of good quality. The decrease in the number of operations is not explained. The percentage of successful cases was 77, as compared with 72 in 1879-80; but the average cost of each successful case rose nearly a half. Vaccination statistics in Burma contrast unfavourably with those recorded for most other provinces of the Indian Empire, not only in respect of deaths from small-pox, but also in comparison with the proportion of yearly vaccinations to the population, while the cost of each vaccination shows an increase. It is to be hoped that during the coming cold season, municipal authorities and others will make greater efforts to popularise and promote vaccination. During 1880, the Vaccination Act became law. Applications have since been received from the municipal committees at Rangoon and Akyab, for the extension of the provisions of the Act to those places. At Akyab, opposition has been raised to the introduction of the Act; and in Rangoon, there has been no sufficient establishment or organisation for vaccinating all comers. The honorary magistrates had not begun to sit, and so could not try offences against the Act; and under these circumstances it was considered expedient to postpone the extension of the Act to Rangoon. Complete success, however, cannot be expected for some considerable period, since the task of overcoming the popular dislike for inoculation and disbelief in vaccination must necessarily be a work of time. The civil medical officer, whilst complaining of the carelessness and absence of interest shown by the vaccinators, suggests, as an inducement for them to work well, and to create an interest in vaccination, that a scale of promotion should be adopted; and that a more liberal remuneration should be given. The promotion, according to his suggestion, should be triennial, and awarded for excellence of work, together with interest and attention evinced in the performance of the duties of vaccinator.

CHOLERAIC DIARRHŒA AND POLLUTED WATER.

IN a recently published American blue-book, an interesting account is given of an epidemic of choleraic diarrhœa attacking within a short period nearly a quarter of the entire population of a town, and apparently caused by polluted water. From the account given, it appears that, on June 15th, 1881, and during the few days following, a large number of persons in the town of Adams were sick with "cholera". The attacks came on suddenly, were of short duration, and were in no case fatal. The symptoms consisted in vomiting, diarrhœa, and pain in the stomach and bowels. Some had not more than one of these symptoms, while others had, in addition, coldness of the extremities, faintness, and cramps in the bowels and legs. Those first attacked sent promptly for medical advice; but, their symptoms speedily yielding to mild remedies, people generally found such assistance unnecessary, and not one in twenty was seen by a physician. The largest number of attacks occurred in the evening or night of June 15th; on the morning of the 16th, some alarm prevailed, but the mild character of the sickness being discovered, all fear subsided, and by the 19th the epidemic was over. The town possessed a population of 4,634 inhabitants, and of these no less than 1,112, or 23.9 per cent., were attacked. Adults were the chief sufferers, 831 of the total number being ranked in this class; 214 were between the ages of five and fifteen, and 67 were infants. Attention was first directed to the water-supply, which was obtained from various sources, well-water being used by some families, and spring or brook-water by a few others. The general supply, however, was obtained from a public reservoir. An analysis of this water showed it to be of great purity, and the only foreign matter that could be discovered in the reservoir was a mass of leaves and sticks. Nearly one-half of the population used this water; and, of these, 715, or 32.5 per cent., were attacked. Of those using only well, spring, or brook-waters (986), 63, or 6.3 per cent., suffered. The number using both well and reservoir water was 622. This class included many who had access to both kinds of water, and could not remember which they drank, but it is probable that nearly all drank reservoir-water. Of these, 202, or 32.4 per cent. were sick, being exactly the same proportion of those using only reservoir-water. The evidence against the reservoir-water afforded by these figures seems sufficiently strong to attract suspicion. The epidemic was limited to the districts supplied from this reservoir and in the outlying districts, 10 only of 321 persons who drank only well, spring, or brook-water were attacked; while of 37 who had been to town and drank reservoir-water, 21, or more than one-half, were sick. In all parts of the town, it was found that a much larger percentage of sickness had happened amongst persons using only reservoir-water than amongst those using well or spring water; being, on the average, 32.5 per cent. for the former, and 6.3 for the latter. As many as 41 persons stated that the water tasted or smelled badly. The symptoms were, moreover, such as are generally produced by some article of food or drink, and no evidence could be found against any such article except the water. If the water were responsible for the sickness, it must have arisen from some temporary impurity, which in a few hours passed through the pipes, and disappeared. In what this impurity consisted, it seems impossible to say, since the water, when examined, was found to be perfectly pure. Some putrescent animal substance may have caused it; but no trace of any such thing could be found. An attempt to trace the cause to the shutting off of the water on the previous day proved fruitless. It is stated that only metallic lead was used in making connections on the main-pipe, and that it was impossible for any poisonous substance to get into the pipes at that time. The figures given certainly seem to implicate the reservoir-water as the cause of the mischief; though its influence for evil cannot be regarded as by any means proved.

SCOTLAND.

THE GLASGOW FACULTY LECTURESHIP.

THE present course of Faculty Lectures on the Physiology and Pathology of Respiration, was brought to a close on the 19th instant. In his third and concluding lecture, Dr. McVail described the various means by which the respiratory movements in normal and abnormal conditions have been measured and recorded. He then directed special attention to the large respiratory reserve space possessed in health; and he next spoke of the mode in which the inspiratory force acts on the lung in distending it, and showed that the distending forces act with enormously greater power on the external air-cells than on those more deeply placed. In consequence of this, he considered that in every person there is being developed very gradually a physiological emphysema, which, under certain circumstances and conditions, may pass into the very large dilatations of pathological emphysema. Attention was next directed to the relative forces of the inspiratory and expiratory currents of air in the air-cells and air-tubes in inspiration and expiration; and the lecturer stated that, in normal circumstances, the expiratory current is stronger than the inspiratory one, owing to the expired air being greater in volume than the inspired air. To this fact was chiefly to be attributed the circumstance that mucous fluid travels always outwards from the innermost recesses of the lung, from air-cells possessing neither ciliated epithelium nor muscular fibres. In concluding, Dr. McVail spoke of the enormous expenditure of mechanical power in effecting the respiratory movements in certain abnormal conditions. In the future, he expected that the whole subject of the conservation of mechanical energy in the abnormal vital processes will receive an ever-increasing degree of attention from clinical investigators, and that the mechanical appliances necessary for this will be as familiar to students in the wards of an hospital as stethoscopes and clinical thermometers now are. A cordial vote of thanks was given by the President of the Faculty to Dr. McVail for a course of lectures which were listened to with great interest and satisfaction.

APPOINTMENT OF PHYSICIAN IN ORDINARY TO THE QUEEN IN SCOTLAND.

ANOTHER of the appointments, rendered vacant by the death of Sir Robert Christison, Bart.—that of one of the Physicians in Ordinary to the Queen in Scotland—has been filled up this week by the election of Dr. T. Grainger Stewart, Professor of Practice of Physic and of Clinical Medicine in the University of Edinburgh.

SMALL-POX IN DUNBAR.

VARICELLA has been prevalent for some time in Dunbar. Last week, however, a case of small-pox was reported to the local authority, by whom the removal of the patient to the Contagious Diseases Hospital was ordered. No other case of small-pox has as yet been reported in the district.

DR. ANGUS MACDONALD.

WE are much pleased to learn that Dr. Angus Macdonald has returned to Edinburgh in good health, and on Wednesday resumed his duties at the Royal Infirmary. The profession, and Dr. Macdonald's many friends, are to be congratulated on the happy effect that his sojourn on the Riviera has had on Dr. Macdonald's health. During his absence, his duties in the ward for the diseases of women, in the Royal Infirmary, Edinburgh, have been discharged by Dr. J. O. Affleck, senior assistant-physician.

ABERDEEN ROYAL INFIRMARY.

IN the Aberdeen Royal Infirmary, there has existed the antiquated arrangement by which the superintendent of the infirmary was also apothecary to it, and *vice versâ*. The committee of management have recommended certain important changes, and these were considered at a special court of the managers, held on Monday, and by it approved. The recommendations were: 1. That the offices in question be sepa ated; 2. That the office of superintendent should be held by a ful qualified medical man, and the office of dispenser by a legally qualifi apothecary; 3. That the salary of the superintendent should be £2 *per annum* (with a house), and that the salary of the apothecary shou be £75 *per annum*. The appointment of the superintendent will l by the court of managers; that of the apothecary will be by the con mittee of management.

PROSECUTION UNDER THE PUBLIC HEALTH ACT.

EVER since attention has been drawn to the dangers arising from eve the temporary residence in a city of a large number of foreign em grants, the authorities in Glasgow have kept a strict watch over th lodging-houses where these emigrants take up their abode. Recentl the sanitary department instituted a prosecution under the Publ Health (Scotland) Act, against one of the lodging-house keepers, f contravening the regulations enacted by the local authority, and allo ing overcrowding in his house. The charge was found proven, an seeing that the keeper was aware of the removal of a small-pox patie from the house the very day before the overcrowding occurred, th judge very properly regarded the case as an aggravated one, and im posed the full penalty allowed by the statute.

GLASGOW DISTRICT LUNACY BOARD.

THE first meeting of the recently elected Glasgow District Board Lunacy was held on the 17th instant, when the chief matter under di cussion was the question of the purchase of Eastshield as a site for th proposed new asylum. Considerable difference of opinion showe itself as to the eligibility of the place recommended, and eventually th final settlement of the matter was deferred for a month, to admit of th committee inspecting other properties available for the purpose, an within easier access of the city. Seeing the urgent need there is increased asylum accommodation for pauper patients, it is to be hope some decision will soon be arrived at in the matter.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending Ma 13th, it appears that the death-rate in the eight principal towns durin the week was 22.1 per 1,000 of estimated population. This rate is 1. above that for the corresponding week of last year, but 1.6 below th for the previous week of the present year. The lowest mortality w recorded at Leith, viz., 9.0 per 1,000; and the highest in Glasgow, viz 25.8 per 1,000. The mortality from the seven most familiar zymot diseases was at the rate of 4.3 per 1,000, or 0.3 above the rate for th previous week. Whooping-cough continues to be the most fatal ep demic in Glasgow, and measles in Edinburgh. Acute diseases of th chest caused 113 deaths, or 4 less than the number recorded durin the previous week. The mean temperature was 47.3°, being 0.4° abo that of the week immediately preceding, but 3.3° below that of th corresponding week of last year.

IRELAND.

FEVER prevails to a considerable extent in Lurgan, and last wee sixteen patients were admitted into the Workhouse Hospital sufferin from the disease.

THERE will be a meeting of the governors of Jervis Street Ho pital on Thursday next, the 1st prox., to elect, by ballot, a surgeon i place of the late Surgeon Forrest.

BELFAST ROYAL HOSPITAL.

A QUARTERLY meeting of the Committee of Management was hel last Monday, and it was reported that since the last quarterly meetin much had been done to improve the financial position of the charit Cards containing the privileges of subscribers of one guinea an upwards have been sent to mills, factories, workshops, and oth centres of industry, in the hope that by making the privileges of su

ibers more generally known, the subscriptions from the working sses in the town might be increased and a greater sympathy with the titution created. The Board next proceeded to elect a surgeon to hospital in the room of Dr. H. Murney who had resigned after enty-seven years' service, and for the vacancy created by his resigna- n there were two candidates, Dr. O'Neill, assistant-surgeon, and Dr. edding; the former being elected by 73 votes against 40. Dr. rney will, however, not be dissociated from the institution which he s so faithfully served, as he has been appointed a consulting surgeon the hospital.

THE ROYAL COLLEGE OF SURGEONS IN IRELAND.

LARGELY attended deputation from the College waited on the rd-Lieutenant last Tuesday for the purpose of presenting him with address on his arrival in Ireland. The address expressed the hope at His Excellency would shortly honour the College with his pre- ace, so that he might witness its extension since his last visit to it. ie College "expressed this hope with greater confidence in conse- ence of the earnest and intelligent interest manifested by His Excel- ncy in medical education whilst Lord President of the Council." the course of his reply, the Lord-Lieutenant, referring to e allusion in the address to his official connection, as Lord esident of the Council, with the medical profession, said: "I sure you that I attach the utmost importance to the subjects which e now being considered by the Royal Commission. Their report will ortly be published, and it will be one of the serious duties of the Go- rnment to deal with their recommendations, and endeavour to settle estions which for a long time have been the subject of controversy in e medical and surgical professions, and which have material influence the success and efficiency of your members. I need not assure you at I appreciate the eminent services of your college in the past; and feel assured that you will continue that admirable work by which the fferings of so many individuals are alleviated." The annual election the council and officers of the college will be held on Monday week, ne 5th. Mr. J. Kellock Barton, of the Adelaide Hospital and Car- ichael College of Medicine, Vice-President of the College of Surgeons, ill step into the presidential chair unopposed. But there will be a ose contest for the vice-presidency, between Mr. Stokes, of the Rich- ond Hospital and Professor of Surgery in the College School, and r. W. I. Wheeler, of the City of Dublin Hospital. In addition to the ineteen outgoing members of the Council (a body of twenty-one mem- rs, including the President and Vice-President), all of whom seek re-election, there are thirteen new candidates for the office of Coun- llors. This, we understand, is a larger number than there has been r any former similar occasion.

PROPOSED AMALGAMATION OF THE MEDICAL SOCIETIES OF DUBLIN.

N response to circulars issued to the members of the four principal edical societies of Dublin by their respective honorary secretaries, sking the members to express their views in favour of or against the roposed scheme, to which we have on previous occasions referred, 18 replies have been received in favour of amalgamation, and 27 gainst. Of course, these numbers do not represent separate indivi- uals, as many persons are members of two or more of the societies. owever, 127 gentlemen have signified their wish to be enrolled as ellows of the proposed Academy of Medicine, 62 as Members, and 3 s Associates. A joint general meeting of all the societies will shortly e held, to elect a Committee to frame rules for the construction and orking of the Academy.

HEALTH OF DUBLIN: QUARTERLY REPORT.

HE births registered during the quarter ended April 1st amounted to 667, being equal to an annual ratio of 1 in 32.6 or 30.6 per 1,000. he deaths numbered 3,048 or 35.0 in every 1,000 of the population, ut omitting the deaths (65) of persons admitted into institutions from laces outside the district, the rate was 34.3. The average number of eaths registered in the first quarter of the ten years 1872-81 was 2,844, equivalent to an annual mortality of 32.7 per 1,000. Zymotic diseases caused 607 deaths or 278 above the preceding quarter, and 89, or 17 per cent. over the average for the corresponding quarter of the past ten years. The deaths from these diseases were equal to 7.0 per 1,000, and this high rate of mortality was due to the prevalence of measles, which proved fatal in 432 cases during the quarter. Fever, caused 60 deaths; scarlatina, 18; diarrhœa, 32; erysipelas, 13; and whooping-cough, 14. To phthisis, 325 deaths were ascribed; bronchitis, 537, and pneumonia, 147. Diseases of the circulatory system caused 135 deaths; diseases of the brain, 156; diseases of the urinary system, 43; while 52 deaths were accidental, and 2 suicidal.

COTTAGE HOSPITALS: TESTIMONIAL TO MR. NAPPER.

A MEETING was held at Willis's Rooms on Thursday, May 18th, for the purpose of supporting the proposal of giving a testimonial to Mr. Albert Napper of Cranleigh, the founder of Cottage Hospitals. The chair was taken by Mr. J. ERIC ERICHSEN, F.R.S., Consulting Surgeon to University College Hospital. Mr. F. B. HALLOWES of Redhill, the President of the South-Eastern Branch, gave an explanation of the proceedings which had taken place in reference to the matter. He referred to the claim made by the Rev. Canon Sapte of having been the founder of the cottage hospital at Cranleigh, and said that documentary evidence distinctly proved that Mr. Napper was the originator and founder of the cottage hospital system, while there was also good reason for believing that he was the originator of the Cranleigh Cottage Hospital. The following resolutions were unanimously passed.

1. Proposed by Dr. BOWLES (Folkestone), seconded by Mr. EDWIN SAUNDERS (President of the Metropolitan Counties Branch), and supported by Dr. COLES (Bourton-on-the-Water):

"That this meeting gives its cordial support to the proposal to present a testimonial to Mr. Albert Napper, and approves of the action taken by the Provisional Committee for carrying out that proposal."

2. Proposed by Mr. HALLOWES, and seconded by Dr. BRAXTON HICKS:

"That a General Committee be formed, to consist of Mr. J. Eric Erichsen, Dr. Braxton Hicks, Mr. E. Saunders, Dr. W. C. Coles, and the members of the present Provisional Committee, with power to add to their number."

3. Proposed by Mr. HENRY SMITH, and seconded by Mr. WYMAN:

"That the General Committee meet as nearly as possible at a month from the present date, to receive a report from the Treasurer of the amount collected, to consider the question of continuing the appeal, and for any further business."

A vote of thanks to the Chairman, proposed by Mr. H. C. BURDETT, and seconded by Dr. HOLMAN (Reigate), was unanimously carried.

In acknowledging the vote, Mr. ERICHSEN said he did not think that any one who had read the correspondence respecting the claim of priority, and the documentary evidence, calmly and dispassionately, as he had done, could have any doubt that Mr. Napper was justly entitled to the distinction of having been the founder of cottage hospitals. He also spoke strongly in favour of cottage hospitals as means of affording aid in urgent and critical cases of accident, and also in cases of chronic disease unsuited for the large hospitals. They were also free from those influences of separation from friends, and other circumstances, which in the large hospitals often exercised an injurious effect on the patients. They also afforded an admirable field of instruction to practitioners and pupils. He concluded by repeating that the cottage hospital movement had his hearty sympathy, and that he would co-operate in the best way he could in the objects of the meeting.

Mr. HALLOWES, in announcing that about £200 had already been collected, expressed regret that very few of the cottage hospitals had as yet responded to the appeal made to them. He trusted that they would send subscriptions, however small they might be.

The Provisional Committee above referred to, which has now become part of the General Committee, consists of Mr. F. B. Hallowes (Redhill), Dr. C. Holman (Reigate), Dr. H. T. Lanchester (Croydon), Mr. W. A. Berridge (Redhill), Mr. T. M. Butler (Guildford), Mr. H. C. Burdett (London), Mr. C. W. Chaldecott (Dorking), Dr. W. Chessall (Horley), Mr. R. Gravely (Newick), Mr. T. Hopcroft (Dorking), Mr. A. Kelsey (Redhill), Dr. H. S. Stone (Reigate), Dr. J. Walters (Reigate). The Honorary Secretaries are Mr. H. C. Burdett (39, Gloucester Road, N.W.), Dr. Charles Parsons (2, St. James's Street, Dover), Dr. J. Herbert Stowers (23, Finsbury Circus, E.C.). The Treasurers are Dr. C. Holman (Reigate) and Mr. Malcolm Morris (63, Montagu Square, W.).

We heartily commend the project to the favourable consideration of our readers, especially those connected with the numerous cottage hospitals that have been established throughout the country; and we trust that the Committee will receive much valuable aid from them in their endeavour to recognise the important services rendered to humanity by Mr. Napper.

ADMINISTRATION OF HOSPITALS.

THE Home Secretary having been asked by the Council of the Social Science Association to receive a deputation to urge the prayer of a memorial that Her Majesty might be pleased to issue a Royal Commission to inquire into the management and administration of hospitals, Sir William Vernon Harcourt has expressed a wish to have the "desires and suggestions of the Council" conveyed to him in writing, instead of by deputation. Mr. Clifford Smith, the Secretary of the Association, has therefore forwarded to the Home Office a "Memorial," to which was attached an explanatory "Memorandum," which were adopted a few weeks ago by the Council, on the recommendation of a special committee they had previously appointed. Amongst those who served on this committee were the following: Mr. F. S. Powell (chairman), Sir Thomas F. Buxton, Bart., Mr. I. H. Buxton, Mr. H. C. Burdett, Dr. Alfred Carpenter, Mr. William Clode, Mr. H. H. Collins, Dr. Farquharson, M.P., Dr. Grigg, Dr. Habershon, Mr. R. Hamilton, Mr. Timothy Holmes, Colonel Keatinge, V.C., Mr. C. Macnamara, Mr. F. G. P. Neison, Dr. Phené, F.S.A., Sir William Robinson, Mr. Edwin Saunders, Dr. Gilbert Smith.

The following are the terms of the memorial.

MEMORIAL OF THE COUNCIL.

To the Right Honourable Sir William Vernon Harcourt, M.P., Her Majesty's Secretary of State for the Home Department.

The Memorial of the Council of the National Association for the Promotion of Social Science, sheweth,—

1. That your memorialists have had their attention directed to the question of the administration of metropolitan hospitals, and the other institutions for the medical treatment of the sick, and have, by public discussions held under the auspices of the Association, in which those well qualified from their position and experience to join have taken part, and by other modes of inquiry, arrived at the conclusion that reforms are desirable in the existing system of administration.

2. That your memorialists have agreed upon the following resolutions: (*a*) That the hospital accommodation of London is imperfectly distributed, and, in many districts, altogether inadequate. (*b*) That the want of organisation and co-operation among the medical institutions of the metropolis materially lessens their usefulness, and leads to unnecessary expense. (*c*) That the present system of indiscriminate relief injuriously affects the independence and self-reliance of those who are able to meet, in some degree at least, the cost of medical and surgical treatment. (*d*) That the funds at present available, either for proper maintenance of nearly all the existing institutions, or for the extension of relief to districts hitherto unprovided for, are very insufficient. (*e*) That the hospitals are managed (some of them under Acts of Parliament) on very different systems, and some of these systems can hardly be worked consistently with the advance which has been made in medical science, and with the change of opinion which is taking place regarding the administration of medical charity. (*f*) That it is desirable to make more use than is at present made, in the education of medical students, of the materials contained in the numerous hospitals and dispensaries now administered by the Poor-law Department and the Metropolitan Asylums Board, and that there should be more intimate communication between these and the general hospitals. (*g*) That the operation and constitution of the numerous special hospitals and dispensaries demand inquiry, in order to inform the public as to the advantages and disadvantages of such institutions. (*h*) That it is desirable that a uniform system should be devised and adopted of keeping the books of accounts and registers of diseases in all hospitals.

3. That your memorialists, whilst anxious to disavow the intention of adopting any recommendation in favour of compulsory Government control or management of voluntary hospitals, are not less desirous of expressing their opinion that a favourable time has now come for the institution of a full and impartial inquiry into the accommodation afforded by, and the present system of the management and administration of, the metropolitan hospitals and the other institutions for the medical treatment of the sick.

4. That your memorialists venture to accompany this memorial with a statement of some of the reasons on which the above resolutions have been based.

Your memorialists, therefore, humbly pray that Her Majesty may be pleased to issue a Royal Commission to ascertain fully the needs of the metropolis in the above respects, with a view to obtain reliable data upon which to base such reforms as may be necessary, and to make such recommendations as may appear to it desirable. And your memorialists, etc., (Signed) G. W. HASTINGS,

May, 1882. President of Council.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL:

NOTICE OF QUARTERLY MEETINGS FOR 1882: ELECTION OF MEMBERS.

MEETINGS of the Committee of Council will be held on Wednesday, July 12th, and October 18th. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary not later than 21 days before each meeting—viz., June 22nd, and September 27th, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

November 4th, 1881. FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.—The annual dinner will take place at the St. James's Restaurant, Regent Street, on Friday, June 2nd, at 6.30 P.M.; Dr. Farquharson, M.P., Vice-President of the Branch, in the chair. Tickets 7s. 6d. each, exclusive of wine. Members of the Branch intending to dine, or to introduce friends, are requested to give notice to the Honorary Secretary as early as possible.—H. NELSON HARDY, Honorary Secretary, The Grove, Dulwich, S.E.—May 15th, 1882.

SOUTH MIDLAND BRANCH.—The annual meeting of this Branch will be held in the Committee Room of the Northampton General Infirmary, on Thursday, June 1st, at 2.30 P.M., under the presidency of C. J. Evans, Esq. The following cases and papers have been promised. 1. W. Newman, M.D.: Short Notes on a Case of Heart-Disease. 2. R. H. Kinsey, Esq.: Notes on a Case of Sarcoma of Femur. 3. Frank Buszard, M.D.: Cases illustrative of Acute Disease of the Spinal Cord. 4. W. H. Bull, Esq.: Treatment of Surgical Cases in Country Practice. 5. James More, M.D.: Accouchement Forcé. 6. G. F. Kirby Smith, Esq., and G. H. Percival, M.B., will show a few cases of Excision of Joints and of Osteotomy. 7. David Thomson, M.D.: Uterine Displacements and their Treatment. 8. George Harday, Esq.: Remarks on a Case of large Tumour filling the floor of the mouth. 9. F. W. S. Culhane, Esq.: (*a*) Case of Revolver-Shot through the Heart; (*b*) Case of Hæmorrhage after Extraction of two Teeth. 10. W. Kennedy, Esq.: Two Cases of Puerperal Septicæmia. 11. A. H. Jones, M.D.: The Association of Skin-Diseases with Acute Rheumatism. David Bower, M.D., Bedford, has also kindly promised a paper.—G. F. KIRBY SMITH, Honorary Secretary, Northampton.—May 20th, 1882.

SOUTH-WESTERN BRANCH.—*Preliminary Notice.*—The annual meeting will be held at Barnstaple, under the Presidency of Mr. Joseph Harper. Special notice will be sent to the members as soon as the day is fixed.—S. REES PHILIPPS, M.D., Honorary Secretary.—Wonford House, Exeter.

BORDER COUNTIES BRANCH.—The spring meeting of this Branch will be held at Moffat, on Friday, June 2nd. Gentlemen intending to read papers are requested to communicate at once with one of the Honorary Secretaries.—J. KENDAL BURT, Kendal; J. SMITH, Dumfries, Honorary Secretaries.

SOUTH-EASTERN BRANCH: WEST SUSSEX DISTRICT.—The next meeting of this District will be held at the Infirmary, Worthing, on Wednesday, May 31st, at 3.15 P.M.; W. J. Harris, Esq., in the chair. The dinner will take place at the Marine Hotel at 5.30 P.M.; charge 6s. 6d., exclusive of wine. The following communications have been promised. Dr. Kelly, On Small-pox; Mr. Simpson, Two Cases of Spina Bifida in the same family; Dr. Uhthoff, On the Early Treatment of some Eye-Diseases.—G. B. COLLET, Honorary Secretary, 5, The Steyne, Worthing.

NORTH OF IRELAND BRANCH.—The annual meeting of this Branch will be held in the Belfast Royal Hospital on Tuesday, June 13th, at 4 o'clock P.M. The members will dine in the evening at the Imperial Hotel at 7 o'clock.—JOHN MOORE, M.D., Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: SPRING MEETING.

IN the report of this meeting, which was held on April 20th, on page 754 of last week's JOURNAL, the number of members present was omitted by inadvertence. Twenty attended the meeting.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.

THE last meeting of the District was held on April 20th, at the London Hospital; Dr. STEPHEN MACKENZIE in the chair.

Communications.—The following communications were made.

1. The Chairman exhibited a patient suffering from Lichen Planus with Leucomatous Patches on the Buccal and Lingual Mucous Membrane.

2. Dr. Hunt read a paper on the Diagnosis and Treatment of Pleuritic Effusions in Children.

3. Dr. Stephen Mackenzie read a paper on Vertigo, especially dealing with Auditory Vertigo or Menière's Disease.

Collective Investigation.—The members present agreed to form a subcommittee to carry out the objects of the Collective Investigation Committee, which were explained by the Chairman.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.

THE annual meeting of the above District was held at the County Hospital, Canterbury, on May 4th; J. E. SCHÖN, Esq., in the chair.

The Accounts for the year were audited and passed.

Secretary.—A vote of thanks was passed to the Honorary District Secretary for his past services, and he was re-elected.

Meetings.—A conjoint meeting with the West Kent District was arranged for September at Folkestone, and Dr. Bowles was elected President.—A meeting at Deal was also arranged for March 1883.

Communications.—The following communications were made.

1. Mr. Bishop showed a large Sarcomatous Tumour, weighing 15 lbs., that he had removed from the occipital region of a woman aged 27. It recurred in twenty-one days, and appeared to start from the parotid region.

2. Dr. Gogarty read a case of Suppression of Urine, that lasted five days; cold was the exciting cause; there were no convulsions nor coma; at the necropsy, the left kidney was found to be absent, and there was blood-infiltration into the fat around the right kidney.

3. Dr. Gogarty also showed two perfectly Sacculated Kidneys from a boy aged 18, who had a calculus in each, and pain over his muscles on pressure. The urine contained one-eighth of albumen, and the quantity varied from forty-six to eleven ounces in the twenty-four hours.

Dinner.—The members afterwards dined together at the Fleur de Lis Hotel.

LANCASHIRE AND CHESHIRE BRANCH.

AN ordinary meeting of this Branch was held at Blackpool, on Wednesday, May 17th, 1882; Dr. R. C. BROWN, of Preston, presiding. About eighty or ninety members were present.

Communications.—The following communications were made.

1. Mr. Rushton Parker (Liverpool) read a paper on the Materials of Blood-poisoning, and showed, with Dr. A. Barron's assistance, a number of microscopic preparations of septic organisms.

2. Mr. W. Whitehead (Manchester) showed a patient who had the Tongue removed for Epithelioma, and on whom tracheotomy required to be performed, and afterwards gastrostomy; the mode of feeding him with milk was shown.

3. Mr. Whitehead also showed casts and photographs of a case of Endemic Elephantiasis of the Leg, which had been successfully treated.

4. Dr. Walters (Manchester) read a case of Hystero-Epilepsy which had been cured by the operation of excising both ovaries.

5. Dr. Rich (Liverpool) gave an account of the symptoms in a number of cases of Poisoning from Cray-fish which had occurred under his care in one of the mail steamers.

6. Mr. Farrar (Morecambe) read notes of a case of Poisoning by Mussels.

Luncheon.—Dr. Leslie Jones of Blackpool entertained the members present at lunch at Bailey's Hotel before the meeting.

Dinner.—Over seventy members were present at the dinner; the Mayor of Blackpool and the Vicar attending as guests.

HOSPITAL SUNDAY FUND.—A meeting of the council of the Hospital Sunday Fund was held this week at the Mansion-house. The Lord Mayor presided, and there were present Bishop Beckles, Mr. Samuel Morley, M.P., Mr. R. P. Martin, M.P., Mr. Alderman M'Arthur, M.P., Sir J. Risdon Bennett, the Rev. Canon Nisbet, Mr. Thomson Hankey, and others. The Lord Mayor, in expressing his cordial co-operation with the council, intimated his intention of attending with the Sheriffs and the Corporation in State at St. Paul's Cathedral and Westminster Abbey on Hospital Sunday, June 11th. The Rev. S. Hansard thought that those who had received treatment and who were constantly making use of the medical charities of London should, as far possible, be made alive to their duties to contribute on Hospital Sunday to the full extent of their means. The council then proceeded to make the necessary arrangements for the collection on June 11th. Mr. S. Morley, M.P., in proposing a vote of thanks to the Lord Mayor for presiding, conveyed to him the congratulations of the council on the honour conferred on him by Her Majesty, and, the Lord Mayor having replied, the meeting adjourned.

CORRESPONDENCE.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

SIR,—As a very large number of the Fellows of the Irish College of Surgeons are members of the Association, I take the liberty of asking them, through your columns, to consider what would be the wisest course to pursue at the approaching elections on June 5th for Vice-President and Council.

If, at the beginning of the College year, two candidates should be nominated for the office of Vice-President, it is the usual and, I believe, the proper course for the candidate of junior professional standing, even though he might make the contest a close one, to retire in favour of his senior. By doing so, he not only saves the College from an undesirable contest, but he places his brethren under a kind of obligation which generally redounded in his own favour on a future occasion. Unhappily, at present a different feeling prevails.

One candidate, a very junior Fellow—although he is no doubt a very promising man, but, as yet, is comparatively little known in the surgical world. Relying, however, upon great electioneering energy, he has point-blank refused to retire. Now, the caucuses, *cliques* and stratagems of a contest are bad enough, but, when a distribution of first-class return-tickets becomes a potent element of warfare, we must feel the dignity of our College is in danger. The legality of the election, carried on under this modified form of bribery, may yet be questioned, but of its gross impropriety there can be little doubt.

For the Council, it appears, there are as many new candidates up as there are old members of Council who seek re-election. The Council, as at present constituted, is a most heterogenous body. It may be divided into many cliques—such as schemers (*i.e.*, those who support the new educational scheme), anti-schemers, College of Surgeons' schoolmen, private schoolmen, and non-schoolmen. These cliques all appear to be working against each other, and it is really impossible for an outsider to know what to do or what section to support.

Among the new candidates are Fellows who have very recently passed, and, it seems, they entirely forget what a Council of the College should be composed of. At one time it was considered—and, I think, very properly so—that the office of councillor was reserved for representative men, or the seniors of the profession who have justly won the position by a long career of honourable and genuine work.

Matters are entirely changed now in this respect, for the most junior of Fellows of a few months' standing aspire to the position; and hence the scramble for places, in fact turning the whole election into a burlesque.

This election, I feel, will have one good effect: it will teach young men that they must win their spurs before they can wear them. And when the poll is declared, these juveniles will find that few will be got to appreciate their latent ability; and, if they secure their own vote on this occasion, it will be as much as they can reasonably expect.—I am, sir, etc., "A PERPLEXED IRISH FELLOW."

A STUDENT'S GRIEVANCE.

SIR,—Having noticed in your issue of last week that £300 balance money has been handed by the Executive Committee of the International Medical Congress to Dr. S. Wilks, as Treasurer of the Association for the Advancement of Medicine by Research, I would ask whether it is generally known that copies of the *Transactions* have not been supplied to the "student members" of the Congress. There was considerable talk at the time about the liberality of allowing students to become members on payment of half-a-guinea. In addition to the fact that we participated in few of the amusements provided for the members, we are now (for the first time) informed that the *Transactions* will be supplied to us only on receipt of the published price. Would not the liberality have been more apparent had we been allowed to pay the full fee, and participate in the most tangible benefit of the meeting?—I am, sir, yours obediently, A STUDENT MEMBER.

SIMPLE AND ASEPTIC OVARIOTOMY.

SIR,—Allow me to make a few remarks on your article on simple and aseptic ovariotomy in last week's JOURNAL. The writer thereof speaks of the apparently contradictory results of experience in Switzerland and in Edinburgh. The reverse is the case: the experience is the same. Professor Kocher has given up carbolic spray in private practice as injurious in the conditions where it is not indispensable. I have done the same. I have found it injurious, and have given it up, though not in ordinary surgical work. The long list of success I once had is apparently attributed by your correspondent to the use of the

carbolic spray, instead of, as I do in a great measure, to the frequent use of the drainage-tube. After this long run of success there came a weary list of bad results—also all done with the utmost care under carbolic spray and without drainage; then again followed a long list of successful cases without any spray and with drainage. When the run of bad cases happened to me, the managers of the Royal Infirmary did not do as the House Committee of the Samaritan Hospital seem to have done under similar circumstances. They did not call my attention to the necessity of draining more, nor did they tell me to throw my carbolic spray producer out of the window. They allowed me to do that for myself; and if I care to take it up again I know well that they will not interfere with me; they know their own business; they trust me that I know mine. Save us from the meddling of a London House Committee in surgical matters.

Lastly, I protest against the way in which the statistics of a single year in any hospital are made use of to try to prove anything, to say nothing of the unfairness and unkindness of drawing attention to the surgeon who has had the misfortune to have a run of bad cases. With all our care and anxiety to do the very uttermost for those who trust their lives in our hands, a bad succession of cases will come to all of us who practise surgery, so long as the general conditions of patients are what they are, and so long as all are liable to accidental and disturbing influences. If I honestly think that carbolic acid has killed some of my patients, and if I get as good results without it, and better results than any one has yet got with it, others can do so equally well. Then, for God's sake, let us alone; let each one work as he thinks best, and a little time will clear up all our doubts. Certainly the spirit in which the article is written will not convince us, neither will any House Committee.—I am yours obediently, T. KEITH.

2, North Charlotte Street, Edinburgh, May 22nd, 1882.

MERCURY IN SYMPATHETIC OPHTHALMIA.

SIR,—I observe from your report, on the 20th instant, of the recent meeting of the Ophthalmological Society, that the discussion, following the reading of a short paper of mine on a case of sympathetic ophthalmia, occurring after enucleation of an eyeball for injury (foreign body), and a somewhat similar case by Mr. Frost, turned in some measure on the use of mercury in this disease. It was remarked that, in both instances, this drug was employed; and the clinical grounds for this treatment was desired. I regret I was prevented from being present at the meeting, but would here offer a few remarks on the subject.

The question is one of importance and interest; and I would observe, that experience in other cases appeared to me to testify to the value of this mode of treatment: hence its use in the present instance. In a case, reported by me in the *Lancet* (vol. ii, page 498, 1877), where severe sympathetic irido-cyelitis had existed for the long period of twenty-one months, enucleation of the injured eye, and the administration of the perchloride of mercury, continued for three or four months, resulted in recovery of excellent sight (Jäger 1). The mercury may or may not have contributed to this end. I believe it did so: for, some time subsequently, he again came under my care for a return of inflammatory symptoms, and a second time the perchloride was administered with good results. Subsequently, an old lady, seventy-one years of age, three months after iridectomy for chronic glaucoma, where there was copious hæmorrhage and a tedious recovery, suffered from sympathetic iritis. A few days later, consent was obtained for enucleating the iridectomised and now blind eye. This was performed, and in a few weeks a good recovery had resulted. Perchloride of mercury was here also used; but, true, the enucleation of the offending injured eye may have been the only aid to recovery. Here again, however, a return, after some time, of the inflammatory symptoms occurred, and readily yielded under the use of the perchloride. I might refer also to the case of a little boy, aged 9, in whom long-continued small doses of the perchloride of mercury appeared to me to be of service, where the disease had existed for some time before the injured globe was excised. Atropine, in all these cases, it should be mentioned, was used.

I quite agree with the speakers at the meeting, as to the inutility of mercury in traumatic inflammation generally; but I repeat that, in the class of cases I have referred to, with as much evidence as we ordinarily have as to the effect of drugs on disease, it has appeared to me of service in aiding in preserving vision in some of these very distressing cases. In conclusion, I may mention that, among authors, the value of this treatment is recognised. For instance: Wecker, in his *Ocular Therapeutics*, advises "energetic mercurialisation"; and Lawson, in his *Injuries to the Eye, etc.*, says that, "in some cases, he has seen decided benefit from the moderate inunction of mercury."—I am, sir, your obedient servant, SIMEON SNELL.

Sheffield, May 23rd, 1882.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Monday, May 22nd.

The Hampstead Small-Pox Hospital.—The House of Lords gav judgment in the appeal in the case of the Managers of the Metropolit Asylum District *v.* Hill and others. The noble and learned lords prese were the Lord Chancellor, Lords O'Hagan, Blackburn, and Watso There were two appeals to the House of Lords, both of which were elab rately argued, and in which the question was, substantially, wheth the Small-pox Hospital at Hampstead could be continued. In Appe No. 2, the judgment of the House, given in the course of last yea affirmed that the Asylum Board had no statutory power to create nuisance. The object of the present appeal was to obtain a new tria which the Court of Appeal had refused, except upon the terms of th appellants paying the whole cost of the former trial before Mr. Barc Pollock and a special jury. The Lord Chancellor, in moving th judgment of the House, said the issues to be determined were, wheth the Small-pox Hospital at Hampstead was necessarily a nuisance, hov ever well it might be managed; and whether there were any faults defects of management which made it so. The jury had found, c both questions, for the plaintiffs in the action. The plaintiffs ough not to have less than justice, because the duties of an important branc of public administration, with reference to the public health and to th care and treatment of persons suffering from a dangerous disease, mig be embarrassed and rendered difficult or impracticable by their succes but, on the other hand, less than justice ought not to be done to tho who had the care of those large public interests. There ought to be new trial, because the verdict on the main issue was not founded on state of evidence which was satisfactory. With respect to the ma showing the area of three hundred yards round the hospital site, ar the preponderance of small-pox cases, the inferences were open question. Evidence as to effects (or absence of effects) of the Home ton and Stockwell Small-pox Hospitals ought to have been admissibl and was material. But that was no reason for making the appellan pay costs, from which, in the event of a final decision in their favou they would be free. The other noble and learned lords present co curred; and ultimately the order of the Court of Appeal was reverse and the order for a new trial, as made by the Queen's Bench Divisio was restored.

HOUSE OF COMMONS, Tuesday, May 23rd.

Deleterious Milk.—Lord G. HAMILTON asked the Vice-President the Council whether steps were being generally taken by local autho ities to carry out the provisions of the Dairies, Cowsheds, and Mil shops Order, of July 1879; and considering the supposed transmiss bility of tubercular disease through infected milk, he would take ste to make tuberculosis a "disease," for the purposes of paragraph 8 that Order. Mr. MUNDELLA:—We have reason to believe that, exce for the purpose of registration, very few local authorities have carri out the provisions of the Dairies Order, as they have no special office for the inspection of dairies. The Privy Council have been in comm nication with the Local Government Board on this subject, and ina much as the question relates rather to human health than to the preve tion of animal diseases, it has been agreed to bring in a short Bill repeal section 34 of the Contagious Diseases (Animals) Act, and authorise the Local Government Board to treat the question as one affec ing the public health. The Bill is in preparation, and will shortly introduced.

The Tax on Carriages.—Mr. DAVEY has given notice of a questio to the Chancellor of the Exchequer, whether he will favourably cor sider the exemption of vehicles, *bonâ fide* used by medical men for th purpose of their profession, from the increased tax on carriages.— petition against the tax has been presented from the medical pract tioners of Reigate.

Netley Hospital.—In the debate on the Estimates last week, D FARQUHARSON asked whether the Secretary of State for War did n think that the time had come for abolishing the useless post of Com mandant at Netley. Although the original object with which th office was established—*i.e.*, to relieve the medical department of th trouble of administrative work—was a laudable one, the regulations the service now most distinctly laid down that the principal medic officer must always be supreme in his own hospital, both in matte connected with discipline and with internal economy; and, under thes circumstances, the commandant could claim no real authority; an when we came to inquire into what his duties actually were, we foun that they were exclusively connected with the discharge depôt, th

stence of which at Netley was a source of much inconvenience and noyance. Having little to do there, it was necessary to make rk, and this caused perpetual worry and irritation, the Principal dical Officer not unnaturally resenting the indignity of being super-ed in the social and official supremacy to which he is entitled, by assumed authority of an official who sometimes is junior in actual k to himself. It was, he believed, an open secret that a recent mmittee had recommended the removal of the discharge depôt to rtsmouth; and as the right honourable gentleman had abolished the eless captain commandants of naval hospitals, and as Netley was the ly military hospital provided with this unnecessary appendage, he uld appeal to him with confidence to remove this long-standing evance from the Army Medical Department.—Mr. CHILDERS re-ed, that all he could at present say was that the commandant at tley would shortly receive careful consideration.

MILITARY AND NAVAL MEDICAL SERVICES.

THE sudden death at Torquay of Staff-Surgeon Peter Comrie, R.N., announced.

r,—Would you kindly continue to advocate the adoption in the Navy of a white ropical uniform for officers? The men, both marines and sailors, have it. Even he ships are ordered to be painted white; yet the Admiralty oppose the white unic. It is only by frequent applications to the press that any good can be got rom the Admiralty in a sanitary point of view; and you have always lent a very willing hand to help us.—Your obedient servant, R.N.

*** Our correspondent has perhaps yet scarcely done all that is legitimate in his effort to effect the reform which he advocates. When any special want is felt, it should be represented by those concerned to the proper authorities. Working men are quite in a different position from that of officers, especially in the Naval Service; and it is only natural that their case should have first received attention from the Admiralty. Moreover, the captains of Her Majesty's ships on tropical stations are usually permitted to exercise their own judgment in this very matter, apart from the knotty question of prescribing, which means enforcing, additions to an already long list of clothing. The "white cap covers", or white drill or duck covers worn over the ordinary uniform cap have been demonstrated to be quite useless; transpiration being diminished just so much as to counteract the benefit that would otherwise be derivable from the white surface. It is clear, therefore, that an uniform cap should be planned for tropical conditions. The above hygienic fact was pointed out by Dr. E. Payne, of the United States Navy. A white tunic to supersede the "blue frock coat" on tropical stations would, no doubt, be a great boon to officers; and, if it were double-breasted, would also do away with the waistcoat usually worn with the frock coat. A flannel, merino, or silk inner vest and white shirt, with white trousers, as at present, would complete the suit; while canvas shoes not only look well, but are cool and comfortable to the feet.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE NETHERFIELD INSTITUTION FOR INFECTIOUS DISEASES.

HE annual report of this institution for the year 1881 is a document of o little interest. The hospital contains on an average 22 patients, so iat it may be fairly said to be a small hospital; and, in accordance ith the imaginations of some theorists, we should expect to find a naller mortality than in the large metropolitan hospitals, for instance. et us now see if this were so. In the year 1881, 17 cases of enteric ver were admitted into the Netherfield Hospital, of which four died, mortality of 23.5 per cent. In the London Fever Hospitals the ortality from enteric fever for the ten years, 1871-80, as shown by atistics prepared by Dr. Fraser of the Homerton Fever Hospital, was s follows:—the London Fever Hospital, 17.61 per cent.; the Stock-ell Fever Hospital, 22.90 per cent., and the Homerton Fever Hos-i'al, 17.83 per cent. Allowance has to be made, however, for different rinciples of diagnosis. Thus, for instance, if one hospital placed nder the head of simple continued fever all but well-marked cases, s proportion of cases of simple continued fever, in which death never ccurs, would be increased, and the mortality in enteric and typhus fever, s a consequence of this, would be increased also. Of typhus there were lmitted into Netherfield Hospital 17 cases, of which five died, a mortality 29 per cent. In the London fever hospitals, during the ten years efore mentioned, the mortality of typhus was as follows:—the London ever Hospital, 18.61 per cent.; the Stockwell Fever Hospital, 22.47 er cent.; and the Homerton Fever Hospital, 19 69 per cent. Of patients ith other diseases admitted into Netherfield Hospital, there were 13, of hom 5 died, a mortality of 38 per cent. In the London hospitals, for ie ten years mentioned, the mortality of the other diseases was s follows:—the London Fever Hospital 22.39; the Stockwell ever Hospital, 28.66; and the Homerton Fever Hospital, 32.90. In this comparison, one must again allow for principles of diagnosis. The tendency to confound meningitis, pneumonia, peritonitis, and above all acute miliary tuberculosis, with enteric fever, is considerable; and in a hospital where it was the practice to make *post mortem* examinations in all cases of enteric fever so as to make the diagnosis certain, one would expect to find a lower mortality in its enteric fever cases and a higher in its other diseases. It is probable that the difference in the mortality of the other diseases just given will be to some extent explained in this way. Of course other things have to be considered, such as the practices of the various fever hospitals as to admitting or declining the other diseases. A hospital in the habit of taking in all the other diseases would naturally have a higher mortality in this class, because the great majority of the cases mistaken for specific fever are the most severe cases of acute disease, other than specific fever, and the mortality is necessarily high; so that a hospital which declined say all the cases of acute pneumonia sent to it, cases mostly involving nearly the whole of a lung, and sometimes both lungs, and not unfrequently complicated with pericarditis, would necessarily have a comparatively small mortality in this class of cases. The mortality for small-pox is comparatively equally high in the Netherfield Hospital, as a consideration of the following totals, for which we are indebted to Dr. McCombie of the Deptford Small-pox Hospital, will show.

Small-pox Cases treated in the London Small-pox Hospitals during the year 1871 to April 1872.

	Total Vaccinated.	Total Unvacc.	Percentage Unvacc. to Vacc. Cases.	Mortality per cent. Unvacc.	Mortality per cent. Vacc.	Mortality per cent. Vacc. and Unvacc.
Homerton Small-pox Hospital .	1,520	1,005	39.7	37.4	8.6	20
Hampstead Small-pox Hospital	5,539	1,328	19.3	52.7	11.2	19.3
Stockwell Small-pox Hospital..	2,081	373	15.1	56.5	11.7	18.5
Stockwell Fever Hospital	1,317	524	28.3	39.1	7.3	16.3
Homerton Fever Hospital	717	404	36.	33.6	5.16	15.8
TOTALS.....	11,174	3,634	24.5	44.8	10.15	18.66

When one remembers that the period over which these statistics refer to was one during which the severest epidemic known to this generation raged, a mortality of 18.66 will compare favourably with one of 17.6. It has also to be pointed out that the mortality of the cases in the Homerton Fever Hospital, where the average daily number of patients during the epidemic of 1871 was about 250, was only 15.8, and in the Stockwell Fever Hospital, where the average daily number was over 200, the mortality was only 16.3. Facts, therefore, when we can get them, give no support to the advocates of the small hospitals. That the Netherfield Hospital is doing good and useful work, may be gathered from the fact that patients may be attended by their own physicians, and friends may nurse or stay with patients in the hospital. What a boon this is, will be appreciated only by the anxious parent who may send his child into this institution, and go there and nurse it himself. To an anxious mother, a place of this sort must be invaluable. The report concludes as follows. The total number of patients treated in the hospital from its foundation is 3,237, viz:—Scarlatina, 653; measles, 146; typhoid, 295; typhus, 946; variola, 906; miscellaneous, 291. Total, 3,237.

With regard to small-pox, a consideration of the last 312 cases shows that the protection afforded by vaccination against that disease entirely depends upon the efficiency with which the vaccination is performed. In most of the cases referred to, vaccination had been more or less imperfectly performed. The subjoined table shows the effect of this vaccination in modifying the mortality. It must however be borne in mind, that amongst the non-vaccinated the illness was in every instance long and severe, and recovery was accompanied with great permanent disfigurement; but amongst the imperfectly vaccinated the severity of the disease diminished in proportion to the efficiency, as evidenced by the scars, with which the vaccination had been done.

	Number of Cases.	Died.	Mortality per Cent.
1. Not vaccinated at all	58	28	48 2
2. Having one imperfect scar	57	9	15 8
3. ,, two ,, scars	120	9	7.5
4. ,, three ,, ,,	64	1	1 5
5. ,, four ,, ,,	13	0	—

Almost all the fatal cases amongst the vaccinated occurred in adults, showing the necessity for re-vaccination as adult life is approached.

No patient had ever been re-vaccinated, while no nurse or servant of the institution (all of whom are re-vaccinated) took the disease, although many of them were in constant and close attendance upon the small-pox patients. We cordially recommend the Netherfield Fever Hospital to the consideration of the benevolent Liverpool public.

THE BIRMINGHAM GENERAL DISPENSARY.

THE following is a summary of the treasurer's account in the annual report for 1881:—Balance from 1880, £240 1s. 1d.; subscriptions and supernumerary tickets, £3,224 7s. 6d.; interest on founded property, £530 12s.; donations, £806 7s. 7d.; legacies, £94 19s.; relief fund, £84 6s. 7d.; sundries, £62 15s. 9d.: making a total of £5,043 9s. 6d. The total expenditure has been:—On general account, £4,280 2s. 1d.; on relief fund, £100 14s. 9d.; transfer to deposit account, £400; transfer to building account, £50: giving a total of £4,830 16s. 10d., and leaving a balance of £212 12s. 8d. The average cost of each patient was 4s. 8½d. The number of patients admitted by ticket during the year had been 18,110, besides 211 accidents, and 3,144 dental cases admitted free. The Camp Hill branch showed an increase of 98, the number being 2,634, against 2,306 in 1880. The Aston branch showed an increase of 328, the number being 2,634, against 2,306 in the previous year. It is hoped the funds of the charity will soon justify the erection of a third branch at Ladywood.

BIRMINGHAM LYING-IN CHARITY.

THE annual report of the Birmingham Lying-in Charity for 1881 shows that the number of patients attended during the year was 973, against 1,020 in the previous year. Four mothers had died, but only two deaths were attributable to puerperal causes. During the past ten years the number of deliveries was 9,578, and 22 mothers died, giving the low rate of one death in 435 cases, or 2.3 per 1,000. During last year 953 children were born alive, 520 being males and 433 females. Nine infants died, and 28 were still-born. The assistance of the honorary surgeons was obtained eighteen times, or once in 54 cases. The total cost per patient was 10s. 8¾d., against 10s. 9¾d. in the preceding year. The statement of accounts showed a deficiency of £42 6s. 8d. The ordinary work of the charity is done by a staff of midwives, who call in the aid of the honorary surgeons in difficult cases.

THE REPORT OF THE HOMERTON HOSPITALS FOR 1880.

THE annual reports of the Medical Superintendents of the Homerton Fever and Small-pox Hospitals, for the year 1880, have recently been issued. During the year, 1,061 cases of fever, and 840 cases of small-pox, were admitted. Dr. Collie's report is of more than usual interest and value, on account of a series of tables which it contains, compiled from the annual reports for the last ten years of the Homerton Fever Hospital, the Stockwell Fever Hospital, and the London Fever Hospital. The total number of cases admitted into these hospitals, during that period, has been: of scarlet fever 9,830, of enteric fever 3,523, of typhus fever 1,923, and of simple continued fever 807. Of the cases of simple continued fever, 560 belonged to Homerton, a large proportion, which Dr. Collie accounts for by the fact that he has been in the habit of including under this heading very mild cases of typhus without rash, and mild irregular cases of enteric fever. The mortality in the different fevers varies at the different hospitals. At Homerton, Stockwell, and the London Fever Hospital, the respective mortalities per cent. are: in enteric 17.83, 22.90, and 17.61; in typhus, 19.69, 22.47, and 18.61; in scarlet fever 13.43, 13.20, and 9.54. The great difference in the mortality among scarlet fever patients at the London Fever Hospital, as compared with Homerton and Stockwell, is evidently due to the smaller number of admissions of scarlet fever cases under ten years at the former institution, compared with the number at Homerton and Stockwell—this fever, as is well known, being most fatal under ten years of age. At Homerton, 62 per cent.; at Stockwell, 56 per cent.; and at the London Fever Hospital, only 34 per cent. of the total scarlet fever cases were under ten years of age. Dr. Collie states that the proportion of cases of simple continued fever, to the total cases of enteric and typhus, was: at Homerton 1 to 4, at Stockwell 1 to 17, and at the London Fever Hospital 1 to 11; and that, if these classes of fever are combined, the percentage mortality was: at Homerton 14.83, at the London Fever Hospital 16.54, and at Stockwell 21.50. A remarkable variety of diseases are sent to these hospitals as cases of fever: small-pox, chicken-pox, measles, pyæmia, rheumatism, glanders, tuberculosis, syphilis, pneumonia, kidney-disease, heart-disease, and peritonitis, are a few of the most interesting. The lesson which this teaches is the need of practical instruction in acute diseases, as a part of medical education, and which could nowhere be better given than at the fever and small-pox hospitals.

Dr. Collie gives two diagrams, compiled from the admissions into the three institutions during the past ten years, showing the percentage of attacks and percentage of mortality of scarlet fever, typhus fever, and enteric fever, at the different quinquennial periods. The largest proportion of attacks of scarlet fever occur between five and nine years, and of enteric and typhus between ten and nineteen; while the mortality in scarlet is greatest under five, and steadily diminishes till twenty-four, when it begins to rise. In enteric and typhus, it is lowest under ten, from which age it increases steadily with advancing years in both fevers.

As was to be expected, a large number of the staff have contracted one or other of the different fevers, mostly typhus and enteric. It is noticeable that, at the London Fever Hospital, only two cases of enteric are recorded; while at Homerton twenty-two, and at Stockwell seven, of the staff have been attacked. Since enteric fever is, as Dr. Collie states, "essentially a disease of early youth," the small number attacked at the London Fever Hospital, compared with the other institutions, is probably due to younger nurses being employed at the former institution than at the latter. If we may form an estimate of the age generally of the nursing staff in these hospitals, from the mortality of those attacked with typhus, which was at the London Fever Hospital 62 per cent., at Stockwell 37 per cent., and at Homerton 14 per cent., we should infer that the age of the nurses employed at Homerton was less that of those employed at Stockwell and Liverpool Road.

Dr. Gayton, in his report of the Small-pox Hospital, states that 533 vaccinated patients, 80 doubtfully vaccinated, and 200 unvaccinated, were admitted during the year; and the death-rate was 5.02, 29.05, and 32.00 per cent. respectively—results which, he says, if taken in conjunction with his previously published statistics, "may be looked upon as conclusive in reference to the protective influence of vaccination over both the type and fatality of the disease."

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

A LARGE number of the medical practitioners in Nottingham have recently presented a memorial to their Town Council, protesting against the enforcement by the Council of a clause in the recent Gas Bill referring to the compulsory notification of infectious diseases. It was felt that the subject was one of great importance, and one as to which, if benefit was to arise from the notification of infectious diseases, the Council should act in hearty co-operation with the medical men of the town. The memorial, which was signed by thirty-eight medical practitioners, expressed the hope that the Council will not support Mr. Hastings's Bill, which they consider radically vicious; but that if they help to legislate, it would be in the direction of supporting the Bill promoted by the Medical Practitioners of Ireland, which expressly stipulates that the medical attendant shall notify when he thinks fit, and not otherwise.

SANITATION OF MILK.

THE occurrence of two recent epidemics of scarlet fever in the metropolis, distinctly traceable to the distribution of infected milk from milk-dealers, has, we are glad to say, led to an extension of the system of inspection of farms and farm-servants, water-analyses, milk-analyses, and inspection of town *employés*, which has for some years been instituted, and from year to year improved in its details, by a well known metropolitan company. A number of dairy companies have recently been started in London and in the provinces upon this model, most of them professing to carry out a system of protecting sanitation of the farms and dairies with more or less completeness. In many instances, we fear that the precautions taken are not yet of so complete a character as is desirable. Briefly, they should consist of the inspection of the water-supply, the drainage, and cattle-sheds of the farms; of the general sanitary arrangements; and the provision that all water whatsoever used for washing the milk-pails should be boiled, as an additional precaution against temporary and unforeseen accidents of infection; that the milk-cans and churns should be steamed with superheated steam daily, so as to destroy germs and microzymes; that the milk should be received in the metropolis in dairies so constructed as to ensure perfect cleanliness, and into which the entrance of sewer-gas is absolutely impossible by the absence of communication with drains. It is, in addition, necessary to provide for the continous testing of the milk as to its

anness and quality, and to ensure freedom from either the abstraction cream or the addition of water. Finally, the milk should be sent t in sealed cans, and the milk-carriers and persons employed about e dairy submitted to frequent inspection and medical supervision. It s now long been shown that such a system of protection is efficient, d may be carried out successfully.

The last addition to the sanitation of milk in the metropolis is announced to have been made this week, and others are promised. What required, above all, is that the precautions taken should be complete. e sanitation of milk under such circumstances, and the prevention the access of diseased persons, although carried out on a large scale, rtakes, it must be remembered, of the nature of a scientific experiment, and any one weak point in the link of precautions may at once come a source of danger to the whole system. Above all things, erefore, such a system requires conscientious and exact care on the rt of those planning and superintending it, and full powers, irrective of pecuniary considerations, given to the scientific or medical perintendents; and this is a condition on which any professional sanian undertaking such a post should insist as of primary importance.

ORKHOUSE MEDICAL OFFICERS AND CERTIFYING CHILDREN FOR INDUSTRIAL TRAINING.

CIRCUMSTANCE has recently occurred at St. George's (Mount Street) 'orkhouse which merits something more than a passing notice. It ould appear that a young girl, named Charlotte Case, was charged, ıder the fourteenth section of the Industrial Schools Act, with andering in the streets, and not being under proper guardianship. he case was simple enough, the girl's mother being shown to be a nfirmed drunkard and prostitute. She had been sent to the workouse for the purpose of obtaining a medical certificate previously to her moval to an industrial school. When she was taken before the ıagistrate again, it was stated that the workhouse medical officer, who ad been recently appointed at Mount Street, had refused to fill in ıe certificate unless his fee of 2s. 6d. was paid. Since then, a correondence had been going on between the Local Government Board, ıe School Board for London, and the Board of Guardians, as to whose uty it was to pay the fee week by week. The girl had been taken efore the magistrate, and again remanded. At the sixth appearance, Ir. D'Eyncourt grew tired of what the police report described as a isgraceful proceeding, and announced that he would pay the fee out f the poor-box; whereupon the signature of a neighbouring medical entleman was secured, and the girl was sent to the school at Hampead. The refusal of Mr. S. Benton, the medical officer at Mount treet Workhouse, to make the examination, and give a certificate ratuitously, appears, from the account which appeared in the police eports of some of our contemporaries, to have elicited a considerable mount of unjustifiable indignation; and the doctor's conduct has been everely censured for refusing to perform that which it was no part of is contract with the guardians to do. It is true, as was stated by the School Board officer, that medical officers of metropolitan workhouses ave almost universally examined and certified their children gratuitously; but this obligation has been imposed on them unjustly; for, f it be necessary that certificates of their healthiness should be furnished, it is only fair that these gentlemen should be remunerated for heir trouble, in the same way as medical gentlemen outside the workouse. It should be remembered that this requirement of the School Board is an additional requirement thrust upon workhouse medical officers most unfairly, for it is an obligation which it was no part of heir original contract to perform.

For our part, we are pleased to find a workhouse medical officer sufficiently public spirited to resist this imposition. If workhouse medical officers were sufficiently united to send in a joint remonstrance, we feel pretty sure that the School Board would be compelled to give way.

The discredit of such a procedure rests, not with the medical officer who objected to examine dirty children for nothing, but with those who attempt to compel him; and this opinion we shall continue to hold, despite the comments of magistrates and newspaper reporters to the contrary.

DISTRICT MEDICAL OFFICERS AS MEDICAL OFFICERS OF HEALTH.

THE Local Government Board do not seem able to make up their minds about the appointment of district medical officers as medical officers of health. Formerly, they were strongly in favour of such appointments; but the undoubtedly imperfect way in which sanitary duties have been performed in certain cases by Poor-law medical officers, acting *ex officio* as health-officers for their several districts, has apparently induced the board to take up an equally untenable position, in direct opposition to their former view. They appear now to be making it a condition of a health-officer's appointment that he shall not be a Poor-law medical officer, though the two duties can often be profitably combined, and in many cases the Poor-law medical officer is the only really eligible candidate.

The Local Government Board have been for some time at issue with the St. German's Rural Sanitary Authority about their health-appointments. The five Poor-law medical officers have for some years acted as health-officers for their respective districts, receiving as remuneration a percentage of their Poor-law salaries. Probably they did their duties no better and no worse than others similarly circumstanced; but the Local Government Board determined to upset the arrangement in favour of their favourite plan of one officer.

The guardians declined to fall in with these views until threatened from Whitehall with refusal to sanction the present arrangements any longer. A compromise was, however, squeezed out of the Local Government Board, to the extent of allowing one of the Poor-law medical officers to be appointed, "provided he relinquished his present office". Accordingly, an election of a medical officer of health, at a salary of £100, took place the other day the appointment being for one year; and to this post one of the two district medical officers who applied was appointed, the other having very properly declined to give up his Poor-law appointment. That a man should be invited to give up a post that he might have held all his life, for one that brings him but barren honour, and is subject to yearly reconsideration and perhaps upsettal, is a curious specimen of the progress that we have recently made in health matters.

Theoretically, of course, a health-officer should be independent of private practice, and should act over a district sufficiently large to monopolise his entire time. But the incredibly petty jealousies of local authorities make combinations under our existing sanitary system now almost impossible; and authorities manifest an increasing disposition to appoint men who are their servants, and those of no one else. The choice of candidates thus becomes extremely limited; and, in debarring the Poor-law medical officer from the competition, the Local Government Board are often excluding the best man. Instances are getting common enough of appointments made under these conditions turning out infinitely less satisfactory than those which they displaced, often against the will of the local authority; and it is small wonder, therefore, if such authorities are beginning to distrust the imperious advice that is offered from Whitehall, either through the medium of official letters or the so-called "general" inspectors. It is an open secret that the medical department of the Local Government Board has nothing whatever to do with the health-officering of the country, this being administered in the approved red-tape fashion by whilom Poor-law Board officials, and the inspectors who supervise workhouses, and the like. It is much to be hoped that the new County Boards Bill will appoint some more effective machinery than that which has now becoming a laughing-stock by its unreasonable prohibitions, vacillating policy, and inconsequential decisions. Nothing could well be worse than the present hotch-potch of public health organisation; and the County Boards Bill, if it succeeds in giving even a semblance of uniformity to it, deserves the support of all who are concerned for the sanitary improvement of the country.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

DERBY.—While reporting a favourably low death-rate (18.3 per 1,000) for the last quarter of 1881, Dr. Iliffe has to announce an extension of the small-pox outbreak, and a large increase in the cases of scarlet fever. The cause of the extension of both these attacks was readily traced to the lack of hospital accommodation for the immediate isolation of the cases as they arose. One hundred and thirty-nine cases of scarlet fever happened during the quarter, ten of which were fatal. Of the total deaths registered during the period under notice (373) 21 were due to zymotic causes, and 72 to diseases of the respiratory organs; 152 deaths were those of children under five years of age.

BETHNAL GREEN.—Dr. Bate's report for 1880 is admirable, not only in matter, but methodical arrangement. It is, in fact, quite one of the best health reports that have recently come under our notice. It is written in an easy flowing style, and gives a vast amount of information (general as well as local) in a small compass. Basing his calculations upon a population of 127,000, Dr. Bate reports birth-and-death-rates of 40.9 and 23.0 per 1,000 respectively. Of the total deaths (2,883) no less than 1,468, or 50.3 per cent., were those of children under the age of five years, 852 never attaining the age of twelve

months. Zymotic diseases were more fatal than in the previous year, 553 deaths having been registered against 474 in 1879. The increased mortality is accounted for by the epidemic prevalence of small-pox and scarlet fever, and by the fatality from diarrhœa. During the year 405 cases of small-pox were reported. Of those 20 died at their own homes, 202 were removed to the hospital, of whom 31 died, and 41 remained under treatment at the end of the year. Of the deaths in the parish only two were certified as vaccinated; twelve were unvaccinated, seven of whom were under five years of age. In the remaining six cases no information could be obtained as to the performance of the operation, but none of them was younger than five years. Scarlet fever and its sequelæ caused 114 deaths, 76 of whichwere amongst children. In consequence of the large number of cases occurring at a Board school capable of accommodating 1,687 children the health-officer urged upon the authorities the advisability of closing the school, but without success. Against the excessive prevalence of this disease and of small-pox Dr. Bate has the satisfaction of showing a considerable diminution in the number of fatal cases of measles and fever, the deaths from the former disease (34) being the smallest number, with the exception of 1878, for the past ten years. One hundred and sixty-five deaths were attributed to diarrhœa, five of which were certified as "choleraic;" one hundred of these were those of infants under one year of age, and 43 were those of children between the ages of one and two years, a mortality which the health-officer thinks was chiefly produced by improper or careless feeding. The concluding portion of Dr. Bate's report is devoted to an excellent exposition of the best means of dealing with infected articles, and to a general review of the sanitary work of the year. We may single out for special commendation the very careful discussion of the merits of the principal disinfecting stoves now in use, and the useful table showing the means adopted in each Metropolitan parish for the disinfection of infected houses and things. Dr. Bate has evidently striven to make his report as full and interesting as possible, and he has accomplished this object with complete success.

Long Eaton.—Mr. Butler's report shows the existence of many conditions requiring the immediate attention of the sanitary authority. The water supply is far from satisfactory, for out of fifteen samples examined seven were found unfit for drinking purposes; while in three other cases it was only of moderate quality, and the last examination of the water from the town pump showed some traces of sewage contamination. Large numbers of new houses have been built and inhabited without any provision for drainage or street making. At the time of reporting Mr. Butler states that the greater number of streets are unmade and unsewered, and in wet weather become pools of stagnant water. The scavenging arrangements seem also very defective, and throughout the district the privies are very badly constructed and unfrequently emptied. Amongst a population of 6,302 souls there were 265 births and 84 deaths registered last year, representing rates of 40.25 and 14.9 per 1,000 respectively. Of the total deaths ten were from zymotic causes, against 21 in 1880 and eight in 1879. Scarlatina was fatal in seven cases, the disease having been somewhat prevalent during the greater part of the year. In alluding to the deaths from zymotic disenses the health-officer states that he invariably found them associated with defective sanitary arrangements. Of the other deaths, heart disease caused eight, phthisis nine, and diseases of the chest fifteen. A satisfactory feature in the death statistics was the low infantile mortality, which was 17 against 40 in 1880 and 29 in 1879; and was the lowest recorded since the formation of the district.

Mid-Cheshire.—We have on former occasions criticised Mr. Makinson Fox's reports on the districts forming this combination, and we have nothing to add to our remarks on the subject. Mr. Fox continues to omit the smallest reference to the movement of population, or the prevalenee of disease in the district as a whole, being apparently content with the prefatory tables, which show the total births and deaths, and the annual death-rates from all causes and from certain specified groups of diseases. Mr. Fox estimates the population of the area under his control at 133,220 souls, and repotts during 1880 the occurrence of 4,700 births and 2,422 deaths, equal to rates of 35.3 and 18 ä per 1,000. In the Altrincham rural district 44.1 per cent. of these deaths were due to diarrhœal diseases. Of the total deaths in this district (413) thirteen were due to scarlet fever, a disease which Mr. Fox states "has been of the greatest embarrassment to the sanitary service." Typhoid fever was entirely absent from this district, which contains a population of 27,000, but diphtheria was fatal in four cases. In the Nantwich rural district the prevalence of typhoid fever was due chiefly to a supply of polluted water, the discontinuance of the use of pit water; and of the supply of water from the mains at Crewe, at once extinguishing the epidemic. Scarlet fever was entirely absent from the Northwich rural district, but typhoid fever caused four deaths. An exceptionally high zymotic rate is reported for Lymm, in consequence of a limited but disproportionately fatal outbreak of scarlet fever which occurred during the first two quarters of the year. During the same period an epidemic of whooping-cough was also prevalent. To these two complaints alone 26 deaths were registered, or 28.3 per cent. of the total mortality. In contrast to this it is satisfactory to learn that in the district of the Middlewich Local Board there was a total absence of both these diseases, only eight deaths from zymotic disorders (and those from diarrhœal complaints) happening during the year Whooping-cough was somewhat prevalent in the Nantwich urban district, and an increased number of deaths from infantile diarrhœa was recorded there. Fourteen deaths from this malady were also registered in the urban district of Northwich. In the Sandbach urban district the death-rate was 17.4 per 1,000, and the zymotic death-rate 1.82, against 4.47 in 1879, and 8.6 in 1878. Dr. Fox claims for this district the lowest death-rate and the lowest special zymotic death-rate that has been recorded in any urban district in the combination. In the district of the Winsford Local Board an alarmingly high infantile death-rate was registered, for of the total number of 191 deaths 66 were those of infants under one year of age, and 37 those of children between the ages of one and five.

Birmingham. — The report of Dr. Alfred Hill, for 1881, records that the improvement in the health of the borough which was reported at the end of 1880 has continued, as shown in a diminished general and zymotic death-rate. The death-rate for 1880 was lower than that for the preceding fifteen years, and the death-rate for last year shows a further decline. The death-rate for 1881 is 19.73, or 0.77 less than in 1880, when the lowest mortality on record down to that time had been reached, and it is no less than 4.38 less than the average death-rate of the preceding sixteen years. The average death-rate of the twenty largest towns of England is 21.7. Dr. Hill attributes the reduction in the Birmingham death-rate in 1881 principally to the following conditions: 1. The non-occurrence of any serious prevalence of small-pox, scarlet fever, or measles; 2. The absence alike of distress, and of a flourishing state of trade; 3. The cheapness of the prime necessaries of life; 4. The coolness of the latter part of the summer, which was therefore unfavourable to the excessive development of diarrhœa, and the mild weather at the end of the year; 5. The sanitary work actively prosecuted by the Corporation. 17.6 per cent. of the total mortality for 1881 was due to zymotic diseases, 15 per cent. to constitutional diseases, 48 per cent. to local diseases, 14.2 to developmental diseases, 4.7 to violence, and 0.5 to unspecified causes. The zymotic diseases give 1,407 deaths, equal to an annnal mortality of 3.5 per 1,000 persons living. The deaths from the seven principal zymotics—viz., small-pox, measles, scarlet fever, diphtheria, whooping-cough, fever, and diarrhœa—numbered 1,128, equal to an annual mortality of 2.8 per 1,000. The average zymotic death-rate of the twenty largest English towns is 3.4. The most fatal zymotic disease was whooping-cough, which is credited with 362 deaths. Diarrhœa comes next, with 341 deaths. Scarlet fever was fatal in 164 instances, against 123 in 1880; and Dr. Hill suggests that 1881 was one of the culminating periods, which he has observed to occur about every four years, in the fluctuations in the prevalence of this disease. The other zymotic diseases occasioned: measles, 132 deaths; "fever", 66; diphtheria, 57; and small-pox, 4. The births registered during the year amounted to 14,869 (7,510 males and 7,359 females), as compared with 15,111 in 1880; 15,846 in 1879; 15,964 in 1878; and 16,001 in 1877—showing a progressive decline over the last five years, notwithstanding the continuous increase in the population. The birth-rate in 1881 was 36.96 per 1,000; this is a lower rate than in any year since 1870, when it was 35 per 1,000. The decline commenced in 1877, and has continued uninterruptedly and progressively. A similar decline has been observable, during the same period, all over England.

Exmouth.—Mr. Kempe's report for 1881 deals more effectually with the conditions affecting this district than its predecessor. The health-officer appears to have been systematic in his inspections, the report of which, if scanty in information, is to the point. The occurrence of 187 births and 116 deaths during the year is recorded, equal to rates of 29.9 and 18.5 per 1,000 respectively. Ten deaths were due to zymotic causes, of which typhoid fever and diarrhœa caused eight, diphtheria one, and puerperal fever one. The epidemic of measles, which was severely present during 1880, prevailed during the early part of the year, but with no fatal results. The water supply appears to be abundant and pure, and the scavenging arrangements properly carried out. Attention is, however, drawn to a portion of the town where the drainage is far from perfect. Alluding to this, Mr. Kempe observes that unless great attention is paid to the matter this portion of the dis

:t will always be a thorn in the side of Exmouth by keeping up a :h death rate, and thus making the place compare unfavourably with ıer health resorts.

DURHAM.—Mr. Stoker's report consists of a series of quarterly state-ents of mortality, which he has at different periods of the year pre-red and presented to his authority. No mention whatever is made the sanitary condition of the district, but this would seem to be plained by the fact that the health-officer has been confined to his d through sickness for the last two years, and that no deputy has en appointed, a resolution proposed in the Town Council in July, 80, that such an appointment be made having been lost. The death-te for 1881 is returned at 17.46, or 6 per 1,000 lower than that recorded r the previous year, a result which may be due to the decline of the arlet fever epidemic. In the first quarter of the year three deaths ere attributed to this disease, in the second quarter two, in the third ıe, and in the last quarter one death. In view of the state of things vealed by Mr. Spear's recent inspection of the town on behalf of the ocal Government Board, it is high time that the arrangements for the scharge of the duties of health-officer should be put on a more satis-ctory footing.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gen-emen were admitted Fellows on the 23rd instant.

Bowles, Robert Leamon, M.D. St. Andrew's, Folkestone.
Champneys, Francis Henry, M.B.Oxford, 60, Great Cumberland Place, W.
Duncan, James Matthews, M.D.Aberdeen, 71, Brook Street, W.
Glynn, Thomas Robinson, M.D.London, Liverpool.
Leech, Daniel John, M.D.London, Manchester.
Ross, James, M.D.Aberdeen, Manchester.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following entlemen, having undergone the necessary examinations for the iploma, were admitted Members of the College at a meeting of the Court of Examiners on the 18th instant.

Messrs. Joseph W. Hodgson, M.B.Aber., Leighton, Beds; William D. J. Morris, L.R.C.P.Ed., Fishguard, Pembrokeshire; Yorke T. G. Moore, Hackney; William R. Scroggie, Bombay; James C. Pincott, Brixton Hill; Alfred Robinson, L.S.A., West Cross, Swansea; Edward R. P. Faddy, Lower Norwood; John A. Gray, Essex Road, N.; Walter T. Brooks, L.S.A., Stoke Newington; John R. Day, L.S.A., Camden Road, N.W.; and John C. Davies, L.S.A., Malmesbury Road, E.

Eight candidates were rejected.

The following Members of the College passed their primary examinations in Anatomy and Physiology for the Fellowship of the College, at the half-yearly meeting of the Board of Examiners, on the 22nd instant, and when eligible will be admitted to the pass examination.

Messrs. Charles Gross, of Guy's Hospital, diploma of membership of the College dated July 31st, 1876; Frank Marsh, of King's College, April 24th, 1877; and William Henry Elam, of the Leeds School of Medicine, November 13th, 1877.

The following gentlemen who have passed the primary membership.

Messrs. Thomas Pugh Beddoes, B.A.Cantab., of the Cambridge School; William Owen Travis, of the Liverpool School; Charles John Evers, of the Birmingham School; and James Edward Blomfield, of University College.

Thirteen candidates, having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their anatomical and physiological studies for six months.

The following gentlemen passed on the 23rd instant.

Messrs. Gerald George Hodgson and Thomas Sydney Short, of King's College; Arthur William Scott, of the Birmingham School; Arthur Ernest Larking, of Guy's Hospital; John Hedley Crocker, of the Charing Cross Hospital; Herbert Child, of the Leeds School; Sidney Plowman, of St. Thomas's Hospital; Henry Robert Woolbert, of University College; and Alfred Ernest Hind, of St. Bartholomew's Hospital.

Eleven candidates were rejected.

The following gentlemen passed on the 24th instant.

Messrs. John Francis Steedman, of St. Bartholomew's Hospital; Herbert William Allingham, of St. George's Hospital; Arthur John Drew, of University College; Walter Hurst, of the Manchester School; Henry Boynton Lee, of the Leeds School; Yasuzumi Saneyoshi, of St. Thomas's Hospital; Sydney Sargent Merrifield, of King's College; Charles Drummond Muspratt, of Guy's Hospital; and William Johnston, M.D. Queen's University, Ireland, of the Belfast School.

Eleven candidates were rejected.

APOTHECARIES' HALL.—The following gentleman passed the Examination in the Science and Practice of Medicine, and received a certificate to practise, on Thursday, May 18th, 1882.

Eugene John Kauffmann, Detroit, Michigan, U.S.A.

MEDICAL VACANCIES.

The following vacancies are announced :—

ADDENBROOKE'S HOSPITAL, Cambridge.—House-Physician. Salary, £65 per annum. Applications by June 6th.

BOLTON UNION.—Resident Assistant Medical Officer. Salary, £150 per annum. Applications by May 29th.

BRISTOL FORESTERS' DISPENSARY.—Qualified Medical Practitioner. Salary, £120 per annum. Applications to E. L. Burgess, 34, Horfield Road, Kingsdown, Bristol, by the 29th instant.

BUCKINGHAMSHIRE GENERAL INFIRMARY, Aylesbury.—Resident Surgeon and Apothecary. Salary, £80 per annum. Applications to Mr. George Fell, Solicitor, Aylesbury.

CHELSEA HOSPITAL FOR WOMEN.—Assistant-Physician. Applications by June 1st.

CHELSEA HOSPITAL FOR WOMEN.—Two Physicians. Applications by June 1st.

CROYDON GENERAL HOSPITAL.—House-Surgeon. Salary, £100 per annum. Applications by June 6th.

DUNSHAUGHLIN UNION.—Medical Officer for Dunboyne Dispensary District. Salary, £110 per annum, with £15 yearly as Medical Officer of Health, registration and vaccination fees. Election on June 2nd.

EAGLESHAM.—Medical Officer under the Public Health (Scotland) Act to attend the Poor. Salary, £40 per annum. Applications to J. Hutchison, Inspector of Poor, Mearns, by Glasgow, by the 27th instant.

EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN, Shadwell.—Clinical Assistant. Applications to 28, Welbeck Street, Cavendish Square, W.

FLINTSHIRE DISPENSARY.—House-Surgeon. Salary, £100 per annum. Applications by the 20th instant.

GLAMORGANSHIRE AND MONMOUTHSHIRE INFIRMARY AND DISPENSARY, Cardiff.—House-Surgeon. Salary, £100 per annum. Applications by June 12th.

GUEST HOSPITAL, Dudley.—Resident Medical Officer. Salary, £120 per annum. Applications by June 9th.

HALLSIDE, NEWTON, N.B.—Medical Officer for the Sick Society in connection with the Steel Company of Scotland's Works. Applications to Mr. Mc Farlane, 20, Hallside Cottages, Newton.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Resident Clinical Assistant. Applications by June 3rd.

KINGTON UNION.—Medical Officer. Salary, £30 per annum. Applications by June 5th.

LANCASTER INFIRMARY AND DISPENSARY.—House-Surgeon. Salary, £120 per annum. Applications by May 29th.

LIVERPOOL NORTHERN HOSPITAL.—Assistant House-Surgeon. Salary, £70 per annum. Applications by June 3rd.

MID AND SOUTH YELL AND FETLAR AND NORTH YELL.—Medical Officer. Salary, £70 per annum. Applications to Inspector of Poor, Mid Yell, Shetland.

NATIONAL HOSPITAL FOR THE DEFORMED, 234, Great Portland Street.—Surgeon. Applications by May 29th.

NEW ZEALAND.—Inspector of Lunatic Asylums. Salary, £800 per annum. Applications by June 20th.

PARISH OF ST. MARY, Islington.—Medical Officer for the Ninth District (St. Peter's West). Salary, £100 per annum. Applications by May 30th.

RATHKEALE UNION.—Medical Officer for Pallaskenry Dispensary District. Salary, £100 per annum, with £15 per annum as Medical Officer of Health, registration and vaccination fees. Election on June 8th.

RICCARTSTON ASYLUM, Paisley.—Assistant Resident Medical Officer. Salary, £60 per annum. Applications to R. Rowand, Inspector of Poor, Paisley, by June 5th.

ROYAL HANTS COUNTY HOSPITAL, Winchester.—House-Surgeon. Salary, £100 per annum. Applications by June 10th.

ROYAL PIMLICO DISPENSARY, 104, Buckingham Palace Road, S.W. Resident Medical Officer. Applications by June 5th.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL, St. George's Circus, S.E.—Clinical Assistant. Salary, £25 per annum. Applications by the 27th instant.

ST. PANCRAS AND NORTHERN DISPENSARY.—Physician-Accoucheur. Applications to the Committee at the Dispensary by June 1st.

TAVISTOCK UNION.—Medial Officer of Health for the Rural Sanitary District. A plications by June 9th.

THE INFIRMARY, Halifax.—Assistant House-Surgeon. Salary, £50 per annum. Applications to the Senior Physician of the Medical Staff by June 20th.

TOWCESTER UNION—Medical Officer for the Blisworth District. Salary, £50 per annum. Applications by the 29th instant.

TUNBRIDGE WELLS BENEFIT SOCIETIES' MEDICAL ASSOCIATION—Resident Medical Officer. Salary, £200 per annum. Applications by May 29th.

WEST BROMWICH DISTRICT HOSPITAL.—House-Surgeon. Salary, £80 per annum. Applications by June 6th.

WESTMINSTER HOSPITAL, Broad Sanctuary, S.W.—Junior House-Physician. Applications by June 1st.

YORK COUNTY HOSPITAL.—Honorary Physician. Applications by June 24th.

MEDICAL APPOINTMENTS.

BAILEY, William F., M.B. and C.M., appointed Assistant Resident Medical Officer to the Manchester Workhouse Hospital, Crumpsall.

COANE, J., L.R.C.P.E., appointed Medical Officer for Scotstown Dispensary District of the Monaghan Union, *vice* R. C. George, M.B.

FLYNN, E. F., L.R.C.S.I., appointed Junior House-Surgeon to the Sunderland Infirmary, *vice* C. H. Welford, M.B., resigned.

HACKMAN, L. K. H., L.R.C.P., appointed Medical Officer to the Provident Dispensary of the Royal Portsmouth, Portsea, and Gosport Hospital.

KEIR, W. J., L.R.C.P., appointed Medical Officer of Health to the Melksham Urban District.

MALET, Henry, M.B., appointed Physician to Out-Patients to the Wolverhampton and Staffordshire General Hospital.

MIVART, F. St. George, M.R.C.S., appointed Surgeon to the City Dispensary, 46, Watling Street, *vice* A. Newsholme, M.D.

NEWSHOLME, A., M.D., appointed Registrar and Chloroformist to the Evelina Hospital for Sick Children.

PHILLIPS, John, M.B., appointed Honorary Physician to the British Lying-in Hospital.

UNDERHILL, T. Edgar, M.B., F.R.C.S.Ed., appointed Honorary Surgeon to the Guest Hospital, Dudley, *vice* Alfred Jones, M.R.C.S., deceased.

VOISEY, C. B., M.R.C.S., L.S.A., appointed Assistant Resident Medical Officer to the Manchester Workhouse Hospital.

WHITEHOUSE, J., M.R.C.S., appointed Senior House-Surgeon to the Sunderland Infirmary.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., *which should be forwarded in stamps with the announcements.*

BIRTHS.

BROWN.—On May 10th, at the Willows, Tredegar, Monmouthshire, the wife of George Arthur Brown, M.R.C.S., of a daughter.

JULER.—On the 24th instant, at 77, Wimpole Street, Cavendish Square, the wife of Henry Juler, F.R.C.S., of a daughter.

THE LATE PROFESSOR ROLLESTON.—It is proposed to hold a meeting of the subscribers to the proposed memorial in honour of the late Professor Rolleston on Thursday, June 1st, in the Library of the Royal College of Physicians. This meeting will be for the purpose of deciding upon the nature of the memorial.

UNIVERSITY OF CAMBRIDGE.—The election of a Professor of Animal Morphology will take place on Wednesday, May 31st. This new professorship was founded by grace of the Senate on the 11th inst. The stipend of the professor is £300 per annum. The electors are the members of the Senate on the electoral roll. The Vice-Chancellor and Proctors will receive the votes from 12.15 to 1.15. It is understood that Mr. F. M. Balfour, M.A., F.R.S., Fellow of Trinity College, will be elected without opposition.

CONSIDERABLE excitement has been raised in Grand Rapids, Michigan, over the death of a lady from Battey's operation. The coroner's jury rendered a verdict to the effect that the deceased came to her death from the operation performed. There is talk of criminal prosecution; but the case will probably be dropped. The physicians claim that the operation was perfectly justifiable. They should publish a full report of the case in some medical journal.

OPEN SPACES IN SOUTH LONDON.—The parish churchyard of St. George-the-Martyr, Southwark, which has been planted and laid out as a public garden, has been opened by the rector, the Rev. Burman Cassin, and dedicated to the public. The churchyard overlooks the High Street, Borough, and is the centre of one of the most densely populated parts of the metropolis. Another churchyard, that attached to the parish church, Horsleydown, close to Tooley Street, has also been laid out in a similar manner, and will be opened to the public in the course of a few days. This garden is nearly twice the size of that of St. George's. The parish churchyard of Bermondsey is also undergoing a similar transformation, and will shortly be dedicated to the public for all time as a recreation ground. The Metropolitan Board of Works bears one-half the cost of converting these churchyards into gardens, the other half being borne by the parish in which they are situated.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—At the pass examination for the diploma of membership of the college, which was brought to a close on the 18th inst., there were ninety-six candidates examined, against ninety-three the corresponding period last year, when forty-six were rejected. Of the ninety-six just examined, forty-three having failed to acquit themselves to the satisfaction of the court of examiners, were referred to their professional studies for six months. Twelve were approved in surgery; and, when qualified in medicine, will be admitted members of the college. Of the candidates who possessed recognised medical licenses, there were the following: viz., "M.D.Toronto," one; "M.B.Aberdeen, Edinburgh, and Durham," of each one; "L.R.C.S.Edinburgh," one; "L.K.&Q.C.P.Ireland," two; and "L.S.A.," twenty. With this meeting, the examinations for membership for the present session were brought to a close.

GUILD OF ST. LUKE.—We understand that Mr. T. G. Vaudrey ha been appointed by the Guild of St. Luke medical missionary to th Central African Mission, under Bishop Steere; the guild, assisted b a lady, providing a salary of £200 a year. Mr. Vaudrey has been i practice at Handsworth, Birmingham, for several years, but is givin it up to devote himself to the medical care of the natives of Centra Africa. This is a piece of self-sacrifice deserving the highest praise Mr. Vaudrey has been a member of the guild since 1871, is still young healthy, abstemious, and unmarried, and, we would venture to pro phesy, has a brilliant and useful future before him.

ARTISANS' AND LABOURERS' DWELLINGS.—The Select Committe of the House of Commons upon the subject of artisans' and labourer dwellings have met in private for the consideration of their report The committee was appointed to consider the working of the Artisans and Labourers' Dwellings Act of 1879, with a view to suggesting how the expense, delay, and difficulty in carrying out these Acts may b reduced, and also to inquire into any causes which may have preventec the reconstruction of dwellings for the artisan classes and authorisec by Parliament. On account of the subject being a complex one, the committee were only able to prepare about the half of their report, bu they expect to complete it at their next meeting on Thursday, althougl it may not be presented to the House of Commons until after Whitsun tide. The committee will report in favour of relaxing those provision which require that the whole of the cleared areas should be devoted to cheap dwellings for artisans—a consideration involving enormous cost, and which has hitherto deterred action by public bodies, especially on the part of the Metropolitan Board of Works. It will probably be proposed that only from a half to two-thirds of the cleared areas should be built upon with artisans dwellings, the remaining half o third being left available for purposes more calculated to repay the cost.

HEALTH OF FOREIGN CITIES.—A table in the Registrar-General's last weekly return supplies the following facts and figures, which afford trustworthy indications of the recent health and sanitary condition of various foreign and colonial cities. According to the most recent official weekly returns, the annual death-rate averaged 30.0 in the three principal Indian cities, and was equal to 35.1 in Calcutta, 33.8 in Madras, and 25.4 in Bombay; cholera caused 76 deaths in Calcutta and 31 in Madras, while measles caused 30 deaths in Bombay, and small-pox 19 in Madras. The death-rate in Alexandria was equal to 30.0, and the deaths included 10 fatal cases of whooping-cough and 2 of small-pox. In twenty-three European cities, the death-rate averaged 29.0, and exceeded by no less than 9.3 the average rate prevailing last week in the twenty-eight large English towns. The death-rate in St. Petersburg was equal to 54.1, but showed a further decline from still higher rates in previous weeks; the 695 deaths included 41 from typhus and typhoid fevers, and 30 from scarlet fever. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate averaged 24.9; the highest rate being 25.9 in Copenhagen, where 4 fatal cases of measles were recorded; one death from small-pox occurred in Christiania. The death-rate in Paris further declined to 24.7; the 911 deaths included 51 from diphtheria and croup, 33 from typhoid fever, and 19 from small-pox. The death-rate in Brussels was 24.7, and 2 fatal cases of small-pox were recorded. In Geneva, the death-rate was so low as 14.3. In the three principal Dutch cities, the death-rate averaged 23.6, the highest rate being 25.4 in Rotterdam; measles caused 11 more deaths in Amsterdam. The Registrar-General's table includes returns from nine German and Austrian cities, in which the death-rate averaged no less than 30.0, and ranged from 24.8 and 25.4 in Berlin and Dresden, to 37.2 in Buda-Pesth and 36.7 in Prague. Small-pox caused 26 more deaths in Vienna and 8 in Buda-Pesth; diphtheria again showed fatal prevalence in Berlin and Dresden. The death-rate averaged 33.0 in the four Italian cities, and ranged from 27.1 in Turin, to 36.7 in Rome. Typhoid fever caused 10 deaths in Turin and 5 in Naples, and 18 fatal cases of measles were recorded in Rome. The annual death-rate in four of the largest American cities averaged 27.4, and ranged from 20.4 in Baltimore to 34.2 in New York. Scarlet fever and diphtheria again showed fatal prevalence in New York and Brooklyn, and typhoid fever caused 19 more deaths in Philadelphia.

BEQUESTS AND DONATIONS.—Mr. Charles Ford of Russell Square has bequeathed £1,000 to the Royal Medical Benevolent College, Epsom, and £500 each to the Middlesex Hospital, the Hospital for Consumption and Diseases of the Chest, the Cancer Hospital, King's College Hospital, University College Hospital, Queen Charlotte's Lying-in Hospital, and the Royal Free Hospital.—The Royal Hospital for Women and Children has received £1,000 under the will of Mr. Charles Pearce.—Mr. Robert H. C. Harrison has given £500 to St. George's Hospital, in addition to a subscription of £50 *per annum*.

OPERATION DAYS AT THE HOSPITALS.

MONDAY..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p. Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., Tu. F., 2; Eye, Tu. F., 9.15; Ear, M. Th., 2; Skin, Tu. Th., 1.30; Throat, M. Th., 1.45; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. T. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15 Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

FRIDAY.—Royal College of Surgeons of England, 4 P.M. Dr. Gerald Francis Yeo: On the Relations of Experimental Physiology to Practical Medicine.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

A FATAL CASE OF POISONING BY GERMAN ACONITINE.

DR. FERDINAND SPRINGMÜHL, M.A., related, in a lecture delivered before the Balloon Society of Great Britain, on the 5th instant, the following case of suicidal poisoning of an analytical chemist at Breslau, by eight grains of German (Merck's) aconitine.

The alkaloid was swallowed after dinner. Half an hour later, the first violent symptoms appeared. These were a burning sensation in the throat and mouth, which increased in intensity; intense pains in the stomach, which, in a few seconds, became so violent that the patient writhed shrieking in convulsions, and trying to strike the wall with his head. He was held with difficulty, and emulsive drinks were given to him. Very soon, he became incapable of swallowing, was seized with spasmodic coughing, and desire to vomit. In spite of emetics, no vomiting could be induced till an hour after the poison was taken, and then, with great exertion, a dark greenish fluid was ejected; but this afforded no relief to the abdominal pain, nor to the burning of the throat, which rendered swallowing and the administration of antidotes very difficult. Neither did the stomach-pump, used immediately (*sic*), give any relief; and, although exhaustion ensued after violent convulsions, the symptoms reappeared with renewed force, in spite of all the remedies applied. In three hours, the pains and convulsions attained such violence that death was expected every instant. In the fourth hour, after repeated injections of morphia, the patient seemed somewhat better. Previous to this, he intimated that his skin was greatly irritated (formication); this continued throughout the course of the intoxication; and he scratched his skin in a convulsive manner. He glared wildly, sometimes with a fixed stare. The convulsions were repeated at almost regular intervals, and the inclination to vomit remained, although vomiting did not continue after the second hour. At intervals of about forty minutes, the patient seemed to lose consciousness, but only for a few minutes; after which, the convulsions and other symptoms returned with undiminished violence. Three hours after the first appearance of symptoms, he became incapable of uttering intelligible words, but gave those about him to understand that he felt giddy, and, a little later, vision appeared to be lost. He threw himself about on the couch, and screamed and groaned frightfully. Exhaustion and apparent coma supervened, and then renewed attacks of the most violent description; next, a difficulty in breathing, and he appeared to be suffocating. At intervals, he was conscious; and, when asked where he felt pain, he made rapid motions to his head and stomach alternately. He wanted to drink, but could not swallow. The pulse and temperature fell considerably; and before death he became exhausted, unconscious, his body was bathed in cold perspiration, and he became deathly pallid. Although death from asphyxia was anticipated, he died in syncope, twelve hours after taking the poison.

On *post mortem* examination, the pupils were found dilated. The mucous membrane of the mouth was very pale. The brain was congested; the lungs congested. The cardiac valves were very flaccid. Inflammation of the stomach was apparent, and the mucous membrane was congested (*sic*). The liver and kidneys were congested. The alkaloid was found, by chemical analysis, in the contents of the stomach, but not in the urine of the deceased. It is not stated what means were resorted to for the detection of aconitine. It is stated that death occurred in spite of the application of every possible remedy. The nature of these is not mentioned, beyond the fact that emetics and demulcents were given, the stomach-pump applied either immediately or after the use of emetics, and that morphia was repeatedly injected. No mention is made of the use of digitalis or other physiological contrapoison.

So far as the printed report of Dr. Springmühl's lecture enables us to judge, the fatal symptoms resulting from the administration of eight grains of German aconitine did not differ greatly in character from those observed in the two previously reported fatal cases of aconitine poisoning. We refer to that of Dr. M., in 1880, in Holland, from probably one-sixteenth of a grain of French nitrate of aconitine; and the case of Percy John from an unknown dose—probably two grains—of English aconitine. Unfortunately in Dr. Springmühl's case, the state of the pupils and of the heart are not recorded, beyond it being stated that the pulse fell considerably; but whether in force, in frequency, or in both respects, is not mentioned. Dr. Springmühl properly draws attention to the dangers attending the administration of English for German aconitine—the safe doses of these substances differing greatly. So far as we know, no accident has occurred in this country from confounding the two substances. A few accidents have, however, occurred on the continent in consequence of the substitution of crystallised French or English aconitine for the German preparation. Dr. Springmühl says "we do not know how many cases of death may have been caused by such mistakes" (the administration of English for German aconitine), "for it but seldom comes to light when a doctor accidentally poisons his client. Thousands, without doubt, found their deaths in this manner." We believe this to be altogether a misstatement as regards the members of our profession.

NEW METHOD OF EXAMINING THE LEAVES OF VEGETABLES.

MR. A. W. BLYTH, the author of the recent book on *Foods*, claims to have discovered an easy means of rendering leaves, such as the tea-leaf, so transparent as to permit the demonstration of their structure under the microscope, thus affording an extra process for the detection of adulterations. A portion of the leaf to be examined is sandwiched between two ordinary microscopical cover-slips, and held in place by means of a weight on the upper glass. The enclosed leaf is then oxidised by aid of a strongly alkaline solution of permanganate of potash; this salt attacks the colouring matters, first of the contents of the cell, and then of the cell-wall. When the leaf has been sufficiently oxidised, it is removed, washed in water, and treated with a little strong hydrochloric acid, which at once clears up the oxide of manganese. A tea-leaf thus prepared looks like a translucent white membrane, and the microscope shows the details of its histology. Another method is to place the leaf between two circles of glass as just described, weight the upper one with a silver coin, and burn the prepared leaf on a layer of platinum. The ash cannot be disarranged, and so a complete skeleton of siliceous ash remains—"the skeleton ash" of the author.

PRURITUS VULVÆ.

A MEMBER writes: If "H. H. O." will swab the parts twice weekly with solution of nitrate of silver (3ss to 3j), and give his patient a lotion for ordinary constant use containing two or three drachms of liquor carbonis detergens to a pint of water, he will find her much benefited. A pill of reduced iron and strychnine twice or thrice daily (such as Kirby's Formula No. 85) will help the diabetic state.

TRANSACTIONS OF THE INTERNATIONAL MEDICAL CONGRESS.

SIR,—In the report of my address at the International Medical Congress on the Etiology of Enteric Fever, given in the second volume of the *Transactions*, on page 536, line 14, *for* "Surgeon-General Jones, C.B." *read* "Surgeon-General Innes, C.B.". I would be much obliged if each member will make this correction in his own copy in ink.—Yours faithfully, JOHN MARTIN, Surgeon A.M.D.

2, Audley Place, Cork, May 22nd, 1882.

Has the Duration of Human Life in England Increased during the last Thirty Years?

SIR,—Mr. Biddle's last letter is written under a complete misapprehension as to what I have said on the subject. For this, on referring to my first letter, I find I am not responsible, as I carefully stated what I meant; and that is something very different from what Mr. Biddle asserts that I said. Mr. Biddle asks, after a quotation from my first letter, which he has not understood, "Could any better proof be given that more people live to old age, than the fact that more people die at old age?" He evidently thinks that this statement is a fair inference from what I have said. And yet not only is this not the case, but the inference is precisely the reverse, viz., that the probability is that fewer people in proportion to the population attain advanced life now than formerly. My statement was that, "out of every 1,000 male persons living" at certain ages above 35 years, a larger percentage died in 1879 than died at the same ages on the average of the preceding twenty-eight years. But this has evidently nothing to do with the question of what proportion of those born attain those ages. As Mr. Biddle puts his question, indeed, it has no bearing on the matter at all, and I assume him to have omitted the words "relatively to the population"; for, of course, more people must live to old age now than thirty years ago, because there are in England about 7,000,000 more people now than then. There is, therefore, nothing "extraordinary" in my language; and I am quite consistent in saying what I have just stated, and also that fewer persons proportionately to the population attain advanced life now than formerly.

Since my last letter to you, and since Mr. Biddle's letter, I have taken the trouble to calculate out the ages of the population at death in the five years 1838-42, and in the five years 1875-9. The average age at death is got by dividing the total number of years lived by the number of deaths. The following are the results. The average age at death in 1838-42 in England was 28.97 years. In 1875-9, it had risen to 31.32 nearly. These numbers, it will be observed, are that it was incompatible with an increase in the average duration of life in 1875-9. But an arithmetical illustration showed me that the result is possible. The average at death of those who die under 35 years of age is represented by a fraction, whose numerator is the total number of years lived by those persons, and whose denominator is the total number of persons who die under that age. Similarly, the average age at death of those who die over 35 years of age is represented by a fraction, of which the numerator is the total number of years lived by those persons, and the denominator is the total number of persons who die over that age. Lastly, the average age at death of the whole community may be represented by a fraction, whose numerator is the total number of years lived by all the persons who die in a given time, and the denominator is the total number of persons who die during the time inquired into. Further, the numerator of the last fraction must be equal to the sum of the numerators of the other two, and its denominator equal to the sum of the other two denominators. Now, it is possible to construct two sets of fractions of two each, of which the first two, taken as a whole, shall be less than the second two, taken as a whole, and yet each part of the former shall be greater than each part of the latter. In the fractions $\frac{70+190}{9+3}$ and $\frac{61+311}{9+5}$, the first two, as a whole, $\frac{260}{12}$ is less than the second two $\frac{372}{14}$; and yet $\frac{70}{9}$ is greater than $\frac{61}{9}$, and $\frac{190}{3}$ is greater than $\frac{311}{5}$.

If $\frac{260}{12}$ represented the average age at death in 1875-9, and $\frac{372}{14}$ that of 1838-42; and if $\frac{70}{9}$ represented the average age of those who died under 35 years, and $\frac{190}{3}$ the average age of those who died over 35 years, in 1875-9, while $\frac{61}{9}$ and $\frac{311}{5}$ represented the corresponding facts for 1838-42, we should see how the anomaly could be possible of a diminished total death-rate coinciding with a decrease in the length of life, both of those who die before 35 years of age, and of those who die over that age.

I contend that the figures I have quoted prove beyond doubt that life over 35 years of age is now shorter than it was a generation ago, and, therefore, that the expectation of life is less now for the useful ages than it was then. The falling off, also, must be much greater than appears on the surface, since many thousands of persons must be living to-day who have been saved by operations and other modes of treatment unknown a generation ago. As to Mr. Biddle's remarks about insurance companies and their experience, I happen to know that this discussion has had much interest for some of them; and I have been told by the officials of one company that never, till they read these letters, could they understand how it was that, though the death-rate in the whole country was diminishing, their own death-rate was if anything greater, or, at least, no less. I have, I need hardly say, no wish to minimise the vast, the incalculable, services which sanitation and the advances in medicine and surgery have effected for the people of England. But for these we should have been much worse off than we are at present; but it is sad to think—and I may say it would be a great happiness to me if it could be proved that my figures are wrong—how much these great services have been neutralised by counteracting causes, and, unless I am mistaken, by worry.—I am, yours faithfully,

A. RABAGLIATI.

Convalescent Homes for Scarlet Fever.

SIR,—I will not repeat the arguments I brought forward in my former letter on this subject, but I will only reiterate the question which those arguments implied: What is the intended use of the scarlet fever convalescent homes? From conversation with various medical men, I gather that the object of these institutions is as unintelligible to others as to myself. No attempt to answer this question is made by Dr. Dudfield in his criticism of my letter, which appeared in the JOURNAL of May 6th, in reply to his statement that "the wants of the poorer classes in respect of hospital accommodation for fever cases are already fairly well provided for." I would point out that there are in London between three hundred and four hundred beds available for the reception of scarlet fever, and that this accommodation is certainly inadequate; but, whether adequate or inadequate, this accommodation is, as a fact, very often not made use of by the poor, for whom it is theoretically available. No system of notification can be effectual in checking the spread of disease unless the sanitary officer be armed with powers which he does not possess, and which are not likely to be conferred upon him. My suggestion was, that scarlet fever hospitals, of which the poor would be willing to avail themselves, should be established; and, while the present legal conditions persist, I cannot see that the suggestion is discredited by a statement such as that of Dr. Dudfield, of what would be rendered possible and advisable if an ideal sanitary law were in existence.—I remain, sir, yours faithfully,

F. N. HUME.

Kensington, May 1882.

The "Junior" Medical Mutual Association.

THE objects of this Association are to bring together into mutual union the "junior" medical practitioners who are acting either as *locum tenens* or assistants; or who have recently commenced practice as principals or partners.

It is proposed: 1. To establish a general agency with a central office in London, where a register shall be kept of vacancies for assistants or *locum tenens*, etc.; and where business interviews can be arranged between principals and those seeking employment; and to afford opportunities for arbitrations, negotiations for the sale and purchase of practices, at a smaller rate than is now paid to existing agents; and to do away with the scandals and annoyances frequently arising therefrom.

2. To afford convenience to its members for corresponding, interviewing, and giving access to the professional periodicals, directories, etc.; and to arrange meetings for the discussion of topics of general professional interest which may occur from time to time.

3. To establish a benefit fund (similar to that of other benevolent societies), to afford relief to those members who are incapacitated through severe illness or accident; and to assist the widows and orphans of deceased members, by grants of money, to be determined by a committee appointed for the purpose.

4. To combine together to improve the status of the junior practitioner, by discussions of subjects bearing upon questions of medical ethics; and to endeavour to make the voice of its members heard on all questions of medical reform.

Rules.—A. The Association will be governed by a Committee consisting of twelve members, who shall be selected from those members for the time resident in London.

B. The officers shall be a president, treasurer, and secretary, who shall be *ex officio* members of the Committee; the secretary to act as medical agent.

C. The Committee shall meet monthly. Five members shall constitute a quorum.

D. A quarterly general meeting to take place in London; and annual meetings arranged in the larger provincial towns.

E. An annual subscription of one guinea in advance entitles to entrance of membership.

Communications may be addressed to Dr. Gerald de Courcy Morris, 102, Clapham Road, S.W.

*** In relation to the above, we have received the following comment from an experienced general practitioner. "It is difficult to know whether we are expected to take the above proposal seriously or not. If any medical agent could be found to act as secretary for the purposes named under headings 2, 3, and 4, it goes without saying that his medical agency business would be of the smallest, or would speedily become so. If any junior practitioners think they can improve their status by discussions on medical ethics, or by any means which separate them from the general body of the profession, they will find they are mistaken. If any Association consisting largely (as this profound one would) of provincial members would be content to be governed by a committee consisting entirely of London members, it would act contrary to the experience of all similar bodies. Whatever scandals and annoyances may now arise from the system of medical agents selling practices, etc., it is certain that these would not be less, but more, if their business were interfered with by responsibilities arising from the organisation of benefit funds, holding medical meetings, discussing medical ethics, and promoting medical reform. We shall be curious to see who will take office as president, treasurer, or secretary of this latest addition to our medical societies."

Gall-stones.

SIR,—In answer to Dr. R. Shingleton-Smith's inquiries in the JOURNAL of May 13th, page 726, regarding the tests applied to the gall-stones voided by a child three months old, as reported by me in your issue of April 22nd, page 575, I write to say that the following were used. 1. They readily floated in water. 2. To a solution of nitric acid applied on a porcelain dish, no reaction took place. 3. Pettenkofer's test for bile-acids gave the characteristic purple. 4. They were soluble in chloroform and boiling alcohol, slightly soluble in ether. 5. They were insoluble in liquor potassæ. 6. A solution made in boiling alcohol and allowed to evaporate slowly, presented under the microscope oil globules and special crystals with a radiating arrangement; the latter were not dissolved by acetic, nitric, or hydrochloric acid, but disappeared when sulphuric acid was added. 7. A chloroform solution, when allowed to evaporate, showed under the microscope circular crystals.

From the above tests it will be seen that cholesterine did not form the bulk of calculi, as at first supposed. The biliary origin is confirmed by Pettenkoffer's test. The absence of the play of colours when nitric acid was added may be accounted for by the length of time allowed to elapse before the experiments were made; the colouring matter of the bile may have undergone decomposition. The above experiments were confirmed by my friend Dr. Walter J. Kilner.—I am, yours, etc.,

A. DUNBAR WALKER.

56, Ladbroke Grove Road, W.

Binaural Stethoscopes.

SIR,—I should be glad if some of your readers would favour me with their opinion as to the best kind of binaural stethoscope. The ordinary binaural is so large and cumbrous, that it is impossible to carry it about with comfort, not to mention the risk of sitting on it and breaking it. I believe there is an instrument made by Matthews about half the size of the ordinary binaural; and, if any of your readers know it, I should be glad of their opinion and advice.—I am, sir, faithfully yours,

M.K.Q.C.P.

"Particulars if Required."

SIR,—Will you do me the favour to inquire how far a medical or general practitioner can be compelled by law, or by the judge of a small debts court—say, county court—to render a bill of particulars or items to his patient or his adviser? Can he be compelled to render an account such as a butcher or baker—that is, dates and medicines supplied; *e.g.*, "April 1st, Visit, mixture, six powders, or twelve pills?" I have been required to give a bill of particulars, which I have done thus: "Medical attendance, etc.; 1881, January, April, July," and so on. Beyond this, I think it is degrading, and I refuse to do more. At the same time, I have offered to show my day-book and ledger, comparing them together.

I think the professional status is at a sufficiently low ebb from penny clubs and twopenny dispensaries; and I have no wish to do one tittle towards the rendering it more so.—I remain, yours very truly,

AN OLD BOY.

*** Detailed particulars of any plaintiff's claim in a county court can be ordered, upon a summons being taken out for such by the defendant within three days after a copy of the plaint note has been served on him.

ORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

Tricycles for Country Practice.

e have received several letters on this subject, of which the exigencies of space ompel us to give only the substance.

Mr. J. P. Oates (Malvern Wells) thinks that the tricycle has made less pro- gress among country practitioners than the bicycle would have done if it had been dopted. The bicycle, however, has disadvantages which render it unfit for the se of the medical man. The tricycle, therefore, became the adopted machine, nd certainly very great improvements have been made in its construction; yet its ntroduction is remarkably slow, considering the advantage which may be got out f it. This is because the machine has not arrived at that degree of perfection of hich it is susceptible, and great improvements have still to be made before it can neet the requirements of "the country doctor" as regards simplicity of construc- ion, weight, "go", and price.

Mr. F. H. Thompson (Cleobury Mortimer), who uses a single "Devon" tri- ycle, writes that his practice lies in a very hilly part of Shropshire, and he is bliged to keep a horse. It is very tedious pushing the tricycle up the hills; and n wet and windy weather is very heavy going. It would suit where the country s slightly undulating or flat, or where the hills are few. He prefers to use his at ight, when the roads are dry and good. He considers that, instead of being a ource of saving, it has been one of loss. He advises not to buy a machine with- ut previous careful trial in a hilly country and in all weathers. In a hilly district, ne horse must be kept; and if any country practitioner did want a tricycle, he nust get a double one, so that his groom could go out with him.

Mr. P. Gordon Bell (Etwall) writes that his experience of the Salvo tricycle is ery favourable. He has had one in constant use during the past seven months n every kind of road and country lane, and is perfectly satisfied with its perform- nce. It will turn in its own length, and has very conveniently placed foot-rest nd lamp-holders, as well as a thoroughly reliable brake. He generally takes the ricycle on night-journeys, as it is always ready, and he can be fully a mile on the oad before the horse could be got out. He rides up all the hills in his district, vith the exception of three, which are very long and steepest at the upper part; ut the machine can be pushed up as easily as a perambulator. His average speed s seven miles an hour, but this can be exceeded when speed is required. In eneral, however, anyone who has to make long journeys should be content with n average speed of seven miles. When the roads are at their worst, with sticky ud, he can only go comfortably about six miles in an hour. The tricycle is capital or exercise, is easily learned, perfectly safe, and will take the place of a second orse. A saddle is by far the best to ride on.

Dr. J. B. Emmerson writes that a tricycle is practically useless during the time in hich the work of a country surgeon is the hardest. Even on very good roads, a ery little mud makes the propulsion very hard work. In the summer, however, a ricycle affords most agreeable exercise. At night, for a short journey of two or hree miles, the distance may be done on one, in the time required to rouse a sleepy room and to have a horse harnessed; but in the daytime, the practitioner will robably have some patients before whom he would not care to appear dusty and erspiring. If he wish to ride in comfort, he must wear knickerbockers. The ricycle is an useful adjunct to the stable; but probably the millennium, of the bolition of horse-keeping, will not yet be reached.

Equestrian says that his practice lies in a country where badly kept by-roads re the rule, and good turnpike roads the exception; and, in addition, one never neets with more than a quarter of a mile of level road, and most of the hills are ery steep. Much as he would like to exchange his horse for a tricycle, he can ardly think it would be a profitable transaction, judging from the frequent dis- mountings, voluntary and involuntary, of bicyclists when travelling through the district. He would also like to hear how tricycles answer when the ground is hickly covered with snow.

A Scotch Doctor asks respecting tricycles: 1. Are they available for hilly oads? 2. Can they be used on roads macadamised, but not kept in very good epair, *i.e.*, side roads? 3. How does, say, six inches of snow affect them? 4. Is possible for a fairly average man to do something like fifteen or twenty miles aily on an average?

Iron Horse asks if some who have tried the "Otto" safety bicycle would give heir experience of it, and of tricycles in general; particularly stating if they re- uire much muscular effort to drive them.

M.D. writes that his tricycle is a "special Salvo", and he thinks it a very good, s well as safe, machine; but for those living in very hilly districts, he would ecommend the "omnicycle", as it has a special contrivance whereby the power an be greatly increased at will, the speed being, of course, at the same time iminished.

Mr. W. W. Hardwicke (Rotherham) fails to see that tricycles can come into ery general use for purposes of visiting, on account of their inadaptability in wet eather. As regards hills, a great deal depends upon the kind of machine used. Ie has been the possessor of three different makes, and lives in a town hilly in self and surrounded by hills. He uses his present machine, the "Humber", rincipally for amusement and touring; but were it not that the streets of the own are paved considerably with granite sets, he might do all his work in the own in fine weather on his tricycle in very much less time than he could walk, and ith greater ease. He uses it a good deal now for country work. A difficulty, in manufacturing town especially, is leaving the tricycle standing at a door on the oad-side, in consequence of the almost irresistible desire on the part of most eople to either jump into the saddle, or to pull the machine about. This may be ue to its present novelty. The "Humber" is the nearest approach to the bicycle e knows, having the advantage of nearly the same speed, but without the danger hich necessarily accompanies the latter. It has, instead of one large front wheel ver which the rider sits, two front wheels between which the rider sits, across a back bone" connected in front with the axle and behind with a small hind wheel. Ie can go twelve to fourteen miles an hour on a level good road; but in a hilly ountry he cannot do more than eight to nine miles an hour with comfort. Mr. ardwicke considers the "Humber" the best machine for a light weight and eed; for a heavy man, he would recommend the "Coventry Rotary". The Cheylesmore" is a good hill-climber, well made, but wants some practice before ie rider will be master of it. It is well suited for a lady, but it cannot do the ace of the "Humber" on the level. The "Cheylesmore" has a back steering- heel. In a high wind, when riding with a companion on a "Cheylesmore", the "Cheylesmore" faces a high wind better than the "Humber"; it also rides long hills better. An useful addition to the tricycle, especially on a long journey, is a waterproof cape and a pair of legs of the same material, which wrap up into a very small compass. He finds the best dress, for a long journey, to consist of tightly cut trowsers, not too tight to feel irksome about the knee, and of good length, with strap and buckle behind, flannel shirt, and coat lined with flannel, which must button up the front. It is advisable to carry a waistcoat if the rider intend returning after sunset. The advantages of a tricycle over a horse are immense. When a tricyclist meets with a bit of country he may not care to ride, his machine may be put into the van of a train at the nearest railway station at a cost of about 1s. 6d. every twenty miles. Every tricyclist who intends his machine for use should have a "double driver". "Single drivers" are only fit for children. "Sociables", *i.e.*, tricycles having two seats side by side, would probably be useful for medical men, as the manservant could be left in charge at each stoppage. It is recorded that, last Good Friday, a gentleman and lady rode from London to Ipswich, a distance of eighty miles, on a "Sociable", returning next day, the riding time being 9½ hours between the hours of 9 A.M. and 9 P.M. each day.

Another Country Doctor, in answer to "Hilly Country", says that he cannot go half a mile in any direction without a hill; and in such country he has traversed the whole of the 5,000 miles, as mentioned in his previous letter. Of course, some of the hills cannot be mounted without pushing the tricycle, but ordinary short hills can be got over without alighting. It is this hill-riding that requires a hard month's practice, and none but first class machines should be purchased.

Vacuus Viator writes that his district is certainly a hilly one, which he omitted to state in his former communications. Many of the hills are short—probably 300 or 400 yards long—with gradients of probably 1 in 40, 50, or 60. These he has repeatedly mounted without getting out of the tricycle, and they become easier by practice. Others are more gradual, but slight ascents of four or five miles; and this distance he has often overcome, making an up-hill journey of five or six miles continuously without getting out. At a few of the very worst hills he alights, and pushes the machine before him, but this is from choice rather than necessity. The "patent hill-climbing gear", that can be attached to any tricycle, as supplied by Grout of Watson Street, Stoke Newington, London, for £3 3s., will do away with the labour and difficulty ever here, and solve the question of increased taxes upon carriages by having none.

T. H. M. lives in a very uneven country; he does not know of a stretch of level road a mile long anywhere within a radius of eight miles from his house. The country is also very damp, and the roads consequently heavy. Last winter, he hired a tricycle; and now he finds it such a convenience that he would not be without one on any account. He can do six or eight Irish miles on it without the least fatigue. When he comes to a very steep or long hill, he gets off and pushes it before him, which is quite easy. His ordinary rate of travelling is between five and six Irish miles an hour. One of the greatest benefits from its use is the exercise. He has lately bought a new machine from Messrs. Curson and Son of Dublin. It is called the "Imperial Club Tricycle", and is made in Coventry. He can drive it uphill much better than the one he formerly had, and it is so accurately balanced that the front steering wheel hardly touches the ground, and makes it practically a bicycle. The price is £19 10s., with ball bearings and bright parts nickeled.

Salvo asks if any who have tried the use of tricycles in town practice can give him the results of their experience; and also state which is the best tricycle for the purpose—swift and easy to work.

Viator writes: Assuming that what is needed is a means of locomotion which shall be at once promptly available, expeditious, comfortable, and economical, we may inquire how far a good tricycle complies with these conditions. If put away cleaned and oiled, it has the great advantage of being ready for use at the shortest notice without extraneous help. Expeditious it can hardly be called, as an average pace of about seven miles an hour is all that can be obtained, taking into consideration wind, mud, dust, loose roads, stones, hills, and other vicissitudes. Comfortable it can scarcely claim to be, seeing that it has to be propelled by the rider's unaided exertions, whether he be tired or fresh, indisposed or well, and bearing in mind that he is unprotected from the weather, whilst his sitting accommodation is limited to a portion only of a small seat. No means of locomotion can, however, compete with the tricycle on the score of economy. The original outlay is moderate, and the cost of the necessary repairs inconsiderable. Whilst occasional hills may be surmounted in traversing a fairly level country, the physical effort necessary for overcoming decidedly steep hills is so considerable that it cannot be frequently repeated without much fatigue. The conclusion which suggests itself, that whilst the tricycle is not calculated to supersede other vehicles, it may be used advantageously to supplement them in suitable localities. Those who desire to present themselves before their patients calm, unsoiled, and unheated, cannot depend solely upon a means of locomotion propelled by their own exertions.

Miners' Nystagmus.

Sir,—I answer to the inquiries of a "Junior Member" concerning the etiology and treatment of miners' nystagmus, I beg to refer him to a paper on the subject written by me, which appeared in the British Medical Journal for January 3rd, 1874. Also, he will find a further notice of the subject in a paper published by me in *Brain* for July 1880; and, if he desires still more details, a paper on Miners' Nystagmus will be read for me by the secretary of one of our London medical societies during the coming month of July.—I am, sir, yours truly,

R. P. Oglesby.

New Pocket-Case.

Sir,—We notice, in your issue of the 13th instant, a description of the new pocket-case introduced by Messrs. Arnold and Sons. Will you kindly allow us to state that we prepared a case of a precisely similar character some years ago for Mr. Henry Greenway of Plymouth; and, further, we subsequently modified the size of it to 6 × 4½ at his request. It fitted the breast-pocket without any bulging of the coat, and was impervious to perspiration or other moisture. We believe one of these cases is already in use by one of our leading metropolitan surgeons.—We are, sir, yours faithfully,

S. Maw, Son, and Thompson.

7 to 12, Aldersgate Street, London, E.C., May 24th, 1882.

Sir,—I am desirous of eliciting the opinion of the profession whether, in a case of puerperal mania breaking out with increased violence and duration in two consecutive childbeds, it would be justifiable to procure early abortion in case pregnancy should occur again. The patient is a delicate but healthy person, who will probably remain the same all her life.—I am, sir, yours faithfully,

May 13th, 1882. Augustus Hess, M.D.

Royal College of Surgeons of England.

At the pass examination for the diploma of membership, which was commenced on the 12th instant, there were 97 candidates, to whom the following questions on Surgical Anatomy and the Principles and Practice of Surgery, Medicine, and Midwifery and the Diseases of Women, were submitted. A. *Surgical Anatomy and Surgery* (candidates were required to answer at least four questions, including one of the first two). 1. Mention the different methods in use for Excision of the entire Tongue; and name, in order, the parts divided in each. 2. Describe the course, relations, and distribution of the Internal Pudic Artery, and state under what circumstances the Trunk of this Vessel may be wounded. 3. What measures may become necessary in a case of Retention of Urine consequent on a severe Contusion of the Perinæum. 4. State the usual causes of Senile Gangrene. Describe its symptoms and course, and give the treatment you would adopt in different cases 5. What is meant by Collapse? Give its usual causes, the symptoms of its various stages, and the treatment which is indicated in different circumstances. 6. State fully how you would investigate a case of Deafness with the object of determining in what part of the Auditory Apparatus its cause is seated.—B. *Medicine* (for candidates who had not passed any medical examination. Three questions were required to be answered, including No. 4.) 1. Describe the Symptoms and Course of a typical case of Scarlatina. How is the disease propagated? Enumerate its chief varieties, complications, and sequelæ; and give an outline of its treatment. 2. Give the physical signs of the following conditions—*a*. Left Pleuritic Effusion; *b*. Double Mitral Disease; *c*. Cancer of the Liver; *d*. Ascites. 3. Briefly describe the varieties of Chronic Bright's Disease, with reference to their pathology, leading symptoms, and treatment. 4. Give the action, uses, and doses of the following drugs: Sulphur, Tincture of Perchloride of Iron, Bicarbonate of Soda, Bromide of Potassium, Sulphate of Zinc, Morphia, Compound Kino Powder, Elaterium, Strychnia, Tincture of Hyoscyamus, Calabar Bean.—C. *Midwifery and Diseases of Women* (three questions to be answered). 1. Describe the Mechanism of Labour with the vertex presenting, and the occiput directed backward and to the right. 2. What are the pathological conditions with which Puerperal Eclampsia is commonly associated? How would you treat it? and what points would guide you in forming a prognosis? 3. Mention the conditions which call for Turning by the Feet. How would you perform this operation? 4. In what way do Fibroid Tumours of the Uterus endanger life? For what conditions may such tumours be mistaken? and how would you make a diagnosis?

The Law of Lunacy.

Sir,—Allow me to draw the attention of all who are interested in the treatment of lunatics, whether officially or otherwise, to the present condition of the law as regards medical certificates. I understand that the Government, when it can find time, purposes attending to this important subject, with a view to improving the present state of the law; and, in doing so, it is to be hoped that medical jurisprudence as regards lunacy will be brought within the intelligible range of plain practical common sense, and emancipated from the subtle niceties of learned and scientific theories. As the law now stands, no medical certificate is valid, unless the subscriber can state a fact or facts indicating insanity, actually and literally observed by himself.

Sixteen years ago, a poor woman in this neighbourhood was committed and retained in the county asylum, after a lengthened correspondence. Her lunacy was patent to all in her immediate neighbourhood; for she not only attempted to cut her throat, but, that failing, she jumped into a well for suicidal purposes. These facts were stated in my certificate, as facts communicated by others. The only fact observed by myself, after a careful examination, was thus worded: "Inability to give a reason for twice attempting suicide." And let me remark that a set formal examination is very apt to fail in eliminating indications of insanity, much less in inducing overt acts, in many of the complications of lunacy, especially in cases of monomania. The plain common sense of the authorities at the asylum passed this certificate, and the lunatic was admitted for protection. In due time, the case was brought before the Lunacy Commissioners, who were not satisfied with my certificate, so far as regarded the statement of facts observed by myself, notwithstanding my argument that my stating that the patient was unable (not that she refused) to account for her actions, was stating a fact which indicated loss of reasoning powers, and consequently a corroboration of more obvious facts. They ordered the discharge of the lunatic, subject to the production of a fresh certificate, more in accordance with their interpretation of the law. They did not dispute the fact of lunacy, and, had I been obstinate, the poor lunatic would have been discharged from the asylum, in all probability to enter the grave of a suicide. Had I been an eye-witness to her jumping into the well, no kind of difficulty would have arisen, although that would not have altered the character of the transaction one whit. A compromise was effected by the procuration of a second certificate, in which my idea contained in the concentrated expression of the first certificate, was expanded by a circumlocutory periphrasis. This happily passed muster, and the welfare of the patient was secured.

Not long after this occurrence, I was sent for to see a man who had made an attempt to drown himself, but was rescued. I could not detect any symptom of insanity, although, from hearsay evidence, I had no doubt of it. After what had recently taken place here, no certificate was attempted in order to place him in an asylum. I ordered the relieving officer to place a constant guard over him. This was evaded, and in a short time he succeeded in drowning himself. His life might have been saved, and possibly he might have been cured, had he received the protection of an asylum; but the subtlety of the law, as interpreted by the Commissioners, was an effectual bar to what a common sense view of the case might have allowed. I reported all the particulars of this case to the Commissioners in my next quarterly report, but I never heard anything more about it.

Lately, a man was brought to Ludlow for my examination, and, if possible, my certificate, in order to commit him to an asylum, where he had been committed about three years ago. From the written evidence of the clergyman of the village whence he was brought, together with the oral evidence of a police constable, there was no reasonable doubt about his being a dangerous lunatic. He was cunning in fence in his replies to questions; and, when I asked him why he had threatened his wife's life, he said he did not remember that he had, but that, if he had, he humbly begged her pardon. Notwithstanding that I gave a decided opinion before the magistrates who had met to decide upon the case, that this was an answer indicating insanity, and that, from the other evidence adduced, I had no doubt about his being a dangerous lunatic, he was dismissed with a caution. The unfortunate village has now a dangerous lunatic wandering at large by legal authority; and, should any misadventure arise in consequence of this decision, it will be manifestly owing to a deficiency in the law of lunacy.

I respectfully suggest that the law of lunacy be so altered as regards medical certificates, that, in any case brought before a magistrate for committal to an asylum, where facts communicated by other than medical evidence are so palpable, that there cannot be any reasonable doubt about lunacy, then, in the event of the medical examiner failing to detect any overt act of insanity, or other clear indication of it, his opinion from hearsay evidence shall be as valid as if he himself had detected and eliminated some indication or overt act of insanity. Let this principle be conceded, then the detailed application of it will not be difficult. All that I am now urging was urged by me in a medical journal at the time of the occurrence of the first cases now related, but my judgment was overruled, and my opinion slighted. I would further urge that the medical witness should be entitled to a fee, whether an alleged lunatic be committed or not, as the same time is required, and perhaps more, and the same skilful experience brought to bear, in the one case as in the other.

In my third case, the guardians of the Ludlow Union refused to act upon the written recommendation of the magistrates to grant me a fee, although the case took up a considerable quantity of my time, and my evidence was necessary in order to enable the magistrates to decide upon the case, which was one beyond the range of my "contract" duties to the union.

In conclusion, I beg leave to offer a few brief remarks on hearsay evidence. Almost all cases in judicial proceedings are propounded on hearsay evidence. The superintendents of asylums admit patients by means of it. The Commissioners of Lunacy themselves resort to it in deciding upon the retention or dismissal of a patient in an asylum; and, in the well remembered case of the notorious William Palmer, it is not unreasonable to suppose that the jury were influenced in their verdict by the opinion of that eminent surgeon, Sir Benjamin Brodie, which was given on hearsay evidence.—I am, sir, yours faithfully,

Henry Meymott, Medical Officer, Ludlow Union.

COMMUNICATIONS, LETTERS, etc., have been received from:—

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ABSTRACT REPORT
UPON
HYPERPYREXIA IN ACUTE RHEUMATISM.

By a Committee of the Clinical Society:
Drs. SOUTHEY, WEBER, ORD, F. TAYLOR, and COUPLAND.*

Presented to the Society May 26th, 1882.

After a few introductory remarks, pointing out the necessity for limiting the present report to an analysis of cases, sixty-seven in number, collected from various sources and mostly unpublished, the report states that the cases occurred mainly in the ten years ending 1879, and that the following division was made in analysing them.

Class I.—Cases of undoubted hyperpyrexia, with an elevation of temperature to 106°, and above. Under this class, 47 cases are included.

Class II.—Cases showing a marked tendency to high range of temperature—viz., 104°, continued and persistent. Under this class, 17 cases are included.

Class III.—Cases with the symptoms well marked, characterising usually the hyperpyrexial cases, but without marked excess in temperature. Under this class, 3 cases are included.

The Committee have investigated these cases: 1. By comparison with ordinary cases of acute rheumatism, in order to learn if cases which exhibit hyperpyrexia present any other clinical differences; 2. By a more precise analysis of cases of hyperpyrexia and their treatment; and, lastly, they bring forward the general conclusions to which this inquiry led them.

Comparison of Hyperpyrexial Cases with those of Acute Rheumatism generally.—The first point to be considered is, whether, apart from the phenomenon of hyperpyrexia or of symptoms directly related to it, these cases exhibited any notable features of difference from the generality of cases of rheumatic fever; whether, that is, they differed in any way as to their etiology, cause, complication, or issue from the latter. A statistical comparison has, therefore, been made by utilising the returns of 1300 cases of acute and subacute rheumatism contained in the registrars' reports of the Middlesex Hospital, for the years corresponding to those in which the hyperpyrexial cases mainly occurred. This number may be considered to afford a sufficiently wide basis of comparison; it includes 22 cases of hyperpyrexia.

The comparison was made under the following heads: *(a)* Time of occurrence—Season of year; *(b)* Sex; *(c)* Age; *(d)* Occupation; *(e)* Existence of family tendency to rheumatism; *(f)* The number of the attack for which the patient came under treatment; *(g)* Complications; *(h)* Mortality.

Time of Occurrence.—Of 65 cases of rheumatic hyperpyrexia, occurring between the years 1869 to 1880, no fewer than 53 cases, or 81.5 per cent., were in the five years 1873 to 1877. During the same period, the annual number of rheumatic fever cases in the Middlesex Hospital was above the estimated average. Hence, apparently, excess in hyperpyrexia corresponded with excess in prevalence of rheumatism, although by no means in proportion. It is also shown that, during the decade 1870-79, the greatest prevalence of rheumatism was in the autumn and winter months—of hyperpyrexia, in the spring and summer.

Sex.—Whilst the proportion of males to females in the series of 1300 case of rheumatic fever was fairly equal, in the cases of hyperpyrexia there was a marked preponderance of males—viz., 64.2 per cent. of the total number collected.

Age.—There is less departure from the general rule with regard to age, for in each series the number was largest in the third decade of life.

Occupation.—No special occupation apparently predisposes to hyperpyrexia, there being in the 67 cases no fewer than thirty-three different occupations represented—some sedentary, others active.

Family History.—There does not appear to be an essential hereditary tendency to rheumatism in those in whom hyperpyrexia appears.

Number of Attack.—So far as the records go, the large majority of the hyperpyrexial cases were instances of primary attack of rheumatism—viz., 67 per cent. In the general series of rheumatic fever, there were 52 per cent. first attacks. It is also shown that hyperpyrexia was not present in any attack after the third.

* The Committee was appointed in October 1879, to "investigate the causes, consequences, and treatment of hyperpyrexia in rheumatic fever and other acute febrile diseases."

Complications.—Nine out of the 67 cases were uncomplicated, and 6 of these were fatal. Pericarditis was far more frequent, and endocarditis only a little less frequent, than in rheumatic fever generally. Pleurisy and pneumonia were rather frequent complications of the hyperpyrexial cases. It is pointed out that, according to the statistics of the Middlesex Hospital, the number of cases of rheumatic pericarditis has notably diminished of late years; and, if this be found to be the general experience, it is a most interesting fact, when the similar decrease in cases of hyperpyrexia is also borne in mind.

Mortality.—Almost one-half of the total number of hyperpyrexial cases died—viz., 33. Complications were more frequent in the cases of recovery than in the fatal cases. The death-rate of acute rheumatism (exclusive of cases of hyperpyrexia) was only 1.8 per cent.

The second part of the report deals with the subject of hyperpyrexia in acute rheumatism, as illustrated in the series of 67 cases under consideration. No special determining influence of the hyperpyrexia is to be found in the previous history or habits of the patients. Chorea and scarlet fever were very unfrequent antecedents, and alcoholic intemperance was by no means a marked feature. The next point considered is, whether the attack of acute rheumatism, in which the phenomenon arose, showed any striking departure from the usual type in other respects; and the views currently held, that the onset of this symptom is often preceded by the abrupt subsidence of articular pain, the cessation of sweating, and the appearance of nervous symptoms, were tested by an analysis of these cases.

Joint-Affection.—In 22 cases, or in about one-third, the records dealt with gave no information upon the question whether the articular pains did or did not subside before the onset of the hyperpyrexia. Of the remainder—45 cases—the notes pointed to the persistence of pains, either continued or variable, in no fewer than 20 cases. In 25 cases, the pains subsided before the onset of the hyperpyrexia, to return in 14 of the cases after this condition had passed away.

Condition of Skin.—The notes before us give no information as to the cutaneous condition during the continuance of hyperpyrexia in 14 out of the 67 cases. Of the remainder, sweating is noted in 40 cases, with sudamina in 22; in one case, the skin is noted as "moist", and in only 12 is it distinctly stated to be "dry". These results are not, therefore, in accordance with the general impression that a dry unperspiring skin is an invariable concomitant of rheumatic hyperpyrexia—such a condition of skin being present in not much more than one-fourth of the cases.

Nervous Symptoms.—These are very numerous and varied, although it may not be that the present series of cases has added many to the list of those already known and described. Those that are noticed in this series include, according to their frequency, the following: delirium (in all phases), insomnia, restlessness, muscular tremors, involuntary discharges, subsultus tendinum, coma (a late symptom), headache, tremor of tongue, deafness, tonic spasms (in two cases, of tetaniform character), risus sardonicus, convulsions, floccitation, tinnitus aurium, giddiness, drowsiness, vomiting, silliness of manner, fearfulness, hesitating speech, chorea, and hyperæsthesia. Many such symptoms—such as those indicated merely by alteration or strangeness in demeanour—may easily have escaped record; and the report deals particularly with the subject of delirium in relation to the hyperpyrexia. Three groups of cases in which delirium was noted may be established, according as the delirium preceded the onset of hyperpyrexia (24 cases), accompanied it (19), or followed upon it (10 cases); and each of these groups is analysed as to the date of appearance and duration of the delirium, the intensity of the associated hyperpyrexia, and the result of the case. In this abstract, it may suffice to point out that, of the cases in which the delirium preceded the hyperpyrexia, 19 died, and 5 recovered; of those in which both symptoms arose together, 6 died, and 13 recovered; and of those where delirium appeared after the hyperpyrexia, 3 died, and 7 recovered. Delirium does not appear to mark the undue severity of the disease; for, out of 57 cases, there were 31 deaths and 26 recoveries; in 8 cases in which it was absent, the highest temperature was 107°, and there were 6 recoveries to 2 deaths. Delirium and death, however, marked some cases where the temperature never reached extreme levels.

The Hyperpyrexia.—Bearing in mind the definition of the condition and the subdivision of the cases given at the outset, the present portion of the report is simply a study of thermometry. It will be seen how varied the hyperpyrexia is, not only in its intensity and duration, but in the manner and time of its appearance; and how difficult it is to discover the laws which govern its course. Thermometric curves show at a glance the capriciousness which is its characteristic feature. In some cases, an abnormally high temperature, existing for days or hours, almost suddenly leaps to higher levels; in others, a more gradual ascent takes place; in yet others, there is a far more rapid rise from a com-

paratively mild and moderate pyrexia. Are we, then, in a position to assert that there is such marked difference in the mode of onset of the hyperpyrexia and in its course as to enable a subdivision into types of hyperpyrexia to be established? To answer this question, it is necessary to critically examine the temperature-curves of a large number of cases. A study of the temperature-charts in 47 cases enables us to discriminate at least five different types of the condition as regards the mode of onset of the hyperpyrexia and the course taken by it. These subdivisions are, of necessity, somewhat arbitrary, and intermediate forms are met with, which it is difficult to classify. However, when marked examples are taken, the division appears to have some reasonable basis in fact.

Type A.—Temperature rises gradually for a few days, and then suddenly culminates in a maximum by an exacerbation of several degrees. Of this there are eleven examples.

Type B.—Temperature, after maintaining for one or more days a moderate level, suddenly rises to excessive heights. Twelve cases fall under this category, which present also transitional curves between this and the preceding type.

Type C.—The pyrexia has a more continuous course, not unlike that of typhoid fever, without violent or excessive exacerbations. Three cases fall under this class.

Type D.—Temperature rises gradually to a maximum, and then is permanently reduced by the cold bath or wet pack. Three cases conform to this type.

Type E.—In some cases of severe character, the tendency to rise to hyperpyrexial heights is very pronounced, so that, to control it, cold baths have to be frequently repeated. Eight cases are included.

There remain nine cases, which cannot be classed under any of these types, and no attempt is made to analyse the very irregular course of temperature exhibited by them.

The *intensity* of the hyperpyrexia observed in these cases can only be approximately estimated by reference to the maximum temperature attained, and the duration of the hyperpyrexial tendency; since the necessity of treatment by the adoption of antipyretic measures checks the rising temperature, and the thermometer does not mark the limit it might have attained. In several cases, such measures were at once effectual; in many others, even repeated applications had no influence in averting death. The following table shows at a glance the influence on mortality exerted by the degree of temperature attained, as well as the effect of bathing, to which further reference is made under the head of treatment.

Maximum Temperature.	No. of Cases.	Recovered.			Died.		
		Bathed.	Not Bathed.	Total.	Bathed.	Not Bathed.	Total.
111.1 to 112°	3	0	0	0	1	2	3
110.1 to 111°	1	0	0	0	1	0	1
109.1 to 110°	8	1	0	1	6	1	7
108.1 to 109°	7	1	0	1	5	1	6
107.1 to 108°	9	4	0	4	4	1	5
106.1 to 107°	11	8	0	8	3	0	3
105.1 to 106°	18	7	6	13	2	3	5
104.1 to 105°	8	2	4	6	0	2	2
103.1 to 104°	1	1	0	1	0	0	0
102.1 to 103°	1	0	0	0	0	1	1
Total	67	24	10	34	22	11	33

The occurrence of some fatal cases where the temperature was not excessive, shows that death is not invariably due to the hyperpyrexia alone. The fatal cases all terminated in or before the sixth week of the rheumatic attack. No deaths took place in the first week; and 20 out of the 33 occurred in the second and third weeks. Naturally, in cases of recovery, convalescence was prolonged; so that only 5 out of the 34 recoveries were well within the first six weeks, the rest at various periods up to the twelfth.

An attempt has been made, by comparison of the cases, to ascertain whether any definite relation does or does not exist between the maximum temperature attained, the date of onset of, and duration of, the hyperpyrexia. And great variety was found to exist; for, although in some of the severest cases the outburst of high temperature took place early in the disease, in others its appearance was much delayed. As to duration, although, as might have been expected, the cases marked by the highest degree of hyperpyrexia reached a fatal termination in a few hours, some were prolonged for days, whilst some of milder type were of brief duration. The prolongation of the hyperpyrexial period in severe cases was doubtless often due to the influence of treatment.

Post mortem appearances are recorded in 29 out of the 33 fatal cases. In 5 of these, there were no manifest visceral changes; and as to lesions of recent inflammatory kind, there were meningitis (limited) in 2 cases, pericarditis in 9, endocarditis in 8, pneumonia in 2, pleurisy in 4; and, in several cases, more than one of these lesions occurred in the same subject; so that the proportion of cases in which recent visceral inflammations were absent was very large.

Treatment of Hyperpyrexia.—Amongst the various methods employed for the reduction of temperature by the external application of cold, that of the bath is the one most generally employed. Forty-six of the cases were so treated, in some obviously as a last resort. Hence the mortality is high—viz., 22 to 24 recoveries, the non-bathed giving 11 deaths to 10 recoveries. However, of the latter which recovered, none exceeded a maximum of 106°; and of the former as many as 15, or five-eighths of the total, were cases in which the temperature reached above that level. Again, in 6 out of the 11 fatal cases that were not bathed, the maximum was below 106°, and in only 3 out of the 22 fatal bathed cases. The average maximum temperature in these fatal cases was 107° in the non-bathed, 108.2° in the bathed. Hence it appears that, when the hyperpyrexia is of great severity, this treatment is often of no avail, but that it turns the scale in the direction of recovery when the temperature has not attained that high level; and, further, in many cases recourse is had to it too late. No doubt, differences exist in various cases with respect to the most suitable time for having recourse to the treatment, and the committee emphasise the injunctions laid down by others, that indications for its employment must be sought in the occurrence of the prodromal signs above mentioned, together with a rising temperature. There is much to show that the treatment not only reduces temperature, but allays delirium, reduces the frequency of and gives strength to the pulse, and induces sleep. The fact, however, that a certain number of cases in which the temperature does not reach 106° succumb if not treated by baths, and that only one of the 22 fatal cases which had been so treated had a maximum temperature below 105°, points to the advisability of having recourse to the bath when the temperature reaches 105°. There seems little doubt that if this were systematically done, the mortality in rheumatic hyperpyrexia would be materially diminished. An analysis is given in the report of the 46 cases submitted to this treatment with respect to the number of baths given, the temperature of the body when given, the temperature of the bath, and the extent to which the body-temperature is reduced by the bath and the time taken for it to reach the minimum. It is not possible to give these facts in an abstract; but it is sufficient to say that the results are most variable, and fully bear out the conclusion that it is impossible to predicate what amount of reduction in temperature may be expected from a bath of any given temperature or duration.

Conclusions.—1. Cases of hyperpyrexia in acute rheumatism appear to prevail at certain periods, having in the last decade been remarkably numerous in the years 1873-76, whereas latterly they appear to have been much less frequent. Such excess corresponds in a certain degree, but not in actual proportion, to a similar excessive prevalence in acute rheumatism generally. The largest number of cases of hyperpyrexia arose in the spring and summer months, whereas rheumatism is relatively more common in the autumn and winter.

2. Whilst very little difference obtains between the two sexes in regard to proclivity to rheumatism, the proportion of males to females exhibiting hyperpyrexial manifestations is 1.8 to 1. But as to age no such marked difference exists; nor as to occupation.

3. The subjects of hyperpyrexia show no undue rheumatic tendency as regards family predisposition.

4. The cases of hyperpyrexia preponderate in first attacks of rheumatic fever.

5. Hyperpyrexia is not necessarily accompanied by any visceral complications, but may itself be fatal. The complications with which it is most frequently associated are pericarditis and pneumonia.

6. The mortality of these cases is very considerable, hyperpyrexia being one of the chief causes of death in acute rheumatism.

7. Although present in a certain number of cases, and these of much value from their prodromal significance, neither the abrupt disappearance of articular affection, nor the similarly abrupt cessation of sweating, is an invariable antecedent of the hyperpyrexial outburst.

8. The supervention of delirium or other symptom of nervous disturbance is very frequently either antecedent to or simultaneous with the hyperpyrexia.

9. There is considerable variability in the date of the occurrence and in the duration of the hyperpyrexial condition, ranging, according to our observations at least, from the fourth to the thirtieth day.

10. When death results, it has occurred mostly in the second and third weeks of the rheumatic attack.

11. The *post mortem* examinations in a certain proportion elicited o distinct visceral lesions; and when present, the lesions were not ecessarily extensive.

12. The prompt and early application of cold to the surface is a ıost valuable mode of treatment of hyperpyrexia. The chances of its fficacy are greater the earlier it is had recourse to. The temperature annot safely be allowed to rise above 105°. Failing the most certain ıeasure—viz., the cold bath—cold may be applied in various other ·ays: by the application of ice, by cold affusions, ice-bags, wet sheets, ıd iced injections.

The Committee have not thought it advisable in the present report to ıter into theoretical considerations; and, limiting the study of hyper-yrexia to the records of 67 cases of acute rheumatism, have deemed it ıemature to enter into physiological reasonings until the same condi-ons have been reviewed in other acute febrile diseases.

TRACHELORAPHY.

By EDWARD JOHN TILT, M.D.,
Past President of the Obstetrical Society of London.

· is difficult to exaggerate what gynæcology owes to American surgeons. ıeir fertility of conception, boldness of execution, and mechanical dex-rity is only equalled by the marvellous surgical endurance of American ɔmen. There is, however, something too sensational in their mode introducing surgical novelties. The new operation is introduced ith a grand flourish of trumpets; it is supported by an overwhelming ·ray of figures, although detailed cases be few. Nothing is said about ıfficulties, failures or deaths; then a book is written, and the dazzled Bri-sher is told to go and do likewise; and, if he do not soon do so, it is tributed to insular conservatism, and even to national jealousy. Soon, ɔwever, intelligent American practitioners, unknown to fame, publish ıses of failure of the new operation to fulfil its promises, and of the :aths it has caused; and by degrees the operation is ignored, dis-·edited, or abused.

This is the plain statement of what has occurred with regard to Dr. ıarion Sims's advocacy of the slitting up the cervix on both sides, up ı its union with the body of the womb, as a cure for the generality of :erine diseases. It is in the memory of most men how this strange ssertion was supported by the 500 operations that Dr. Marion Sims ·rformed in a short time in one hospital, and by the 200 or 300 omen operated on by his pupils, in the same limited space of time, in ıe same city. It is well known that Dr. M. Sims sought to impress on ; the value of his operation, in the work he did us the honour to pub-sh in London, and that some enthusiastic young gynæcologists for a me followed his teaching.

A few years passed, and even American gynæcologists discovered, that ıere was great exaggeration in the promised value of this extensive itting of the cervix; that it was highly objectionable in many cases; and r. Emmet found himself occupied in sewing up the wombs he had helped divide. Loss of faith in his teacher was, however, soon followed by :e conviction in Dr. Emmet's mind that he himself had made several ·eat discoveries. He discovered that inflammation and ulceration of the ·rvix was nothing but the rim of the cervical canal, everted by cer-cal laceration, and that all troublesome cases of enlarged cervix were ɔthing else but cervical lacerations, injudiciously patched up by nature ith cicatricial tissue; and, lastly, he discovered the dangerous proper-·s of this cicatricial tissue, and the urgency of cutting it out, to restore omen to health.

This new teaching was supported by the usual dazzling statistics—7 hundreds of cases of his own, and of his enthusiastic pupils. Dr. mmet embodied his teaching in several chapters of a very valuable ork, and his school is disappointed that we British gynæcologists ave not fallen down upon our knees before this new teaching. This too bad. Dr. Marion Sims's operation was vouched for in the same ay, and was supported by a numerous array of successful cases; ɔw his countrymen own that the operation is well-nigh valueless; ıd yet they wonder at our being cautious, after having been once tten. That we should point to Dr. Emmet's having been obliged to w up the wombs divided by Dr. M. Sims, is called "a facetious gument" by Dr. Playfair, but I doubt how far those who had to pay r both operations saw any fun in the matter. It seems to me rather grim kind of practical joke, fraught with salutary meaning. That is should have occurred to distinguished American gynæcologists, aches us to well weigh any new departure of theirs, and to wait till has been ascertained that the new operation fulfils its promises, and ıes not tell too heavily on the bills of mortality. Dr. Emmet's book ·peared in 1879, so I think we ought to feel indebted to Dr. William Playfair for having lately called on the Obstetrical Society of London to discuss tracheloraphy. His paper seems to have been partly written to soothe the feelings of our esteemed American brethren, but this was scarcely necessary, as Dr. H. Bennet's paper on the same subject led to its full discussion, at the London meeting of the International Medical Congress.

Dr. Playfair, in his remarks on Dr. Emmet's work, raises no objections to his questionable pathology; he considers tracheloraphy to be the greatest improvement ever introduced into practice, but he thinks the operation only justifiable when laceration has produced ectropion and other signs of uterine disease. Dr. Playfair owns to having "seen several cases of most extensive laceration, in which the surfaces were quite cicatrised; and that, to subject such cases to a difficult and complicated operation, would be a most glaring evil." This is what might have been expected from so sound a practitioner, but the American practice seems to be to operate in all such cases, for fear of future mischief. When Dr. Emmet kindly gave me his book, he asked me to tell him frankly what I thought of his new operation, and I apologise to him for having so long delayed to do so. Now is a fitting time, however, and I propose to give my estimate of tracheloraphy under the following heads.

1. The frequency and import of laceration of the cervix.
2. Cervical ulceration, nothing but cervical ectropion.
3. The part ascribed to cicatricial tissue in uterine pathology.
4. Tracheloraphy, as the only way to cure certain diseases of the cervix.

1. *Frequency of Cervical Lacerations.*—Gynæcologists have been attaching more and more importance to laceration of the cervix, by labour or by abortion, instrumental and otherwise; and Dr. Emmet's assertion, that half the uterine ailments of those who have borne children were caused by laceration, confirms what I have stated in my *Hand-book of Uterine Therapeutics*. As Dr. H. Bennet maintains, laceration is often due to unhealthy uterine tissues being unable to bear the strain of parturition; and it may be taken as settled, that unhealed cervical laceration plays a very important part in the etiology of uterine disease, both acute and chronic. There is, doubtless, some exaggeration in the belief subsequently expressed by Dr. Emmet that women cannot be confined without the womb being lacerated, for this would be to admit its being utterly unfit for the work it was intended to do; neither should I have alluded to this, had not his disciples already settled, that every healed rent requires operation.

2. *Cervical Ulceration is nothing but Cervical Ectropion.*—Dr. Emmet denies the existence of inflammation in uterine pathology. Happy man, he has never seen an acute case of non-puerperal uterine inflammation; he has never had to watch cases of acute internal metritis, than which I have seen none so painful and so difficult to treat; and he does not believe in the possibility of chronic uterine inflammation. Uterine ulceration is said to be a mere illusion; it is only the more or less extensive eversion of the torn mouth of the womb. Approximate the torn fragments by a proper instrument, and the ulceration disappears. Carefully pare the lips, unite their opposing surfaces by sutures, so as to hide and rectify this ectropion, and you cure your patient. I admit this; but, if we look at ectropion in the eye, we find that the everted portion of the conjunctiva becomes inflamed, and inflames the rest of the conjunctiva, which inflammation the surgeon cures by such an operation as may prevent the eversion of the eyelid. In like manner, any considerable everted portion of the cervical mouth is not only unnaturally pressed and rubbed, as Dr. Emmet suggests, but it is offended by the acid fluids of the vagina, because it is accustomed to be lubricated by the alkaline secretions of the womb. As in the eye, so in the womb; inflammation passes from the ectropion to the rest of the mucous membrane, and may be cured by the cure of ectropion. In explaining his operation, Dr. Emmet attaches no importance to the deep drainage of long-congested tissues by that complete division of the cervical walls, which imply considerable loss, first of blood and then of serum, but I consider it a most important part of the treatment. It will be thus seen that I admit that Dr. Emmet has taught us the etiology of *some* cases of uterine ulceration, and added to our means of curing them; but his theory leaves unexplained the uterine ulceration, often observed in married women who have had neither child nor miscarriage, and in single women. There is no difference between the extensive exfoliation of cervical epithelium in these women, and that resulting from cervical ectropion. There is no difference in the symptoms of endocervicitis in these three classes of women, for it would be a miserable caricature of what has been taught by Dr. H. Bennet and myself, to make us suppose that a rim of cervical exfoliation determines serious uterine symptoms and permanent damage of health. Uterine ulceration is to be taken as the sign of the whole of the lining membrane of the cervix, and sometimes

of the body, being in the same condition, and of its submucous tissues being in a congestive, or otherwise unhealthy condition. These cases of endocervicitis in virgins, of which Dr. Priestley lately spoke as most difficult to cure, are quite out of the pale of Dr. Emmet's theory of uterine disease. It cannot be seriously proposed to cure them and the married women who have never conceived, by tracheloraphy, but any good gynæcologist can cure such cases by much milder treatment, therefore I am in a position to say that the same treatment is sufficient to cure most of the cases of uterine ulceration that really originate in laceration and in cervical ectropion, without recurring to a serious operation, that may lead to dangerous loss of blood and to pelvic inflammation. Instead of performing tracheloraphy so frequently as it is proposed in America, I should like to see it reserved for a certain number of well defined cases. To do otherwise would be to lay the operation open to the charge of its being "*une débauche chirurgicale*", as it is called on the other side of the Channel.

3. *Cicatricial Tissue.*—Those who have written on general pathology, never tire of admiring the marvellous manner in which organs and tissues repair their damaged structure; they bid us remark that cicatricial tissue is always analogous to the nature of the repaired tissue, bones being mended by bone, tendons by tendon, the cervix uteri by fibro-cellular tissue. We gynæcologists know that this cicatricial tissue can scarcely be distinguished from the original cervical tissue, and that it admirably does its work, softening at the appointed time, to let women be delivered with safety to mother and child. Nevertheless, Dr. Emmet and his followers look on this cicatricial tissue as something most dangerous to health. No matter how well laceration may have been repaired by nature—no matter how quiet may be the condition of the tissues—"if the womb be enlarged, or if there be neuralgia", an operation is necessary, says Dr. Emmet; but his pupils affirm that an operation is necessary whenever traces of laceration can be detected in an otherwise sound womb. They say it is best to remove cicatricial tissue, to prevent the possibility of future mischief, and the development of epithelioma.

No doubt, the presence of too much cicatricial tissue in a womb damaged by labour is to be taken into account in the etiology of long-standing cases of cervical enlargement; but this is not their only cause, as Dr. Emmet seems to imply by alluding to none other. The cervix is not unfrequently found greatly and uniformly enlarged, very hard, sometimes with an angry rim of ulceration dipping into the cervix, and a more or less troublesome set of uterine symptoms, in single women, and in unmarried women who have never conceived. I never did cut into so hard a cervix as when, some years ago, I had to re-establish a cervical canal in a lady aged 25. The cervical tissue in that case would have done famously for cicatricial tissue, for it screeched under the knife. Menstruation had been regular till marriage at twenty-three; and, most unwisely, the honeymoon was spent in a riding tour. Riding soon caused great pelvic pain, but it was persisted in nevertheless, and brought on a permanent state of uterine congestion, heat, and tenderness, gradually checked the menstrual flow, and ultimately resulted in the hardness of tissue I have described. In sterile women, as in this case, I have seen similar hardness of tissue caused by what I call subacute or chronic inflammation; but in others the hardness has come on of itself, no one can tell how or why. These cases are described as hypertrophy or hyperplasia; I call them cacoplastic, because all I know about them is, that the cervical tissues are unhealthy, and that they lead to cervicitis, and to a miserable state of health. It is not unfair to suppose, that tracheloraphy is now being performed in similar cases in America; and, if so, the operation must be advocated on other grounds than laceration.

It is a very serious matter to be asked by our American friends to adopt tracheloraphy as the usual mode of treatment in cases that are very troublesome, but susceptible of being cured without the slightest risk. Dr. Emmet does not warn the reader, that his operation may be followed by very untoward accidents; but one of his pupils gives us an idea of the very serious nature of these accidents. Dr. Pallen (BRITISH MEDICAL JOURNAL, May 1881) says: "Sometimes we cut very large vessels; and, when they are found ramifying in the dense hard cicatricial tissue, the bleeding goes on until the edges are firmly approximated by the silver wires. If this cicatricial tissue be not all cut away, it may interfere with the healing entirely, or may retract after the process of healing has commenced, to set up a secondary hæmorrhage—three such accidents happening within a period of forty days of each other, in May and June 1880: the first in the service of Dr. Emmet, at the Woman's Hospital of New York; the third in the same institution, in the service of Dr. Lee; and the second in a private patient of my own, where, on the sixth day after the operation, the nurse, in facilitating an evacuation of the rectum, stretched and re-opened the union, which was followed by such profuse bleeding as to endanger the life of the lady in question. The hæmorrhage was only checked after all of the sutures were removed, the uterus emptied of clots, and nine new and deeper wires placed. Fortunately, her life was saved, and the operation succeeded." Fortunately indeed! And it is also fortunate that we thus get a glimpse of the dangers attending an operation we are asked to perform, if the womb be enlarged, and if there be neuralgia.

4. *Tracheloraphy the only Means of Cure.*—This is Dr. Playfair's argument in the paper he lately read. He has not been able to cure cases of enlarged cacoplastic cervix with ulcerative ectropion which often tell disastrously on women; so he tried tracheloraphy, and has found it to succeed admirably in about twenty cases. As Dr. Playfair mentions having tried all sorts of remedies before resorting to this operation, the first point to ascertain is, what he really did try in such cases. In the only case reported in his paper, he mentions having swabbed the body of the womb with nitric acid to abate flooding, but the only other topic mentioned as having been used is carbolic acid, and, of course, it was not to be expected that he could do much with it in such a case. The question is pertinent; for, in 1869, Dr. Playfair, in some papers which appeared in the BRITISH MEDICAL JOURNAL, mentions that, having extensively tried carbolic acid in cases of chronic uterine catarrh with cervical erosion, he was so well satisfied with its action in such cases, that he "has practically come to limit himself to the use of that alone". Dr. Playfair may have modified his treatment during the last ten years; but it would be really interesting to know what other topical agents he did try in the only case he gave, besides his solution of carbolic acid in glycerine and water, which cured everything ten years ago. I cannot accept tracheloraphy as a *sine quâ non* of treatment in the very severe cases under discussion, because I have long been in the habit of curing cacoplastic hardness of the cervix, with or without endocervicitis, in the following way, which I can only give briefly, referring those who may want fuller details to the fourth edition of my *Handbook of Uterine Therapeutics.*

I begin by making an intracervical incision, right and left, with Sims's knife, the incisions being at least an inch long, and about a third of an inch deep at the mouth of the womb; and I seldom interfere with the bleeding, for I want to thoroughly disgorge tissues that have been congested for years. Three days afterwards, if I find that portion of the cervix projecting at the bottom of a large cylindrical speculum to be covered by sound mucous membrane, I rub it well with the solid nitrate of silver, so as to remove the epithelium from about as much of it as could be covered by a shilling, and I freely apply potassa fusa cum calce to this spot on the following day. The morning after this little operation, I apply to the same spot a large tampon well laden with glycerine, and I repeat this every morning, so long as it causes a copious discharge of serum. Ten days after the application of the caustic, I freely swab the whole cervix with tincture of iodine, repeating this every third or fourth day for a month or six weeks; and I then suspend all active surgical treatment, relying on injections and treatment, medical and hygienic. When my patients return to me from the country, at the end of from four to six months, I often find them cured—that is, the womb is much softer and smaller, looking healthy, and without signs of endocervicitis. If, instead of being cured, the cervix is only improved, I repeat the successive operations as before. During the course of a long practice, it has repeatedly occurred to me to see no more of a patient, after my first round of this treatment; in that case, my well known modesty has always made me believe that my patient had gone over to some of my distinguished *confrères;* I have, however, been sometimes agreeably surprised to see them return, after five or eight years, for some other ailment, and to learn then, that they had been radically cured of all uterine disease. It is unnecessary for me to state that Dr. H. Bennet would endorse all I have said on the treatment of the disease in question by potassa fusa cum calce. In the discussion which followed the reading of Dr. Playfair's paper, Dr. Matthews Duncan strongly objected to tracheloraphy, because he cured his cases by "the good old plan"—potassa caustica. Dr. Heywood Smith made a similar statement; and a staunch opponent of caustic treatment, Dr. Greenhalgh, has owned to me that, when placed in the larger field of practice of St. Bartholomew's, he had found out the great value of potassa fusa in the cases under consideration. It will seem strange in America, where the knife is the exclusive object of worship, to find that men of note still pin their faith to caustic in the treatment of chronic cervical disease, but so it is; and, with regard to the assertion that caustic only cures disease by mutilating the cervix and by hardening its tissues, I have answered this at considerable length in the third edition of my Handbook, and my statements have never been contradicted. I have still to define the cases to which I think tracheloraphy should be limited; but I must leave this for a concluding paper.

ESERINE AND PILOCARPINE IN GLAUCOMA, AND ESERINE IN OCULAR NEURALGIA.

By SIMEON SNELL, L.R.C.P., M.R.C.S.,

phthalmic Surgeon to the Sheffield General Infirmary, and to the School for the Blind.

Eserine in Glaucoma.—The importance of estimating aright the ıe, or otherwise, of any remedy in this terrible malady is so great, : no apology is needed for the following practical remarks and tion of cases. I have for several years made use of eserine in the ıtment of glaucoma; and much has been written on the subject by ıthalmologists in all parts.

ıs to the value, in certain cases of acute glaucoma, of eserine, there be little doubt.* Several such have been recorded. It is, however, icult to judge beforehand as to the precise case that will benefit by drug. I apprehend, therefore, that, in this acute affection, its ɔloyment will be limited to those cases where, either from unwilling- s on the part of the patient to submit to iridectomy, or other reason, immediate performance of the operation is forbidden. Experience ɔhes the importance of not placing too strong reliance in the efficiency the drug to the fatal postponement of the operation; and it seems ne particularly important to urge this, as those, not seeing much of -diseases, may be tempted, observing the very satisfactory results ɔasionally recorded, to resort to the use of eserine when operative asures should have been considered.

The following cases illustrate the good resulting from the employ- nt of eserine.

Case I.—W. R., aged 49, applied at the Sheffield General Infirmary January 24th. It appeared that on the evening of the day but one ɔviously (thirty-six hours), he had suddenly experienced severe pain the left eye, extending into the forehead and temple, with very marked ninution of sight. When seen, he was still suffering acute pain. The nea was "facetted"-looking, and the refractive media turbid. Tension $+T_2$. He could see little more than shadows. His condition was un- stakably that of acute glaucoma. For, about three weeks previously, had noticed "colours" round a flame, and thought his sight was not good as formerly. He was taken into the operating theatre, with the ject of performing iridectomy; but, I believe in consequence of his clining to remain as an in-patient, it was not done; and he was owed to go home, with a one per cent. solution of eserine to be ɔpped into the eye four times daily. Three days later, he appeared th a cheerful face, stating that the intense pain subsided the same ght that he commenced the instillation of the drops, and that vision d returned. He could now read Jäger 1; Tension, $T\eta$. February l. Vision was $=\frac{20}{XL}$, the eye still being under the influence of eserine. bruary 10th. He was allowed to discontinue the drops. February th. His condition was quite satisfactory.

It should be added that, three or four months before the onset of is glaucomatous attack, he had been struck over the eyeball with a ge piece of metal; the case may possibly, therefore, be considered traumatic".

The result in the foregoing case is similar to what has happened fore in my own experience, and in that of others; and some, at all ents, would seem to have received permanent benefit.

In chronic glaucoma, the effect of eserine is more uncertain and less neficial than in the class of case to which I have here just referred, d one will be very often disappointed in its use. On the other hand, e cases which I record further on show that it not uncommonly is value, in some in material visual improvement, and in others in ɔparent arrest of the progressive character of the disease. I have ɔticed, also, an enlargement of the field of vision in a case other- ise benefited by its use. Here, also, there seems to me no very definite ıide as to the cases it is likely to benefit, beyond that it appears essen- ıl that its myotic effect be well produced; but it does not, on the her hand, improve anything like the number of cases in which this dication is fulfilled.

Case II.—E. H., aged 53, was admitted an out-patient, at the Shef- ɛld General Infirmary, August 15th, 1879. The right eye commenced fail in the previous January. There was no pain. His sight was much orse lately. Iridesence had existed three or four weeks. When seen, ɛ read Jäger 10. Tension $= +T\,2$. There was cupping of the discs. In the left eye, there were merely perception of light and marked cupping of the disc. Eserine drops were ordered. On August 26th, he read Jäger 2; tension was reduced. On September 16th, he read a good deal of Jäger No. 1. On October 14th, the drops were omitted. On the 28th, eserine was again ordered; he read Jäger 4. On November 5th, he read Jäger 2; tension was noted as normal; the drops were omitted. On the 25th, he read Jäger 2, easily. Several months later, his condition was equally good.

Case III.—Mary E. S., aged 39, widow, was admitted as an out-patient at the Infirmary on September 26th, 1879. Inflammatory attacks commenced in the right eye, which was now blind, two years ago. The left eye began in a similar manner, somewhat later. At the time of her coming to the Infirmary, the tension of the left eye was increased $(+T\,1?)$; sight was impaired, though the exact visual acuity was not recorded. She had complained of pain at times, and had observed "coloured rings". The right eye possessed merely perception of light, and was occasionally painful. No operation on either eye was performed. On November 14th, eserine was prescribed. The vision in the left eye had become more affected (Jäger 16). The drops were prescribed at first for both eyes; but, in consequence of the pain in the head which they produced, their use was restricted afterwards to the left, then to the right, and lastly to the left again. The improvement of vision in the left eye is thus shown. On November 18th, she read Jäger 18; on November 21st, Jäger 4; on December 6th, Jäger No. 1; on March 26th, 1880, Jäger 2. Tension was normal. At this date, the eserine was entirely discontinued. On April 9th and July 9th, her condition was the same. On August 16th, she read Jäger 2 easily, or a newspaper. Twelve months later, she again came under my care for recurrence of pain, etc., in the right eye, which eserine had previously relieved. The condition of the left eye remained quite satisfactory.

The cases just related are evidence of the value of eserine in chronic glaucoma. They are recorded, not only because the results are excellent, but because the length of interval subsequently was enough to testify to the lasting effect. In both cases, moreover, I have reason to believe that, had any relapse occurred, the patients would have presented themselves at my clinique. I can recall several other cases, in which benefit has also accrued. I am aware that other observers have questioned the utility of this drug at all in chronic glaucoma; and, whilst my experience would lead me to differ from such an opinion, it compels me to admit that, in very many cases, its use is unattended with any benefit whatever. Here, however, operative procedures—sclerotomy or iridectomy—do not produce such happy and brilliant results, as the latter operation so frequently does in acute glaucoma; and a little delay for a trial of this drug is not fraught with such terrible risks as in cases belonging to the acute class.

The following is an example, though not with such good visual results as the preceding ones, of the efficacy of the drug in permanently arresting the glaucomatous process.

Case IV.—John W., aged 58, came under my observation on July 6th, 1877. Vision in both eyes was seriously impaired. The right had gradually become so for a considerable time; while the left had been somewhat affected for twelve months, and was now becoming much worse. There had been no inflammatory attacks. With the right eye he saw fingers indistinctly; with the left he read Jäger 14. The tension of the right was $+T_2$; of the left $+T_2$. Both discs were cupped. On July 9th, the right eye was iridectomised. On July 31st, he read Jäger 20 with the right eye. On August 17th, the left read Jäger 16. Eserine drops were prescribed; the right eye read Jäger 18. On the 21st, the left eye read Jäger 10; tension was less. On the 24th, he made out some of Jäger 8. He said he had not noticed "coloured rings" so distinctly since he used the drops. November 20th. He still read Jäger 8. The eserine had been continued, except for an interval of a fortnight, until now; it was discontinued to-day on account of the conjunctival trouble it had occasioned. On March 5th, 1878, he had not used eserine since the last entry; vision was the same. On February 12th, 1882, I found the patient suffering from phthisis, and too ill to be examined; but he assured me that he did not think his eyes had become worse than when I saw him last, nearly four years ago.

b. Pilocarpine in Glaucoma.—In September 1880, I was desired, one Sunday afternoon, to visit a lady aged about 70. I found her suffering from all the symptoms of acute glaucoma, which had apparently commenced the day before. Vision was reduced to little more than shadows. Tension $= +T_2$. There was violent pain. Iridectomy was declined. No eserine was easily procurable, and I therefore ordered the use of pilocarpine in the form of "discs" (Savory and Moore). In the evening, after the employment of the drug twice, she expressed herself as much relieved. A few days later, the attack had passed off, and vision was completely restored. This good result continued until the middle of January this year (1882), when she again came to me with another acute attack.

* An acute case of glaucoma quite recently under treatment, where the exciting use was atropine used for purposes of refraction, markedly exemplified the value eserine in reducing the glaucomatous symptoms.

She now consented to operation, and was iridectomised with a satisfactory issue.

I will merely add that, in other cases, I have noticed that pilocarpine has been borne with comfort, where pain, after the use of eserine, has been complained of.

c. Eserine in Ocular Neuralgia.—The cases to which I refer, as those of ocular neuralgia, are characterised by severe pain in the eyeball and periocular region, and extending, it may be, over the brow in the course of the fifth nerve. There is always some hyperæmia of the ocular surface, and there may or may not be photophobia. In neither of the cases I relate presently did I satisfy myself of any increased ocular tension. The pain, in its darting, shooting, and periodical character, resembles neuralgia.

I am not yet able to satisfy myself as to the *modus operandi* of eserine in these cases; but its value in the two instances to be here recorded was unmistakable.

1. Some time since, a schoolmaster, aged about 35, consulted me under the following circumstances. He was suffering severe ocular and periocular pain, of a shooting and stabbing character—worse at some times than at others—and which for some days had rendered sleep well nigh impossible. There was some increased vascularity of the ocular surface. Vision was not affected, but effort with the eye was barely possible, and it brought on exacerbations of pain. He greatly feared that this was, as it were, the commencement of an attack similar to one he had suffered from some years previously; and which, notwithstanding a variety of treatment, had lasted for several weeks. Quinine, and then strychnine, were now prescribed without benefit. The sleepless nights and darting pains continued. He was next directed to place a gelatine disc of eserine, inside the lid, two or three times daily. The next day, he came to tell me of the almost immediate relief he had experienced. A disc had been inserted in the afternoon, and another in the evening, and he had enjoyed a comfortable night. He was desired to continue the use of the eserine; and, though in a day or two he was perfectly well, he determined to have the discs near at hand should a return of the malady ensue.

2. The next case, coming under my care shortly after the one just related, was that of a servant girl, aged about 21, sent to me by her mistress. In addition to the pain of the character and situation described in the foregoing case, there was more ocular congestion; the lids were tightly closed, and the photophobia had caused her to protect the eye with a bandage. Here the use of the eserine discs was directly prescribed, the result being equally successful—though the effect was not so immediate as in the previously recorded case.

VARIOLOUS AFFECTIONS OF THE EYE: THEIR PATHOLOGY AND TREATMENT.

By MONTAGUE D. MAKUNA, L.R.C.P.Lond.,
Late Medical Superintendent, Fulham Small-pox Hospital.

It is very singular that our writers on ophthalmic medicine and surgery—men of great ability, experience, and observation—should give so scant and imperfect a description in their works, otherwise comprehensive and elaborate, of the affections of the eye in small-pox. This, doubtless, arises from the fact that chances of observation in this particular disease seldom occur to them; while it is still more singular that extensive experience gained in our metropolitan and provincial small-pox hospitals, as well as by those experienced in epidemiology in different quarters of the globe, should contribute little or nothing to its literature, to elucidate its pathology and treatment.

It was in the year 1837 that Mr. J F. Marson, of Highgate Small-pox Hospital, related his experience of these affections, in his 1,500 cases of small-pox, before the Westminster Medical Society. Although it is a valuable contribution, as far as the clinical observations are concerned, it falls far short of the requirements of the present generation of medical men, as, during the lapse of the last forty years that have expired, the anatomy and physiology of the eye have made such rapid strides as to bring our knowledge of them to a point of exactness. The only other descriptions of these affections in the English literature, so far as I can know, are those given in the works of Dr. W. Mackenzie (1854) and Mr. J. Soelberg Wells (1873). Although they are excellent in many respects, they are wanting in preciseness of their clinique and pathology, I presume from their want of observations; while Mr. C. Macnamara, in his work on the *Diseases of the Eye* (1872), makes no mention whatsoever of variolous corneitis—an affection that is the principal cause of loss of sight in this exanthematous disorder, especially among the unvaccinated and uncivilised communities of the globe. He alludes to the subject of the ulceration of the cornea, I believe wrongly, meaning the former sequela of the disease. I have contributed this paper, fully anticipating that it may draw the attention of those who are far abler to treat the subject, and who have had much more extensive experience, to throw better light on it.

In variola, the complications of the eye are principally confined to the eyelids, conjunctiva, and cornea. Other structures are apt to suffer by the extension of the inflammation, but it is of unfrequent occurrence in the hands of a practised physician. That suppuration and disorganisation of the eyeball does now and then occur from incipient and rapid inflammation, I do not doubt; but when one sees more of this practice, the more he is convinced that the loss of sight, due to permanent opacities of the cornea, partial and total staphyloma, or otherwise, arises from want of care and proper treatment on the part of physicians in hospital practice, owing to the severe pressure of work in an epidemic, and negligence on the part of the patients both at hospitals and at home.

Eyelids.—Pustules on the cutaneous aspect of the eyelids are not so frequent as on the other parts of the face, especially the cheeks, nose, and its surrounding parts. They are very frequently seen at the edges of the eyelids, between the eyelashes, causing a good deal of irritation and pain, destroying the hair-bulbs, and thus producing the permanent loss of eyelashes, called madarosis. If they are within the margin of the palpebral conjunctiva, they may obliterate the openings of the Meibomian glands, and cause a stoppage and alteration in their secretions. They may cause entropion. The formation of pustules on the cutaneous surface of the eyelids is accompanied with much swelling, which is soft and œdematous. But it is seen usually with that of the face in severe cases of small-pox, frequently confluent, and without any pustules on them, at the commencement of the eruptive stage. It generally lasts till the eruption has advanced to the pustular stage, and then subsides with that of the face. It causes the closure of the eyelids during this period. Again, the vitiated secretions in the Meibomian glands and discharges from the pustules on the edges of the eyelids glue them together, so that the eyes cannot be opened for days, especially when accompanied with swelling. But at last, when the disease subsides, the eyes are opened again, uninjured. It is in this way that we hear talk of persons being blind in small-pox for so many days, and recovering their sight. In severe cases, the edges of the eyelids are rendered irregular, and liable to inflammation and excoriation from slight causes, which produce ophthalmia tarsi (Mackenzie).

Treatment.—The eyes should be bathed with warm water two or three times a day. When there is a good deal of swelling, warm fomentations do well. It must be our constant endeavour to prevent the eyelids from sticking together, in order to ascertain the injury to the inner parts. This can be effected without any difficulty, by dropping a drop or two of pure castor-oil in each eye after bathing. Unguentum cetacei or cold cream might also be used with advantage. As soon as the vesicles are maturating, they should be opened up from side to side with a fine flat needle to prevent further suppuration and destruction of the surrounding structures. I have seen nitrate of silver stick applied on the outer surface of the eyelids to cause subsidence of the swelling, with no benefit. Besides, the operation is attended with irritation, pain, and disfigurement. In the entropion, the eyelashes ought to be removed to prevent irritation of the eyeball.

Conjunctivitis Variolosa. — Inflammation of the conjunctiva in small-pox stands next in point of frequency to that of the mucous membrane of the mouth, pharynx, and respiratory tract. It occurs in about 8 per cent. of the total cases, both mild and severe, vaccinated and unvaccinated, and at all ages. Variola is not unfrequently an exciting cause of conjunctivitis in children of scrofulous diathesis, and in them it is most obstinate and difficult to cure, sometimes lasting from four to ten and twelve weeks. In them it runs on to granular lids; and the detection of the first traces of the inflammation of the cornea require a careful watch. It not uncommonly occurs during the first five or six days of the eruption. It is stated by some that vitiated secretion of the Meibomian glands, pent up during the closure of the eyelids, when they are swollen, is its exciting cause. But I am not prepared to verify this statement, as I have seen conjunctivitis in cases without swollen eyelids. In many cases it is local, and situated between the lesser canthus and the cornea, in the shape of phlyctenular conjunctivitis; and I have often thought that these phlyctenulæ near the circumcorneal zone, might be the variolous eruptions. By analogy of observation, we know that the eruptions on the mucous membranes of the mouth and pharynx are first to maturate and heal; as these formations last but two or three days, leaving the conjunctival inflammation behind, I am led to believe that there might be some modification of the characteristic eruption. I have seen about five or six cases of the variole on the ocular conjunctiva, and one on the sclero-corneal junc-

tion, on the outer aspect of the eye, in my nearly 1,500 cases. I have seen but one case of variola on the central part of the cornea, in my student days in Bombay. This conjunctivitis, unlike the ordinary phlyctenular form, is found more frequently in one than in both eyes. In some severe cases of confluent variety, the inflammation is diffused, and assumes the type of catarrhal conjunctivitis. Chemosis occurs in about 1 per cent. of the cases. It is more liable to occur in variola hæmorrhagica, associated with hæmorrhagic blotches and petechiæ on other parts of the body, and then it is due to the exudation of the colouring matter of the blood in the tissues of the conjunctiva and the subconjunctival layer, and not to inflammation. Sometimes it takes months and months for the colouring matter to be absorbed and the disfigurement to disappear. The granular lids are formed usually in scrofulous children, and in two of these cases, where the ulcers were detected on the palpebral layer, I thought they might be due to the remnants of the varioles. When the eyelids are swollen, acute variolous conjunctivitis is known by the patient complaining of the pain in the eyeball, increased on attempting to move the eye or to open it; a feeling of grittiness and running of hot tears. I have seen but one case of a purulent ophthalmia in my practice. I have here sufficiently drawn the peculiarities of the affections of the conjunctiva, and I need not describe their subjective and objective symptoms, as they are fully treated in the descriptions of the ordinary cases in works on ophthalmic medicine and surgery.

Treatment.—In mild cases, dropping a few drops of sulphate of zinc lotion (three grains to an ounce), three or four times a day, is all that is needed. In other cases nitrate of silver lotion (one grain to an ounce) answers well. I some cases, where the phlyctenular vascularity is small, circumscribed, deeper, and formed of larger vessels, I dust in the eye a few grains of powdered calomel. When it is associated with inflammatory redness and thickening of the lids, I smear unguentum hydrargyri subflavum between the eyelids; it is readily absorbed by the conjunctiva, and prevents them from sticking together. In severe cases with a good deal of muco-purulent discharge, I drop solution of nitrate of silver (10 to 20 grains to an ounce), after everting the eyelids, followed, soon after, by the solution of chloride of sodium, to neutralise the excess of the silver salt, once a day, and followed during the rest of the day with cold water lint on the eye, and drops of the weak solution of sulphate of zinc. When the inflammation is chronic, solution of sulphate of copper (3 to 5 grains to an ounce); or vinum opii might be used with advantage in some cases, especially in those where there is turgidity of the circumcorneal zone, threatening cyclitis and inflammation of the deeper structures of the eye. In a few obstinate cases I have used blisters behind the ears with good results. In cases of granular lids, lapis divinus and dilute nitrate of silver points have been used. Iodide of potassium solution (3 grains to an ounce) might be used to promote absorption of the colouring matter of the blood exuded in the subconjunctival tissue in hæmorrhagic cases. Fomentation of poppy and belladonna is useful when there is pain over the eyebrows and supra-orbital headache; in these cases, smearing with belladonna and glycerine might be used with advantage. Internally I do not drug my patients much. Weak, anæmic, and scrofulous children require ferruginous tonics, as syrup of phosphate of iodide of iron, with or without cod-liver oil, chemical food, etc. In grown-up persons, tincture of perchloride of iron with glycerine and quassia, or citrate of iron and ammonia, with a vegetable tonic, are indicated. Cleanliness, fresh air, nutritious diet, form the very backbone of treatment in these affections, as in all the maladies human flesh is heir to.

Variolous Corneitis.—It has been appropriately remarked that cornea serves as an indicator of disease and malnutrition. Whatever cause induces the poverty of the blood, disease, starvation, or age, also tends to the malnutrition of the cornea, resulting in inflammation, opacity, or degeneration. It is one of the most sensitive organs of the body and is most readily affected by the slight derangements of circulation. The glow of life and intelligence of a healthy person is read in its brightness, whilst the painful anxiety and vacant stare of another depict his misery on its lifeless surface. Consequently, that acute exanthematous diseases like variola should tell on its nutrition and induce inflammation in its structure, is only natural as cause and effect, in cases where there are anæmia and exhaustion. The nutrition of the cornea is performed by dialytic action, and is dependent on the vessels of the conjunctiva and circumcorneal zone, and it is for this reason that in cases of chronic conjunctivitis opacity of the cornea is the result. The cornea is also affected in scrofulous subjects, in whom chronic conjunctivitis is of frequent occurrence. To these constitutional causes, may be added the vitiated secretions of the Meibomian glands and conjunctival tissue and granular lids as the local causes. It is an inflammatory affection, and I think it can be appropriately designated "variolous corneitis". In severe and neglected cases it is associated with iritis, choro-iriditis, abscesses, suppuration of the eyeball, and its disorganisation. It is still described by some as "corneal ulcer", from want of correct understanding of its pathology. I cannot do here better than quote Mr. Macnamara's remarks on the general pathology of corneitis:—"The cornea we know to be a non-vascular structure; and formerly, when hyperæmia was regarded as the first and most essential step in inflammation, it was difficult to see how the cornea could be the seat of it. But now that we have learnt to look rather to the elements of a tissue, as the point of departure for inflammatory changes, and to regard vascularity and hyperæmia, however important, as accessory phenomena, the cornea becomes one of the most appropriate tissues for the study and illustration of the modern doctrine of vascular pathology."

The frequency of this affection in my cases, as well as in those of Mr. Marson, is nearly the same—viz., 1.7 per cent. It more frequently occurs in one eye than in both. It is of much more frequent occurrence during the stage of scabbing, from the twelfth to the fourteenth day of eruption, when the patient is getting over the secondary fever, and is associated with the formation of furunculæ and abscesses in other parts of the body, in severe and confluent cases. It is for this reason that Dr. W. Mackenzie describes it as "corneitis postvariolosa", or "secondary variolous ophthalmia". But we do come across cases, especially those of scrofulous children and others, in whom the disease has been mild and of discrete variety, where it makes itself manifest during the course of the first week, and in whom the secondary fever and subsequent exhaustion is *nil;* and the only complication is the eye affection. It generally begins at the margin of the cornea, and then extends to the centre. In rare cases, it is developed in more than one point at the same time, or is central; these cases must be looked upon with grave apprehension. It comes on very insidiously, and often without any pain or knowledge of the patient; and it requires a careful watch on the eyes of the patients to discover it early, and nip the malady in its budding stage. Occasionally, it runs on a very rapid course, involving the cornea and deeper structures within forty-eight hours. As Marson remarks, an experienced eye can sometimes prognosticate its approach, from the dull and lifeless surface of the cornea after exhaustion from secondary fever. But it is impossible to do so in mild and discrete cases of scrofulous subjects.

When the variolous corneitis commences, the surface of the cornea looks dull, dry, and, at the seat of lesion, uneven. Sometimes, the superficial or epithelial layer is raised so much, by the rapid cell-proliferation, that I was once inclined to believe that these elevations were due to the formation of vesicles; but such is not the fact. Within a few hours, this spot is rendered hazy and a white point appears, which becomes more and more extensive and nebulous. In some cases, it is attended with severe pain, and much photophobia; but these symptoms are not so frequent in this variety of corneitis as in the others. By proper care and treatment, the mischief ends here; the inflammatory exudation is absorbed, and no traces of the disease are left. But when it extends a stage further, the inflammation attacks the laminæ of the cornea proper, the corneal corpuscles swell, are rendered more opaque by granular deposits in them, and are increased in number. The inflammatory exudation takes place between the laminæ of the cornea proper, I believe, through the system of canals in which the processes of these corpuscles lodge. A stage further, and an abscess in the cornea is formed. This abscess is more frequently opened on the surface than in the anterior chamber, giving rise to partial staphyloma and prolapse of the iris. It is only in rare neglected and insidious cases, running on to rapid disorganisation, that total staphyloma, acute glaucoma, and suppuration of the eyeball, take place. In two of the microscopical slides prepared for me by Dr. Klein, I have seen micrococci in the anterior epithelial layer, at the seat of the inflammation. Although I am inclined to the parasitic theory of the infectious diseases, I am not prepared to class these micro-organisms in their etiology. They have been sufficiently demonstrated in all of them, but as yet as their concomitants and in their advanced stages, and not as their causation. The loss of sight in this affection is frequently due to leucoma, sometimes to partial staphyloma, and rarely to total staphyloma. When the lesion is situated in the centre, and associated with granular lids, it is in the form of a "pannus". In severe cases, it is more or less associated with iritis, and rarely with cataract. In the latter complication, I have frequently seen the lens escape; and, in one case, I have performed iridectomy, and removed the lens, through the opening of the abscess, with good result.

Treatment.—Constitutional treatment plays a prominent part in this affection. Nutritious and generous diet, that can be readily assimilated by convalescents; wines to stimulate circulation and increase the appetite; and tonics—are necessary. Locally, in all these cases, it has been my plan to use lotion of belladonna with sulphate of copper, with

tepid water, placed over the eye with a piece of lint soaked in it. I have invariably found it to answer its purpose. When it is associated with iritis, drops of liquor atropiæ sulphatis are used as usual. When an abscess forms in the cornea, it is best to open it. In one case of acute glaucoma and disorganisation of the eyeball, I performed the operation of enucleation. In cases of partial staphyloma and leucoma, it is better to wait, and leave the patients in the hands of the ophthalmic surgeons for proper treatment. In children, and in some patients, I have found it exceedingly difficult to keep their eyes at rest—an important factor in the success of their treatment—and prevent them from scratching. In these cases, I have used the Cellini eye-protectors, of which Dr. L. Herbert of Paris speaks highly. They are made of zinc, and are of two varieties, perforated and non-perforated. I prefer the latter, as they keep the eyes cool. They are of the size and shape of the eyelids, over which they are fixed by an elastic band, that goes round the head. They keep the eyelids at perfect rest, and prevent them from scratching. When worn once or twice, they are of no more trouble to the patients than spectacles are. I am not prepared to vouchsafe the physical and chemical properties claimed for them.

THIRTY-THREE CASES OF CONCURRENT VARIOLA AND VACCINIA, WITH ANALYSIS AND REMARKS.

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THE presence on the same subject, at the same time, of the eruptions of two febrile disorders, which are variously regarded as either essentially the same, or as allied members of the same group, is in itself of sufficient interest to be noted, were it not for the wider and deeper significance of the condition variola-vaccinia, as affording us some appreciable criterion of the modifying influence of vaccination performed during the incubation-period of small-pox. The numerous letters bearing on this subject that have appeared in the medical journals from time to time sufficiently show the widespread interest taken in the subject; and hence I have been induced to tabulate the following consecutive cases, noticed by me at the Fulham Hospital during the epidemic of the past year, and to attempt to formulate some conclusions from the data afforded.

TABLE A.—*Primary Vaccination.*

No.	Sex.	Age.	Day of Incubation-period* on which Vaccination was Performed.	Character of Resulting Vaccination.	Variety of Small-pox.	Result as to Recovery and Complication.
1	F.	10 years	Tenth	4 recent vesicles	Confluent	Prolonged recovery; pitting and disfigurement.
2	M.	3 ,,	Probably third	4 recent vesicles	Discrete	Rapid recovery.
3	F.	4 ,,	Third	4 recent pustules	Discrete	Recovery.
4	F.	6 ,,	Probably ninth	4 recent vesico-pustules	Coherent	Recovery.
5	M.	7 ,,	Ninth	3 recent vesicles	Coherent	Recovery.
6	F.	11 mths.	At end of period: day not fixed	3 recent vesicles	Confluent	Rapid death; bronchitis and laryngitis.
7	F.	9 years	Sixth	5 recent pustules	Coherent	Recovery.
8	F.	14 ,,	Fourth	3 recent pustules	Confluent	Recovery; conjunctivitis and œdema of feet.
9	F.	9 ,,	Probably third	3 recent pustules	Confluent	Recovery.
10	F.	30 ,,	Eighth	3 recent pustules†	Confluent	Prolonged convalescence; numerous abscesses.
11	M.	2½ ,,	Probably eighth	3 recent pustules	Confluent	Recovery.
12	M.	2 ,,	Probably tenth	4 recent pustules	Confluent	Recovery.
13	M.	2 mths.	Probably eighth	3 recent pustules	Coherent	Recovery.
14	F.	9 years	Probably sixth	4 recent pustules	Confluent	Recovery: abscesses.
15	F.	23 ,,	Third	1 recent pustule	Confluent	Slow recovery.
16	F.	14 ,,	Seventh	3 recent vesico-pustules‡	Confluent	Protracted recovery.
17	F.	15 ,,	Eighth	4 recent vesicles	Confluent	Protracted recovery.
18	M.	3 ,,	Not fixed§	5 advanced pustules	Discrete	Rapid recovery.
19	F.	2 ,,	Not fixed	4 recent vesicles	Confluent	Recovery.
20	F.	5 ,,	Not fixed	4 recent vesicles	Coherent	Recovery.

* This reckoned as twelve days.
† Surrounded by a crop of small vesicles and a purplish-red blush.
‡ Surrounded by a crop of small vesicles.
§ From character of pustules, probably early.

Analysis.—It will be observed that the majority of cases of this condition noted were in females; no inference, however, can be drawn from this, it being probably only a coincidence. The ages range between two months and thirty years, the majority being under five years. Most were vaccinated on the third and on the eighth days of the incubation-period, the times ranging through almost all the twelve days of that period. The vaccination observed on admission consisted usually of pustules, which were mostly three in number. The variety of small-pox in most of the cases was confluent; only one death occurred, and recovery was noted as prolonged and attended with complications in seven, rapid in two.

Remarks.—In order to gauge the amount and degree of protection afforded by vaccination in these several cases, we must compare the variety of disease and result of attack, first with the day on which the operation was performed, and then with the number of pocks produced. We thus notice that the majority of the confluent and coherent cases were vaccinated from the eighth to the twelfth day of the incubation-period, and that, in the discrete, this took place within the first three days. The fatal case was vaccinated at the end of the period, the majority of the prolonged and complicated recoveries during its latter half; whilst both the rapid recoveries were early vaccinated: one on the third day definitely, and the other, from the character of the pustules, probably also about that time. On comparing the variety of disease with the number of resulting pocks, we find most of the confluent and coherent cases vaccinated in three places, whilst the discrete are not vaccinated in less than four. The fatal case showed only three vesicles; three only of the seven protracted recoveries were vaccinated in four places, whilst the rapid ones showed four and five pocks respectively.

TABLE B.—*Revaccination.*

No.	Sex.	Age.	Day of Incubation-period* on which Vaccination was Performed.	Character of Revaccination.	Character of Primary Vaccination.	Variety of Small-pox.	Result.
1	F.	16	Eighth	4 recent vesicles	1 fair mark	Coherent	Protracted recovery.
2	F.	17	Third	2 recent pustules	2 fair marks	Discrete	Recovery.
3	F.	14	Twelfth	3 recent vesicles	2 fair marks	Confluent	Recovery.
4	F.	24	Fifth	2 recent pustules	Traces of marks	Discrete	Recovery.
5	F.	20	Fourth	2 recent pustules	Fair marks	Discrete	Recovery.
6	F.	15	Sixth	5 recent pustules	Doubtful	Coherent	Recovery.
7	M.	3	Not fixed	3 recent pustules	3 poor marks	Confluent	Recovery.
8	F.	13	Probably tenth	4 recent pustules	5 fair marks	Coherent	Recovery.
9	F.	29	Fifth	3 recent pustules	3 poor marks	Discrete	Recovery.
10	F.	18	Seventh	2 recent pustules†	2 poor marks	Confluent	Death on sixteenth day.
11	M.	17	Fifth	3 recent pustules	1 poor mark	Discrete	Recovery.
12	F.	12	Sixth	3 recent pustules	1 poor mark	Coherent	Recovery.
13	F.	16	Twelfth	3 abortive vesicles	1 poor mark	Confluent	Death on twelfth day.

* This reckoned as twelve days.
† Surrounded by a crop of small vesicles.

Analysis.—Females here also predominate; the ages range from three to twenty-nine, the majority being between fifteen and twenty. More were revaccinated on the fifth and sixth days of the incubation-period than any other, the times ranging between the third and twelfth days; the revaccination consisted mostly of pustules, and generally to the number of three. The primary vaccination was imperfect in all, in most of them of a very meagre description, both in number and quality. The variety of the disease assumed in most of the cases was the discrete form; two deaths occurred, and recovery was noted as protracted in one case.

Remarks.—Though hardly bearing on the subject of this paper, yet I would draw attention to the fact that not one of these cases was well vaccinated primarily. All the discrete cases were revaccinated within the first five days of incubation, the majority on the fifth day; in the coherent and confluent, on the other hand, the operation took place from the sixth to the twelfth day. The fatal cases were revaccinated on the seventh and twelfth days respectively, and the protracted recovery on the eighth. In most of the confluent and coherent cases, three pocks were noted; in most of the discrete, only two. Of the deaths, one showed two pustules; the other three vesicles, which were of an abortive character.

General Conclusions.—1. Primary vaccination, after definite exposure to the infection of small-pox, should be performed within three days and in four places, in order to ensure a slight uncomplicated attack, and a rapid recovery. 2. Revaccination should not be delayed beyond the fifth day after such exposure, in order to ensure a discrete attack and recovery.

ELEVEN ANTISEPTIC OVARIOTOMIES.

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INE of these operations were performed in the Bristol Royal Infirmary, two in private. The first two of the infirmary cases were ne in a small ward set apart for special cases; the rest were done in e general operating room, and no restrictions were placed on the admission of students or visitors. All the cases were successful.

Of the individual cases, no special account need be given. In all cept two, adhesions were present. One was a case of double Fallopian cyst; one of the cysts being full of pus, and as large as the head a newly born child. In this case also, both ovaries, being enlarged d cystic, were removed. In one case, the tumour, large and comsed of many cysts, was strangulated from rotation of the pedicle, d adherent by every part of its surface to omentum, uterus, bowel, bladder. In another case, the cyst-wall had to be peeled off the der surface of the liver.

Two of the cases might be described as peculiarly unpromising. ıe tumour in the first had grown for the most part during a pregncy, and was removed seven weeks after confinement. It was comsed of a great number of small cysts, containing a thick, ropy, ownish-coloured material. On the surface, the cysts were very merous and thin-walled. Tough, short adhesions attached chiefly the numerous sulci between the cysts existed everywhere, but were rticularly numerous and strong on its posterior surface deep down the pelvis. During the necessary manipulations, many of the cysts ere ruptured, and their contents escaped into the abdominal cavity. thick was the material which escaped, that sponges did not absorb and it was scooped out with the hand. In this case, troublesome tacks of diarrhœa, without pyrexia, retarded the recovery.

In the other unpromising case, the difficulties arose chiefly from lhesions. The uterus, much enlarged and flattened out, appeared to incorporated with the tumour. It was only by the introduction of ı uterine sound during the operation, that certainty as to a vaguely efined boggy portion of the tumour being the uterus was arrived at. here was no pedicle, but, after some dissection, the fundus uteri was parated from the tumour, and a piece of broad ligament which conined several large vessels was freed, ligatured, and divided. The rst was practically dissected out of the pelvis. The bleeding was prose, particularly from the whole of the posterior surface of the uterus, ıd the actual cautery was freely used. The uterine tissue was laceted in two places; and at one spot, where the blood continued to ell out in spite of the cautery, a bunch of fibre was included in a ıtgut ligature. The patient made an excellent recovery.

The following are brief notes of the mode of operation pursued ıroughout.

Antisepticism.—I can conceive that the best possible results might e got in a new hospital with plenty of cubic space and the observance scrupulous cleanliness—that is to say, cleanliness which involves the se of antiseptics for fingers, sponges, and instruments. And, on the her hand, it is easy to see how an injudicious application of Listerism ıight do much harm. The objections against the use of the spray in eneral may be urged with peculiar emphasis in the case of ovariotomy. he operation is a long one; and the opportunities for causing carbolic oisoning, either by absorption through the lungs (which I believe to e the most likely) or by the peritoneum, are thereby increased. Under ıe most judicious use of antiseptics, these risks must be run; but these sks are, I believe, sometimes needlessly increased. A good deal of arm may be done by carrying the lotion bodily into the wound by ponges, hands, or instruments; but I think it likely that more harm ıay be done by the spray—using it in too large or too dense a cloud. he lower portions of a very large cloud of spray form into drops of onsiderable size, which fall in a shower into the abdominal cavity, and ıust represent a considerable amount of lotion before the end of a rolonged operation.

Then, on the other side, it seems to me that ovariotomy is an operaon in which septicism is more likely to be introduced by actual conıct with instruments or fingers than by impure air; and surgeons who se antiseptics on fingers and instruments only, thereby avoid the chief ource of septicism; while, at the same time, by avoiding the spray, ıey escape the dangers which may arise therefrom.

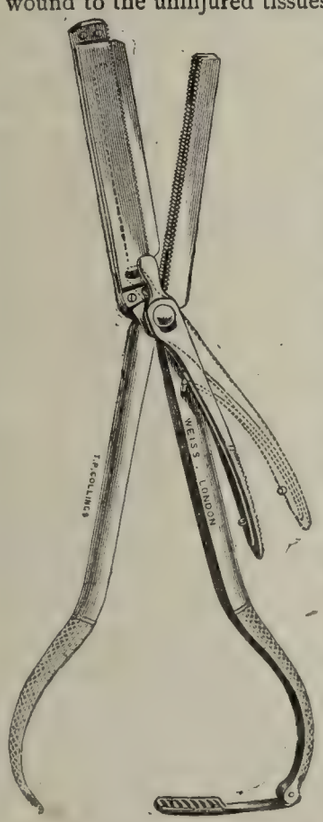
But I think we may use Listerism in ovariotomy so as to get all the ood it can give, and at the same time shun all the harm it can do. very fine spray from one nozzle, carefully graduated to a strength of ne in forty, will be safe enough, provided currents of air be not proıced in the operating room. And, if we keep a watchful eye on all ıe other means (and they are numerous enough) whereby carbolic lotion may be introduced into the abdominal cavity, I think we need not dread the dangers of Listerism. In such an infirmary as ours—old, over-crowded, and badly situated—I should not hesitate for a moment in choosing between the dangers of spray and no spray; then the dangers of septicism are much greater than those of antisepticism. And even with the surroundings favourable, I think it probable that a better series of results would be got under carefully applied Listerian *asepticism* than under the form of *antisepticism* employed by ovariotomists who do not use the spray.

The antiseptic dressing is not disturbed for a week or ten days, when it is removed and the stitches taken out. A gauze binder keeps the dressing in place; and this may be released on the second or third day, should there be much tympanites. The wound is healed throughout when first seen.

Drainage I have not used. In one case I re-opened the abdomen at the end of a week and washed out the cavity with 1 in 40 carbolic lotion, because a rise of temperature and some tenderness made me fear that peritonitis was coming on. These symptoms at once improved after this.

Incision.—Statistics have been given to prove that the length of the incision has an influence on the mortality. But I think this influence must be infinitesimal. It is not the incision that kills, but the sort of work which has to be done behind the incision; and a long incision usually accompanies a difficult case. Looking at the extreme importance of gentleness, and the avoidance of bruising, during the necessary manipulations, I believe that less harm would be done by making an opening an inch too long than a quarter of an inch too short. More than this: if I thought that a few minutes could be saved in the delivery of a multilocular cyst, by prolonging the incision for an inch or two, I would rather do this than spend time in tapping secondary cysts, and running the risk of letting their contents escape into the abdominal cavity. On these grounds, I do not seek to curtail the length of the incision; in nearly every case, I have exceeded the limits usually prescribed.

The abdominal wound has been closed in the following manner. Two thick silver button sutures are carried through the substance of the recti muscles, and these are made to traverse the peritoneum. Three or more deep silk sutures, alternating with the former, include skin, fat, and muscle; and the closure is completed by interpolated horsehair sutures, passing through skin and fat. To include peritoneum, muscle, and skin in each suture, seems to me to be practically unnecessary, and at the same time to involve a serious delay. The deep and strong silver sutures fix the muscles, and transfer intra-abdominal strain from the wound to the uninjured tissues beyond; and the gentle apposing influence of the other sutures fulfils the further requisites for permitting of primary union.



Pedicle.—In all humility, I would venture to say, that I think that ovariotomists have shown more than a necessary amount of caution in dealing with the pedicle. A few small vessels, with sluggish circulation, enough to supply a pound or two of not very vascular cellular tissue, are what we usually have to deal with. We never meet with a vessel of the magnitude of the radial or ulnar, and torsion or ligature will suffice for these. I have had no hesitation in using ordinary catgut—and that not of the thickest size. If the pedicle be dragged upon while the ligature is being applied, the central portions have a tendency to retract after being cut through, and the ligature is then liable to slip. If the pedicle were dense, I should not transfix with a needle; a vessel might be pricked, and will go on bleeding behind the ligatured portion.

Adhesions.—I have used catgut for all adhesions requiring ligature. Forcipressure is of very great value. There is a class of adhesion, usually somewhat extensive, which is too vascular to be simply torn across, and yet not vascular enough to seem worthy of the time and trouble spent in tying it in portions. For the treatment of such adhesions, I have thought that our armamentarium would be improved by such an instrument as that shown in the woodcut. It combines crushing with cutting. The adhesion, grasped in the blades of the instrument, is violently squeezed; and then, by

pressing down the lever, is cut through beyond the crushed portion by a concealed blade working on hinges. The crushed portion of adhesion left behind is three-sixteenths of an inch in breadth. Some saving of time and trouble may be effected by the use of this instrument.

Tapping the Cyst.—All the trocars with which I am acquainted are liable to permit of an escape of fluid by the sides of the puncture. To obviate this, I use a forceps which, when closed, forms a hollow tube accurately fitting the simple trocar used. The trocar is plunged in, and is tilted, so that its contour bulges the cyst-wall; the forceps then grasps cyst-wall and trocar where the puncture is made. Thus about an inch of cyst-wall is firmly compressed against the trocar, and a firm grip of the tumour is got, enabling us to move it about without risk of the fluid escaping.

Rapidity of Operation.—Much of the mortality after ovariotomy is caused by shock. Most of the other death-giving factors have been overcome or made to recede; but the influence of shock remains about stationary. There can be no doubt that, over and above the mere operation, the prolonged anæsthesia must be an important contributor to the patient's collapse. In one of my cases, where the patient was taken to the operation-room, anæsthetised, and returned to bed within half an hour, the absence of anything like shock impressed me very much. The amputation of a finger might have been attended with no more immediate general disturbance. Consistently with carrying out a thoroughgoing treatment of every detail, I think we ought to be as rapid as possible. A few moments saved here and there in such a proceeding as ovariotomy will sum up to a goodly aggregate before the operation is over. And these five or ten minutes in a case which is hovering between life and death may kick the beam on the right side.

FOREIGN BODY IN THE BLADDER.

By F. SWINFORD EDWARDS, F.R.C.S.,
Assistant-Surgeon to the West London Hospital, etc.

J. L., aged 40, a labourer, was admitted into St. Peter's Hospital on November 8th, 1881. He had suffered with stricture of the urethra for six or seven years. Twelve months previously, the stricture was dilated by catheters up to No. 10 English. As his urine was continually dribbling away, and no instrument could be passed, he had sought admission into the hospital.

After hot baths and a morphia suppository, a catgut bougie, No. 2 French, was passed by our house-surgeon, Mr. Woolley. On the following day, a No. 4 French bougie was successfully introduced. On November 10th, the same bougie was again passed in the morning. Toward 7 P.M., as the patient had not been able to empty his bladder all day, the house-surgeon endeavoured to pass a catheter, but without avail—so he introduced a No. 4 pilot bougie and screwed on a catheter, which was passed on into the bladder. By this means, the patient's urine was drawn off. On withdrawing the instrument, the patient gave a violent twist, just as the junction between the pilot bougie and catheter was passing through the stricture, the effect of which was that the bougie was left behind on the proximal side of the stricture, so as to occupy the bladder and prostatic urethra; the stricture being situate in the membranous urethra. The long urethral forceps were at once passed down, but without success. As the stricture had been dilated to No. 12, and the patient was suffering no pain nor inconvenience, he was left for awhile.

Two days after this (November 12th), I saw the patient for the first time; and decided, without further delay, to divide his stricture, and, if possible, to extract the bougie from the bladder through the urethra. The patient being placed under ether, internal urethrotomy was performed by means of a Teevan-Maisonneuve urethrotome. After which, I was enabled to pass a small-sized lithotrite, by which the pilot bougie was quickly seized and removed from the bladder. The bougie, which was twelve inches long and of No. 4 French gauge, was found already to have, in places, a considerable coating of phosphates.

The after-history of this case is not in any way remarkable. The patient left the hospital a fortnight later, able to micturate freely and comfortably. He passes a No. 22 bougie occasionally.

Mr. Lund of Manchester records a case, in which, after performing Holt's operation, he removed a bougie from the bladder by means of a lithotrite. (*Liverpool and Manchester Medical and Surgical Reports*, 1873.) Also, Mr. Harrison of Liverpool, in his work on *Surgical Disorders of the Urinary Organs*, 1880, narrates a similar case, in which he extracted a pilot bougie, No. 3, by means of a lithotrite. The bougie had been introduced by a surgeon as a pilot to an urethrotome; but, becoming detached just beyond the screw, remained behind in the bladder. The surgeon ruptured the stricture by Holt's method, and left the bougie for future extraction.

These cases show how important it is to see that the connection between the pilot bougie and catheter (or whatever form of instrument is intended to be passed) is firm. Again, the guide, at its junction with the screw, needs careful inspection, as I have frequently found the gum-elastic quite rotten there, and in an unfit state to be used. The chance of this occurring is lessened by careful attention to cleansing and drying after use.

SURGICAL MEMORANDA.

SYPHILIS *VERSUS* CANCER.

APROPOS of cases already related in the JOURNAL, where a differential diagnosis as regards these two diseases presented some difficulty, the following case of pharyngeal disease may be of interest.

History.—A very respectable married woman, aged 50, living far out in the country, with no family, began to suffer from her throat four months previously to my seeing her; the first symptom being pricking pains like a knife running through both sides of throat. Since then steady increase of difficulty and pain in swallowing, so that for the past month only liquid nourishment could be taken, and she was obliged to hold the fluid for some time in her mouth, and let it trickle down into the gullet by very slow degrees. Flesh and strength were reduced; she had no appetite, and was confined to bed. She had been treated in Dublin with gargle and bitter mixture without results. Pulse 120, small and thready. The attention was at once arrested, on entering her room, by the extraordinary fœtor emanating from the patient. It was of that peculiarly pungent stinking quality, characteristic of cancer in its later stages. Its sickening taint pervaded the room, and clung to the hand, despite repeated washings, after examining the diseased part.

Physical Condition.—The uvula and soft palate were unaffected on the buccal surface. The back of the pharynx was covered thickly with purulent secretion. On examination with the finger, a rugged irregular mass was felt, occupying the back and right side of the pharynx: the surface was knobbed, hard and bossy: the secretion very adherent even after repeated douching, so that the colour of the part could not be ascertained satisfactorily. Laryngoscopic inspection was unsuccessful, owing to irritability of the throat, and constant welling of frothy fluid: the voice was unaffected. There was tenderness on pressing laterally over the transverse processes of the vertebræ, and on rotating the head, which she could not do herself; a distinct grating sensation was felt, not easily localised.

The age of the patient, the circumstances, and especially the peculiar fœtor, seemed to me to indicate cancerous disease. A gloomy prognosis was made, and palliative treatment, with iron, was adopted without benefit. Shortly afterwards, I learned from the apothecary that the patient had consulted him, two years before, for a rash over her entire body, including the face, which went away after taking medicine, which, she said, "rotted her teeth." Moreover, her husband had been treated for syphilis at some establishment a year or so before that. Acting on this information, mercurial inunction was prescribed, and in a few days, along with it, three-grain doses of iodide of potassium thrice daily in treacle, as viscid fluids were more easily swallowed. Immediate improvement took place: in a week she could eat meat, and, in a few days more anything she liked. The fœtor and discharge rapidly and permanently disappeared; the gummatous infiltration also diminished steadily, and a perfect cure resulted; leaving, however, an adherent condition of the soft palate and the wall of the pharynx, which produced considerable contraction of the naso-pharyngeal aperture, with consequent obstruction to nasal respiration. An accidental discovery saved the patient's life, as the disease was, to all appearance, advancing surely to a fatal termination.

THOMAS DRAPES, M.B., Enniscorthy.

RETENTION OF URINE.

THE following case may be of some practical interest in showing the value of opium in certain conditions of stricture. W. A., aged 50, was the subject of a tight stricture of the urethra, both in the bulbous and the prostatic portion. When I was called to him he was in great distress not having passed his urine for about 24 hours. Knowing by experience, in his case, the inutility, if not mischief, of using a catheter, I gave him two grains of opium, ordered fomentations and gruel, and left two more grains to be given, if necessary, during the night. In the morning, I found he had passed a tolerably easy night. He had taken the second dose of opium, the spasm had subsided, and he passed his urine naturally. No other treatment was needed.

HENRY MEYMOTT, Ludlow.

CLINICAL MEMORANDA.

CASE OF RHEUMATISM WITH HYSTERIA.

ıs called, a short time ago, to see a healthy female, about twenty- years of age. She was standing at a large iron gate, and the wind, g very high at the time, shut the gate with great force upon her She was immediately sent to the hospital, when the wound, which a very severe one in the thick fleshy part of the arm, was sewn up, having had chloroform administered to her. No bones were ed. The wound healed quickly, and she was sent home, cured, to friends in the country. Having a long distance to travel, she ht cold on the journey, and was seized, the second day after her al, with a very sharp attack of rheumatism, all her large joints g much swollen, hot, and tender, and with all the other well- ked symptoms of rheumatism. On the evening of the second day this attack, I was called in great haste, and found her suffering hysteria, the paroxysms being very frequent and violent at times. allowed me to grasp the swollen wrists and ankles apparently with- feeling pain, although she could not let me handle them the day re. In this state she continued several days, and recovered from rheumatism in an unusually short time for such a sharp attack. I known the family for many years, and there is nothing in the ly history to account for such an attack. The girl herself blames chloroform given her when her arm was injured, and says she has r got over its effects upon her. But one can scarcely suppose that could be the cause of such an attack from its administration at such mote period. The case is interesting, as it is seldom one meets such a complication in the early stage of acute rheumatism.

R. CRAIG.

THERAPEUTIC MEMORANDA.

ON THE TREATMENT OF ECZEMA BY DIET.

HOUGH I have no doubt that Banting's diet is of great service in treatment of some cases of eczema, yet I think that if the case lished by Mr. Creswell Rich, in his article on the subject in the RNAL of May 13th, had been treated by the pitch and vaseline alone, ıout any restricted diet being enforced, the result would have been ally satisfactory.

)uring the last twelve months I have had in my practice two very ere cases of chronic eczema, which I treated by local applications of eline and oil of cade. The first case was that of a boy, aged 8 rs, whose trunk and thighs were covered with eczema since he was e months old, and who had been under the care of several medical ı without deriving any benefit from their treatment. I prescribed oil of cade ointment, and cod-liver oil and syrup of the iodide of ı internally. In six weeks the skin was perfectly healthy. The ond case was that of a girl, aged 22, whose entire body from head oot was affected with the disease. The external treatment in this e was supplemented by the administration of arsenic internally. I nitted her into the Lynton Cottage Hospital on January 16th, 1882, she is now about to be discharged perfectly well. While in the pital she was allowed a very liberal diet. The strength of the oint- at I employed was two drachms to the ounce of vaseline.

F. C. BERRY, B.A., M.B.(Dublin).

M unable quite to admit that the treatment of eczema by a Banting as recommended by myself in the JOURNAL of April 8th, is "by means a new departure in the dietetic treatment of skin disease." I ommended it only for the eczema of fat and lymphatic infants, be- se I had as yet no data before me for extending that restriction. Mr. Rich has even for "several years" pursued a system of dietary a different kind, that does not impair the novelty of my suggestion. explains very clearly what it is that he names a Banting diet. cording to him, it consists in "the omission of milk, and an excess saccharine and starchy food from the diet"—merely this; only that efficacy is very much enhanced by the addition of "a little cod- r oil." Now this addition of the richest and most fattening of oils I submit, quite inconsistent with the most essential of the conditions Bantingism, I should be disposed rather to call it a Rich diet than Banting diet. But Mr. Rich seeks to prove that this somewhat erted Bantingism is of avail, because in a solitary case of eczema ich he apparently quotes from hearsay, an ointment of pitch and vaseline had improved a patient who happened at the same time to be "Bantingised." It is a well ascertained fact that pitch ointment will, quite unaided, often cause a case of chronic eczema to recover completely.

Bantingism appeared to me of benefit in the eczema of fat and "pasty" infants, because I had tried it unaided by other means in that particular condition, and had found it, thus tried, to be of decided use.

BALMANNO SQUIRE,
Senior Surgeon to the British Hospital for Diseases of the Skin.

THE HYPODERMIC ADMINISTRATION OF AMYL-NITRITE.

I HAVE administered amyl-nitrite hypodermically thirty or more times during the past eighteen months. In all cases, a ten per cent. solution in rectified spirit was used. In no case did any untoward inflammatory or suppurative symptoms occur afterwards. The action of the drug was immediate in every case, the subjective phenomena being like those experienced when using the ordinary methods of administration. The spirit solution appears to be an excellent preparation for use, as a small quantity kept in an ordinary stoppered bottle for some months retains its full efficiency at the present time. The dose usually administered has been ten minims of the solution, equal to one minim of amyl-nitrite. In lumbago, where the patient is seen at the commencement of the attack, and the disease is not of long standing, the drug given in this manner instantly relieves the symptoms; a patient who is unable, previously to its administration, to bend the trunk without the most exquisite pain, five minutes afterwards can do so quite readily. In a case of paraffin-poisoning, where the patient was in a state of collapse and almost pulseless, one administration (inhalation having been ineffectually tried) brought on an immediate resumption of cardiac function, the man speedily recovering. Its action in this case would, I apprehend, be due to the relief momentarily given to the congested centres by the peripheral hyperæmia induced. In another case, one of duodenal colic, the patient was found rolling on the floor from the acuteness of the pain; when, on injecting fifteen minims of the spirit solution, the pain disappeared as if by magic, and the patient was at once able to resume his ordinary position. The value of this drug by ordinary methods of administration has already abundantly demonstrated how great a boon the discovery of Dr. Lauder Brunton is in the hands of the profession, notably in cardiac angina; and I feel confident that its utility may be still further enhanced by giving it as here recommended, hypodermically.

J. J. FREDERIC BARNES, M.R.C.P., F.R.C.S.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

ROYAL PUBLIC DISPENSARY, EDINBURGH.

CASES IN THE SKIN DEPARTMENT.

(Under the care of Dr. W. ALLAN JAMIESON.)

CASE I. *Pityriasis Maculata et Circinata.*—A. D., aged 21, a compositor, applied on February 8th, 1882. Six months ago, he noticed some roughness on his back between the shoulders. This gradually spread down the back, then invaded the chest near the sternum, and extended downwards. He was in the habit of washing with soap and water as far as the waist three times a week, and took an entire bath once a month. He said he was in good health; but his tongue was thickly coated with white fur. He was occupied from morning till night. The whole of the front of the chest and the upper part of the abdomen, the sides of the neck between the clavicles and scapulæ, and the back from the spines of the scapulæ to the lower dorsal region, were the seats of an eruption. This consisted of rose-red macules, from a pin's head to a pea in size, and of lines, also bright rose-red, about one-twelfth of an inch in breadth, either annular, crescentic, or gyrate, and each enclosing a space of greater or less extent, and of a fawn-yellow colour. The lines or spots were elevated about a line above the surface, and were sharply defined. The eruption was set thickly on the affected parts, and was sparingly covered with fine bran-like scales, easily detachable. It was said to itch a little, but there

were few excoriations. Scales were removed from various parts, treated with liquor potassæ, and examined; but no trace of fungous elements was discoverable. He was directed to wash well with soft soap and warm water, to dry the parts carefully, to sponge with vinegar, and immediately afterwards with a lotion of hyposulphite of soda (one drachm in one ounce) with a little glycerine. On February 11th, this treatment had been applied to the chest only. There the previously rose-red lines and spots had faded, and were represented by faintly marked lines having a pearly glance, and not now elevated above the surrounding skin, enclosing areas no longer scaly, but still pale fawn. On the 18th, the places which had previously been the seat of eruption remained rather more pigmented than the neighbouring unaffected skin. Itching had entirely ceased.

CASE II. *Pityriasis Maculata et Circinata.*—O. A., a teacher, aged 26, was a man of rather anxious temperament, who did not take much outdoor exercise. When a boy, he had (strumous) keratitis, and even yet the margins of the eyelids are red and tender. He applied on February 26th, 1882. Three years ago, some spots came out on his chest, and since then had gradually extended, so that they had now encroached on the abdomen, crossed the shoulders to the scapulæ, and were found down the back. He was sweating considerably when examined; but the eruption consisted of papules of a rose-red colour from a pin's head to a pea in size, and crescentic lines, exactly as in Case 1, enclosing fawn-coloured areas. Closely looked into, the lines were found to be made up of minute macules linearly arranged. With this exception, the eruption was exactly similar to that in the previous case. Some scales scraped from several parts were examined, but no fungi could be found. The eruption itched a good deal, and showed evidence of having been scratched. The same treatment as in the former case was ordered. He wrote from the country, where he lived, on March 9th, that the disagreeable sensation which he had felt in the breast and back had almost entirely disappeared, and that he was much more sprightly and hopeful than a fortnight before. "At first sight, the skin seems quite clear, but, on rubbing it, faint traces of the spots with which it was covered are still visible." This was no doubt the remains of the pigmentation due to long persistence of the eruption.

REMARKS BY DR. JAMIESON.—Both cases are undoubtedly similar to those recently published under this title by Duhring and Behrend, but are remarkable in one particular, their long duration. Duhring states that the duration of the disease is from one to three months, when it undergoes spontaneous involution. One of his cases, however, lasted five months; and in the instances cited above, it had not ceased to spread at the end of six months and three years respectively. What seems also to have escaped all previous observers is, that Sir Erasmus Wilson has most accurately figured and correctly described the disease in his *Atlas of Portraits of Diseases of the Skin*, under the name lichen annulatus serpiginosus. In his case, the disease occurred in a man aged 24, and had lasted three years. In his experience, the disease did not terminate spontaneously; and though it might develop pretty rapidly at first, it tended, if not treated, to become chronic. It is certainly a rare form of eruption, and, as Behrend has pointed out, most likely corresponds to the herpes tonsurans maculosus of Hebra and Kaposi. While they describe this as an acute and extensive outbreak of ringworm of the body, they nowhere explicitly state that a fungus was ever found by them. In 1877, I removed some scales from patches of what was described by Kaposi, in his *clinique* at Vienna, as an instance of this disease, but could find no fungous elements on a careful microscopic examination. Although, however, so far observers (Besnil, perhaps, excepted) have failed to find evidence of its parasitic nature, pityriasis maculata et circinata undoubtedly presents many features which ally it with the recognised dermato-mycoses; and improved methods of examination may eventually determine its right to be placed in this class. It yields, as noted above, easily to antiparasitic treatment. The name pityriasis, which has, with various affixes—rosea, maculata, circinata—been attached to the condition, has not everywhere been received with favour; but it is a good one, if for nothing else, that it serves to recall pityriasis versicolor, with which it has certain associations. It has, like most skin-diseases, its imitator among the syphilides. A rare form of ringed erythema, also figured by Wilson, and named lichen annulatus syphiliticus by him, very closely resembles it, with the exception of not itching. This occurs most frequently on the face, and at an early stage of syphilitic infection, coincidently with the multiple adenopathy, mucous patches, and tubercles, etc.; hence an error in diagnosis could only arise from insufficient examination of the patient. Though an early symptom, it is, when left alone, persistent; yet mild mercurial treatment speedily causes it to fade.

BIRKENHEAD BOROUGH HOSPITAL.

PYÆMIA: PULSATING STERNAL TUMOUR: PYO-PERICARDIUM: ASPIRATION: DEATH: NECROPSY: REMARKS.*

Reported by A. CRESWELL RICH, M.B.Lond., M.R.C.S., Honorary Assistant Medical Officer to the Liverpool Hospital for Cancer and Skin-Diseases.

JAMES F. S., a boy of strumous appearance, aged 15, was admitted to the Birkenhead Borough Hospital on May 1st, 1881, suffering from periostitis of the right tibia. His family and personal history presented no points of importance, being uniformly good. There was no history of injury to the affected limb, but a month before he had run a splinter into the left great toe, which "gathered." The right leg became inflamed ten days before admission, and three days before he had rigors. On admission, the leg showed the usual signs of periostitis. The left great toe was swollen, red and tender; the interphalangeal joint was in a disorganised condition. The leg was incised, and, at the same time, several fragments of necrosed bone were removed from the toe. The course of the periostitis was progressively from bad to worse. The patient had irregular rises in temperature and occasional rigors.

On May 12th, an abscess was forming below the inner side of the ankle. On the evening of May 17th, he complained bitterly of pain in the chest, and a pulsating tumour was seen occupying the centre of the sternum. It was in the exact middle line of the body, opposite the interspace between the third and fourth ribs; it was about the size of a small orange, and fluctuated. The skin over the tumour was thin, but not reddened, and the swelling was exceedingly tender. The pulsation was not expansile, but each beat of the heart conveyed a wave-like impulse to the fluid contents of the swelling.

May 18th. The tumour was larger. The pulse was 120: weak and irregular. The breathing was shallow and rapid; the face a little dusky. At 3 P.M. about two ounces of thin pus, containing lymph-flocculi, were removed by aspiration, with the effect of greatly relieving the dyspnœa and embarrassed heart. On May 20th, the tumour was larger than it was originally, and the skin at the lower part was red and tense. The breathing was again difficult, and the pulse once more irregular; eight ounces of fluid of the same character as before were removed with the aspirator. The relief was immediate. He was troubled by diarrhœa, and a patch of dulness, with tubular breathing, was discovered at the base of the left lung. On May 22nd, the sternal swelling ruptured through a small oval opening forming at the upper part, which gave vent to a quantity of thin pus. A gluteal abscess was aspirated.

May 26th. The diarrhœa was relieved, but the patient was sinking. Another opening had formed, somewhat larger than the first. Between the two orifices, the bridle of skin, which was about half an inch in width, had two ovoid fissures, which varied in size with each beat of the heart. At each pulsation, the contained fluid welled up through these orifices. Through the upper opening, the parietal layer of the pericardium was seen to be perforated by a circular hole, about the diameter of a quill. Fatuity was noted on this day.

May 30th. The diarrhœa, which was in abeyance for a day or two, came on again. On close examination of the sternal wound, the pericardial opening was seen to be now large enough to admit a finger. Through this orifice, the right auricular appendix and part of the right auricle could be seen moving across the opening, as the heart pulsated. The contents of the pericardial sac were purulent, and the surface of the heart had a whitish-yellow appearance.

June 2nd. The temperature oscillated. Many prolonged rigors occurred. There was great prominence of abdomen, and urgent diarrhœa. The patient died quietly at 9.30 P.M. on June 3rd.

NECROPSY (fourteen hours after death).—The usual evidences of pyæmia were found. The abscess-cavity was found to extend for some little distance on each side under the attachment of the pectoralis. The sternum was completely divided at the site of the disease, about one-eighth of an inch of its substance between the third and fourth ribs having disappeared. The edge of the upper fragment was smooth and horizontal, the edge of the lower slanting and irregular. The periosteum on each side was gone for half an inch. The pericardium was firmly adherent to the bone; it was full of thin purulent fluid containing flocculi of lymph. The heart was coated with puriform lymph. Opposite the centre of the gap in the bone there was a circular opening in the pericardium, easily admitting a finger; and to the left of this and above, about one inch from the first, were two smaller openings side by side.

* Condensed report of case read before the Liverpool Medical Institution, February 23rd, 1882

REMARKS BY MR. RICH. — This is undoubtedly a case of great rarity; indeed, I have failed to find any record of a similar one. 1. It may, I think, be safely inferred from the history, that the injury, apparently slight though it was in the first instance, to the great toe, was the source of the pyæmia, and that the periostitis of the tibia and the sternal abscess were, in common with the other abscesses, resulting lesions. 2. There is a difficulty about the explanation of the sternal lesion: it is hard to say where the morbid process commenced. We know that the bones are sometimes affected secondarily in pyæmia; but the sternum is rarely implicated, although it is quite conceivable that it may become involved by spreading of the destructive process from one of the joints in connection with it. The site of disease, in this instance, was between the third and fourth costal cartilages, and nearer the latter; in other words, close to the line of separation between the third and fourth segments of the meso-sternum. Now, at the fifteenth year of life, there would be a broad band of cartilage in this situation, these two pieces of sternum not uniting until the twentieth to twenty-fifth year. This piece of cartilage appears to have gone. The imperfect nature of the joints of the sternum, the absence of synovial membrane, the obliquity of the bone-lesion—all combine to make the condition very puzzling. It might naturally be asked, Would it not be in accordance with our knowledge of pyæmia, to consider the lesion as commencing in one of the costo-sternal articulations? These joints, however, were examined, and found to be normal. It might be looked upon as a periostitis, occurring, like that of the leg, as a result of the pyæmia. 3. The diagnosis of the nature of the tumour hardly called for comment. The situation, the fluctuation, the age of the patient, the detection of a definite bony edge, the rapid development, the constitutional condition, and, above all, the peculiar wave-like pulsation—all pointed in the direction of one definite condition. 4. As regards the treatment, I would call attention to the speedy relief that followed the use of the aspirator. I am indebted to Dr. Bowen of Claughton for permission to record this case.

MARYLEBONE INFIRMARY, NOTTING HILL.

THREE CASES OF SUDDEN DEATH FROM BURSTING OF AORTIC ANEURYSMS.

(Reported by Mr. JOHN R. LUNN, Medical Superintendent.)

CASE I. *Aortic Aneurysm: Rupture into Œsophagus.*—A. J., aged 67, married, a shoemaker, was admitted in July 1881. Nothing was noticeable about his former history. He had been in the workhouse six years, and able to do a little work. When admitted, he was supposed to be suffering from chronic bronchitis. On the night of admission, he awoke with sudden enormous hæmorrhage from the mouth. Death immediately ensued. At the *post mortem* examination, the lungs were emphysematous and œdematous. There were a few ounces of bloody fluid in each pleural cavity. The pericardium contained two ounces of fluid. The heart seemed to be healthy. The urine was not examined. The thoracic aorta was rather wrinkled, rigid, and atheromatous. The trachea was normal. Just at the junction of the transverse and descending portions of the aortic arch, where it passes over the œsophagus, was a communication between the two tubes, a small irregular aneurysmal cavity intervening. The two tubes appeared to have been separated by a thin membrane, which looked torn, and as if recently ruptured. The aneurysm itself was apparently old, and was about the size of a walnut.

CASE II. *Aneurysm of Aortic Arch: Rupture into Right Pleura.*—G. B., aged 53, married, a carpenter, was admitted in November 1881. The family history was good; there was no history of syphilis. He had always been a hard-working man, temperate in his habits, and had never been laid up before. There was no history of a blow. When admitted, he was suffering from chronic bronchitis, dyspnœa, and a troublesome hacking cough. There was no dysphagia. The pulses were regular. There was no swelling of the extremities, and nothing abnormal was found in the urine. The apex of the heart was displaced downwards and outwards. The sounds were loud, but there was no murmur. There was dulness over the upper part of the sternum down to the third space, and extending to the right, midway the length of the clavicle, and downwards to the third rib. There was no apparent prominence; but a strong systolic heave was felt. No murmur was heard over the dull area. Inspiration was stridulous in front. Pain was occasionally felt passing from mid-sternum, horizontally round the chest, to the back.

The patient improved a little by rest, becoming more able to sleep at nights than on admission, and was rather less troubled by cough and dyspnœa. Though an aneurysm was believed to exist, no warning of rupture was given. The patient died suddenly during the night of November 29th, having just risen to close the window, and returned to bed.

At the *post mortem* examination, thirty-six hours after death, the body was well nourished, but pale. Rigor mortis was well marked. The liver was pushed down and twisted to the left. The right side of the diaphragm was also pushed down and flattened; it could not be moved upwards, being kept down by a soft resisting mass in the chest. The chest-walls were very rigid, all the rib-cartilages being completely calcified. On removing the sternum, a large cavity was opened at the upper part, above the base of the heart, and on the right side. The anterior wall was thin, and inseparable from the bone. The cavity contained fluid blood and irregular laminated dark clots. In the right pleural cavity, a large collection of blood was seen below the base of the lung; and, on moving the lung forwards, the cavity was seen to be full of blood, mostly coagulated into a large red clot at the back of the chest. The lung was collapsed, but in structure emphysematous and œdematous. The left lung was free and pale; it was congested below, but there was no consolidation. The cavity behind the manubrium was seen to be a large aneurysm, equal in size to a cricket-ball; its walls were thin and generally bare, but lined with a firm laminated clot half to three-quarters of an inch thick on the right side, where it encroached upon the upper lobe of the right lung. On removing the loose clot and liquid blood, a similar large aperture was seen at the back, about half an inch in diameter, with clean edges, opening into the aortic arch. On the convex side, at the junction of the first and second parts, the sac had ruptured into the right pleural cavity by an irregular opening at its thinnest spot. The pericardium contained two ounces of clear yellow serum. The heart was hypertrophied, with thick and firm walls. The valves were somewhat thickened, but competent; the cavities were nearly empty. The first part of the aorta was dilated; the vessel was atheromatous, and very inelastic throughout its whole length; the orifices of its large branches were patent. The trachea was pushed back by the upper part of the aneurysm, which was adherent to it. All round the tube was much gelatinous œdematous connective tissue; the mucous membrane was thickened and congested. The liver and spleen were normal. The kidneys were rather small; the capsules were tough and adherent, tearing the surface extensively on removal.

CASE III. *Aneurysm of Aorta: Rupture into Right Bronchus: Gout: Syphilitic Choroiditis.*—G. H., a stableman, aged 60, married, was readmitted from the workhouse in October 1881, with gout. He had been blind many years, having only just perception of light. The fundus of both eyes was studded with black patches of pigment, the result of choroiditis. No visceral lesions were detected, and he was apparently well, and about to return to the workhouse, when he suddenly began to suffer from nausea and an abundant discharge of blood in gushes from the mouth. He became suddenly very pale and unconscious; respiration and the heart's action stopped in two or three minutes. It was afterwards found out that he had had some hæmoptysis before this date.

At the *post mortem* examination (74 hours after death) the body was well nourished, and there was abundant subcutaneous fat; the surface was pale, with a good deal of hypostatic lividity. The rib cartilages were not calcified, the lungs were evidently in a state of acute insufflation, quite covering the heart. The pericardium, which contained 1½ ounces of serum, was adherent to the heart by numerous thin bands, especially towards the base. The heart was small, pale, and empty; the surface was white and fibrous. The valves were healthy and competent; the cavities nearly empty. The aorta was thickened and inelastic; its surface uneven and very atheromatous. On the inner side of the first part of the arch, beginning just within the pericardium, was a large aneurysm, about the size of an orange, communicating with the vessel by a circular opening about equal in diameter to that of the aorta; the inner coat of the aorta seemed to extend for a little way into the cavity of the sac. The sac began behind the pulmonary artery, passed backwards and to the right, behind the commencement of the aorta, and pressed against the bronchial glands (one of which was blackened and softening) and the bronchi. It was thin-walled generally, but lined by uneven layers of flakey blood clots, where it was in contact with the right bronchus; this tube was perforated anteriorly by an irregular opening, equal to a goose-quill in diameter, by which it communicated with the aneurysm. The rest of the arch, and the thoracic aorta were, like, the commencement of the arch, thick, inelastic, and very atheromatous. The œsophagus was normal. The trachea and bronchi were full of blood, and the mucous membrane was thick and congested. The lungs were large, distended, and emphysematous throughout, and somewhat congested; there was blood in the bronchial tubes. The liver was soft, and of average size; its structure was apparently normal. The spleen was adherent all over to the

peritoneum and adjacent organs, and was soft and pulpy. The right kidney was small; the lower portion seemed of average size, but the upper part was atrophied, both pyramids and cortex having a pale granular structureless appearance. The left kidney was a little larger than usual. The brain was healthy.

The above three cases are interesting as showing how persons suffering from aortic aneurysm may go about their daily work without any apparent local or constitutional disturbance. Only one out of the three cases showed physical signs of an aneurysm during life.

Mr. Lunn was indebted to his colleague, Dr. Benham, for his kind and able assistance at the *post mortem* examinations.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

FRIDAY, MAY 12TH, 1882.

J. LISTER, D.C.L., F.R.C.S., F.R.S., President, in the Chair.

Amputation of the Penis.—Mr. PEARCE GOULD showed a man, aged 73, on whom he had performed a new operation for amputation of the penis. The disease for which this was done was epithelioma, extending back to the pubes. The scrotum was split along the raphe, the urethra detached from the penis and fixed to the perinæum just behind the scrotum, and the crura of the corpora cavernosa were then peeled off from the pubic arch, and the whole organ thus removed. The man had complete power over his urine.

Petechiosis Rheumatica.—Dr. S. MACKENZIE exhibited an interesting case of that affection in a female.

Aneurysmal Varix affecting the Hand and Fingers.—Mr. T. SMITH read notes of this case, and exhibited the patient, a healthy female, aged 25, admitted into hospital last February for great loss of blood from an abrasion in one finger. This was easily controlled by pressure. The disease was stated to have commenced at the age of a year and a half, following a severe burn in the left hand. This hand was now much larger than the other, and the whole of its subcutaneous veins were dilated and tortuous; the arteries of the hand and forearm were much enlarged and constrained. A purring continuous venous thrill was to be felt on lightly grasping the hand, and a well-marked arterial thrill on firmer pressure, over the whole of the affected member. *Bruits* corresponding to these thrills were to be heard on auscultation.—Mr. T. HOLMES referred to a somewhat similar case. Operation did not seem desirable, and on consultation the question of ligaturing the subclavian was decided not to be justifiable. The man died of typhoid fever, and the *post mortem* examination showed there was no communication between the artery and the vein. The patient, who was an actor, met with an accident on the stage, after which the condition came on slowly. There was only an enlarged and varicose condition of the veins and arteries.—Mr. HEATH had twice seen such a condition in the lower limb. In one case, the increasing pulsation impelled the patient to seek advice. Pressure on the femoral artery had no effect. No treatment seemed to do any good. In neither of his cases was there any history of accident or injury.—Mr. LISTER remembered seeing a patient under Mr. Syme, whose hand was affected in the way referred to. The arteries and veins were enlarged and pulsating, the ring finger being especially implicated. The pulsation was aneurysmal, and he looked upon it as a peculiar form of nævus. Mr. Syme decided to do nothing, and that was probably the best course in such cases.—Mr. SMITH thought his case different from arterial nævus. He had seen but one other example of aneurysmal varix, produced by a youth cutting his femoral artery and vein with a penknife. The patient was now fairly well, which showed that these cases tended to improve.

Removal of an Epitheliomatous Ulcer by Scraping.—Mr. T. HOLMES read notes of this case, which was that of a young man suffering from an ulcer of the leg, which presented decided appearances of epithelioma, both to the eye and to the microscope. It was of very large size, almost isolating the tendo Achillis, and accompanied with considerable enlargement of the inguinal glands. The total removal of the epitheliomatous tissue, followed by the free application of the actual cautery, induced sound cicatrisation, and the enlarged glands subsided entirely. This was a fresh proof of the feeble malignancy of epithelioma.—Mr. DENT had been struck by the favourable results obtained in these cases. In a case recently under his care, of flat epithelial cancer of six years' growth, this was scraped and cauterised with good results, though the growth extended down to the bone. In another case, a woman had an epithelioma-like ulcer of the leg, alveolar and pigmented. The constitution also seemed affected. This would not be a suitable case for operation.—Mr. T. SMITH said that all surgeons must have been struck with the varying malignancy of ulcers. Epithelioma in a subject of twenty must be very rare—he had never seen a case. At such an age it could hardly be very malignant.—Dr. WILTSHIRE remarked that, even though epithelioma rapidly spread when it attacked the vagina, one scraping often sufficed to relieve pain and hæmorrhage, though an offensive fluid continued to flow. In two of his cases the patients did well for some months, but after that time grew worse; one had died, and the other was rapidly growing worse. In a case where Paul Mundé operated for him, the whole uterus came away; the woman lived for eight months, but died at last from uræmic coma. A patient who had been scraped and cauterised four and a half years ago was still well.—Mr. R. W. PARKER was struck by the fact that the tendo Achillis was entire in Mr. Holmes's case, as cancers tended to eat into any tissue.—The PRESIDENT mentioned the case of a patient who often came to Simon at Heidelberg, for relief for an epitheliomatous ulcer in the rectum. He thought the spoon should only be used where the knife could not be employed. However carefully removed, epitheliomata did recur. In a case of his own, he had removed an epithelioma of the cheek, making a wide cut; but the growth returned. He was not sure of the epitheliomatous nature of Mr. Holmes's case.—Mr. HOLMES, in reply, said he suspected that many growths originally local tended to become epitheliomatous and constitutional in type. His case certainly corresponded to the ordinary descriptions of epithelioma, and he would urge that such cases, if early treated, might result in the extirpation of a disease rapidly becoming malignant.

Removal of Loose Cartilages.—Mr. T. HOLMES gave particulars of this case, which was, in two respects, remarkable; first, on account of the number of loose cartilages (there being six of large size and one small one) contained in the joint in a person not apparently affected with chronic rheumatic arthritis, and still very active, and even athletic; and next, on account of the perfect impunity which attended the somewhat protracted manipulations necessary for their extraction, there being no rise of temperature or any symptom of inflammation, except that which followed a somewhat too early use of the limb; and this was only trifling.—Mr. HAWARD had removed three loose cartilages from the knee of a man some time ago, and since then one in another patient. He advocated a free incision as better than a small one. He preferred small lithotomy-forceps to the fingers in the removal of the cartilages.—The PRESIDENT said the case was both rare and interesting. He had only seen one under Professor Thiersch, who removed several from one joint—some rather large. They seemed to grow after separation. Mr. Joseph Bell had suggested that they should first of all be fixed by a needle, cut down upon, and removed by the needle.—Mr. HOLMES condemned this plan, especially if the cartilages were hard and resistent. Free incision, with antiseptic precautions, was undoubtedly the best and simplest plan of procedure. In his own case, he had failed to find two cartilages. Professor Pirrie mentioned a case where twenty-five were removed. It was quite a mistake to suppose that the joints were always diseased when loose cartilages existed in them.

A Case of Cerebro-Spinal Syphilis.—Dr. ALTHAUS read a paper on this case. The patient, a healthy young man, suffered, eight years after an infecting sore, from severe headaches, which continued for six months, and were followed by an attack of aphasia and right hemiplegia, after which they ceased. He recovered his language, but the paralysis remained, and was followed six months later by paralysis of the left leg and of the bladder and bowels. There was rigidity in the paralysed limbs, and an enormous increase of tendon-reflexes, so that the slightest irritation, such as a sudden noise, opening the door, etc., caused the legs to shake fearfully, exhibiting the condition of spinal epilepsy. The centre of these movements was in the patellar tendon, but percussion of any point of the tibia and the rectus femoris led to similar, although less violent, phenomena; ankle-clonus was likewise marked, and the faradic and galvanic excitability of the nerves and muscles appeared to be increased. In the right arm, powerful tendon-reflexes could be elicited by gently striking the metacarpal bones, the capitulum ulnæ and the styloid process of the radius, the olecranon ulnæ, and the humerus. The abdominal and cremasteric reflexes were also increased; the muscles of the body were paretic; the urine, which had to be drawn off by the catheter, was healthy, except that there was occasionally an excess of lithates. The sexual power and desire were in abeyance. Dr. Althaus considered the exceedingly violent headache from which the patient had suffered not owing to a gummatous deposit, to which it was generally ascribed, but to syphilitic endo-arteritis, which was going on all the time the headache lasted, and which ultimately led to thrombosis of the left middle cerebral artery and softening of brain-tissue. When the artery was completely blocked,

the headache ceased, never to return. With regard to localisation, he argued that it was not the main branch of the Sylvian artery which had become blocked, but its cortical system, more particularly the anterior and posterior parietal arteries, and that the affection was, therefore, not one of the corpus striatum, but of the central convolutions bordering the fissure of Rolando. His chief reason for this was, that the aphasia had been quite temporary, and that, in plugging of the main branch of the middle cerebral, loss of language was generally permanent. He thought the paralysis of the left leg and of the bladder and bowels, which came on six months after the first attack, not to be owing to fresh arterial thrombosis in the right cerebral hemisphere, but to secondary sclerosis of the pyramidal strand spreading from the right side through the anterior commissure to the left side of the lumbar enlargement of the cord, where it involved, not only the pyramidal strand, but also the paths for the conduction of motor impulses to the bowels, bladder, and sexual organs.

Disorders of Movement following Right Hemiplegia.—Dr. W. M. ORD read notes of this case. M. A. J., aged 53, female, servant, was admitted for the first time to St. Thomas's Hospital on May 25th, 1881. On the evening of the preceding day, she had suddenly lost power over the right arm and leg, without loss of consciousness. When examined, she presented complete motor paralysis of the right arm and leg, with impairment of sensation more marked in the leg than in the arm. There was no facial paralysis, but the right pupil was larger than the left, and sensation was impaired on the right side of the face. There was no defect of mind or of speech. For a few days, her condition became worse. She became apathetic, had some difficulty in articulation, and loss of the memory of words, some paralysis of the right facial muscles, and loss of control over the bladder, without rise of temperature. The urine contained no albumen, but the retina presented the signs of albuminuric inflammation. After this condition had lasted a few days, she began to amend. Her intellect became clear, and voluntary motor power and sensation returned—in the leg first, afterwards in the arm. She was discharged on September 30th, showing very little weakness of the right side. When readmitted, on February 17th, 1882, she stated that, at the time of her leaving the hospital in September, two fingers of her right hand used to twitch involuntarily. She did not mention this, and it was not noticed. But from that time she began to experience steadily increasing involuntary movements of the arm and hand, with stiffness of the leg. When admitted for the second time, she was in very fair general health. There was some imperfection of movement of the right half of the mouth, but no other facial paralysis. The tongue deviated to the left. The left pupil was smaller than the right. The right arm was in constant movement—upper arm, forearm, and hand all sharing. At present, when she was sitting with the right hand resting on her lap, the fingers were all extended, and were alternately moved together and separated, as in the act of playing on the pianoforte; the palm of the hand was pressed with a rocking movement against the lap, the wrist rotating in about a fifth of a circle; the elbow was sometimes quiet, sometimes adducted and abducted gently. The shoulder was rhythmically raised and depressed. These movements were perfectly regular, and recurred at the rate of about 140 times in the minute. When the hand was moved voluntarily from the lap, the movements became more extensive. If a book were presented to her, she brought her hand to it with a double series of pendulum movements, small in the hand and wrist, large in the whole limb, which swayed several inches alternately on each side of the intended line of movement. Ultimately she seized the book and held it firmly, while the arm continued its vibrations. When the whole arm was abducted, the vibrations increased in extent and force, moving the limb as though it were a pump-handle vigorously worked, shaking and swaying her whole body. The movements ceased during sleep, and were sometimes almost lost when she was sitting or lying very quiet with the hand and arm completely supported. Sometimes, on walking, she found the arm stiff for a time. There was no loss of sensation and no disorder of sensation. The patellar tendon-reflex was much exaggerated on the right side, not on the left. The arm tendon-reflexes could be elicited, but not ankle-clonus. Her mind and speech were clear, but she walked with a limp, because of the stiffness of the right leg, which, however, did not present any of the rhythmical movements seen in the arm. The superficial reflexes were normal, except that the plantar was increased on the right side. The eyes presented now no abnormality. The original hemiplegia was probably hæmorrhagic, there being no valvular disease, and the signs of albuminuric retinitis having been present soon after the attack. The movements were neither those of athetosis nor of chorea, but, resembling in part those of paralysis agitans, more closely approached the vibratory tremors attending voluntary movements in sclerosis of the lateral columns, and disseminated sclerosis. The exaggeration of the tendon-reflexes went with this to lead Dr. Ord to believe that in this case the past hemiplegic disorders of movement probably depended upon a descending lesion.

OBSTETRICAL SOCIETY OF DUBLIN.

SATURDAY, APRIL IST, 1882.

J. A. BYRNE, M.B., President, in the Chair.

Hypertrophy of Uterus and Dilatation.—Dr. ATTHILL showed a specimen which he regarded as one of hypertrophy of the uterus with dilatation of its cavity, as the result of stenosis of the cervical canal. It was taken from the body of a woman aged 40, who was admitted to the Rotunda Hospital last February. Since early girlhood, she had suffered from dysmenorrhœa, which had increased in severity as she grew older, till latterly her periods were painful and prolonged, and the loss of blood excessive, so that she was very anæmic. The uterus was as large as a cocoa-nut, but the os could not be felt, nor could a sound be introduced into the uterus; but a small silver probe could be passed, with the help of a speculum, for five inches into the uterus. The uterus was very tense, and the diagnosis of tumour was made; but its nature could not be determined. The os was incised as far as the os internum, whereupon a copious gush of muco-purulent fluid escaped; so that it was thought that an abscess had been opened. No pain or distress followed till four or five days afterwards, when she was attacked with jaundice and incessant vomiting, and she died within three days. In making the necropsy, no tumour of any kind was found; but the uterus was enlarged, and its walls enormously hypertrophied. The woman was a virgin, and the cause of death was localised peritonitis.—Dr. PUREFOY remarked that the result here was similar to what had frequently been observed as the result of incising the imperforate hymen. For there, although relief was given by making a small opening and allowing the accumulated menstrual fluid to escape, in a few days afterwards symptoms of pyæmia showed themselves, and the patient died.—Dr. MACAN did not think the specimen a very satisfactory example of dilatation of the cavity of the uterus from the closure of the os; he thought the uterine walls might have contracted since the operation.

Hegar's Dilators.—Dr. MACAN showed a set of Hegar's dilators as modified by himself; they were made to taper so that the base of No. 1 should exactly correspond in size with the top of No. 2, and so on to the last.

Imperfect Development of Genital Organs.—Dr. HORNE showed a fœtus exhibiting a very imperfect development of the genital organs. The front of the chest was covered with a network of greatly distended veins. The whole abdomen was greatly enlarged. The genital organs were almost wholly absent. There seemed to be rudimentary traces, but whether they were the penis or not was difficult to say; and there was complete absence of the anus.

On Some Cases of Noma Pudendi.—Dr. PUREFOY referred to the early mention and varied use of the term "noma" amongst medical writers, from Hippocrates down to our own time, and the consequent inaccuracy of the descriptions of cases so termed. The only writer, so far as he knew, who had described "noma pudendi" with accuracy, was Mr. Kinder Wood. It commonly happened that the diseased condition was already fully developed before medical aid was sought; but in a few cases the following symptoms preceded, by about three days, the affection of the pudendum; chilliness, succeeded by heat, slight headache, loss of appetite, thirst, torpor of the bowels, and general languor. Pain in micturition generally first attracted attention to the genitals, which would be found enlarged, inflamed, and of a livid colour. Within twenty-four hours from the inception of the inflammation, the inner surface of the labia was covered by a crop of vesicles, which quickly burst, leaving as many superficial ulcers, from which flowed a dark offensive ichor. After the inflammation began, the pulse was quick and weak, and as the ulceration extended, the face became of a peculiar pallid hue, very pathognomonic of the affection. He agreed with Mr. Wood in regarding the disease as one of a distinct and specific nature. Dr. Purefoy had seen, in all, five cases of noma; all of them occurred in children under three years of age, except one of eleven. The first was the only fatal case. In the early stages, he applied warm bread poultices, and subsequently carbolic oil (1 in 40) dressings, aided by constitutional treatment.—Dr. ROE considered that cancrum oris was identical with noma pudendi, the difference consisting in its situation.—A discussion followed, in which the President, Drs. Henry Kennedy, Madden, McVeagh, and Macan took part; and Dr. PUREFOY replied.

Causation of Head and Other Presentations during Labour.—Dr. NEVILLE read a paper on this subject. He commenced by pointing out that the presentation of the head might, *par excellence*, be consi-

dered as the natural one, being the safest for both mother and child, and occurring in 95 per cent. of all labours, premature or at term. This being so, it would be necessary, first of all, to ascertain the causes which lay at the root of so great a frequency of head-presentations. The several factors of normal causation having been once determined, it would be comparatively simple to fix on those which would act so as to bring about abnormal results. He then considered the general statical conditions, referable both to the fœtus and its environments, under which the former spends the latter months of pregnancy *in utero*. These considerations included the attitude of the child—one of almost universal flexion—which gave to its body a roughly ovoid form; the average specific gravity of the entire fœtal ovoid taken as being 1050, but greater at its head than at its breech extremity. Consequent on the uneven distribution of its specific gravity, the centre of gravity of this ovoid was situated towards the head end, and nearer its dorsal than its ventral aspect. This position of its centre of gravity was shown by the numerous experiments on floating or sinking fœtuses, conducted originally by Dubois, then by Simpson, and subsequently, under more perfect conditions, by Duncan, Veit, and others. The centre of buoyancy of a fœtus immersed in fluid was situated nearer its breech than its head end, on account of the greater size of the former. The average specific gravity of the liquor amnii might be stated as 1012, and there could be no doubt that, relatively to the size of the fœtus, it usually became progressively less during the last three months of pregnancy. The ovoid form of the uterus was next considered. This, Dr. Neville thought, depended, as did also that of the fœtus, on intrinsic and vital rather than on extrinsic or mechanical causes. The inclination of the uterus to the plane of the horizon in the erect or dorsal position of the patient formed a very important element for consideration. Only when the patient lay on her side was the long axis of the uterus nearly coincident with the plane of the horizon. Dr. Neville then considered in detail the action of gravity on the fœtal ovoid under normal conditions, as above. He showed that the action on a fœtus not in a condition of stable equilibrium might be decomposed into two factors, which he named the sinking and the twisting factors. The result of the former of these would be that the fœtus would sink through the liquor amnii until arrested by the uterine walls; of the latter, that, in so sinking, the body would rotate round its centre of gravity until the centres of buoyancy and gravity were in the same vertical line. It was shown that in this way the fœtus would be in a state of stable equilibrium when under normal circumstances its head presented. It was pointed out that on mechanical principles the "twist" factor might, when compared to the "sinking" factor, have a very appreciable effect on the sinking fœtus, though it would not be easy to calculate its actual potency. Dr. Neville thought that, so long as the fœtal ovoid remained freely movable within a large amount of liquor amnii, the action of this "twist" factor would be quite sufficient to account for the frequency of head-presentations. When, however, as towards the end of pregnancy, the fœtus came more closely in contact with its limiting environments, he did not think that this factor would prove by itself sufficiently strong to change, for example, a breech into a head-presentation. Other explanations for the frequency of head-presentations at term became necessary. These explanations might be sought for in growing need for what may be termed form-adjustment, or form-accommodation. The effect of fœtal movements and of uterine contractions in perfecting this adjustment were considered, and to both he was inclined to attach considerable weight. The frequency of complete changes of presentation during the latter weeks of pregnancy, even among primiparæ, and where there was a very scanty amount of liquor amnii, proved fatal to the theory which would attach too exclusive an importance to gravity acting at or near term. Uterine contractions favoured presentations of the head by necessitating adjustment. Fœtal movements acted in the same way, and were, moreover, especially apt to effect changes in any other presentation than that of the head. Hence the predominance of head-presentations at term might be accounted for in part by the fact, that in these the fœtus was in a condition of stable equilibrium as regards gravity; and in part also by the fact that the need of form-adjustment was then best fulfilled and promoted both by the fœtal movements and uterine contractions. Any explanation which neglected one or more of these co-operating factors was so far unsatisfactory and incomplete. The paper concluded with a general summary of the causes of presentations other than those of the head, showing how they could severally be referred to some recognisable want or defect among the normal factors of causation.

MR JOHN T. R. BURROUGHS, late Medical Officer for the Lee District of the Lewisham Union, has obtained a superannuation allowance of £49 12s. 3d. *per annum*.

REVIEWS AND NOTICES.

THE RELATIVE MORTALITY, AFTER AMPUTATIONS OF LIMBS, OF LARGE AND SMALL HOSPITALS, AND THE INFLUENCE OF THE ANTISEPTIC (LISTERIAN) SYSTEM UPON SUCH MORTALITY. By HENRY C. BURDETT, Esq. Read before the Statistical Society, May 16th, 1882.

WITH the main object of this paper we so heartily agree, that it is with some regret we feel ourselves compelled to dissent from any of its statements; and we hasten to express our agreement, in distinct terms, lest our dissent from parts of the paper should be taken to apply to the whole. Mr. BURDETT's main object we take to be to advocate the maintenance, in small towns, or villages, or in the neighbourhood of large manufacturing works, of small hospitals to which the sick and wounded can be at once transferred, without the delay and exposure involved in seeking admission and getting transported into the county or metropolitan hospital. To that proposal we have always given a consistent support, and we rejoice at the success which has attended it. At the same time, we have never admitted that any evidence has been produced to show that these small hospitals (which are now usually termed "cottage hospitals") are more healthy, or are safer places for the performance of surgical operations, than the large hospitals; and we regret that the supporters of cottage hospitals should have thought it necessary, in recommending their favourite institutions, to attack those still more useful ones, which not only minister to the necessities of the urban population, but also perform the far more important function of improving medical and surgical science, and teaching it to successive generations of students and practitioners. There is really no such necessity. The two institutions are in no respect antagonistic; nor does the need for the so-called cottage hospitals depend on any lack of salubrity or success in the large metropolitan hospitals; nor is it true that there is any such insalubrity. The present attempt to show that the mortality after amptutation is less at small than at large hospitals, though fairer and less obviously biassed than Sir J. Simpson's celebrated onslaught in his papers entitled "Hospitalism," is, on that very account, less successful; since, if it show any difference at all, that difference is reduced to a figure which is obviously accidental, and which any accident might reverse. The comparison is founded on a collection of 326 amputations from 61 cottage hospitals, and these are compared with Mr. Erichsen's book (published some years since), recording the amputations performed in University College Hospital during 38 years previous to its publication. The result is, that the mortality of the former is 17 per cent., and that of the latter 25 per cent. We say advisedly that such a comparison does not really prove that there was any difference at all in the results of the practice at the two classes of institutions; for, first, Mr. Burdett's 61 hospitals are a minority of the cottage hospitals, to which he sent for information. The latter were 160 in number, and of these, 92 only replied to his circular, 31 replies being that no amputations had been performed. How are we to know whether, if the other 68 had taken the trouble to answer, the 17 per cent. might not have grown into 25? But, allowing that the figure 17 correctly represents the percentage mortality, is the comparison fair between a series of cases, all of them recently performed, and most very recently, and another which goes back more than forty years? The present reviewer has watched London hospital practice, and especially that of one large hospital, for over thirty years, and can testify that the results of amputation (apart from any question of "Listerism") has been steadily improving during the whole period—a fact which, we had thought, was completely proved by the late Mr. Callender; so that a comparison confined to the contemporary practice of cottage and metropolitan hospitals might have shown no numerical difference at all, or a difference on the other side of the account. This remark applies to all the other references (and they are numerous) made by Mr. Burdett to the statistics produced by Simpson, Bryant, Malgaigne, Billroth, Bristowe, Holmes, etc. They are not made, as statistical comparisons, to be worth anything, ought to be made, between things which in all other respects are exactly alike. As if to prove the fallacy of his statistical method, Mr. Burdett has added some observations on antiseptic surgery, and, adopting "Schede's antiseptic statistics," has drawn the conclusion that "surgeons who adopt it [Mr. Lister's treatment] conscientiously" are able, "irrespective of the size of the hospital buildings, to reduce the mortality in such cases to 4 36 per cent." If, therefore, a difference in surgical treatment can reduce the mortality (in cases assumed to be similar) from 17 to 4 per cent., how can we be expected to believe, without any other argument than a string of figures, that an alleged difference between 17 and 25 per cent. must depend merely on the size of the building? Might it not depend on difference in the patients, or on difference in the selection of cases,

or on many other causes? Would it not be just as fair to argue that the country surgeons lost fewer patients after amputation, because they treated their cases better? In fact, this view of the case would derive some support from Schede's statistics, which tend greatly to discredit Mr. Burdett's conclusions. The fact is, as has over and over been said, such statistics as these cannot, in their own nature, be convincing. To persons who are firmly impressed with the idea that London hospitals are pestiferous, and are hotbeds of erysipelas and pyæmia, they appear of importance, because they support their preconceived views; but those who know both sides of the question can only regret the superfluous labour spent in their collection.

Another matter we must refer to, though briefly. Mr. Burdett quotes as follows from "a critic", and accompanies the quotation with the following demand for a retractation.

"After regretting the absence of any attempt to estimate the real sanitary condition of cottage hospitals as tested by the prevalence and spread of erysipelas in these institutions, the same critic observed: 'Every one knows by this time how inferior the arrangements for nursing, cleanliness, and ventilation in cottage hospitals are to those of our great city hospitals.' This last statement is made by a gentleman who holds a deservedly high place amongst metropolitan surgeons. It is so entirely imaginary and contrary to the fact, that I must ask him to unreservedly withdraw it. Before doing so I should wish him to visit such hospitals as Cranleigh, Boston, Grantham, Petersfield, Reigate, Savernake, situated as they are in different parts of the country, and ministering as they do to the wants of agricultural and urban populations. He will then feel compelled to admit he has inadvertently been led to make a charge of bad management against these crisply (*sic*, probably a misprint) conducted little hospitals which has no foundation in fact. Whatever sins may be laid to the charge of cottage hospitals, they are certainly not filthy, badly nursed, or ill ventilated."

But then who brought any charge, or who ever said that these little hospitals were badly managed, filthy, badly nursed, or ill-ventilated? We believe that the great hospitals of British cities and large towns are the model of what has as yet been attained in hospital management, and that their construction, nursing, and other arrangements, though of course not perfect, are yet better than those of any other similar institutions in the world—most certainly in this part of the world. The cottage hospitals are inferior to these; but yet are very creditable and successful institutions. Such conclusions are not formed *à priori*, but rest on personal experience at two cottage as well as one metropolitan hospital.

The sentence, as we understand it, was intended to refer mainly to the old cottage hospitals which were really cottages, and were necessarily inferior in ventilation and in cleanliness to regular hospitals. In nursing, such institutions must always be inferior, since the nurses have neither the experience nor the supervision of those in metropolitan hospitals. We should, however, have supposed that in cleanliness and in ventilation and in other points of construction, the new small rural hospitals (which are those now designated "cottage hospitals," though they hardly correspond to that name) were superior to the old cottages, were it not for the evidence which Mr. Burdett here produces, in some sentences which follow very oddly on the indignant rebuke just administered, and make any retractation or any journey in search of evidence quite superfluous.

"My observations lead me to fear that at present these new hospitals are worse for the patients than the old cottages. The former had no system of direct drainage; the latter have a system of their own. So far as my observations have gone, I have found *the sanitary arrangements of every new cottage hospital faulty*, with one solitary exception, the Grantham District Hospital." The italics are Mr. Burdett's own.

"Architects, almost without exception, display a fatal ignorance of the most rudimentary principles of sanitary construction. Only recently a new cottage hospital was built, and the patients transferred from the old cottage, which had done good service for nearly twenty years. In this case, as usual, the closets were placed inside and in the centre of the hospital. The soil-pipes were unventilated, and were directly connected with the cesspool, and many of the drains ran beneath, instead of outside, the hospital. No care in dressings, and no amount of watchfulness on the part of the medical attendant or the nurse, will prevent an outbreak of erysipelas or of something worse if the sanitary arrangements remain as I found them. Unless the cottage hospital managers set themselves steadily to work to stop this grave danger, they had best rest content with the old cottage as it is. If many fresh hospitals are built on the present bad system of construction, the mortality of cottage hospitals will, in my opinion, very soon exceed that of the larger general hospitals."

We leave it to the reader whether the above testimony from a professed advocate of cottage hospitals does not justify the assertion that their construction is inferior to that of our metropolitan hospitals, and that, if exact records were kept, the prevalence of erysipelas and other hospital diseases would probably be found at least equal, allowance being, of course, made for the admittedly less severe nature of the cases treated in the rural hospitals.

We regret this attempt, ill-judged in our opinion, to revive Sir J. Simpson's accusations against large hospitals. We had thought that the controversy that then occurred had sufficiently discredited his conclusions, and that subsequent experience had conclusively refuted them. But misstatement has stubborn powers of life, and old prejudices die hard. Fortunately they do die at last: and we are quite satisfied to trust the reputation of our great hospitals as places for the treatment of medical and surgical cases to time, aided by the ample information which most of them now publish to the profession of all that goes on within their walls.

Both rural and urban hospitals have their appropriate sphere, but their spheres are different. Any really useful and fair comparison between the results of their practice would be extremely difficult. It would involve much labour, and very probably, after all, the inquirer, if he were really well-informed and impartial, would give up the comparison as leading to no definite result. Mr. Burdett's paper appears to us to be quite inconclusive.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MULLINER'S PATENT INDIA-RUBBER COLLAR AXLES.

THE patent india-rubber collar axle manufactured by Messrs. H. Mulliner and Co., Leamington, is an ingenious, simple, and inexpensive improvement in carriage axles. The patent india-rubber collar is made to surround the axle at the part where the spring rests upon, and is connected with the axle and isolates the spring from the axletree, thus giving greater elasticity and acting as a powerful preventive of reverberation and sounding noises in broughams, etc., in crossing tramways, pavements, and uneven surfaces. This increased safety, given to a carriage by the removal of shocks to the axles, springs, and undercarriage from concussion, is an important feature; but such an arrangement will be found especially valuable to invalids and others who desire to travel noiselessly and without shock or vibration. The experience of the past two years has, we believe, established for this invention the advantages first claimed for it, viz., durability and freedom from getting out of order. One advantage of this system is, that it can be applied, at small cost, to any carriage already in use.

MEDICAL CARRIAGES.

AMONG the exhibits of Messrs. Harrison and Brass (Victoria Carriage Works, Elgin and Inverness) at the Crystal Palace are the "Acme Medical Car," and the "Improved Sanspareil Gig," which appear specially adapted to the requirements of medical profession. The principal feature of the "Acme Medical Car," is its easy accessibility, the back seat being on a level with the bottom of the vehicle, while this seat, with the back rest, will fold down and slide under the body of the car, which (the foot-board closing up) is thus converted into a gig. The "Acme Medical Car" is fitted with hand drag, folding leather hood, lamps, and loose apron, and weighs under 4 cwt., being as light as an American buggy, while possessing the great advantage of a full lock. The wheels are of hickory, the tires and body plates of steel, the springs (Armstrong's patent) extremely easy, and the axles (Daker's patent) require no washers, being fitted with a spiral spring at back of the dustpan, and another between the nut and the collet. Thus, not only is the expense of the constant renewal of washers avoided, but the jolt consequent on a wheel getting into a rut is greatly lessened. The "Sanspareil Gig" is fitted with a single axle spring placed transversely, while a spring in the front takes away the knee action of the horse. It is a handsome and strong vehicle, yet weighing only 2¾ cwt.

MR. THOMAS GRIFFITH, of St. Helens, Lancashire, who had been in practice there for twenty-one years, and who had been in the habit of taking chloral for the purpose of inducing sleep, accidentally took a larger dose than usual about one o'clock on Tuesday morning, with a fatal result.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1882.

SUBSCRIPTIONS to the Association for 1882 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JUNE 3RD, 1882.

DEFECTS IN MEDICAL EDUCATION.

THE attention of the British medical public is constantly being directed towards the examining authorities at the Royal College of Surgeons of England and its Council which controls them. The opinion of the profession with regard to the evil effects of any encroachment of anatomical upon clinical studies has manifested itself in the way already noted in our columns during the past two months, and the College has taken notice of their recommendations by propositions of somewhat extreme measures to remedy the evils of what must be termed chronic studentism. Still, the most enlightened examining bodies cannot frame regulations for a curriculum which will ensure to every student hospital education in certain matters most useful, if not most essential, to him in the practice of his profession. The young member of the College, when beginning practice immediately after qualification, must of necessity be in possession of much valuable knowledge, even if he have filled no junior house appointment in his hospital. If consulted by a patient, who is in good general health but has a large solid swelling, he may correctly diagnose a sarcoma or an aneurysm, and give his advice and prognosis accordingly; he is not likely to thrust his knife carelessly into abscesses situated near large vessels; he will surely know the meaning of flooding increased at each labour pain, and he will probably be triumphant in the detection of cardiac murmurs, distinguishing mitral from aortic disease, and in guiding his treatment accordingly. Still, however good may have been his medical school, its teachers, its beds, its out-patients, its pharmacopœia, and its other advantages, there will yet remain many things which will puzzle him when beginning practice. Some of these have no bearing on hospital education; others might be gravely considered by the powers that control the student's education. The knowledge of prescribing is always rudimentary in the young beginner. This is not entirely owing to his inexperience of drugs. Hospitals must have their pharmacopœias, full of ready-made preparations, to avoid the evils of over-worked dispensers, and of poor patients kept waiting for hours whilst complicated prescriptions are being made up. Hence the beginner has been used to prescribe compositions known to him as "Hst. 26," or as "Hst. Cathart.," or medicines represented by initials which do refer to their ingredients, but which would be incomprehensible to any druggist: such as a well-known aperient draught, dispensed in vast quantities yearly, at a large metropolitan hospital, always written in prescriptions as "H.M.S. c. M.S.," more suggestive to the uninitiated as the name of a man-of-war than indicative of its true composition—sulphuric mint and Epsom salts. In this very draught the carminative, syrup of poppies, is not in any way expressed, even in the full title; and the beginner, who may have relieved the ailments of dozens of hospital patients, may very naturally forget the presence of that syrup, and by leaving it out, in prescribing for a private patient, may give him great discomfort and lose his confidence. Nor can the beginner know much of the truly valuable contrivances of modern scientific druggists, and their innumerable "elegant" and palatable preparations; patients in most stages of society objecting to unnecessarily nauseous drugs, bulky pills, or turbid dirty-coloured draughts. The next difficulty for the young doctor lies in sending in accounts, and in certain points of professional etiquette; but no hospital training could afford him instruction in such matters, and he will infallibly seek advice from some medical relative or successful senior fellow-student. The most important difficulty lies in his ignorance of minor complaints, and of the social habits, and, above all, the innumerable defects in domestic sanitation, which cause them. Indigestion is ever a great stumbling-block. The pain present in some of its forms often leads the tyro to alarm his patient by an expression of opinion that some very serious complaint exists. Persistent vomiting with obstinate constipation will be a source of great anxiety to the beginner, who may suspect strangulated hernia, and be opposed by his patient on proposing local examination. He is probably versed in the diagnosis of femoral from inguinal hernia and in the steps of any necessary operation, but knows little about asking questions as to the patient's habits, concerning hurry to catch trains, perpetual worry about business, idle habits involving frequent nips of strong or diluted alcoholic draughts, or that opposite condition of mental restlessness which induces the patient to read during meals, and to bolt his food, and walk or work directly after the last dish. The innumerable brands of strong and weak cigars and cigarettes, and the different strengths of tobacco, as well as the use and abuse of tea, are subjects that all bear more or less on dyspepsia and on many other diseases common in private practice.

Then the beginner may make every allowance for the habits of his patient, yet overlook his habitation. This is indeed the worst point of his inexperience. The patient may be feverish, and never eat a good breakfast; but after going out of doors he gets better, and always enjoys dinner; besides, when out of town he always breakfasts well. The young doctor may logically attribute his patient's illness to fatigue over night, and patients are apt to agree, for the sake of agreeing, with any such suggestion, and to suddenly believe that they do get fatigued of an evening. But if more experienced, he may suggest that the drainage may be out of order in the neighbourhood of his patient's bedroom, and with such knowledge not only effect the cure of his patient, but also save him and his family and servants from deadly or debilitating fevers.

Some of the above difficulties might certainly be overcome or made lighter by modifications in the modern system of hospital education. Those who superintend the senior student in out- or in-patient practice should always allow him, and indeed compel him, to write some of his prescriptions in full; indeed, writing the hospital-pharmacopœia prescriptions at full length is almost a duty to the student, and is no obstruction to the hard-worked dispenser. The importance of a faithful study of minor complaints must be practically encouraged, especially in casualty departments; the out-patient staff will often find that the most diligent student needs most guidance in this respect, and the anatomy-prizeman or junior scholar, after triumphantly diagnosing aortic regurgitation, might advantageously, to his own profit, be advised to inquire with equal care and interest into the nature and cause of the "dreadful pain in my chest", complained of by some patient who might otherwise be dismissed with a tonic, without having revealed the fact that he or she drinks three or four pints of weak hot and bad tea; or habitually bolts coarse food at dinner, through hurry or through impaired teeth. It is, however, the study of hygiene that is most imperatively demanded for the student. This all-important subject is associated, in medical schools, with examinations for honours, and for some of the hardest university degrees. It is clearly advisable that all, and not only prize-students, should know about drainage, ventilation, and similar questions. A short summer course of demonstrations, with compulsory attendance, might easily be arranged at every medical school; and such instruction might be made very attractive to the student if models of houses, drains, etc., were shown to him, and his ingenuity exercised in questions about the arrangements, good or faulty, represented by such models.

ADULTERATION OF FOOD IN 1882.

SEVEN years have passed since the Sale of Food and Drugs Act became law; and recent experiments, as we may call them, which have been made, afford a very good opportunity of testing the real remedial effect of this measure.

The matter has been brought under the notice of the House of Commons in consequence of a Treasury minute of January 20th of this year, which, although it relates solely to chicory and other substitutes for coffee, yet in its spirit relates to every kind of adulterant which is imported rather than manufactured in this country.

Before the Sale of Food and Drugs Act was passed, an exhaustive inquiry was made by a Select Committee of the House of Commons, who received evidence of every kind as far as manufacturers and traders were concerned, and a certain amount of evidence from analysts and medical men. The conclusion of the Committee is fairly summed up by taking their own words, "that the public were cheated rather than poisoned". Naturally, after such an expression of opinion as this, the public, *i.e.*, the taxpayers, had a right to expect that the course of legislation would be such that the existing cheating, as well as the possible chance of poisoning, should be prevented. The most marked thing that was brought out in connection with the inquiry was the fact that adulteration was practically limited to a few substances; that is, certain definite articles of food, in reference to which it would be easy to take determined steps, such as are now being taken by the State Boards of Health in the United States. It was practically proved that milk, butter, coffee, and spirits formed what we may call the backbone of adulteration, with a profit to be derived therefrom. We may at once dismiss spirits from consideration, because the adulterant is almost invariably water, and, perhaps, this dilution is rather better for the consumer than otherwise.

Every year since this Act has been in operation, two series of returns have been published, showing the way in which the Act has worked. One series has been obtained by the Society of Public Analysts, and the other from the official returns of the Local Government Board. The former enters rather more into detail, and, therefore, is, for our purpose, more suitable for comparison. As regards general figures, the variation between the two is so trifling as to need no consideration. It must be borne in mind that both these tabulated returns are based upon the results obtained from samples purchased by the official inspectors appointed under the Act, who, in a large proportion of cases, are well known to the vendors of the goods in question; and that another report, to which we shall refer further on, is based upon independent purchases made by persons who were unknown to the tradesmen from whom the goods were bought.

Taking, first, the official returns, let us see what good has been done by the working of the Act. In the years 1875-6, according to the returns of the Society of Public Analysts, nearly 16,000 samples were examined, and the percentage of adulteration found was 18.10 per cent. In the year 1880, 17,919 samples were examined, and the percentage of adulteration was 17.47 per cent.

Viewed, therefore, from the standpoint of the public, *i.e.*, the consumers, the improvement has only been a trifle over 0.6 per cent. in six years. We need not look far for the reason. Taking the whole country round, only one sample has been purchased for about every 2,000 of the population, and probably not more than one sample out of every million purchased has been subjected to any proper examination in order to find whether it was really what it was represented to be.

A recent order made by the Lords Commissioners of Her Majesty's Treasury, in reference to the importation, "under a duty of 2d. per pound, of coffee or chicory, roasted and ground, mixed without reference to the proportion of the mixture, and the permission to extend this importation to any other vegetable matter applicable to the use of chicory or coffee," opens up the question of adulterants of coffee in a new light; and Mr. Pasteur and others have taken up the matter, and memorialised the Commissioners of the Treasury on the subject, accompanying their memorial with a series of analyses and other statements, which throw an entirely different aspect upon the degree to which adulteration at present exists. When Sir E. Lechmere, early in the present month, interrogated Mr. Chamberlain on the subject in the House of Commons, he replied that "the change in the Treasury regulations does not make any alteration whatever in the law with regard to adulteration, nor does it, in my opinion, tend to increase the practice of adulteration." The statements of the Chancellor of the Exchequer in the Budget speech appear to be in direct opposition to Mr. Chamberlain's, since the Government appear now to determine to prohibit adulterants other than chicory; but this specific alteration has but little bearing on the general way in which we must deal with the subject.

Acting upon the view which the Treasury originally expressed, Mr. Pasteur purchased thirty-seven samples of coffee (so-called) at various shops in and about London, and submitted the whole of them to Messrs. Wigner and Harland for analysis, with the astounding result of finding that only two samples out of the thirty-seven were genuine; that is, more than 94 per cent. were adulterated. The adulterants found were, in addition to chicory, which was present in almost every sample, dates, dandelions, finings (which were said to consist of roasted figs and other substances); and the proportion of coffee, in several cases, fell as low as 10 per cent., and in some cases even lower. It is quite possible that, in some of these samples, nothing could be found which would indicate that the public were being poisoned, but there was certainly most conclusive proof that they were being cheated or swindled. Averaging the whole of the samples, the analysts found that they consisted of about 35 per cent. of genuine coffee, and about 65 per cent. of adulterants; and yet, notwithstanding such a condition of affairs as is shown by this statement, we find the Government giving increased facilities for adulteration, by allowing the importation not only of chicory, dandelion, and finings, but of any other vegetable matter, *e.g.*, roasted mangold-wurzel, turnips, or anything else, which, by being so far charred as to give it a brown colour and a slight solubility in water, can pass to the eye of an inexperienced purchaser as something outwardly resembling coffee.

Coffee, tea, and cocoa all contain certain active principles which have a specific and, to a certain extent, valuable effect when taken as beverages; but no one has yet been found to assert that chicory or roasted vegetable roots of other similar kinds possess any such active properties. Again, coffee, tea, and cocoa, all class among the valuable vegetable products; while chicory and its congeners rank very slightly above cattle-food in value.

The effect of the Treasury Order would, therefore, have been this: that, the importation of these substitutes and adulterants being legitimatised, the detection of them, when brought into retail sale, would be thrown upon the public analyst; and inasmuch as not one sample in one million of those purchased is, as we have before remarked, submitted to analysis, it follows that practically the whole would pass into consumption without detection, and the public would be defrauded to this indefinitely greater extent; and this is exactly what is happening a the present time as regards twenty substances other than coffee, and as regards some of the most valuable drugs in the Pharmacopœia.

The bearing of this on the coffee-trade is, of course, an important question, but with that trade itself we have nothing to do; and we refer to the matter simply as affecting the general scope of legislation relating to adulteration and the protection of the public.

From numerous inquiries we have made, it seems more than probable that, if an independent man were to take the matter up, and examine into the statistics of adulteration of certain other articles of food in everyday use, the results would be found to be nearly, if not quite, as bad as in this case of coffee. The fact seems simply to be this. The Sale of Food and Drugs Act was passed against the wish of a certain class of men claiming to represent dealers in the commodities concerned, whose sole object was to put every difficulty in the way of the efficient execution of the Act, and render it as far as possible abortive. Their success exceeded what was suspected at the time by

the experts who were watching the matter. The vendor is now fenced round on every hand with technical precautions which should be observed when the samples are purchased; and, in the great majority of cases, he is, as we have said, well acquainted with the inspector who comes to procure samples for analysis, and he is allowed to label the samples; so that, even if coffee be asked for, and he sell 90 per cent. of chicory, he is protected so long as he labels it a mixture; and, even supposing all these precautions have been neglected, half a score of technical objections are always open to him, while solicitors specially retained by the trade associations do their best to prevent conviction. Of course, in 1875, the public were not sufficiently acquainted with the injury and fraud which was being perpetrated by adulteration, and they brought no pressure to bear upon the Government on the matter; but, since that time, France, Germany, Belgium, and the United States, have all gone far ahead of us in their legislation on the subject; and it is perfectly clear that some further steps must soon be taken here to remodel our Adulteration Acts, and put them on such a basis that a tradesman who swindles his customer by selling him chicory instead of coffee, shall be dealt with in the same way as any other man who obtains money under false pretences.

SLEEP AND SLEEPLESSNESS.

"A NATURAL Philosopher," writing to the *Daily News*, propounds what he conceives to be a new method of inducing sleep, and claims for his excogitation the dignity of a "proud discovery". To tell the story in his own words, the notion which has occurred to him is "to marry the mind to the body." For example, he makes the finger of his right hand describe a series of circles, while he is thinking of the books in his library; and, as he says, "thus turning over in my mind books and circles, it will go hard with me if the one does not presently melt into the other, and the whole into a dream." The conditions of success are laid down as follows. "I maintain sleep must follow, if this process is carried on with strength of mind to sternly check all quitting of those two great points—a congenial walk for the fancy and persistence in describing circles. But the jade fancy must not turn aside, nor must the mind swerve. Circle must follow circle, book must follow book, like the stroke of a pendulum." "A Natural Philosopher" is apparently ignorant of two facts about sleep, which are all-important in the treatment of sleeplessness, and which are curiously illustrated in his ingenious device, and the success which seems to have attended its employment in the experience of the "discoverer". It may be worth while to note these facts, and the lessons they teach, by way of recalling certain practical phases of the physiological process of periodic rest, to the mind of the busy practitioner, who is almost daily called upon to treat the troublesome and destructive malady of sleeplessness.

As Dr. Mortimer Granville, the most recent systematic writer on this subject has pointed out, general sleep is the aggregate of independent though normally correlated sleeps induced in various parts of the system. Cerebral sleep, or physiological rest of the higher brain centres; automatic sleep, or rest of the executive centres; sensory sleep; muscular sleep; visceral sleep—are all component parts and factors of the sum-total of general sleep. Any one of these varieties, or integers, of sleep may be deficient or excessive, and the result will be marred by the disturbance of that harmony which is essential to the perfection of all organic functions. This is the first fact to be noted. "A Natural Philosopher" gives evidence of the need that, in his case, exists for a special induction of somnolence in the automatic and muscular systems, by the recourse to monotonous movements, which weary the centre that presides over the right hand; and, at the same time, weary the muscular system through one of its most highly organised combinations. The second fact to which we allude, as concerned in the production of the result described, is that of which every student of sleep, with a view to treat sleeplessness, ought to be cognisant and mindful—namely, that the periodic recurrence of sleep is normally a matter of habit; and, therefore, the act of "going to sleep" ought to be also a habit. Dr. Mortimer Granville insists strongly on this point. He says: "The cultivation of a habit of going to sleep in a particular way, at a particular time, will do more to procure regular and healthy sleep than any other artifice. The formation of the habit is, in fact, the creation or development of a special centre, or combination, of the nervous system, which will henceforward produce sleep by a natural rhythmical process.....It is not very important what a person does with the intention of going to sleep; but he should do precisely the same thing, in the same way, at the same time, and under as nearly as possible the same conditions, night after night, for a considerable period—say three or four weeks, at least. The result will amply reward the effort." "If "A Natural Philosopher" had formed any other *habit*, involving a sufficient amount of muscular exercise to meet the special needs of his case, he would have been equally successful.

Sleeplessness is wakefulness, and it should always be treated from this point of view. A very common cause of insomnia in certain of its most troublesome forms, namely those accompanied with mental restlessness and worry, is such vaso-motor disturbance or debility—it may be either or both—as prevents the conversion of the jactatory or pulsating current of the blood into a continuous and steady flow before it reaches the capillaries. When this state of affairs exists, relief may occasionally be obtained from a moderate use of some stimulant in the form of a "night-cap", but that is a mere expedient for the service of the moment, and does nothing towards permanent cure. The rational remedy for this form of insomnia is undoubtedly a tonic treatment, acting as directly as possible on the vaso-motor centre or system; sedatives do harm. The commonest cause of sleeplessness is, however, disproportionate fatigue, by which some part or system of the organism is over-worked, while others are not sufficiently exercised. The diagnosis of cases of this class requires a very close scrutiny of the habits of life of the sufferer, and a rigorous testing of his senses and functional activities in detail. Dr. Mortimer Granville has described thirty-six causes or forms of sleeplessness falling into this category. A scientific treatment of insomnia must obviously consist in something widely different from the administration of opium, chloral, or bromide of potassium, in such doses as may suffice to stupify the faculties, and perhaps in a round-about way induce sleep.

The subject is one which has not yet received that close study at the hands of physiologists and practitioners which its practical importance would justify. The most painstaking experimenter has been Vulpian. He wholly rejects the anæmic theory, and has, as it would seem, conclusively demonstrated the fallacy of that generally accepted view. Not only for its own sake, but for the sake of the many mysterious phenomena of health and disease upon which a full elucidation of the nature and causes of sleep and sleeplessness would probably throw light, it is much to be desired that the whole question may before long engage the serious attention of the many able investigators in our midst.

INFANT PSYCHOLOGY.

THE philosophical reviews have been busy for years now upon the new topic of the development of the human mind in its earliest stages. Since Mr. Darwin and M. Paine amused themselves by publishing their observations on babies, the arrival of each new infant in a philosopher's household has been seized upon as a scientific opportunity not very far inferior to a transit of Venus or an eclipse of the sun. The dim faculties of the "corpus vile" itself must have been puzzled by the amount of psychological vivisection, if we may so call it, which turned the nursery into a kind of laboratory of mental science. What mothers and nurses thought of the matter, has not as yet been revealed. But the editorial tables still groan beneath the weight of wisdom which the happy fathers, ambitious of eternal fame, have distilled in hot haste and sent forth as a contribution to the enlightenment of the world. The last of these *brochures* which has come under our notice is itself a new departure. It is a paper by M. Percy in the *Revue Philosophique*, concerning the uterine intellect. He modestly names it "The Faculties of

the Child at the Epoch of Birth"; but it is needless to say that he goes further. Like the rest, he has started from nursery observations, which to us seem very trivial. Any old woman could surely have told that "Marie", a lively child of three and a half months, would be very fond of flowers, especially if bright coloured, would appreciate caresses, and cry if reprimanded, and would be remarkably jealous. But it is in theory that M. Percy flourishes. He has not even an opinion as to the question of the progressive evolution of colours for the baby. Whether it be after the scheme suggested by Gladstone and Magnus for the race, or whether Mr. Grant Allen be right, or whether there be such an evolution at all, he does not say. But he throws out the opinion that it is the contrast of light and shade that first educates the child, and that it is his muscular experiences which raise the idea of exteriority. Then he regards the vast hypothesis, which to him appears to be elementary and obvious fact, that the distinction of his own cries from voices and noises not his own causes the child very soon to imagine, as distinct from himself, beings capable of making themselves heard and understood like him. The idea of causation seems to arise, in a similar way, and at the age of about two months and a half, by the contrast of the movements produced by the baby's own muscular efforts with movements not produced by him. And so on through the whole list of primary categories, as far as M. Percy has dealt with them as yet.

This sort of thing proves, we venture to suggest, the very inadequate perception of the real difficulty of the problem which these light-hearted psychologists possess. They would probably despise any hints tending to recommend a study of the *à priori* side of the question. Most of them, indeed, tacitly assume, or practically imply, that the old idea of a spiritual entity—a soul or self other than the organism, and not a function of it—is superseded. Whether this be so or not, we can hardly discuss here; but surely it is scarcely serious work for the advancement of truth, if, at the outset of a fresh investigation such as this, the discoverers ignore altogether any theory of knowledge but their own. For example, it is plain that the child never could attain to ideas of exteriority or causation in the manner suggested, unless he had in his mind some such ideas already present. Their explanations of the genesis of these notions imply in truth that antecedently the notions were there.

When M. Percy goes on to speculate on the intellectual life of the fœtus, he starts a problem which is, no doubt curious, but on which little experimental light can be thrown. His own remarks are of the vaguest. What he says, however, leads us to notice some remarkable points. How is it that, during the fourth and fifth months, the cerebral development of the fœtus advances with disproportionate strides? If the infant at the moment of birth is not, as C. Vogt suggests, simply "*un être spinal*", would it be true to say that of any earlier period? And what possible theory can we imagine to explain the passage from merely animal existence to conscious ideas? Does self-consciousness —the power of realising oneself as an identity distinct from passing sensations, and of relating these to one another so as to build up a world of objects around us—does this come into the infant's life suddenly? and if so, when? If it does not, how can we conceive of gradations in such a matter? These are the real problems of uterine and infantile psychology; and these, we must add, are matters on which those who have hitherto treated of these things throw no kind of light.

There are many other things which are curious in themselves, and may ultimately prove valuable indications. It is strange, for instance, that, notwithstanding the comparatively late development of the perfect auditory organ, the new-born child begins almost at once to show great sensitiveness to very slight sounds, which mostly tend to frighten him; while, even with an eye apparently in full development from the first, he seems almost insensible to light, and it is weeks before he appears really to see, or at least to observe, even a bright object. It is so easy to accumulate accurate statistics upon such points, that much interesting matter ought to be quickly collected in some reliable form. But it is to be hoped that the observers and experimenters of the nursery will not too readily jump to the conclusion that they have found there the key to all philosophical puzzles. The mystery of knowledge must probably be itself unravelled long before we are in a position to speculate about the beginnings of individual life.

AT the last meeting of the Council of the Royal College of Veterinary Surgeons, Mr. George Fleming, Army Veterinary Department, was elected President for the third time.

THE Earl of Shaftesbury presided at a recent meeting held at Willis's Rooms on behalf of the seaside branch of the Metropolitan Convalescent Institution at Bexhill, near St. Leonards. In response to the special appeal, donations were announced to the amount of £791.

WE may remind our readers that the debate on Sclerotomy at the Ophthalmological Society takes place on the 8th instant; and that, if necessary, an adjournment will probably be made to the following day. A very full discussion of the subject is expected, and visitors who may desire to attend will be welcomed.

IT is announced that the French Minister of Marine has placed at the disposition of M. Alphonse Milne-Edwards the vessel *Le Travailleur* for a dredging expedition in the Bay of Biscay as far as the Canary Islands. The operations, which are to be made with a view to studying the fauna and flora in deep sea, will take place in July and August next.

WE understand that, owing to the resignation of Mr. James Lane, Mr. Edmund Owen has been appointed surgeon to St. Mary's Hospital. Mr. Augustus Joseph Pepper, who has acted for some years as supernumerary assistant-surgeon at this hospital, is, we believe, a candidate for the vacancy produced by the promotion of Mr. Owen, and will probably be appointed.

THE eminent surgeon, Baron von Langenbeck, has tendered his resignation of the professorship of surgery in the University of Berlin, which he has held for many years with advantage to surgical science and honour to himself. His resignation has been accepted by the Prussian Government; and instructions have been given to take the necessary steps for the appointment of a successor, to enter on the duties of the chair in October.

THE Paris medical men, especially specialists in nervous diseases, are much interested, if not puzzled, by a patient recently received at the Beaujon Hospital. She was found by two policemen, insensible, on a seat in the Champs Elysées. At the station-house, Dr. Pinel was unable to restore her to consciousness, though he used every known means. She was in a state of ecstasy, her eyes wide open, and a smile on her lips. She remains mute; eats but little, and seldom. She is far advanced in pregnancy.

MR. F. M. BALFOUR was on Wednesday elected to the new Professorship of Morphology in the University of Cambridge. Mr. Balfour holds one of the Natural Science Fellowships at Trinity College; is a Fellow of the Royal Society; and last year the medal of the Royal Society was awarded to him, in consideration of his researches in morphology and embryology, which have placed him in the front rank of European biologists. Professor Balfour is a young man, having taken his degree, through the Natural Sciences Tripos, in 1873; and it is to be hoped that the duties of his professorship will not interfere with his continuance of the work of original investigation, for which he has shown himself so eminently qualified.

THE following additional sums have reached us towards the fund being raised on behalf of the family of the late Sir John Rose Cormack: Dr. Maclagan (Edinburgh), £20; Mr. G. R. Gilruth (Edinburgh), £1 1s.; Dr. W. J. Marshall (Greenock), £5.

MEMORIAL OF VON GRÄFE.

On May 22nd, a memorial statue of the eminent ophthalmologist, Albrecht von Gräfe, was unveiled, in the University of Berlin, in the presence of a large assemblage, including several Government officials; the professorial staff of the university; von Gräfe's son and daughters; his cousin, Professor Alfred von Gräfe of Halle, and other members of his family; and also several ophthalmologists from distant parts, among whom was Professor Arlt of Vienna. The statue, which is of bronze, is somewhat above life-size, and is said to be a strikingly correct resemblance; it represents von Gräfe with his left hand resting on the back of a chair, and his right holding an ophthalmoscope.

QUARANTINE IN EGYPT.

The Commission appointed by the French Academy of Sciences to investigate the question of the advisability of modifying the system of quarantine in Egypt have sent in their report. We are glad to find that they concur in the view which we have repeatedly expressed, that there exists an abuse of sanitary measures prejudicial to commerce, and propose that an international conference should be held at Brussels, in order to establish a sanitary code which would reconcile all hygienic desiderata with commercial interests.

STIMULANTS IN WORKHOUSES.

The Visiting Committee of the Strand Workhouse have had their attention called to the great quantity of beer, wine, and spirits consumed in the house. They found that a pint of beer *per diem* was allowed to many of the inmates for work done. The doctor did not approve of this; but said he understood, when he took office, that this allowance was the wish of the guardians. The committee recommended that the beer be diminished by one-half daily, and that the other allowances be left to the discretion of the surgeon. A gradual reduction in the amount was suggested; but it was stated, in answer, that the men employed in painting and cleansing would not work without beer. The chairman of the committee remarked that, if they refused to work, the master had his remedy. If the master find this beyond his power, we would suggest that he communicate with Mr. Wearne, the medical officer of Helston Workhouse, for advice how to manage this much-needed reform. In 1879, the "drink" consumed in that workhouse cost the ratepayers 12s. 4½d.; 1880, 7s. 3d.; 1881, 7s. 4d.; a total for three years of £1 16s. 11½d. We learn from the *Sanitary Record* that, without cutting off the supplies from those who were previously habitually accustomed to the allowance, Mr. Wearne determined to treat new comers differently; and, while dispensing with alcoholic drinks, he substituted stimulants of a more abiding and sustaining nature, as milk, sugar, sago, cocoa, and corn-flour, in extra quantities. Or, as we gather from the same journal, the Falmouth Workhouse might be appealed to for instruction, where Mr. F. C. Bullimore is the medical officer, and where the drink bill for the year ending March 25th, 1882, only amounted to 9½d.

FATAL SOMNAMBULISM.

The *Times* of May 29th contained the following curious and painful announcement. "On the 25th of February, drowned off the Cape of Good Hope, during somnambulism, in the imaginary but gallant attempt to save life, John Rodd Child, Lieutenant of H.M. ship *Espiègle*, beloved and lamented by all who knew him." It seems that Lieutenant Child, in an unusually vivid dream, in which was recalled what is not an uncommon incident of his vocation, responded promptly to the ideal cry of "A man overboard"; and rushing on deck, while still asleep and still dreaming, sprang into the sea to save, as he supposed, even at the peril of his own life, his drowning shipmate. A truly noble nature is revealed by such brave action under circumstances when the man stands confessed, all disguises laid aside, and when many of the subsidiary aids which stimulate and brace to praiseworthy conduct when all the mental faculties are in full play were no longer operative; and we can well believe, therefore, that this heroic officer was beloved and is deeply lamented by all who knew him. The sudden immersion, no doubt, dispelled his disastrous dream and restored him to consciousness; but the bewilderment of his situation, when he awoke and found himself in the trough of the sea, must have deprived him of presence of mind and of the power to make efforts for his own safety. Lieutenant Child's dream is, of course, correctly described as somnambulism; but somnambulism, it is to be remembered, is only a dream in which an unusual combination of cerebral centres is involved. During somnambulism, that faint functional activity of some limited areas of the grey matter of the hemispheres which corresponds with ordinary dreaming becomes more intense, and, while other areas—the activity of which is essential to complete wakefulness—remain still dormant, spreads to the nervous mechanism concerned in the externalisation of ideas, and so results in action. Somnambulism requires to be thoroughly re-investigated in the light of recent discoveries in cerebral physiology. A few years ago, a murder was committed in Scotland in a state of somnambulism, and the person accused was acquitted on the ground that he had no knowledge of what he did nor control of himself when, dominated by a dream, he broke the law.

SPEECH FOR THE DEAF.

The Society carrying on this work at Ealing has just held its fourth annual meeting, which was largely attended. Among those present were Dr. B. W. Richardson, Dr. Symes Thompson, Mr. Howard Hayward, and other gentlemen connected with the medical profession. The proceedings of the day included the adoption of the annual report and balance-sheet; the appointment of officers; the inspection of the Society's new premises at Castle-Bar Hill, Ealing; and an exposition of the mode of teaching, by which visitors were able to note the progress of the pupils. The report contained much valuable information, showing how rapidly the system was spreading in various countries, and how the progress of the Society here had necessitated the removal to more extensive premises, which could be adapted to the growing requirements of the work. More teachers are sought for than the college is able to supply. The demand can only be met by an accession of candidates for teaching, and of funds to defray the necessary expense. A meeting to promote the cause of the Society is shortly to be held at the Mansion House.

THE REMOVAL OF INFECTIOUS CASES.

The Paddington Medical Officer has issued a circular letter to the various metropolitan boards of guardians, suggesting that an alteration be made in the law, "whereby greater facilities would be given for persons taken into the Metropolitan Asylums Board's hospitals than at present, so that they need not be accompanied by an order from a medical or relieving officer." According to this amendment, "any registered medical practitioner, called to see a person suffering from an infectious disease, may give a certificate to the person in charge of the patient, to the effect that the patient is suffering from an infectious disease, and is in a fit state to be removed to a hospital." It will then only be necessary for some one to take the certificate to the vestry or office of the district board, when the fever-carriage will be immediately despatched for the removal of the patient; upon whose departure, the sanitary inspector, apprised of the case, will proceed to the work of disinfection. The plan adopted at present is as follows. The medical man called in recommends the patient's removal to the hospital. He directs the person in charge of the patient (generally wife or daughter) to go to the workhouse, where she sees the relieving officer, tells him her story, and receives from him four documents, which she then proceeds to take to the Poor-law medical officer. When found, this medical man by-and-by makes his visit to the patient; and, for the second time, a certificate of the nature of the case is given to the person in charge, together with more documents, an order of admission and one for the fever-carriage. The applicant then goes again to the vestry-hall, and shows the order for the fever-carriage to the hall-keeper, who takes the order to the cab-master, who sends a man with a horse to the stone-yard where the carriage is kept, who drives to the patient's house, who is assisted into the vehicle, and finally conveyed away to his destina-

tion. All this delay is no doubt very objectionable to the patient; but, as the medical officer remarks, the public are equally and as directly interested in a reform: "These journeyings to and fro through crowded streets, whether in a public conveyance or not, are fraught with danger to the public, are unnecessary, and should be prevented. The same remark applies to the person who accompanies the patient to the hospital and returns in the manner indicated." Some of the guardians, to whom this letter has been read, object to the proposed simplification of the present method, because "the suggestions, if adopted, would open too wide a field for admission to the hospitals."

THE CLINICAL SOCIETY.

THE concluding meeting of the Clinical Society for the session just concluded was held on Friday, May 26th, and was devoted entirely to the discussion of questions of medicine and dermatology. It was rendered the more interesting by the presentation of the report of the committee on hyperpyrexia in acute rheumatism, which was appointed about two years ago. An abstract of the report will be found printed at page 807 of this day's BRITISH MEDICAL JOURNAL, and the important conclusions at which the committee have arrived are appended thereto. Dr. Greenhow contributed a paper on cases of rheumatic fever treated with iodide of potassium and sulphate of quinine, from which it would appear that this treatment contrasted favourably, in Dr. Greenhow's experience, with the treatment by salicine and salicylate of soda. As Dr. Glover remarked, it would perhaps have been preferable if Dr. Greenhow had tried quinine alone; the union of drugs in exact experimental inquiries is not usually to be commended. The remainder of the meeting was chiefly given up to papers on cases of diseases of the skin. Dr. Crocker read a paper on the prurigo of Hebra, Dr. B. O'Connor exhibited a case of ichthyosis, involving the entire surface of the body, and Dr. S. Mackenzie read notes of a case of lupus-psoriasis. Dr. Churton (Leeds) contributed notes of the sequel to a case of double hæmorrhagic pleurisy with formation of cholesterine. The patient had died with signs of septicæmia shortly after the making of an incision into his left chest, and after death the floor of the pleura was found covered with a thick layer of old degenerative cells, and lymph containing cholesterine.

A NEW COLONIAL MEDICAL SCHOOL.

THE Government of New South Wales has, we read in the *Australian Medical Journal*, more than doubled the annual endowment of the Sydney University. The Senate has therefore determined to open the Medical School there in June next. Mr. W. J. Stephens has been appointed Professor of Natural History, and Dr. McLaurin Professor of Anatomy and Physiology. The chair of Natural History is to include Geology and Botany. There has been much difference of opinion as to the propriety of appointing local men, without first learning whether better teachers could be obtained from England. Dr. McLaurin has subsequently resigned the chair of Anatomy and Physiology on account of ill-health. Applications have been invited for the following offices: Demonstrator of Comparative Anatomy, Physiology and Histology; Demonstrator of Anatomy and Physiology; Lecturers on Practice of Medicine, Surgery, Midwifery, Clinical Medicine, Clinical Surgery, General Pathology, Materia Medica and Therapeutics.

OXFORD LODGINGS.

THE work of reforming the sanitary condition of the lodging-houses licensed by the University of Oxford has been carried out with such vigour and completeness, that it is now officially stated that, out of the total number of 520 licensed houses, containing accommodation for 1,100 undergraduates, only thirteen remain which have not yet been reported by the sanitary officer to be in a satisfactory condition. The inspection appears to have been of a very searching kind, and it is formally notified that henceforth no new house will be licensed unless the sanitary arrangements are carried out in accordance with plans prepared by the delegates. This important improvement has been attained at a cost to the University of nearly 2,000 guineas.

PROFESSOR HUETER.

SURGICAL science in Germany has sustained a severe loss in the death of Dr. Hueter, director of the surgical clinique at Greifswald, who died of renal disease, after several weeks' illness, on May 14th, in the forty-fourth year of his age. After graduating, and travelling for some time in foreign countries, he was, in 1863, appointed assistant in the Berlin Pathological Institute; in 1864, assistant in Langenbeck's wards; and, in 1865, qualified as a private teacher of surgery in the University of Berlin. In 1868, he accepted an invitation to the professorship of surgery at Rostock; and, in 1869, succeeded Bardeleben at Greifswald, in the post which he held at the time of his death. His accomplishments in surgery were very extensive; there was no branch with which he was not acquainted—no subject or theory which he did not investigate. His latest work, *Grundriss der Chirurgie*, was completed only a month or two before his death. He carried out the investigation of the pathology of joint-diseases with singular diligence, and has published the results in an exhaustive work, which abounds in original ideas on the subject. Hueter was a most fertile writer. He was editor of the *Deutsche Zeitschrift für Chirurgie*, and author of the articles on Pyæmia, Traumatic Fever, and Tracheotomy, with allied operations, in Billroth's great *Handbuch der Chirurgie*. He investigated the value of Lister's method; and, by his strict observance of it, has done much to give it a commanding position in German surgery. His remains were buried at Marburg, the place of his birth, on May 15th.

THE USE OF ALCOHOL IN HOSPITALS.

THE Honorary Secretary of the British Medical Temperance Association writes:—"In November 1880, it was stated in the public papers that the medical officer of the Walton Workhouse of the West Derby Union, Liverpool, had reported to the Board of Guardians that the mortality among the sick paupers in the infirmary during the previous two months had been three times as great as usual, and that this was owing to a large reduction in the amount of alcoholic liquors administered. The *data* on which this opinion was founded not being given in the paragraph referred to, the Council of the British Medical Temperance Association petitioned the Local Government Board, through their president, Dr. Richardson, to institute an inquiry, and suggested several questions to which answers were required before the conclusion could be warranted that the reduction of the total quantity of alcohol consumed had any connection with the increased mortality. The Local Government Board approved of the proposed inquiry, and sent down an inspector to endeavour to obtain the necessary information. Certain returns were made, and these were placed in the hands of the Council to report upon. After careful examination and analysis, it was discovered that, of the whole quantity of alcohol used in the two months (valued at £31 17s. 7d.), a very large proportion had been consumed by cases which ended fatally. It was also found that several of the fatal cases were of such a nature that the absence of alcohol could not have had any relation to the result. The information supplied was found to be very defective on several important points, and quite insufficient to warrant the conclusion that the rate of mortality was either unusual or due to the decreased consumption of alcohol, much less to lend any support to the wide generalisation that without the use of alcohol as a drug the mortality of the sick would be increased. These conclusions were concurred in by the inspector who made the inquiry."

PARISH MORTUARIES.

THE need of some decent arrangements by which bodies awaiting the coroner's inquest may be properly housed and treated with due care and respect, and the further necessity for suitable places in which the coroner's inquiry may be conducted, have been repeatedly pointed out, and are almost every week emphasised by fresh occurrences. This week, at an inquest held at Hendon, Mr. Warner, the proprietor of the hotel to which the dead body had been removed, stated to the coroner and jury that he thought it high time that the authorities of the large parish of Hendon should provide a mortuary for the reception of those

found dead or expiring within the boundaries of the parish. The coroner said he quite agreed with what had been said, and that with the exception of St. Pancras, the whole of the up town parishes in his district had built or were erecting mortuaries for the reception of the dead, the separation of which from the living was of the greatest importance on the score of health, leaving out the question of decency. The authorities of Islington Parish had erected a model building for the reception of the dead. The jury likewise expressed their opinion that such mortuaries should be built in every parish throughout the county. It would probably have a useful result, if Sir William Harcourt would commission a skilled person to report to the Home Office on the arrangements existing in France and Germany, and for these purposes especially, or those recently completed at the Paris Morgue. London ought no longer to be a reproach in these arrangements, for both in our reverence for the dead and in respect for justice and its ministers, the English people are not wont to consider themselves second to any other nation. It must be confessed that the irreverence and inefficiency of our present arrangements in regard to bodies awaiting examination, as well as for the reception of the coroner and his jury, are not to be matched in any part of the civilised world.

THE BERLIN HYGIENIC EXHIBITION.

THE anticipations of a speedy re-opening of the ruined Hygienic Exhibition have, we regret to read, proved somewhat premature. Careful investigations by the Board of Directors have led to the unavoidable conclusion that nearly a year must elapse before the buildings and collections can be sufficiently restored. In consequence of the disaster, the authorities are naturally averse to grant permission for the construction of mere wooden sheds, whilst the exhibitors on their part dread the expense of erecting massive or even glass and iron houses. The directors may well be thankful that the terrible fire which laid low the greater part of the Exhibition in the comparatively short space of less than two hours did not occur a a few days later, when it might have been filled with thousands of visitors. It is alleged that to save expense the directors had purchased the well-dried materials from the committee of last year's Industrial Exhibition in Halle, and scarcely provided for a sufficient supply of water for average needs, to say nothing of emergencies.

AMBULANCE INSTRUCTION.

HERR VON MADAI, the President of the Berlin Police, has just established a "Philanthropic Corps", composed of police officers and constables, a certain number of whom are chosen from the different police divisions. These members of the force are to attend weekly lectures in the town hall on the treatment of invalids and sick persons suffering from sudden illness or accidents. By this means, it is expected that shortly about three hundred constables will have obtained sufficient knowledge of medical science to treat sufferers before regular medical aid can be obtained. Particular attention will be directed to the best means of restoring life to persons taken from the water.

THE ARREST OF FERMENTATION.

M. PAUL BERT, following in the steps of M. Béchamp, has, by a series of experiments, discovered that oxidised water arrests fermentation resulting from the presence of living organisms (vibrios, bacteria, yeast-cells, etc.), but is inert in the presence of amorphous ferments (diastase, saliva, pancreatic juice, etc.).

BIRMINGHAM MEDICAL BENEVOLENT SOCIETY.

THE sixtieth annual meeting of the Birmingham Medical Benevolent Society was held on May 26th. The following officers were elected for the ensuing year. *President:* Dr. Bassett. *President-elect:* Mr. W. Smith (Redditch). *Vice-Presidents*: Dr. Hickinbotham and Mr. Marriott (Leamington). *Directors:* Dr. Foster, Dr. Savage, and Dr. Wade. *Treasurer:* Mr. Bartleet. *Treasurer and Secretary:* Dr. Sawyer. The annual report showed a prosperous condition of the Society's affairs. The income for 1881 was £620 4s. 10d.; of this sum £405 was expended in grants to disabled and distressed members, and to the widows and children of deceased members. At the end of the year, the funds of the Society amounted to £9,987 4s. 8d. After the meeting, the members dined together at the Grand Hotel; Dr. Bassett occupied the chair, and Dr. Sawyer the vice-chair. The directors make an earnest appeal for new members. The roll of the Society contains only 248 names, although the work of the Society extends over an area containing about 3,000 practitioners. Any registered practitioner, "regularly practising his profession," and living within fifty miles of Birmingham, is eligible for membership; and members do not lose their privileges by removal beyond the radius prescribed for their admission. The annual subscription is one guinea, and this payment ceases when twenty-one subscriptions have been completed. The financial position of the Society is sound and secure. By careful management, the directors have accumulated a capital of ten thousand pounds, which is placed in the charge of well-known professional trustees. This considerable sum, by the laws of the association, must never on any account be diminished; the interest arising from its investment, together with all donations, may, at the discretion of the directors, be given to suitable applicants. The Honorary Secretary will gladly afford information to applicants for membership or relief, and gratefully receive and acknowledge donations. Our brethren in the Midlands, whether benevolently or providently disposed, or both, ought not to forget the claims of this excellent Society.

THE VALUE OF HOSPITALS.

A GRAND bazaar and athletic festival has been held in Stanley Park, Liverpool, in aid of the funds of the Stanley Hospital, and was formally opened by Lord Derby, who, in the course of a brief address upon hospitals and their work, remarked that they were a form of charity absolutely free from risk or even the suspicion of imposture, and, in addition to the direct good they did, they were of immense indirect advantage to the community, because they were schools of professional teaching from which all classes profited. It was by the bedside of the hospital patient that the eminent physician or surgeon secured a large part of that skill which he used for the relief of his wealthy patients. He agreed with the view that hospitals should be self-supporting to a greater extent than at present, and he should be glad to see a further extension of a movement which had taken hold of the public mind for obtaining from the patients a contribution towards the medical assistance they received; but, in the meanwhile, it was clear they must keep their hospitals on the old footing. When a man fell ill or suffered an accident, they could not stop to inquire whether he could afford to pay for being cured, or whether it was partly his own fault he fell into trouble; they must cure him first, and consider afterwards who was to pay the bill.

POST MORTEM EXAMINATIONS IN HOSPITALS.

ON Friday, May 26th, Mr. Flowers had before him at Bow Street the summons against the Registrar of the Children's Hospital, Great Ormond Street, for performing a *post mortem* examination on the body of a child without the permission of the nearest relatives having been first obtained. Mr. Besley, the prosecuting counsel, said that he appeared for a certain body of philanthrophic gentlemen, who, under the name of the Vigilance Committee, had combined together to defend the rights of the people, whenever and wherever these appeared to be assailed. In the present instance, they wished to obtain a decision of the question whether there was any right on the part of the authorities of a hospital to make a *post mortem* examination without the express leave of the nearest relative. Mr. Besley was careful to say that he desired to make no attack upon the medical men interested in the case, or upon the management of the hospital. The body for whom he appeared had merely chosen this as a test case. The facts of this particular case have already been detailed (April 1st, 1882, p. 468). The legal argument between counsel, which occupied most of the time of the court, turned very much on the question whether the Anatomy Act could be held to apply to the case at all, or not. The proceedings were not taken under the Act; and the prosecution relied chiefly on a

passage in the code (Report of Commission on the Law of Indictable Offences, 1879, page 97), in which the commissioners advise that certain pains and penalties shall be visited on any person improperly interfering with, or offering any indignity to, a dead body; and the summons, in fact, was taken out in the following terms: that the person charged "did unlawfully interfere improperly with a certain dead human body.....that is to say, by cutting the dead body, and thereby offering an indignity to the said dead human body," etc. For the defence, it was urged, in the first place, that the passage in the report merely expressed the opinion of the commissioners, and was not a law of the land; and that, in the second place, a properly conducted *post mortem* examination (and it was not pretended that anything else had been attempted in this case) was not an improper or indecent interference with, or involved any indignity to, a dead body. Mr. Besley relied on the Anatomy Act to prove by analogy (for, as we have said, it was not contended that the Act applied to this case) what was an improper interference; and he urged that any interference was, under that Act, improper, which occurred before the expiration of forty-eight hours after death, and which was not preceded by the removal of the body to some place licensed for anatomical examination. The magistrate observed that he was well aware that there was a great difference between an ordinary *post mortem* examination and a dissection such as was conducted in an anatomical school. On the question, however, to be decided—namely, whether the authorities of a hospital, in making a *post mortem* examination without the express leave of the nearest relative of the deceased, were exceeding their legal rights—he reserved his opinion for a fortnight. The question is undoubtedly one of great importance to hospital authorities, and indeed, indirectly, to the profession generally; and it is no doubt most desirable that a decision should be obtained. We cannot, however, help regretting that the prosecution has elected to proceed by a criminal indictment. The hardship thus inflicted upon the hospital, and especially upon its registrar (for, as the person who actually performed the *post mortem* examination, the summons was directed against him), is considerable; and, should Mr. Flowers decide to send the case for trial, the individual hardship will be very great, and must compel the sympathy of the profession at large.

OMNIVOROUS ECCENTRICITIES.

Mr. Benthall has favoured us with the following report of the case of a man, whose peculiar feats have attracted much attention. About 11.30 P.M. on May 16th, E. S., a strongly built labourer, aged 30, applied at the Derby Infirmary for relief under the following circumstances. He had for some months been in the habit of amusing the frequenters of public-houses, and obtaining money or beer for himself by tearing up with his teeth and swallowing felt hats and newspapers. He had also the power of passing a whole hen's egg into his pharynx, retaining it out of sight for a time, and then returning it. On the night in question he had swallowed a newspaper, and collected four or five penny pieces from the spectators, when it occurred to him to finish the performance by imitating the egg trick with these coins. In doing so, he allowed them to slip down his throat. Being either fearful of the consequences or anxious to regain his money, he produced vomiting by swallowing large draughts of salt and water, but without recovering the coins. He then sought aid at the Infirmary, but made no mention of having swallowed the paper. Taking into consideration the number of the coins and the probable size of the man's gullet, it was thought advisable to try an emetic. The man was therefore given a full meal of porridge, and after an hour's time, when it was hoped the pennies would be enveloped in the food, an emetic was given. Vomiting followed, but there was no welcome chink in the bowl. On examination of the vomit, considerable surprise was excited by the presence of three or four rolls of printed paper three inches long by an inch broad. The emetic having failed to dislodge the coppers, the patient reluctantly consented to remain in the infirmary. He was admitted under the care of Dr. Curgenven, and was ordered a meat diet with an astringent mixture to keep the bowels quiet. On the following day he had a taste of copper in his mouth, but no other symptoms. On May 18th he had some uneasy sensations in the stomach and "fainty feelings." On May 23rd, his bowels had been opened once, the motion was constipated, but otherwise natural. The patient had been wanting to go out for some days, and now became so importunate that he was discharged with a caution to keep quiet. On May 27th he came, stating that the coins had not yet passed. He was ordered an aperient. He has not been to the infirmary since; the result therefore is not known.

SOIRÉE AT UNIVERSITY COLLEGE, LONDON.

On Wednesday, May 31st, the Professors of University College gave their annual *soirée*. It was very largely attended; art, science, literature, and medicine contributing each its quota. Visitors were received by the Deans of the Faculties on the Flaxman Staircase, and passed from thence to the Octagon Room and the General Library. In the latter room were works of art, pictures by eminent hands, antique and modern antique silver plaques, épergnes and shields by Messrs. Hancock, glass vases and cups by Messrs. Powell and Sons. In the buildings of the Slade School were to be seen works executed by its pupils, while in the South Library microscopical and scientific instruments were shown by various firms; Professors Ayrton and Perry showed electrical measuring instruments, and Mr. Strot made experiments on attraction and repulsion due to sonorous vibrations. Professor John Marshall has for many years advocated the construction of hospitals on the "circular-ward" principle; this idea has been carried into practice at Antwerp, where a large hospital, to contain about 500 beds, and erected upon this principle, is now nearly approaching completion. Professor Marshall exhibited at the *soirée* a plan of the building, which had been sent to him by M. Zackelmans, the architect. The hospital, which covers a large space of ground, consists of a central building containing chapel, administrative offices, and convalescent wards. Connected with this by corridors are eight circular blocks; each block consists of two storeys; each storey forms one ward, containing twenty beds. We hope shortly to be in a position to give fuller details with reference to this new departure in hospital construction.

THE DUTIES OF PUBLIC VACCINATORS.

Under this heading, a rather sensational article has appeared in some of the "dailies", reflecting on the conduct of a public vaccinator for making four scarifications on an infant's arm when performing vaccination. The child died; and an inquest was held, when the mother and the landlady said that the lymph did not take, nor were the pustules healthy. A medical practitioner, who was called in, is reported as having stated that death had resulted from the vaccination pure and simple, as the child could not bear up against four insertions of lymph, whilst it might have done so against two; that death had resulted from convulsion following irritation of the skin, and not from poisonous lymph. Upon this evidence, several of the jurors expressed an opinion that public vaccinators should be compelled to diagnose every case thoroughly, and perform their duties with proper discretion. It is much to be regretted that a qualified medical practitioner should lend himself in any way to the outcry against vaccination; and the more so in this case, as it is imperative for public vaccinators to make four scarifications, not only in accordance with the directions of the Local Government Board, but also for the protection of the children and the public. The unfortunate occurrence of convulsions a few days after vaccination did not justify the medical opinion expressed at the inquest, especially as the doctor did not see the child until it was in a state of collapse. There do not appear to have been any symptoms of blood-poisoning or erysipelas; on the contrary, the child is said to have been perfectly healthy when seen four days after vaccination, except as regards the effects of the vaccination. The verdict of "Shock to the system, following vaccination", was the almost necessary result of the medical evidence, which appears to have been founded on imperfect data, and to be very regrettable, if not unjustifiable, as throwing blame upon a medical brother who had only performed his ordinary professional duties.

PRIZES OF THE ROYAL COLLEGE OF SURGEONS.

THE following is the subject for the Jacksonian Prize of the ensuing year :—"The Pathology, Diagnosis, and Treatment of Obstruction of the Intestines in its various forms in the Abdominal Cavity." For the present year, the subject is "Wounds and other Injuries of Nerves, their Symptoms, Pathology, and Treatment". Essays for the latter must be sent in on or before Saturday the 30th of December next. At the same time, the Essays for the Collegial Triennial Prize must also be sent in ; the subject for which is "The Relations between the Radicles of the Lymphatic System and Capillary Vessels". The pecuniary value of the respective prizes is the amount of the dividend, between £12 and £13. The Collegiate Triennial Prize consists of The John Hunter Medal executed in gold, to the value of fifty guineas, or, at the option of the successful author of the dissertation, of the said medal executed in bronze, with an honorarium of fifty pounds.

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS.

THE Fellows of the Royal College of Surgeons, whose addresses in the United Kingdom are known to the secretary of that institution, will no doubt have received by this time the summons to attend the annual meeting of the Fellows of the College on Thursday the 6th July, to elect three of their body into the Council of the institution. The retiring members, who offer themselves for re-election, are Mr. John Marshall, F.R.S., surgeon to University College Hospital and vice-president of the College; Mr. Henry Power, chairman of the Board of Examiners of the College of St. Bartholomew's Hospital; and Mr. Alfred Baker, consulting surgeon to the Birmingham General Hospital. The only fresh candidate of whom we have heard, is Mr. John Croft of St. Thomas's Hospital, a member of the Court of Examiners, who nearly obtained his seat in the Council on the last occasion.

THE FEATURES OF THE RECENT EPIDEMIC OF ENTERIC FEVER.

THE number of deaths caused by enteric fever always decreases about this time of the year, and we may, therefore, conclude that the diminished number of deaths recorded by the Registrar-General during the last few weeks marks the conclusion of this year's epidemic. The general experience of the disease during the past winter in London has been, that this last epidemic presented several unusual features. In his report for 1880, the Registrar-General states that the mortality is at its minimum about the end of June, "from which time it rises pretty steadily till it attains its maximum", about the end of October. Last year, the epidemic seems to have begun with unusual suddenness, for the deaths, which, during the first three weeks of September, were 13, 10, and 21 respectively, suddenly rose in the fourth week to 40. The maximum number of deaths in one week was 53, the number registered for the third week of October and for the first week of November; from this time, the weekly mortality grew slowly less, but still remained far above the average, so that the deaths during the last four months of 1881 were 629, against 261 during the same period of the previous year. With the new year, the mortality began to decrease, and, in the last week of January, fell below the weekly average. According to the report before quoted, it was to be expected that the mortality, "after a few small fluctuations, about the mean, for a week or two", would "definitely fall below it for the remainder of the annual period". This anticipation was only fulfilled in part, for there appears to have been a recrudescence during the latter part of March, the number of deaths registered during the last week of that month being 35. The total mortality for the first four months of this year was 336, against 180 in the corresponding period of last year. There seems to be a prevalent opinion that the number of deaths among children has been unusually great during this epidemic; and, on inquiry at several of the children's hospitals, we have found this idea entertained. An examination of the weekly returns of the Registrar-General, however, only partially confirms this. We have taken for comparison the mortality in 1880-81 and 1870-71. In the former year, the number of deaths under five years was 58, which amounted to 13.15 per cent. of the total mortality from typhoid fever; in the latter year, the number of deaths under five years was 126, or 18.94 per cent.; in the winter of 1881-82, the number of deaths under five years was 83, or 8.68 per cent. These figures, no doubt, contrast very strongly with the statistics given by Dr. Murchison in his classical work, for these show but 7 deaths under 5 years out of a total number of 1,034 deaths; but his figures are open to the obvious objection that they are derived from a single hospital, into which young children are probably not often admitted. Again, if we take into account only the deaths occurring under one year, the information to be gathered from the returns does not seem to confirm the opinion above referred to. Deaths under one year were first separately recorded in 1876, and since that time they have averaged a little over 7 in each winter, the highest number being 13 in 1878-79 (the last epidemic), and the lowest being 2 in 1880-81. Still, as we have said, the opinion prevails in the best informed quarters that the death-rate this year in children has been, so far as experience in London goes, unprecedented; this reservation is necessary, as the fatality in different localities must vary extremely, if the statements of Barthez and Rilliet, who report 29 deaths out of 111 children attacked, can be taken as fairly representing the death-rate in France. Liebermeister, indeed, says that children less than a year old are very seldom attacked, a statement which will apparently require modification in the future. During the past epidemic, the deaths of six infants under one year were attributed to typhoid fever; and, when the difficulty in the diagnosis of this disease in early life is remembered, it seems probable that the number of infants attacked must be much larger than has been generally supposed. Another unusual character of the recent epidemic has been the frequency with which laryngitis has been noticed. Formerly this complication was chiefly known to us through the descriptions of German physicians; Dr. Murchison, for instance, had, in his wide experience, met with but "three or four" cases, while lately it has been comparatively frequently seen; for instance, two such cases were published in the same week last month, one in our own columns, and one in those of a contemporary. The laryngitis usually begins at a late stage of the disease, and has been supposed to have a relation to insufficient diet; but this theory does not seem borne out by recent experience. The lesion of the larynx has been described as a simple ulceration which begins in the mucous membrane; this ulceration may be but of slight importance, or may extend deeply, causing destruction of the cartilages of the larynx, and extensive suppuration about the neck. It has been known, also, to lead to acute œdema of the glottis, resulting in asphyxia if tracheotomy were not promptly performed. In the foregoing remarks, we have but lightly touched upon the outlines, as it were, of several important questions; but we have said enough to show that the typhoid epidemic of 1881-82 presents features which will well repay labour and reflection.

PIROGOFF'S LAST ILLNESS.

IN a letter to the *Wiener Medizinische Blätter*, Professor Billroth states that he has had the opportunity of examining a portion of the tumour which caused the death of Professor Pirogoff. The Russian surgeon had recently consulted his German colleague, who writes as follows. "When Pirogoff consulted me in Vienna, I was under the impression that his disease had begun as a chronic inflammatory process in the alveolus of the left second upper bicuspid tooth, which came away, the growth then projecting into the gap, and resembling the infiltrated sarcomatous epulis which I have frequently seen in old subjects." After Pirogoff left Vienna, this growth increased greatly in size, and ultimately showed epitheliomatous changes, and the lymphatics behind the angle of the jaw became indurated. Dr. Wywodzow forwarded a piece of the tumour, removed after death, to Professor Billroth, who found that more than two-thirds of the sections he prepared consisted of a small-celled highly vascular fibro-sarcomatous tissue; on the free surface of one section, epithelial proliferation could distinctly be seen; and in one example all the appearances of ordinary epithelioma, with nests, were detected. Professor Billroth was, from

the first, strongly opposed to operative interference. His distinguished patient, over seventy years of age, was suffering from double cataract, and had become very emaciated during the last few years of his life, besides showing other symptoms of senile physical weakness. Operation for a growth that had begun as a sarcoma, had undergone cancerous degeneration, and could not have been taken away without the removal of a large part of the upper jaw, would have been too hazardous, and too likely to be followed by recurrence, to be justifiable under these circumstances. Professor Billroth, in conclusion, declares, with an emphasis increased by the aid of typography, that "I am no longer the bold and dauntless operator I was known to be when in Zurich; now I always ask myself this question: Would you let this operation be performed upon yourself if you were in your patient's place? As years pass by, one becomes more and more resigned; still I feel that, in each succeeding year of life that destiny may yet allow me, I will be more and more affected by hearing of failures and bad results in the work of our profession."

THE LONDON TEMPERANCE HOSPITAL.

WE publish in another column a report of the ninth annual meeting of the governors of the London Temperance Hospital. This hospital is prospering in the sense of funds and in the increasing number of patients, such as may be had for this or any other hospital, whether of the old school, the new school, or of any form of speciality whatever. There is no doubt that the experiment is an interesting one, and it would be satisfactory if, within a moderate compass, some precise information respecting it could presently be obtained. Cardinal Manning, we observe, announced that he was glad to see that the effect of the non-alcoholic treatment was telling powerfully on the London hospitals. It would be interesting to know on what information this statement was based. So far as we know, no data whatever are in the possession of the profession at large which could allow this hospital to have the slightest influence upon hospital treatment generally: and we believe, as a matter of fact, that the hospitals generally are practically unaware of its existence, and that medical science has as yet learnt nothing from it. We say this, because every cause loses from being overstated, and we are not inclined to think that at the present moment this temperance hospital, as it is now organised and with its existing relations, has succeeded in producing any impression upon the medical profession. We are not aware that there is any fault ascribable to any person or persons for this state of things; but we chronicle what we believe to be a fact, as the record of fact is in such a case more useful than any imaginary inference could be.

EXCISION OF THE PYLORUS.

THE *Wiener Medizinische Blätter* of May 18th contains an account of a discussion, at a recent sitting of the Congress für Innere Medizin, on the Diagnosis of Carcinoma of the Stomach, and on the operation of resection for that disease. Dr. Henck of Heidelberg read the case of excision of the pylorus for carcinoma performed ten months ago by Professor Czerny, which was briefly described by the latter surgeon at the International Medical Congress, and is recorded in its *Transactions;* and it is satisfactory to learn that the patient, who gained eleven pounds weight at the end of the sixth week of the operation, was, at the beginning of last month, ten months after the operation, quite well, with no symptoms of recurrence of the disease. Dr. Henck tabulated the clinical history of twelve resections of the stomach. One, which recovered, was performed in a case of stricture of the pylorus following perforating ulcer. The remaining eleven were for the removal of cancerous growths; four of these recovered from the operation; out of the recoveries, three patients are still alive, and free from any recurrence; the fourth is known to have died four months after the excision, from a return of the disease. In the discussion which followed the reading of Dr. Henck's paper, Professor Lichtheim observed that mobility of an abdominal growth detected by palpation in the region of the pylorus was no proof that, if the growth were pyloric, there were no adhesions. In a case under his care, the swelling could be freely moved about under the abdominal wall when the patient was narcotised; yet, on opening the abdominal cavity, the pylorus was so strongly adherent to neighbouring parts, that its removal was impracticable. Professor Kühle stated that the rapid implication of the chain of lymphatic glands in front of the bodies of the vertebræ behind the stomach, in cancer of that organ, renders many cases unsuitable for surgical treatment. Dr. Henck remarked that the same objection stands in the way of operation in cancer of any other organ. As early diagnosis is so important, Dr. Ewald asked if the members of the Congress could confirm the theory of Van der Velden, that free hydrochloric acid was absent in the gastric juice in cancer of the stomach; but no researches had been made towards the confirmation of this theory by those present who had some experience of operations for the radical cure of malignant gastric disease.

SCOTLAND.

HEALTH OF GLASGOW.

THE report of the medical officer for the fortnight ending May 13th, shows that there were 515 deaths registered, representing a death-rate of 26 per 1,000 living. In the corresponding fortnight of last year, the death-rate was 25½ per 1,000. From pulmonary diseases, there were 192 deaths, representing a death-rate of 9.7 per 1,000 living, and constituting 37.2 per cent. of the total deaths. There were 7 deaths from fever, all being from enteric; while the infectious diseases of children caused 50 deaths, viz.: 28 from whooping-cough, 6 from scarlet fever, and 16 from measles. The number of cases of fever registered was 34, of which 31 were enteric, 2 typhus, and 1 undefined. There were also 102 cases of measles, 69 of whooping-cough, 43 of scarlet fever, and 17 of diphtheria registered, of which 30 were removed to hospital, and the remainder kept under supervision at home.

LOCH KATRINE WATER.

THE monthly report of the quality of Loch Katrine water has been issued by Professor Mills. The results are returned in parts per 100,000: Total solid impurity, 2.98; organic carbon, 0.128; organic nitrogen, 0.016; ammonia, 0.000; nitric nitrogen, 0.009; total combined nitrogen, 0.025; hardness, 1.0; chlorine, 0.64; temperature, 47.38° Fahr. The water was sampled on May 15th. It was of a very light brown colour, and contained very little suspended matter.

PATHOLOGICAL ANATOMY IN ABERDEEN.

AT a special meeting of the managers of the Royal Infirmary, Aberdeen, a letter was read from Dr. Francis Edmond to the Senatus of the University, requesting that the newly elected professor of pathological anatomy be allowed access to the materials afforded by the infirmary. This request is in accordance with the terms of Sir Erasmus Wilson's deed of foundation of the chair. For the successful teaching of pathology, it is absolutely essential that the professor have access to the material afforded by the *post mortem* room. The matter was referred to a committee.

UNIVERSITY OF EDINBURGH.

THE written examination of the final takes place on Friday and Saturday; the oral begins next week; the examinations in clinical surgery have finished; those in clinical medicine are about two-thirds done. Owing to an indisposition, which is universally regretted by the profession, Professor Spence will be unable to examine orally. The Thomson Bursaries, of the annual value of £25 for four years, have been awarded; one to Mr. W. Bramwell Reid of Wanlockhead, as a recognition of his excellence in his examinations; the other to Mr. G. R. Thomson, Iona. The Senatus have awarded two Vans Dunlop Scholarships, each of the value of £100 per annum for three years; one to Mr. Cecil Reddie, B.Sc., in Chemistry and Practical Pharmacy; and the other to Mr. A. C. Younan in Anatomy, Physiology, Materia Medica, and Pathology.

DEATH OF DR. G. C. PIRIE OF DUNDEE.

We regret to announce the death this week of George Clark Pirie, M.D., L.R.C.S.Ed., Medical Officer of Health for Dundee and Surgeon to the Police there. Born in Dundee in 1832, he studied in Edinburgh, and there received the degree of M.D. and the diploma of L.R.C.S.E. in 1853. Subsequently to his graduation, Dr. Pirie practiced for some years in Liff, Forfarshire; he afterwards settled in Dundee, where he soon acquired a good practice, and received various appointments. In addition to those above mentioned, he was surgeon to the 4th Forfarshire Artillery Volunteers and Consulting Physician to the Royal Infirmary, Dundee. His loss will be regretted by the profession in Dundee and by many of the public. He was only fifty years of age when cut off from a life of usefulness, in which the careful discharge of his duties and his earnestness as a sanitary reformer were recognised by all.

REGISTRAR-GENERAL'S QUARTERLY REPORT.

The report of the Registrar-General for the three months ending March 31st, for Scotland, shows that the annual proportion of deaths for every ten thousand of the population was 193. This is the lowest rate that has been recorded during these months since the Registration Act came into operation; in England the rate was 216 for every ten thousand of the population, the lowest that has been recorded since 1837. For every ten thousand of the inhabitants of the principal towns in Scotland, the annual rate was 224; in the large towns, 207; in the small towns, 184; in the insular rural districts, 169; and the mainland rural, 157. In all the groups of districts the rate was lower than for the first quarter of 1881. The individual rates were, per ten thousand of the population, in the principal towns—Leith, 180; Dundee, 194; Edinburgh, 197; Aberdeen, 208; Greenock, 228; Perth, 246; Paisley, 247; and Glasgow, 251.

IRELAND.

The Royal Medical Benevolent Fund Society of Ireland will hold its fortieth annual meeting next Monday, June 5th, at the King and Queen's College of Physicians.

IRISH MEDICAL ASSOCIATION.

The annual general meeting of this Association will be held on Monday next, at twelve o'clock, at the Royal College of Surgeons. In accordance with the usual custom, the members will breakfast together on the morning of the meeting at the Shelbourne Hotel; and the annual dinner will take place in the Albert Hall of the College of Surgeons.

CENSUS REPORTS: CO. TIPPERARY.

The population in 1881 amounted to 199,612, being a decrease of 17,101 as compared with 1871. As regards pauperism, the condition of the county is not very encouraging. For example, in 1871, the recipients of Poor-law relief numbered 4,344, but last year the number was 7,708, of which 4,400 were on out-door relief. Of the population, no fewer than 66,826 were wholly illiterate.

THE DENTAL HOSPITAL OF IRELAND.

The first public annual meeting of the friends and supporters of this institution was held last week at the hospital; Alderman Sir J. W. Mackey in the chair. The hospital was opened in October 1879, and since that time its four operating surgeons have attended to 9,000 patients. The number of operations performed during the year 1881 was 4,500. For each case that requires ordinary treatment, unless in the case of the very poor, or of those out of employment, or of those with governors' recommendations, there is charged the small fee of 6d. While this payment gives a sense of independence to the patient, it contributes very materially to the funds of the hospital. The amount realised from this source during the past twelve months was sufficient to pay more than a third of the rent of the hospital, and was treble that subscribed during the previous fifteen months—an additional fact showing the increased popularity of the institution. The honorary secretary, Mr. W. Booth Pearsall, stated that it was intended, if means permitted and as the resources of the hospital developed, to open a school for the training of pupils who may wish to practise dentistry, of young medical practitioners about to join the army and navy medical services, or to practise in country districts. The report having been read, its adoption was moved by Mr. Barton, Vice-President of the College of Surgeons, who said that it was quite impossible to give the requisite attention to dental cases in general hospitals. He therefore thought this hospital was a development of the greatest possible advantage to the community. The Rev. Dr. Haughton seconded the resolution, remarking in doing so that everyone in the room had thirty-two good reasons for supporting it, for they all had, or ought to have, the remains of thirty-two good teeth in their heads. Resolutions were also spoken to by the Right Hon. Lord Justice Fitzgibbon and other influential persons; and a number of subscriptions were handed in at the close of the meeting.

THE ROYAL COLLEGE OF SURGEONS IN IRELAND.

From the thirty-ninth annual report of the Council of the College, to be submitted to the meeting of the Fellows summoned for this day, Saturday, the 3rd instant, at 12 o'clock, we learn that, during the year ending April 5th, 1882, 3 candidates were admitted to the Fellowship of the College, and 106 gentlemen received the letters testimonial; 1 licentiate obtained the diploma in midwifery; 95 candidates for the junior class examination were rejected; and 42 candidates for the final examination were rejected; 253 candidates presented themselves for the preliminary examination; of these, 69 received first class certificates, 54 received second class certificates, 70 received pass certificates only, and 60 were rejected; 163 gentlemen received the diploma in dental surgery. At the special meeting of the Fellows of this College, held on the 25th ult., the discussion on the proposed expenditure in connection with the school of the College, to which we referred in a leader last week, was adjourned *sine die*. This will not, we presume, prevent the matter from being discussed on the submission of the Report of Council at this day's meeting, or at any adjournment therefrom. The abstract of the accounts of the College for the year ending April 5th, 1882, shows that, including a balance in bank on April 5th, 1881, of £267 10s. 4d., the income of the College for the year was £6,918 12s. 7d. Of this sum, £2,199 15s. 0d. was received from dental candidates; £415 5s. 3d. represents the interest on the sum of £10,000, the sole funded property of the College, which is secured on mortgage; and the remainder is made up of examination and registration fees. The balance in bank to the credit of the College was £851 14s. 3d. Were it not, therefore, for the 194 dental candidates at £10 10s. each, the College would be in debt. We observe that, at a meeting of the Council of the College held December 1st, 1881, it was resolved: That, in order to bring the regulations of this College into conformity with those of the two Colleges which are giving examinations "sine curriculo" in dental surgery, the regulation by which the dental examination, "sine curriculo", in this College shall cease (after three years of grace) on August 1st, 1881, be rescinded, and that, in place thereof, the regulations of the Scotch licensing bodies be adopted, viz., "That candidates whose names are on the *Dental Register* shall be admitted to examination 'sine curriculo'." The Irish College can hardly be blamed for determining not to be outdone in the competition for candidates by rival bodies in a sister country. It is to be presumed, however, that the *Dental Register* will soon be exhausted of candidates qualified to avail themselves of the facilities offered them by the Colleges so anxious to act in this respect in conformity with each other; and that their income derived from such a source—amounting, in the case of the Irish College for the last four years, to a total of £5,500—will accordingly shortly cease. In consequence, therefore, of this state of the College funds, and as an outcome of the proposal to expend a large sum of money on the school of the College, Dr. Robert McDonnell, who is not connected with any medical school outside the

College, has given the following notice of motion, to be considered at a meeting of the Fellows to be held this day (Saturday) at noon, viz.: "That, keeping in view the present financial position of this College, and the expenditure hitherto made, and now proposed to be made, on its school and buildings, the Fellows recommend to the Council carefully to consider the recommendations of the School Commission; and further express this opinion, that the time has arrived when the Fellows should be called upon fully and deliberately to consider whether a school should still be maintained in connection with the Royal College of Surgeons in Ireland." As there are no College funds available for such an outlay as must be needed to carry out the proposed structural changes, the finance committee recommended the Council to arrange for such over-draft at the bank as would be from time to time required, and to borrow such sum as might be eventually required to pay off the bank at 4½ per cent.; the professors of the school to pay two-thirds of the interest and two-thirds of whatever interest the College may be charged for any extra money they might be obliged to raise for the proposed building. However willing the present professors, to whose interests the expenditure will be beneficial, might be to consent to the foregoing terms, which were agreed upon by the Council, it is suggested by those who are averse to it that any such agreement made by them would not be binding on any of their successors should a professorial vacancy occur. And it is urged that the election of any candidate to a professorship who made any pledge to pay such interest, if elected, might be held to be illegal. It is considered doubtful whether corporate funds can be voted by any members of a corporation who would individually benefit in any way by their expenditure. A meeting of the Fellows will also be held on Monday, the 5th June next, at one o'clock, pursuant to the provisions of the Supplemental Charter, to elect a President, Vice-President, Council, and Secretary, for the ensuing year.

FELLOWSHIP EXAMINATIONS IN THE IRISH COLLEGE OF SURGEONS.

THE Council of this College have recently adopted new regulations for the examination of candidates for the fellowship of the College, which have now been officially promulgated. Heretofore, certain concessions, more or less at the option of each examiner, were supposed to be made in the case of candidates who had been some years qualified; and it is with a view, we presume, of defining such concessions, that the new regulations have been made. The candidates are divided into five grades, as follows.

Grade I. *Candidates possessing no Qualification.*—In this class, candidates shall first be examined, for two days, for Letters Testimonial of the College, on obtaining which they shall be further examined on a third day in the additional subjects required for the Fellowship.

Grade II. *Licentiates of the College of less than ten years' standing.*—(The examination in this and in the succeeding grades is to extend over two days.) *First Day* (consisting of two parts)—1. Oral. Subjects—*a*. Anatomy; *b*. Comparative Anatomy; *c*. Histology and Physiology. 2. Dissections. *Second Day* (consisting of four parts)—1. Clinical Examination in Surgery. 2. Written Examination in Surgery. 3. Oral—*a*. Theory and Practice of Surgery; *b*. Pathology; *c*. Theory and Practice of Medicine and Therapeutics. 4. Operations on the Dead Subject. *Fees:* Urban Practitioners, £31 10s.; Rural Practitioners, £21.

Grade III. *Candidates of less than ten years' standing, possessing Qualifications in Surgery of other Bodies*, shall, if admitted to Examination, be examined according to Grade II. The fees are: for urban practitioners £52 10s.; for rural practitioners £42.

Grade IV. *Licentiates of the College of more than ten years' standing.*—*First Day* (consisting of two parts): 1. Oral—Surgical Anatomy; 2. Operations on the Dead Subject. *Second Day* (consisting of two parts): 1. Clinical Examination in Surgery and Medicine; 2. Written Examination in Surgery; Oral: *a*. Theory and Practice of Surgery, including the reading of written answers; *b*. Morbid Anatomy. The fees are as in Grade II.

Grade V. *Candidates of more than ten years' standing, possessing Qualifications in Surgery of other Bodies.*—Such candidates shall, if admitted to Examination, be examined according to Grade IV. In all the grades, £10 10s. is to be retained by the College in case of rejection.

ZYMOTIC DISEASES IN PROVINCIAL TOWN DISTRICTS.

DURING the quarter ending April 1st, 53 deaths from small-pox were registered in Belfast, 10 in Waterford, and 1 in Clonmel. Scarlatina caused 57 deaths, of which 23 were in Limerick, 16 in Newry, and 14 in Belfast. To fever 80 deaths were attributed, viz., typhus 46, enteric 21, and simple continued fever 13. Nearly all the fatal cases of fever in Cork were due to typhus; while in Belfast the mortality from enteric fever and typhus were nearly equal. Diphtheria caused 15 deaths, and diarrhœa and dysentery 67.

CHARGE AGAINST A MEDICAL OFFICER.

A MEETING of the Lurgan Dispensary Committee was held last week for the purpose of investigating a charge of neglect and incompetence made against Dr. Harman, medical officer of No. 2 Dispensary. The charge was that a child named O'Neill, who was under Dr. Harman's care, had been permanently disabled by negligent treatment of a broken arm. After evidence had been given, the committee adopted a resolution exonerating Dr. Harman from all blame, and attributed the injury to the neglect of the child's parents to attend to Dr. Harman's instructions.

LISMORE UNION.

DR. BRODIE recently held a sworn inquiry into certain charges made against the medical officer, master, and nurse of Lismore workhouse; and, last week, the Local Government Board communicated with the guardians in reference to these accusations. It appears that the medical officer was unable to live in harmony with the master and nurse, and the Board suggested whether it would not be advisable to replace those officers by others who could discharge their duty with propriety and good temper. The guardians, after considering the matter, resolved to reprimand the master and nurse, and to call on the medical officer to resign. If all three officials had received the same punishment, no valid objection perhaps could have been made; but that the master and nurse should merely receive a caution, and their superior officer be requested to send in his resignation, seems to us very arbitrary conduct on the part of the guardians; and we sympathise with Dr. O'Reilly, who has served for the past fifteen years as medical officer of the workhouse.

NOVEL METHOD OF COMMITTING SUICIDE.

ON May 26th, Sarah Newman, aged 38, married, a patient in the County and City of Cork Hospital for Women and Children, committed suicide in the following remarkable manner. Deceased had been in hospital for about a month, under Dr. Cummin's care, for endocervicitis, and had been informed that she was sufficiently well to be discharged. On hearing this, she was dissatisfied, not wishing to return home. She was found at a quarter-past 6 A.M. by the night-nurse dead in her bed, and part of a stocking protruded from her mouth. The lady-superintendent of the hospital was immediately called, and saw her. She felt her heart and pulse, and found both had ceased to beat. She observed a piece of stocking in her mouth, took hold of it, and pulled part of it out; but it was so firmly fixed that the remainder did not come. The woman was then dead. At the inquest, Bridget Sullivan deposed that the deceased occupied a bed in the room in which witness slept. At about 5 o'clock on that morning she heard her getting up and closing the shutters; she then returned to bed. Witness got a pain in her side, and did not notice the deceased until 6 o'clock; she did not notice her moaning, as she was in the habit of doing so. Witness, however, believed she did moan soon after she returned to bed. She heard her say that she hated to go home, that she would rather stop in the hospital. The Lady Superintendent and the night nurse were also examined, and deposed as stated above. As there were several other patients who slept in the same ward as the deceased, who were too ill to be present at the inquest, the coroner had visited them, and was told that Dr. Cummins visited her the previous day, and he then told her that she would soon be going home, as she was getting better. When Dr. Cummins left her, she

felt annoyed at being told that she was to leave the hospital, and she did not think herself that she was fit to go. As to making any threat of doing away with herself, she never expressed any such intention. Dr. Cummins deposed that the woman was quite dead when he saw her; that she died of suffocation; and he produced a very long stocking, which he said he had taken out with the greatest difficulty, as it was very firmly fixed in the throat. The jury, in accordance with the suggestion of the coroner, found "that the deceased committed suicide by putting a stocking down her throat, while in a state of temporary insanity." They were also of opinion that no blame could be attached to any one in the hospital. This case is of interest in a medico-legal point of view. The facts of the case are beyond all dispute: that the patient destroyed herself wilfully, in this strange manner, without making any noise or disturbance whatever.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL:

NOTICE OF QUARTERLY MEETINGS FOR 1882: ELECTION OF MEMBERS.

MEETINGS of the Committee of Council will be held on Wednesday, July 12th, and October 18th. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary not later than 21 days before each meeting—viz., June 22nd, and September 27th, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

November 4th, 1881. FRANCIS FOWKE, *General Secretary*.

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting of the above District will be held at the Royal Forest Hotel, Chingford, on Thursday afternoon, June 15th, at 4.30; Edwin Saunders, Esq., President of the Metropolitan Counties Branch, in the chair. Dr. John Williams will read a paper on Antiseptics in Midwifery. After the meeting, the members and their friends will dine together at 6 o'clock; tickets, exclusive of wine, 7s. 6d. Gentlemen intending to dine are requested to make early application for tickets, so that comfortable arrangements may be made.—FREDERICK WALLACE, 96, Cazenove Road, Upper Clapton, Honorary Secretary.—May 31st, 1882.

NORTH OF IRELAND BRANCH.—The annual meeting of this Branch will be held in the Belfast Royal Hospital on Tuesday, June 13th, at 4 o'clock P.M. The members will dine in the evening at the Imperial Hotel at 7 o'clock.—JOHN MOORE, M.D., Honorary Secretary.

SOUTH-WESTERN BRANCH.—The annual meeting of this Branch will be held in the Board Room of the North Devon Infirmary, Barnstaple, on Thursday, June 22nd, at 2 P.M., under the Presidency of Mr. Joseph Harper. Opportunity will be given after the meeting, if time permits, to visit places of interest in and near Barnstaple. The annual dinner will take place at the Lion Hotel at 6 P.M.; dinner tickets, exclusive of wine, 7s. 6d. each. Members intending to dine, or to read papers, or make communications, are requested to give notice to S. REES PHILIPPS, M.D., Honorary Secretary, Wonford House, Exeter. P.S.—The President invites the members to take luncheon at his house in Bear Street between the hours of 12 and 2 o'clock.

NORTH WALES BRANCH: INTERMEDIATE MEETING.

THE intermediate meeting of this Branch was held at the Sportsman Hotel, Portmadoc, on April 27th, under the presidency of SAMUEL GRIFFITH, M.D. Twenty members were present.

New Members.—The following gentlemen were elected members of the Association: Messrs. Henry Evans, M.R.C.S.Eng., L.R.C.P.Ed. (Portmadoc); and R. Langford Jones, M.R.C.S.Eng. (Bangor). The following gentlemen were elected members of the Branch: Messrs. Joshua Edwards of Tunstall, Staffordshire, and J. Foulkes Jones of Towyn.

Collective Investigation Committee.—The consideration of the subject of the communication from the Secretary of the above Committee was postponed to the annual meeting.

President's Address.—Having referred to the objects of interest in the neighbourhood, the PRESIDENT invited the opinion of the members on the provident dispensary system and the establishment of workmen's clubs, as substitutes for the present unsatisfactory method of remuneration for attendance on working men and their families. This gave rise to an interesting discussion; and it was ultimately resolved to appoint a committee on the subject, and report to the annual meeting, to consist of the President and President-elect, Mr. Hughes (Bala), Mr. J. T. Jones (Corrie), Mr. Charles Williams (Llanbedr), Dr. J. E. Jones (Dolgelly), Dr. Grosholz (Aberdovey); and Mr. Jones-Morris (Portmadoc), as Secretary, who will be glad of any information of the working of such clubs in rural districts.

Communications.—The following were read.

1. Mr. Charles Williams: Adenoma of Breast. (Specimen shown.)
2. Mr. R. Roberts (Festiniog): Fracture of Sacrum, with subsequent extensive Suppuration into the Pelvis. (Case shown.)
3. Dr. Roberts (Chester): Pelvic Cellulitis, pointing out the efficacy of Thymol.
4. Mr. T. E. Jones (Llanrwst): Adenoma of Breast. (Specimen shown.)
5. Mr. T. E. Jones: Naso-pharyngeal Polypus. (Specimen shown.)
6. Mr. Roberts (Portmadoc): Case of Extra-uterine Fœtation (tubal).

Luncheon.—The members partook of a luncheon, at the invitation of the President and Dr. Roberts of Portmadoc.

CORRESPONDENCE.

THE ROYAL COLLEGE OF SURGEONS OF IRELAND.

SIR,—The leading article, headed "The Royal College of Surgeons in Ireland" in your JOURNAL of the 27th inst., is so inaccurate in every detail, so misleading and deceptive, and so calumnious on the Council of the College, that I feel I have a right to demand space for a refutation of its statements.

A great part of the article is I know founded on a partisan circular recently circulated amongst the Fellows of the College, the statements in which have already been refuted at the meeting of the college on the 25th inst.; but you have gone further than this circular, and accused the Council of "the questionable granting of some hundreds of dental diplomas" and other crimes. Now, sir, you have, I presume, as in duty bound before allowing the editorial columns of your JOURNAL to be made the vehicle for thus calumniating the twenty-one gentlemen selected on account of their character and position to be Councillors of the College, inquired into the truth of this charge, and as a member of the Council I have a right to demand the specific nature of the charge, and the evidence on which it is founded.

It is further stated that but for the money obtained last year by this "questionable" conduct, the College would be "absolutely" in debt. Sir, this statement, if it is meant, as it appears to be, to convey that the College has incurred debt that it had no just and honourable means of meeting without "questionable" granting of diplomas is "absolutely" untrue.

The position of the College is this:—They had a magnificent museum, which was rapidly outgrowing the space provided for its display. They had a library also outgrowing their shelves, and after much consideration they determined in 1876 to extend their buildings. At this time they had a sum of £16,586 12s. 1d. available for the purpose, being the savings of former years; of this money, £10,000 had been invested in a first mortgage on land—£5,633 6s. in 3 per cent. Stock, and £953 6s. 1d. was lying to their credit in the bank.

They determined to sell out their Stock, use the money lying in the bank, and trust to their annual surplus of income to pay off any excess of expenditure there might be in connection with their buildings without touching their mortgages. With this view they arranged with the bank to be allowed to overdraw their account. At this time, the Dentists' Act was not in existence, nor was there any prospect of an income to be derived from such a source even by "questionable" practices.

The new buildings have now been completed, furnished, and put in thorough working order, forming a museum and library of which any college might justly be proud, and the entire cost of the work has been paid, amounting to £8,658 19s. 6d., and at the close of the financial year, 5th April last, the College had lying at their bankers a sum of £851 14s. 3d. There was besides, half a year's interest due to them on their mortgage which, owing to the death of the mortgagees, had not been paid, making a total balance to their credit, over and above all debts and liabilities, of £1,059 16s. 9d., which had, when our accounts were last made up, May 13th, increased to £1,481 19s. Moreover, it appears that the normal income of the College, excluding all money received from the dentists, has shown an average surplus for the last three years over and above the normal expenditure; that is, excluding all moneys paid on account of the new buildings, of about £400 per annum.

Now, sir, I ask you and your readers, Is this a state of accounts likely to tempt twenty-one gentlemen, hitherto considered honourable men, to "questionable" trafficking in dental diplomas? Or does it

show a reckless expenditure without a prospect of meeting it justly and honourably? The money received for examining dentists, being a nett total of £3,164 1s. 2d., has been earned by legitimately and honourably carrying out the intentions of the legislature, and has enabled the College to pay off, sooner than it might otherwise have done, the money borrowed from the bank; and a further income will arise from the same source, of which, however, I think it better to make no mention in this statement, so as to avoid all cavilling.

As to this further expenditure that we are accused of being about to undertake in a still more reckless and improvident manner, what is it? We found that the requirements of surgical education had outgrown our space, means, and appliances, just as our museum and library had outgrown our accommodation. We found by our charter that we were bound to keep "the several buildings and schools of the said College in proper repair, enlarging them when required", and we proposed to do it. For this purpose, we were informed that an expenditure of £2,600 would be necessary. To allow a margin, we put it down at £3,000. Of this sum we think the present state of the finances of the College justify us in expecting to be able to pay at least £1,500; the more sanguine of us think it will be in our power, before the buildings are completed, to advance even more; but taking it at the lower sum, we propose that the College professors shall pay interest on all money advanced out of the College funds at the rate of three per cent., and that they shall pay two-thirds of all interest on account of any money borrowed to be expended on the improvements. The result of this would be that the College would receive £45 a year interest on £1,500 at present lying idle. Thus they would have to pay about £67 10s. interest for £1,500 to be borrowed to complete the improvements, but on this they would receive an additional £45 from the professors. The College funds would thus have to meet the large annual expenditure of £22 10s. for the carrying out of duty imposed on the Council by the words of the charter, as above cited. To prevent this monstrous job, all this heated controversy has arisen; a special meeting of the College has been called; the thunder of the press has been invoked; and the BRITISH MEDICAL JOURNAL has denounced the Council of the College for "questionable" proceedings and dishonest recklessness of expenditure. Twenty-two pounds ten shillings *per annum!* A mountain was in labour, and lo! there came forth twenty-two pounds ten shillings *per annum*. But this £22 10s. was only to be expended for a few years, until this balance of £1,500 could be paid off, which, with an average surplus of £400 a year, should not take very long, and then there would be a permanent income coming into the College for money expended on their own premises of £90 a year. But, it is said, in other schools the money laid out in improvements is provided by the professors. In other schools, the buildings and appliances belong to the professors, and when they retire or die their shares are sold for the benefit of themselves or their successors. In the College school, the buildings and appliances are the property of the College, and the professors have no claim on them whatever.

Of the other charges in your article, it is not necessary for me to speak. The report of the Council is now in the hands of the Fellows, and if they cannot see their refutation in it, they are more blind than I take them to be.—I have the honour to be, sir, your obedient servant,

GEORGE H. KIDD, Ex-President and Member of Council of the Royal College of Surgeons, Ireland.

*** Dr. Kidd is in error in stating that we made any charge against the Council of the Irish College of Surgeons, or accused it of any crime. As journalists, we claim the right to comment on the published financial reports of a corporation, and the proceedings of its governing body. On such information our remarks were based, and Dr. Kidd has not controverted their accuracy. As regards the use of the term "questionable", as applied to the granting of dental diplomas by the College of Surgeons, Ireland, with which Dr. Kidd is so very angry, we never did question the legality of the College "in being first in the race" to avail itself of Sir John Lubbock's Act to create licentiates in dental surgery, wholesale and on easy terms, from among existing dentists who have taken no previous steps to attain such distinction. (*Vide* report of speeches of Mr. Turner, Dr. Storrar, and Dr. Wood, at the meeting of the General Medical Council, October 26th, 1881.) But we do still question whether the College has gained credit by the continuous issue of such qualifications; and we know that, in thinking they have not, we are in accord with a large number of its own Fellows, with that of eminent members of the General Medical Council, and of the dental as well as of the medical profession. The facts of the case speak for themselves, however. It is idle to charge us with partisan sentiments on a matter in which we have obviously none but the most impartial opinions, and on which we deal with the matter at issue on general principles, which are alike applicable to all colleges and universities. If, without anger or violent language, Dr. Kidd, or any other less officially concerned personage, can show good reason how that traffic in diplomas can be considered professionally desirable or beyond question, which is what he claims for it; or, if he can establish the utility of expending collegiate funds in the manner proposed, we shall be as willing to adopt that view as we are at present distinct in expressing the opposite. It is not unnatural that our comments upon some of the proposed financial arrangements of the Royal College of Surgeons of Ireland has evoked a reply from its chief executive officer, although it is to be regretted that, in the diction of what is evidently a letter written in the white-heat of controversy, a tone is adopted and forms of expression are used which are in somewhat more than doubtful taste.

SIR,—I am one of those Fellows who read your leader, headed "The Royal College of Surgeons in Ireland", last week, with much satisfaction. It appeared to me a very fair and temperate statement of the case. As a member of Council, I can testify that, in the main, the facts stated by you are correct.

The majority of the Council have, as I think, acted with undue haste; and you are quite right in stating that they "would hear of no delay." They have thus forced on for discussion questions of the greatest moment—questions which deserve the fullest and calmest consideration.

The great question, which overrides all others touching the School, is this. Is it desirable that a College of Surgeons should unite within itself the two functions of teaching and also of examining for its diplomas? Experience has convinced me that it is not desirable; and it is quite certain that, in the present day, there is no necessity for a school of surgery in connection with our College.

There is no lack of excellent schools of anatomy and surgery in Dublin and the provinces (in fact, there are too many of them); and the duty of the College of Surgeons ought to be to supervise all with a fair, firm, and impartial hand—not to patronise, pamper, and protect one special school. I have always been a "free trader" as regards education; and I hold that the system of "protection" adopted by the Irish College of Surgeons has produced the worst results.

Let me hope that, in the discussion of this matter, we may still have your columns open, so as to give a fair hearing to both sides.—Yours, etc.,

ROBERT MCDONNELL, F.R.C.S.I.

Dublin, May 31st, 1882.

SIR,—In your issue of May 27th, there occurs, in a leading article on the Royal College of Surgeons in Ireland, the sentence, "But for this interest, and the money obtained last year from the rather questionable granting of some hundreds of dental diplomas, the College would be absolutely in debt." As a few of the Fellows of the College express indignation at the phrase "questionable granting", and, as I consider that the course adopted by the College during the past year, and indeed for some time previously, fully warrants this phrase, I purpose to write a few words on the subject. About one feature of the granting of the dental diplomas there can be no question, viz., that a large sum of money has been realised to the College by this procedure. In the earlier years of this diploma-granting, matters had a greater show of decency than during the past year. Many highly respectable practitioners came up for examination at the beginning; but, before long, this source of income was exhausted. The capability for diploma-granting did not, however, cease, when ceased the candidates of acknowledged respectability. Druggists' assistants —nay, I am told hairdressers and others of that ilk—were received with open arms. The dental section of the Dental Board demurred, and exercised their right of veto, at the meetings of the Board of Censors, to exclude the chemists and druggists. Forthwith the right of veto was taken from them, and the Council took unto itself the admission of candidates to examination. These circumstances make many of the Fellows think that the honour of the College has been seriously impaired. If it be asked why this was done, the answer is, a certain section of the Council knew that the College needed funds, and, by hook or by crook, must get them. The Fellows at large were never consulted on this dental traffic, nor was the opinion of the Fellows of the College practising dentistry asked or taken. One thing is now certain: even of the hairdressers and druggists' assistants there is an end, and some other scheme must be evolved to meet any extraordinary expenditure on the part of the College. Unless such can be devised, if extraordinary expenses are to be incurred, the day of general collapse is certain and inevitable.—I beg to remain, faithfully yours,

R. THEODORE STACK, F.R.C.S.I.

SIR,—The leading article on the Irish College of Surgeons in last week's issue, has pointed out very clearly the evil effects of supporting a particular school by grants from College property. A week ago a

circular was sent to all the Fellows with the object of showing that the *interim* report of the School Commission, recommending the expenditure of a large sum of money out of the College funds upon the College School, should not be adopted till it had been fully discussed by the Fellows at large, and moreover, submitting several reasons why so serious an encroachment upon the only fixed income of the College should be resisted.

At a special meeting held on the 25th instant to consider the question of the accuracy of some of the assertions made in this Circular, was impugned. It is now desired to show that in all essential points these assertions were correct, and further, that so long as the present connection between the School and the College continues, the proposed outlay can be met in no other way than out of the College funds.

The Circular maintained: 1. That the Special Commission was an interested body, inasmuch as out of the six members who were not *ex officio*, four were Professors of the School. 2. That the cost of the project would probably exceed £4,000. 3. That the income of the College must be diminished owing to the cessation of the demand for dental diplomas, the enforcement of a four years' curriculum, the probable establishment of a conjoint scheme, and above all the rivalry of a new and a cheap university.

With regard to the first point, it was contended that the number of the Professors on the Commission, *i.e.*, of the persons pecuniarily interested, was three and not four—this is no doubt a correction—but the broad fact remains that one-half of those who as working Commissioners recommended this great outlay of College money, were Professors of the only School that would be thereby benefited.

The estimated cost was put down by the advocates of the project as £2,600, and it was admitted that it might reach £3,000. All who are familiar with the erection of buildings of this unusual kind, especially when constructed to suit the wants of not one person, but a number of persons, know that a very large margin must be left for modifications of plans, etc., that are seen to be desirable as the works proceed.

The third, and by far the most important, matter, the diminution of the College income, was not called in question. The dental diploma traffic, by which last year £1,170 was netted, will after next year have ceased to exist. Even were the other sources of income to remain the same, they would be barely able to meet the ordinary expenditure. From the causes already alluded to, we are forced to believe that there will be a marked decrease in the number of our licentiates. Indeed, the beginning of the decrease is already observable. The money cannot be borrowed, as the School is not the property of the Professors to give in security. It is only by the strictest economy, and by jealously guarding against any further diminution of our fixed income, that we can hope to maintain the College as a great centre for the advancement and diffusion of professional knowledge among the entire body of its Fellows and Licentiates. These facts will induce us, it may be said, to consult for the safety of the College of Surgeons rather than of its School. Undeniably, when the interests clash, we prefer the former; first, because not one-half of our licentiates have received their medical education in the College School, and we should naturally choose the benefit of the whole body rather than of a part; and secondly, because the renovation of the College School can be effected by better means than by subsidies from the College funds.

I am, etc., F.R.C.S.I.

ANTISEPTICS AT THE SAMARITAN HOSPITAL.

SIR,—Very few, I imagine, are inclined to dispute Dr. Keith's estimate of all this hubbub in the journals, set going chiefly by a spirit of rivalry not entirely unquestionable; but Dr. Keith is in the wrong as to the action taken by the Samaritan Committee of Management (not the House Committee). Their resolution simply adopted the recommendations of the subcommittee of consulting medical officers, to whom the question of antiseptics, raised by Mr. Thornton's representations, was referred. The resolution was intended to go no further than to enjoin regard to regulations long existing, to which Dr. Bantock was supposed to be indifferent. The operator was left as untrammelled as he was before in every other respect, spray or no spray.

Two years ago, Dr. Bantock's results were better than those of Mr. Thornton; the reverse was the case this last year. As Dr. Keith observes, it would be scarcely just to found a principle on an accident.

Since no allusion to the action of the committee appears in our last report, is it too much to expect Dr. Keith would tell us in what way he comes by the information which betrayed him into his mistak ?

Dr. Keith's invocation "to be let alone", applies equally well to lay hospital committees, who are plagued far too often by contentions incapable of lasting adjustment. Dr. Keith seems blessed with exceptional immunities. Apparently he has no colleagues.—Yours obediently,

HENRY SAVAGE, Member of the Managing Committee.

14, Bentinck Street, May 30th, 1882.

SIMPLE AND ASEPTIC OVARIOTOMY.

SIR,—I entirely agree with the views expressed in Dr. Keith's letter upon this matter. If I were to use the statistics of the Birmingham Hospital for last year in the same way as the writer of your article has used those of the Samaritan Hospital, I could show that the argument is here exactly reversed; but it would be manifestly unfair to do so. I particularly join with Dr. Keith in protesting against the spirit of the article and its evident personal animus against one of the surgeons to the Samaritan Hospital. The writer of the article has not even taken the trouble to read the report and take out the figures there given, but exaggerates the mortality of this particular surgeon nearly six and a half per cent.—I am, etc., LAWSON TAIT.

7, Great Charles Street, Birmingham.

P.S.—In a paper on Ovariotomy by Dr. Engelmann of Missouri, just received, I find the following heading, printed in italics: "*Listerism, as routine treatment, is not only to be avoided, but to be dreaded by the ovariotomist.*"

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.

The Carriage Tax.—Mr. GLADSTONE, in reply to Mr. DAVEY, said he did not see his way to grant new exemptions from the carriage tax in favour of medical men.

Petitions praying for exemption from increased carriage tax in the case of medical men have been presented by Mr. H. W. Fitzwilliam, from Rotherham; by Mr. A. H. Ross, from Maidstone; by Sir H. Selwin-Ibbetson, from Saffron Walden; by Mr. W. Woodall, from the Potteries; and by Mr. Seely, from Lincoln.

Officers' Superannuation (Ireland) Bill.—Petitions in favour of this Bill have been presented, by Mr. C. Seely, from the Midland Branch of the British Medical Association; by Mr. L. Fry, from the Bath and Bristol Branch; by Mr. H. H. Fowler, from the Staffordshire Branch; and by Mr. T. R. Hill, from the Worcestershire and Herefordshire Branch.

Militia Surgeons.—Mr. O'Shaughnessy has given notice that, on June 8th, he will ask the Secretary of State for War, whether it is true that, on the compulsory retirement, under 68A. Circular, January 1882, of militia surgeons holding commissions from lord lieutenants of counties, at the age of sixty-five, the pension of 6s. a day, to which, under certain circumstances, such surgeons are entitled to under 5 George 4, c. 33, has been refused them; and, if he will explain under what enactment the right to this pension is alleged to have been destroyed.

We are requested to insert the following correction of our condensed report of a portion of Mr. Childers's speech in discussing the Army Estimates.

"Mr. Childers said that the question of the Army Hospital Corps organisation was receiving attention in connection with recent occurrences in South Africa. He entirely agreed with Sir R. Loyd-Lindsay as to the value of female nurses. Of course, if the relative duties of doctors and nurses had given rise to difficulties, and even scandal, in a great London hospital, difficulties might be expected as to their duties in hospitals in the field. But these were not of great weight; and the inquiries which were being made would doubtless remove them. He disclaimed any imputation on these excellent and devoted women."

We learn with regret that the construction put on what Mr. Childers said in our report has caused much pain, which he is anxious to remove.

FILARIÆ OF THE LUNG IN A SEA-LION.—Dr. Huet, being requested to find out the cause of the sudden death of a sea-lion (*Otaria Californiana*), discovered at the necropsy acute pulmonary congestion: the lungs contained white bodies closely resembling miliary tubercle. Careful examination revealed that a coiled-up filaria of uncertain species constituted each separate white body. The greater number of the filariæ were female, full of eggs in different stages of development. They were not encysted, but free in the pulmonary lobes, or concealed between the lung-tissue and the pleura. Dr. Huet believes that the filariæ caused violent pulmonary congestion, which was the immediate caused of the sea-lion's death. The muscles were abnormally dark in colour, and literally crammed with parasites.

MILITARY AND NAVAL MEDICAL SERVICES.

It is stated that Surgeon-General W. A. Mackinnon, C.B., who served during the Indian Mutiny campaign and the New Zealand war will succeed Surgeon-General Shelton as head of the medical branch, which includes the command of the Army Hospital Corps at Whitehall.

Surgeon-Major J. Arnott has been appointed to the Professorship of Midwifery at the Grant Medical College, Bombay, vacated by the death of Surgeon-Major Hughes.

The death of Surgeon-Major W. S. Chapman, A.M.D., in his 55th year, is announced. He was placed on half-pay on the 11th of November, 1877.

THE SICK BERTH STAFF OF THE ROYAL NAVY.

Sir,—In your issue of April 29th, "Senex" remarks that the "naval medical officers in general must have been surprised from the letter of a 'Medical Officer' in a previous issue" that such a staff existed as a nursing staff. The medical officer and sick berth staff are surprised that they are non-existent.

"Senex" goes on to show that a nursing staff, when required, is "selected by the medical officer, and approved of by the captain. Who are these nurses that are selected and approved of, but the nursing staff, consisting of sick berth steward, attendant, and assistants? The nurses stated by "Senex" "are generally from the patients' messmates". This class of nurses is very exceptional indeed, only occurring in epidemics, and only then when the sick berth staff are exhausted by fatigue in their arduous duties; and even then the same responsibilities are retained by them—the "sick berth staff".

I read, further, the following extract: "The duties of the sick berth staff are not those of nurses". From this we gather that "Senex" cannot really be an authority on such a vital question. The quotation from Queen's Regulation does not in the least establish such a statement. The paragraph in question is: "The sick berth steward, attendant, and nurses are to be entirely under his direction" (medical officer's). In this we can see that nurses are sick attendants, also sick berth stewards, attendants, and assistants, are nurses; therefore, all are nurses. What more can establish the fact that the sick berth stewards and attendants under the supervision of medical officers are but nurses?

I quite agree that the nursing staff should be entirely under the medical officer's directions; but it is too true we are not. In many instances, we are employed as postmen, ships' police, messengers, and occasionally to get up coals, clean galleys, under the immediate supervision of a ship's cook.

I, with others, thank "Medical Officer" for the true interest expressed towards a neglected and "non-existent class"; and I am very sorry to class the letter of "Senex" with other testimony in existence against our true worth. Is there not a member of Parliament that would take our cause up, and make our class what it should be—recognised and better paid?—I am, etc., One of Them.

MILITIA SURGEONS.

Sir,—Allow me, as an old militia surgeon of thirty years' service, to thank you for your able advocacy of our claims for some compensation or retiring allowance. The best part of our lives have been given to Her Majesty's service entirely for the convenience of the public service, and this at a great sacrifice to our private interests. It is not unreasonable that these claims should be taken into consideration by the War Office, and fairly decided, in consequence of the repeated promises of former Secretaries of State for War, that they should be taken into consideration, and decided on the merits of each case. This has not been done, and, at the age of sixty-five years, when private practice is out of the question, our claims cannot justly be ignored. The old militia surgeons are deeply indebted to you, Surgeon-Major MacCormack and Dr. Farquharson, M.P., for your advocacy of our case.—I am, sir, your obedient servant, An Old Militia Surgeon.

THE DEATH-RATE OF EUROPEAN SOLDIERS IN INDIA.

Sir,—In the Croonian Lectures reported in the Journal of March 25th, I find the following sentence: "Sanitary work has already reduced the death-rate of European soldiers in India from 60 to 16 per 1,000, and is gradually proving as beneficial to the civil population." With regard to the latter, I have no accurate information. The rates of mortality in official tables vary from 8 to 81 per 1,000, and are considered by most, if not all, reporters as of doubtful accuracy. Concerning European soldiers, the statistics may be relied on; and I quote from the seventeenth annual report of the Sanitary Commissioner with the Government of India for 1880. In that year, which was considered more favourable than 1879, the mortality, excluding troops in Afghanistan, is given as 24.85 per 1,000, and the loss from invaliding as 26.31 per 1,000; equal to a total loss of 51.16 per 1,000. On further examination into the loss from invaliding, it is found that 8 per 1,000 were invalided for discharge from the service, that is presumably for diseases of an incurable nature; and I do not think I err much in concluding that the victims were drafted into the civil population, to speedily end their days in public hospitals or the workhouse. All causes combined, then, would give a mortality more nearly approaching 30 than 16 per 1,000; this, too, in a population specially selected, and 75 per cent. of which is composed of men between twenty and thirty years of age. I do not think that I have chosen any exceptional period for illustration, for, taking the past ten years, I find the loss from mortality and invaliding has never been under 54 per 1,000. To leave the invaliding, with its results, out of the account, would furnish most erroneous statistics and equally erroneous impressions, which it is time to dispel, as they appear to have already existed for many years.—I am, sir, your most obedient servant, W. Duncan,
Surgeon-Major, Indian Medical Service.

*** Sir A. Tulloh's evidence before the Royal Commission gave as the mortality per 1,000 of British troops in India from 1817 to 1855: Bengal, 79.2; Madras, 62.9; Bombay, 71.1; the average being 71.1 per 1,000. The mortality per 1,000 from 1861 to 1865 was 29.30; from 1866 to 1870, 27.48; from 1870 to 1875, 18.53; in 1876, 15.30; in 1877, 12.71; in 1878, 21.46; in 1879, 34.55; in 1880, 28.32. In 1879 and 1880, the death-rate was increased by the mortality in Afghanistan. The mortality in the British Army has always been raised by military service. During the Mahratta war in 1804, it was 134 per 1,000. During the late Afghan campaign, it was 34.55 per 1,000. In the return and disposition of regiments, many men with impaired constitutions returned to stations in India, to increase temporarily the list of sick, wounded, and dead. Thus, the average mortality of British troops in India between 1817 and 1855 was 70 per 1,000. This gradually decreased under sanitary work until, in 1877, it was 13.60 per 1,000. After this, owing to the Afghan war, and probably also to short service and its increase of deaths from fever, it again rose. Obviously, however, the rate under ordinary circumstances is the test, not that under the exceptional circumstances of war; but, even in the latter case, it is greatly improved.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE INSANE IN WORKHOUSES.

In accordance with the directions of the visiting justices of the Cumberland and Westmorland Asylum, Dr. Campbell, the medical superintendent of that institution, last year visited all the workhouses in these counties, with the view of ascertaining how far they were capable of relieving the asylum by accommodating chronic and harmless lunatics. His conclusion is that, unless where special wards for lunatics, with paid attendants and nurses exist, or where the master and officers take a special interest in insane patients, there is but little encouragement to discharge into workhouses the surplus population of asylums. Except where the mental aberration is of a very trifling description he thinks that lunatics in workhouses tend to deteriorate, becoming dirty and untidy in their habits, and falling off in physical condition. A casual visit to the wards of an asylum sometimes creates the impression that many of the chronic cases seen there might be suitably and economically dealt with in workhouses; but one is apt to forget, Dr. Campbell says, that it is only by unremitting attention, and by an elaborate system of treatment and discipline, that lunatics in asylums are maintained in the tranquil, contented, well-nourished, and cleanly condition in which they are seen to be.

THE BROMPTON PROVIDENT DISPENSARY.

Since the opening of the dispensary in June 1877, the number of members on the register has increased steadily if not rapidly. With the exception of the year 1878, more members have been added during this year (1881) than during any previous year. At the beginning of 1878 there were 313 members, and at the beginning of the three following years the numbers respectively were 416, 509, 565; and now, at the beginning of 1882, there are 686 members paying regularly.

The members' payments for the year, exclusive of fines and midwifery fees, amounted to £124 18s. 2d.—viz., £60 12s. 8d. from January to June, and £64 5s. 6d. from July to December.

The midwifery fees amounted to £20 13s.; and a total sum of £123 was divided between the two medical officers.

THE STAFFORD COUNTY ASYLUM.

The Stafford County Lunatic Asylum at Burntwood, near Lichfield, contained on December 31st last 566 patients. Since its opening, seventeen years ago, 2,073 patients have been under treatment in its wards. The Commissioners in Lunacy, at the close of their annual inspection, note that since Dr. Spence assumed the superintendence of the institution many important alterations and improvements have been effected. Defects in the drains have been remedied by the ventilation of all soil-pipes and the disconnection of all sinks and bath waste-pipes from the drains. Several wards have been painted, papered, and very tastefully decorated. An improved mode of sewage irrigation has been adopted, by which the old tanks have been disused and the liquid sewage discharged direct from the drains upon the land. Beer has been struck off the dietary in the idiot ward, and through the praiseworthy perseverance of Dr. Spence grace is now sung at meals, which was not previously the practice in the establishment, many patients offering opposition in the matter.

CORK OPHTHALMIC AND AURAL HOSPITAL.

During the past year 1,513 extern and 201 intern patients were treated at the hospital, and as a proof that the institution is appreciated by the class who seek its aid, it may be mentioned that, of the entire income for 1881, amounting to £518 5s. 2d., there was a sum of £280 3s. 7d. contributed for the support of patients. "Cottage Home" wards have been recently erected for private patients of the better class willing to pay an additional sum for their support; and a sum of £300 has been expended in erecting and furnishing these wards. Of the 201 cases admitted to hospital, 199 were sent out cured or greatly benefited, and 2 were discharged as hopeless. Since the establishment of the hospital in 1868, no less than 20,540 patients have received treatment through its instrumentality, showing the necessity existing for such an institution in Cork.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

PUBLIC HEALTH IN THE TEESDALE UNION, DURHAM.

WHEN, eight years ago, the Public Health Act was put in operation in the Teesdale Union, the board of guardians, who are the rural sanitary authority, divided the union into three districts, and gave the following stipends to each of the three Poor-law medical officers who were appointed to office: No. 1. Area, 62,210; population, 3,520; salary, £25 10s. No. 2. Area, 86,910; population, 6,897; salary, £32 5s.s No. 3. Area, 23,832; population, 5,817; salary, £32 5s. These repective amounts, having regard to the area and population of each district, are obviously sufficiently low; but, two months ago, the guardians suddenly intimated to their officers their resolve to cut down the stipend of each, and to reduce each by £5. Much to the credit of Dr. Mitchell the late holder of No. 1 district, this deduction was objected to; whereupon the board offered the appointment to the holder of district No. 2, who also declined; but, in the medical officer of district No. 3, the board found a person who was willing to undertake the sanitary care of 12,857 persons, distributed over an area of 86,042 acres, for the munificent sum of £47 15s.

We have always maintained that, in constituting district Poor-law medical officers the sole health-officers in these respective districts, a serious blow was struck at the efficient working of the Public Health Act, as very few Poor-law medical officers (who are all engaged in private practice) can hardly ever give the time or exhibit sufficient independence to overtake the duties of a public health-officer; and the case in point is one which bears out our views, for what gentleman can perform the duties involved in the superintendence of so large a population, distributed over such a wide area.

We presume that, as half the stipends are paid out of the consolidated fund, this modification of districts and curtailment of pay will be reported to the Local Government Board, and their assent solicited. We shall be anxious to see what manner of reply will be given by the department to this effort on the part of the Teesdale Board to minimise the benefits of the Public Health Act.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

ST. MARY CHURCH.—The recent census returns give the population of this Local Board district as 5,759, showing a gain of more than eleven hundred over the previous enumeration. Amongst this population 177 births and 94 deaths were registered, the death-rate, excluding the deaths of three non-residents, being equal to 16.4 per 1,000. Zymotic diseases were fatal in six cases, three being from whooping-cough, two from continued fever, and one from diarrhœa. The district under Mr. Karkeek's charge seems extending in a variety of directions. Many new houses were built during the past year, some of which are without proper drainage, being connected with cesspools. The health-officer rightly calls the serious attention of his authority to these "miserable sanitary delusions;" and he would do well also to recommend the framing of building by-laws based upon those issued by the Central Board. The district appears to have been kept under thorough inspection, though the report is somewhat meagre in detail.

ST. GILES.—Mr. Lovett finds some cause for satisfaction in the fact that the average death-rate for the decennial period 1870-80 was really 5.0 per cent. lower than that of the preceding period, showing, he thinks, that the sanitary improvements ordered by his Board have produced beneficial effects. He reports for the year 1880 actual birth and death-rates of 25.3 and 23.7 per 1,000 respectively, basing his calculations on the 1871 census. The district, in common with the metropolis, generally suffered severely from an epidemic of scarlet fever, which caused 45 deaths, which continued throughout the year, reaching its intensity in August, when more than fifty children were reported to be suffering from the disease. Whooping-cough was also very prevalent, being fatal to forty-five children. Of the other deaths from the seven principal zymotics (190) measles was responsible for 37, diarrhœa for 39, diphtheria 14, fever 7, and small-pox for three. From "the other zymotics diseases" 38 deaths were registered, including one fatal case of quotidian ague. Appended to the report is a summary of the sanitary work performed during the year. We are glad to observe that steps have at last been taken for the erection of the much-needed mortuary for the district.

SALFORD.—In Dr. Tatham not only has the corporation of this important and crowded city an active, energetic, and observant officer, but the world of hygiene has one of the few thoughtful and painstaking sanitarians who appreciate the importance of local study and research in helping to the solution of large general problems. Dr. Tatham's work, as reflected in his annual reports, is of the most exact and valuable kind; and he evidently spares no pains to get to the bottom of everything that comes before him in the performance of his multifarious duties. He accounts for the late appearance of his report for 1880 by explaining that the discrepancy which was found to exist between the population recently enumerated, and the number estimated to be living at the time of the census, was so large as to vitiate such of the deductions in the report as were based on the estimated population. The 1881 census returned the population of Salford at 176,233, showing a gain of 51,428 as compared with the previous census so that, corrected by the result of the recent enumeration, the population at the middle of 1880 is estimated at 171,727. Amongst this number of persons there were 4,799 deaths, being equal to a death-rate of 27.9 per 1,000, of which no less than 54 per cent. occurred amongst children under four years of age, being the highest proportion of deaths under that age ever reached in Salford since records have been kept. Alluding to this excessive mortality, Dr. Tatham directs attention to the diseases which depend for their prevalence and fatality on the neglect to which infants are subjected in consequence of the industrial occupation of their mothers. He shows that, with the exception of Leicester, Norwich, and Nottingham, Salford is of all large English towns the most fatal to infant life, and that compared with the twenty large towns of England, including the more unhealthy of them, the rate of infantile mortality in Salford is as 118 to 100. The total zymotic deaths of the year (1,403 in number) were equal to 29 per cent. of the mortality from all causes. Of these deaths, 1,261 were referred to one or other of the seven more familiar infectious diseases, giving a death-rate from this group of 7.4 per 1,000. This rate has only twice been exceeded in Salford during the last ten years. Scarlet fever was excessively fatal, causing 279 deaths against, 203 in 1879, and was prevalent in an epidemic form during the greater part of the year. An exceptionally high mortality is also reported from whooping-cough, which was most fatal during the first half of the year. The deaths from this disease (219) were chiefly confined to the children of poor persons, who were either unwilling or unable to protect them from cold during the acute stage of the disease. One hundred and thirty deaths were due to "fevers," including typhus, enteric, and simple continued fever. In May 1880, typhus fever became prevalent in an epidemic form in certain localities, and not the least interesting part of Dr. Tatham's report is his description of the outbreaks. It appears that the disease was first imported into the district at the end of March, and in May it had assumed alarming proportions. During the first six months of the year 24 cases of typhus occurred, and the rate of mortality amongst them was equal to 29 per cent. During the months of July, August, and September, 24 cases occurred, but the rate of mortality amongst these patients did not exceed 17 per cent. In the winter quarter of the year 31 cases occurred, with a rate of mortality equal to 32 per cent. In the spring quarter of 1881 the number of seizures was 22, of which 14 per cent. died, whilst from April to August only three cases occurred, none of which were fatal. The rate of mortality was far heavier amongst patients over 40 years of age than at any other period of life. Thus from the tenth to the twentieth year of age the fatal cases were in the ratio of eight to every 100 persons attacked, while at the age of 40 years and upwards 50 per cent., or just one-half of those infected, succumbed to the disease. In this respect therefore the experience of the present is fully in accord with that of previous epidemics. With the exception of a few artisans and their families the people who were the subjects of typhus were of the poorest possible class. In one part of the district known as the "Battery" the health-officer had to deal with a state of things hardly possible of conception. It is difficult, he states, to give by a description in words an adequate idea of the manner in which these people pass their lives. They are so irregular and migratory in their habits that they cannot be said to have any settled residence; crouched up in the corners of rooms for warmth, with nothing better for a bed than straw or filthy flocks, these poor wretches lay half-naked on the floor in a condition piteous to behold. For the most part there seemed to be no distinction of sex or even of family as regards their distribution in the sleeping-rooms. Husbands and wives, lodgers and tenants of both sexes, lay huddled together on a common litter, in a state of filth, which may truthfully be described as bestial. Under circumstances like these, there is little wonder that the poor creatures fell an easy prey to typhus, or that when once the disease had obtained a foothold amongst them it spread with such alarming rapidity. Enteric fever was also considerably more fatal than usual, 84 deaths being referred to this cause. Constitutional diseases were responsible for 784 deaths, while under the grouping of local diseases those of the heart and brain were less fatal than usual, accounting in the aggregate for 555 and 159 deaths respectively, against 573 and 192, the decennial average numbers. Lung-diseases, however,

showed an increased fatality during the year : pneumonia alone causing 329 deaths, as compared with 243, the average number. During the year the lodging-houses, slaughter-houses, milk-shops, etc., were subjected to careful and systematic inspection, and the current sanitary work was well kept under, no less than 28,136 inspections having been made, and 6,300 nuisances abated.

TORQUAY.—A low death-rate is at all times a matter for congratulation, and especially so where the district happens to be a health resort. At Torquay 372 deaths were registered during the past year, equal to a death-rate of 15.4 per 1,000, the lowest recorded since 1874. The recent census has somewhat unexpectedly shown the population to have been over-estimated : instead of being 27,000 it is not quite 25,000. Some explanation of this is found in the fact that while in 1871 the average number of persons per house was 7.05, in 1881 it was only 6.92. Of the total deaths, whooping-cough accounted for nine, measles for eight, and diarrhœa for three. There was an absence of small-pox, scarlatina, and diphtheria. Typhoid fever, however, was unduly present, five deaths being registered from this cause. Upon inquiring into the circumstances of these deaths the health-officer came across the existence of some monstrous insanitary conditions. In the first case he discovered a "very defective, stinking, and unventilated water-closet, no trap to the drain, and no ventilation. In another there was an old and dirty hopper-closet inside the house, without ventilation or water supply. In the other cases similar conditions were found to exist. Mr. Karkeek, in referring to the prevalence of typhoid, states that in previous years he has noticed that when heavy rains have followed a long drought cases of typhoid have occurred among the servants in first-class houses. He is of opinion that the sewer-gas has been driven into the private drain by the rush of water in the sewers, and from thence to the sculleries where the servants have been occupied. Of the other deaths, 52 were due to phthisis, 57 to chest diseases, and 24 to heart disease. No less than 33 of the 57 deaths from chest affections occurred during the cold weather, and eleven followed soon after. The general method of the report shows a distinct improvement, and we may congratulate Mr. Karkeek on the interest with which he has been able to imbue it.

DONCASTER, GOOLE, SELBY, AND TADCASTER.—Mr. Mitchell Wilson's report for 1880 on this important combination is a great improvement upon that for the previous year. In his report for 1879 Mr. Wilson contented himself with giving a short statement of the present condition of the district "rather than a complete history of its sanitary progress throughout the year." In his present report he gives *in extenso* a sanitary history of the various districts comprised in his combination. But while the reports are individually models of excellence, the information afforded upon the general condition of the combination is of too meagre a nature to be of any real value. Thus there is an entire absence of any comparative tables of mortality, with the single exception of a statement setting forth the death-rate, the zymotic-rate, and deaths at various ages. No mention is made of the total population of the district or of its area, and the total births and deaths are entirely omitted. Of the several districts comprising the combination, Goole rural was the healthiest, the death-rate only reaching 16.3 per 1,000 ; and Uckhill came next with 17.2. The other rates were : Doncaster rural, 17.6 ; Selby urban and Doncaster rural of 20.0 : Selby rural, 20.3 ; and Goole urban, 20.7 per 1,000. In this last district the zymotic death-rate was 5.0 per 1,000, and in the Selby urban 3.6, these rates being chiefly caused by the fatal prevalence of infantile diarrhœa. On the interesting question of the contagiousness of typhoid fever, Mr. Wilson writes :—"The experience of the year in dealing with cases of typhoid fever, as found in cottage houses, is that there is a very serious risk of persons ill from this disease communicating it to others in the same family. The cases referred to are where the infection was not due to local causes, to which all the members of the family were equally liable, but rather those cases arising after the infection was introduced ; and precautions, as far as possible, had been taken to prevent pollution of the drinking water, and to disinfect the excrement. . . . . In both the outbreaks which occurred at Goole it was particularly noticeable that many of the cases had attacks of a feverish nature, which were, both in point of duration and intensity, very different from the ordinary attacks of typhoid, and yet from the same cause seven cases of true enteric fever were developed." In the Tadcaster rural district arrangements have been made with the Leeds Fever Hospital to receive all cases of infectious disease occurring in the district, but in some other districts there is an entire absence of such accommodation. Measles and whooping-cough are somewhat prevalent in various parts of the combination, and in almost every case Dr. Wilson attributes the spread of the disease to the great carelessness of parents in exposing their children to infection, and by allowing those already infected to attend school.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in Anatomy and Physiology for the Fellowship of the College, at the half-yearly meeting of the Board of Examiners, on the 25th instant, and when eligible will be admitted to the pass examination.

Messrs. Stephen Paget, B.A.Oxon., James Norman Vogan, and Frederick William Caton Jones, students of St. Bartholomew's Hospital ; Walter Fowler, B.A. Oxon., and William Lyne Blight, of Guy's Hospital ; Sinclair White, of the Galway and Sheffield Schools ; John Marriott, of the Charing Cross Hospital ; Walter Blaxland, of the London Hospital ; James Swain, of the Westminster Hospital ; and James Edward Blomfield, of University College.

Seven candidates were rejected, making a total of 42 out of the 76 candidates examined.

With this meeting, the examinations for the present session were brought to a close, with the exception of the final fellowship examination.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, May 25th, 1882.

Pocock, Alfred George Clarke, Coventry Park, Streatham.
Seon, Greville Ewing, Hamilton, Bermudas.
Thomas, John Henry, Tenby, South Wales.
Turner, Alfred James, Powerscourt Road, Lower Clapton.
Wise, Charles Henry, Prospect House, Launceston.

The following gentlemen also on the same day passed their Primary Professional Examination.

Harris, Frederick William, University College.
Hill, Thomas James Cooke, St. Bartholomew's Hospital.
Jago, Charles Sprague, Guy's Hospital.
Newton, Rupert William, St. Bartholomew's Hospital.
Woods, Everard, St. Bartholomew's Hospital.

UNIVERSITY OF BRUSSELS.—The following gentlemen, having passed the necessary examinations, graduated as M.D. on May 12th, 1882.

Batho, Robert, Surgeon-Major A.M.D., M.R.C.P.Lond. 1882, M.R.C.S.Eng. 1859, L.S.A. 1858, 4, Alfred Street, Plymouth.
Collier, Herbert, L.R.C.P.Lond. & Ed., M.R.C.S.Eng., L.S.A.Lond.
Milward, James, M.R.C.S.Eng. 1865, L.S.A.Lond. 1866, 54, Charles Street, Cardiff.
Wharry, Arthur James, M.R.C.S.Eng. 1879, L.R.C.P.Ed., House-Surgeon Great Northern Hospital.

Eight candidates offered themselves, four of whom were referred for six months.

MEDICAL VACANCIES.

The following vacancies are announced :—

ADDENBROOKE'S HOSPITAL, Cambridge.—House-Physician. Salary, £65 per annum. Applications by June 6th.

CHILDREN'S HOSPITAL, Birmingham.—Assistant Resident Medical Officer. Salary, £40 per annum. Applications by June 20th.

CHILDREN'S HOSPITAL, Birmingham.—Resident Medical Officer. Salary, £80 per annum. Applications by June 20th.

CROYDON GENERAL HOSPITAL.—House-Surgeon. Salary, £100 per annum. Applications by June 6th.

CUMBERLAND INFIRMARY, Carlisle.—House-Surgeon. Salary, £100 per annum. Applications by June 27th.

GLAMORGANSHIRE AND MONMOUTHSHIRE INFIRMARY AND DISPENSARY, Cardiff.—House-Surgeon. Salary, £100 per annum. Applications by June 12th.

GUEST HOSPITAL, Dudley.—Resident Medical Officer. Salary, £120 per annum. Applications by June 9th.

HALLSIDE, NEWTON, N.B.—Medical Officer for the Sick Society in connection with the Steel Company of Scotland's Works. Applications to Mr. Mc Farlane, 20, Hallside Cottages, Newton.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Resident Clinical Assistant. Applications by June 3rd.

HULL GENERAL INFIRMARY.—Junior Assistant House-Surgeon. Salary, £35 per annum. Applications by the 13th instant.

KILBURN, MAIDA VALE, AND ST. JOHN'S WOOD GENERAL DISPENSARY.—Resident Medical Officer. Salary, £120 per annum. Applications by the 15th instant.

KINGTON UNION.—Medical Officer. Salary, £30 per annum. Applications by June 5th.

LIVERPOOL NORTHERN HOSPITAL.—Assistant House-Surgeon. Salary, £70 per annum. Applications by June 3rd.

METROPOLITAN ASYLUM FOR IMBECILES, Darenth, near Dartford, Kent.—Assistant Medical Officer. Salary, £120 per annum. Applications by June 7th.

MID AND SOUTH YELL AND FETLAR AND NORTH YELL.—Medical Officer. Salary, £70 per annum. Applications to Inspector of Poor, Mid Yell, Shetland.

NEW ZEALAND.—Inspector of Lunatic Asylums. Salary, £800 per annum. Applications by June 20th.

OUGHTERARD UNION.—Medical Officer for Lettermore Dispensary Dist rict Salary, £100 per annum, £12 yearly as Medical Officer of Health, with £10 per annum for boat hire, and registration and vaccination fees. Election on the 6th. instant.

RATHKEALE UNION.—Medical Officer for Pallaskenry Dispensary District. Salary, £100 per annum, with £15 per annum as Medical Officer of Health, registration and vaccination fees. Election on June 8th.

RICCARTSTON ASYLUM, Paisley.—Assistant Resident Medical Officer. Salary, £60 per annum. Applications to R. Rowand, Inspector of Poor, Paisley, by June 5th.

ROYAL HANTS COUNTY HOSPITAL, Winchester.—House-Surgeon. Salary, £100 per annum. Applications by June 10th.

ROYAL PIMLICO DISPENSARY, 104, Buckingham Palace Road, S.W. Resident Medical Officer. Applications by June 5th.

SCARBOROUGH UNION.—District Medical Officer and Public Vaccinator. Salary, £50 per annum. Applications by the 7th instant.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY. House-Surgeon. Salary, £100 per annum. Applications to the Honorary Secretary of the Medical Staff.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY.—Senior Assistant House-Surgeon. Salary, £65 per annum. Applications to the Honorary Secretary of the Medical Staff.

TAVISTOCK UNION.—Medial Officer of Health for the Rural Sanitary District. Applications by June 9th.

THE INFIRMARY, Halifax.—Assistant House-Surgeon. Salary, £50 per annum. Applications to the Senior Physician of the Medical Staff by June 20th.

WATERFORD UNION.—Medical Officer for Kilmeaden Dispensary District. Salary, £120 per annum, with £20 per annum as Medical Officer of Health, registration and vaccination fees. Election on the 9th instant.

WEST BROMWICH DISTRICT HOSPITAL.—House-Surgeon. Salary, £80 per annum. Applications by June 6th.

YORK COUNTY HOSPITAL.—Honorary Physician. Applications by June 24th.

MEDICAL APPOINTMENTS.

ASHWORTH, J. W., M.R.C.S., appointed Surgeon to the Northern Counties Hospital for Incurables, Mauldeth Hall, near Manchester.

EVANS, J., L.R.C.P., appointed Surgeon to the Ebbw Vale workmen residing at Beaufort.

JACKSON, J. H., M.D., appointed Consulting Physician to the Kent County Ophthalmic Hospital, *vice* W. Addison, M.D., deceased.

MACBRYAN, H. C., L.R.C.P.Ed., appointed Assistant Medical Officer to the Staffordshire County Asylum, Burntwood, Lichfield.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., *which should be forwarded in stamps with the announcements.*

BIRTHS.

SNELL.—On May 30th, at 131, Green Street, Victoria Park, the wife of E. G. Carruthers Snell, L.S.A.Lond., of a son.

TEALE.—On May 25th, at 2, Belvoir Terrace, Scarborough, the wife of John W. Teale, F.R.C.S., of a son.

MARRIAGE.

BOUSFIELD—HENMAN.—On May 27th, at the Parish Church, Islip, Edward C. Bousfield, L.R.C.P.Lond., of Wellesley House, Ashley Road, Bristol, second son of E. T. Bousfield, of Bedford, to Clara, youngest daughter of the late David Henman, of The Grange, Bromham, Beds.

AN assistant-surgeon on board a German gun-boat, named Bressert, has been washed overboard during a storm, and drowned, the most vigorous efforts to save him being ineffectual.

CHARING CROSS HOSPITAL.—The following appointments have been made: House-Physician, Charles A. Wigan, L.S.A.Lond.; House-Surgeon, Marmaduke Pittard, M.R.C.S.Eng.; Resident Accoucheur, Cecil R. C. Lyster, M.R.C.S.Eng.; Assistant House-Physician, Harry Appleton; Assistant House-Surgeon, S. B. Wyborn, L.S.A.Lond.

ST. THOMAS'S HOSPITAL.—The following appointments have been made: A. E. Wells, M.R.C.S., L.R.C.P., Resident Accoucheur; G. F. Cooper, M.R.C.S., L.R.C.P.; non-Resident House Physician; C. W. Haig Brown, M.R.C.S., L.S.A., Assistant House-Physician; W. A. Duncan, M.D., etc., Assistant House-Surgeon.

THE average death-rate in Naples during 1880 was 31.86 per 1,000, being an increase of 6 per 1,000 as compared with the previous year. This remarkable increase of mortality occurred principally in the first four months of the year, when the death-rate averaged, in January, 50; February, 42.75; March, 34; April, 36; which confirms the general opinion of the inhabitants that Naples is infinitely more healthy in summer than in winter. One of the most vital questions for the town is that of water-supply. The sewers are filling up more and more every year, and the bad smells, premonitory of disease, are increasing. It is satisfactory therefore to learn that a local company has received the royal assent to proceed with water-works as soon as possible.

WINTER APOPLEXY.—During the rigorous winter of 1879-80, Dr. E. Bax observed some accidents of an apoplectiform character of which he has described the mechanism and symptomatology in a paper read at the Medical Society of Amiens, April 1st, 1880. He arrived at the following conclusions. Cases of apoplexy are more frequent during the winter than during any other season of the year; the more intense is the cold, the more numerous are these cases. The cold renders the surface of the body anæmic, augments the arterial tension, and consequently produces congestion of the viscera, and especially of the encephalon. This congestion, if it do not kill, may give rise to hæmorrhages which are not considerable if the vessels of the encephalon are fairly healthy. It is likewise possible that the anatomical constitution of the blood becomes changed under the influence of cold, and that this change is allied to the pathological phenomena observed. Dr. Bax's observation on the effect of the intro-pelvic action of cold in producing apoplexy is interesting; but the idea is not new in this country.

HEALTH OF FOREIGN CITIES.—The following facts and figures, derived from a table in the Registrar-General's last weekly return, afford fairly trustworthy indications of the recent health and sanitary condition of various foreign and colonial cities. According to the most recent official returns, the annual death-rate averaged 26.6 in the three principal Indian cities, and was equal to 23.7 in Bombay, 29.7 in Calcutta, and 34.4 in Madras; small-pox caused 58 deaths in Calcutta; measles, 33 in Bombay; and small-pox 19 in Madras. In Alexandria, the death-rate was equal to 35.1, and the 143 deaths included 13 from typhoid fever, and 9 from whooping-cough. In twenty-two European cities, the death-rate averaged no less than 31.1, and exceeded by no less than 10.1 per 1,000 the average rate prevailing last week in the twenty-eight large English towns. The death-rate in St. Petersburg was equal to 54.6, though it showed a further decline from the still higher rates in previous weeks; the 696 deaths in this city included 23 from scarlet fever, and 46 from typhus and typhoid fevers. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate did not exceed 19.7; measles caused 4 deaths in Copenhagen, and diphtheria was somewhat fatally prevalent both in Stockholm and Christiania. The death-rate in Paris was equal to 26.9, and corresponded with that which prevailed in the previous week; the deaths in this city included 60 from diphtheria and croup, 50 from typhoid fever, and 23 from small-pox. In Brussels, the rate did not exceed 20.6, although 3 fatal cases of small-pox were recorded. In Geneva, on the other hand, the death-rate was equal to 31.6, although no zymotic fatality was noted. In the three principal Dutch cities, the average death-rate was equal to 25.1, and ranged from 25.8 in Amsterdam, to 22.7 in the Hague; measles caused 8, and whooping-cough 5 deaths in Amsterdam. The Registrar-General's table includes returns from nine German and Austrian cities, in which the average death-rate was 29.9; the rate ranged from 23.9 in Dresden and 25.2 in Berlin, to 34.5 and 38.1 in Vienna and Prague. Small-pox caused 28 deaths in Vienna, 13 in Buda-Pesth, and 4 in Prague. Diphtheria showed fatal prevalence in Berlin and Dresden. The death-rate in three of the principal Italian cities averaged 34.6, and was equal to 41.3 in Rome, 34.5 in Naples, and 26.4 in Turin. Measles showed fatal prevalence in Rome and Naples, and typhoid fever caused 9 more deaths in Turin. In four of the largest American cities, the death-rate averaged 27.7, ranging from 22.3 in Philadelphia to 33.4 in New York. Small-pox caused 8 deaths in New York and 3 in Baltimore; scarlet fever showed fatal prevalence both in New York and Brooklyn; diphtheria also caused 27 deaths in Brooklyn, and 25 deaths were referred to typhoid fever in Philadelphia.

CRITERIA OF INSANITY.—One of the pupils of Esquirol asked his teacher to furnish him with a sure criterion for distinguishing the limit that separates reason from insanity. The next day Esquirol invited to dinner his pupil and two individuals, one of whom was most correct in his appearance and in his language, while the other was very loquacious, full of himself, and of his future. When taking leave the pupil reminded his master of the criterion which he asked of him on the previous evening. "Answer the question for yourself", said Esquirol. "You have just taken dinner with a madman and with a sane individual." "Oh!" answered the pupil, "the problem is not difficult; the sane man was that distinguished and well-informed man; as to the other he was a chatterer and a fool who ought really to be shut up." "Ah!" replied Esquirol, "you are making a great mistake; the one whom you took to be so very wise, believes himself to be God the Father, and affects in his manners the reserve and dignity which he believes to belong to his position; he is a patient at Charenton. As to the young man whom you took for a fool, in him you see one of the most illustrious of French authors—he is M. Honoré de Balzac."

LONDON TEMPERANCE HOSPITAL.—The annual meeting of this hospital has been held at the Library of the Memorial Hall, Farringdon Street. Mr. Samuel Bowly presided. The Rev. Dawson Burns, secretary, read the ninth annual report, which stated that the year's work had given assurances of satisfactory progress, both in regard to the work performed and the support received. In-patients during the year had numbered 351, and out-patients 1,761; and in no case had the medical staff prescribed alcohol, even as a drug. Including a balance brought forward of £143 8s. 2d., the total receipts had been £3,481 19s. 7½d., the maintenance had cost £1,261 1s. 3d., and they had a balance in hand of £943 12s. 2½d. The total amount of the building and extension fund on March 25th last was £26,087 16s. 10d.—Cardinal Manning, in moving a resolution commending the work carried on in the hospital, remarked that it was established as an experiment, but he thought they ought to consider it now as having passed beyond that stage. It had become an established fact that alcohol was not needed under any circumstances. He was glad to say that the effect of this non-alcoholic treatment was telling powerfully on the London hospitals.—Sir Wilfrid Lawson traced the effects of alcohol on various classes of people. He remarked that alcohol was losing many of its friends, and he gave as one instance of how people could do without it, that even an imprisoned Irish member did not appear much the worse for its loss.—Canon Ellison remarked that the temperance cause would not be complete until the example of this hospital had been followed by all the other medical institutions in the country.—Mr. J. H. Raper and Mr. T. Cash (chairman of the Board) also addressed the meeting.

DONATIONS.—A lady has given £500 to the Children's Ward of the Halifax Infirmary.—"A friend" has given £105 to Queen Charlotte's Lying-in-Hospital.—"A friend" has given £100 to the Building Fund of the Home for Incurables, Stanwix, Carlisle.—"Delta" and "A. G. C.", have each given fifty guineas to the British Home for Incurables.—Mr. F. Taylor, of Diss, has given £52 10s. to the Norfolk and Norwich Hospital.—University College Hospital has received £50 from the Peoples' Contribution Fund.

DEPAUL ON A METHOD OF PREVENTING THE NECESSITY FOR INDUCED ABORTION.—Dr. Depaul, in one of his recent lectures, recommends, in certain cases, iodide of potassium, regulated diet, and bleeding to diminish the size of the child, and to prevent the necessity of bringing on abortion. He cited the following case in support of his recommendation. Thirty years ago, a merchant had married a very rickety wife, who became pregnant soon after marriage. A medical man was consulted, and, scarcely knowing what to do under the circumstances, he asked that M. Paul Dubois might be called in, who was obliged to perforate the cranium. A second pregnancy occurred, and on this occasion M. Dubois sent the young woman to M. Depaul; she was then four or five months advanced in pregnancy. Her pelvis measured from 7½ to 7¾ centimètres. He told her that it was necessary, in order that she might have a living child, gradually to diminish the quantity of food she took, and to subject herself to a rigorous diet. She was bled many times, and gradually lessened the proportion of food, according to his directions. He followed the progress of the pregnancy, and especially the increasing dimensions of the child. The eighth month arrived, and it appeared to M. Depaul that, until then, the child had grown very little. He let things take their course, thinking that it was not necessary to bring on premature delivery. Finally, the woman came to the end of the ninth month, and Dr. Depaul was sent for. The head soon cleared the sacro-vertebral angle, and the delivery was easy. The child, a boy, lived; he was very small, but was quite strong enough to be brought up. The same person again became pregnant for the third time. She did not communicate the fact to M. Depaul, and it was only when she was eight months and a half gone that he was sent for to attend her. It was too late to have recourse to the means used in the previous pregnancy, and M. Depaul was obliged to perform cephalotripsy. In a fourth pregnancy, he received notice in good time. The regimen used in the second pregnancy was again successful. The child lived, and is still alive. A fifth time, he was only called in at the moment of delivery, and only succeeded in removing the child by cephalotripsy. M. Depaul considers this case to be very conclusive, and has likewise collected a certain number of similar facts which induce him to affirm that this method may have a certain degree of success, and to recommend it in cases of vicious conformation of the pelvis, so as to avoid, as far as possible, forced abortion.

THE ESTIMATION OF HÆMOGLOBIN.—M. Quinquaud has recently made an interesting communication to the Paris Biological Society, on the mode estimating the total amount of hæmoglobin contained in the blood. This method is based on the well-known bleaching properties of chlorine, which depend on its power of liberating hydrogen, and acting as an oxidising agent, or of provoking the phenomena of substitution which have been so carefully studied by Dumas, Laurent, and Regnault. M. Quinquaud has by different analyses determined that 5.5 cubic centimètres of solution of chlorine of a certain given strength discharges the colour from 0.085 grains of crystallised hæmoglobin dried at 100° Cent. Although chlorine bleaches other substances, the consequent source of error is, in this case, trifling. The "decolorimétrie" or discolouring method of M. Quinquaud, the optical method, and direct method, give nearly the same results. An inferior proportion is obtained by the hydrosulphite method, because it only estimates the quantity of active hæmoglobin present, whilst the other methods determine the total quantity.

DIABETIC ENDOCARDITIS.—M. Lecorché points out, in a communication to the Académie des Sciences, that the frequent occurrence of inflammation in the course of diabetes leaves no doubt of the tendency of this affection to produce in the persons who are attacked by it an inflammatory diathesis. The inflammations are not confined to the skin, the digestive canal, the kidneys, nor the lungs; they may implicate other organs. M. Lecorché recently described to the Academy of Medicine, as one of the somewhat frequent complications of diabetes, atrophic cirrhosis of the liver. He now draws attention to endocarditis. Diabetic endocarditis, which he has observed on several occasions, appears to show itself more frequently in females than in males (in eight cases out of fourteen). He has not met with it otherwise than in the chronic condition, and only as a complication of subacute or chronic diabetes. It only appears at an advanced stage of the disease—two or three years, or even more, after its commencement. Its appearance seems to be favoured less by the intensity of the glycosuria than by its long duration. It is localised at the level of the mitral orifice, and M. Lecorché has only seen it on one occasion situated at the level of the aortic orifice. It reveals its existence by a *bruit de souffle* with the first sound at the apex of the heart, and by irregularity and intermittence of the pulse. It is sometimes accompanied by atheromatous degeneration of the arteries (twice out of fourteen cases). It accelerates the progress of diabetes, and frequently brings on death, either by inducing a more or less generalised œdema, ascites, or by becoming complicated with acute hepatitis. It seems to be due to the irritation which the prolonged contact of blood changed by the presence of sugar in excess produces on the lining membrane of the heart.

THE ANTIPYRETIC TREATMENT OF FEVER.—Dr. Austin Flint, in the *Medical News*, concludes a valuable paper on this subject as follows. 1. By the employment of cold water externally in cases of typhoid fever, the temperature of the body may, after a variable time of the continuance of the employment, be reduced to 102° or lower. 2. After a period varying very much in different cases, and also at different times in the same case, the temperature, as a rule, again rises as high as, or higher than, before the reduction. 3. Repeating the employment of cold as often as the axillary temperature exceeds 103°, the number of repetitions required in different cases is extremely variable. 4. The sponge-bath and the wet sheet with sprinkling may be employed to the exclusion of the bath-tub in the antipyretic treatment in cases of typhoid fever as well as of other febrile diseases. 5. These modes of employing cold water may be continued sufficiently long for the reduction of temperature to 102° or lower, and repeated as often as may be required, without risk of any immediate injury, and the study of these cases furnishes no ground for supposing that a liability to complications or accidents is thereby increased. 6. Reduction of temperature by these modes as often as it rises, in the axilla, above 103°, improves the condition of the patient. The cases now studied do not afford proof either that the fatality of typhoid fever or that its duration is thereby diminished. The study of these cases, however, renders it possible that this proof would be afforded by a larger collection of cases. During the period that the cases now studied were treated, seven hospital cases were recorded in which antipyretic treatment was not employed. In most of these cases the temperature did not rise above 103°, and it was for this reason that the treatment was not employed. Of these seven cases three were fatal, but I need not say that it would be unfair to draw any deduction from the contrast as regards the proportionate number of fatal cases. It is well known that, in general, resistance, toleration, and recuperation are not as well exemplified within as outside of hospitals. Moreover, in cases of typhoid fever, patients are not admitted into hospital until some days after the commencement of the disease. The clinical test of therapeutical measures, as far as fatality is concerned, is therefore best afforded by the study of cases in private practice. 7. The result of the analysis of these cases, although not sustaining the statements of Liebermeister and others respecting the controlling influence of the employment of cold externally in cases of typhoid fever, yet not only show this method of antipyretic treatment to be safe, but afford us encouragement to employ it with the expectation of diminishing the severity of the disease and its danger to life.

OPERATION DAYS AT THE HOSPITALS.

MONDAY..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p. Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu.F., 9.30; o.p., Tu. F., 2; Eye, Tu.F., 9.15; Ear, M. Th., 2; Skin, Tu.Th., 1.30; Throat, M. Th., 1.45; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. T., F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Odontological Society of Great Britain, 8 P.M. Mr. Hunt (of Yeovil): Celluloid. Casual communication from Mr. Stevenson.—Royal College of Surgeons of England, 4 P.M. Dr. Gerald Francis Yeo: On the Relation of Experimental Physiology to Practical Medicine.

WEDNESDAY.—Obstetrical Society of London, 8 P.M. Specimens will be shown by Mr. Alban Doran and Dr. Hopkins Walters. Adjourned discussion on Dr. J. Williams' paper on the Natural History of Dysmenorrhœa. Dr. F. H. Champneys: On an Obliquely Contracted Pelvis of Unilateral Synostosis. Dr. G. E. Herman: On the Relation of Backward Displacements of the Uterus to Dysmenorrhœa—Epidemiological Society of London, 8 P.M. Annual Meeting. Election of Office-bearers. Reports of Council. Dr. Arthur Ransome: The Form of an Epidemic Wave, and its probable Cause.—Royal College of Surgeons of England, 4 P.M. Dr. Gerald Francis Yeo: On the Relation of Experimental Physiology to Practical Medicine.

THURSDAY.—Ophthalmological Society of the United Kingdom, 8.30 P.M. Additional Meeting for the Discussion upon Sclerotomy. Papers on Sclerotomy by Mr. Higgens, Mr. Spencer Watson, Mr. Bader, and Mr. J. B. Story (Dublin). Mr. Critchett, Mr. Power, Mr. J. E. Adams, Mr. Brudenell Carter, and others are expected to speak. If necessary, the discussion will be adjourned to the following evening (9th), at the same hour. Living specimens, as usual, at 8 o'clock.

FRIDAY.—Royal College of Surgeons of England, 4 P.M. Mr. Jonathan Hutchinson: On Temperament, Idiosyncracy, and Diathesis in relation to Surgical Disease.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

A QUESTION REGARDING DEATH-CERTIFICATES.

SIR,—Would you kindly reply to the following in your JOURNAL? A short time since, I was called to see a child accidentally burned. I attended till it died the following day. I gave a certificate of death thus: "Burns over abdomen and thorax, accidental, 37 hours; congestion of lungs, 12 hours." Was I justified in giving a certificate of death? Did the fact of my giving a certificate imply that the registrar of deaths was obliged to give a certificate of burial? Am I legally obliged to report the case to the district coroner? What is the limit as to time an "accident", terminating fatally, may survive without the necessity of holding an inquiry? Apologising for troubling you, I am, sir, your obedient servant,

May 29th, 1882. R. G. M.

*** Sect. 20 of the Births and Deaths Registration Act, which enjoins upon all registered medical practitioners the duty of furnishing a medical certificate of the cause of death of each patient who has been attended during his last illness, makes no exception in cases of death from "violence". Inasmuch, however, as it is the duty of coroners to hold an inquest in each case of death by "violence", and as it is, in the interest of the public, desirable that such inquests should be held, we think it would be preferable that medical practitioners should withhold a medical certificate in such case until they are satisfied that it has been referred to the coroner. The Registrar-General, it is true, insists, in his Regulations for Registrars, that all deaths which appear to have resulted from any form of "violence" shall be referred to the coroner previous to registration, and of course to burial. It is because, however, we fear that this instruction is not always acted upon, that we hold it desirable for medical practitioners not to give a medical certificate in case of "violence" until assured that the coroner has been informed of the case.

THE "JUNIOR" MEDICAL MUTUAL ASSOCIATION.

DR. DE COURCY MORRIS writes to us in reply to the criticism of the proposed scheme on page 804 of last week's JOURNAL. He says that his object in starting the Association has been to improve, as far as possible, the general professional position of the younger members of the medical profession. He believes that, if any medical agent would make it his business to utilise the plans proposed, it would be much to his advantage to secure a staff of steady, sober, and trustworthy men, anxious as an Association to preserve the *prestige* of its members, and to devote their time to such useful objects as are comprised in the scheme published in the JOURNAL. He remarks that, if unity were to take the place of jealousy in the profession, and men would combine to "pull together", some good might be done. Dr. Morris disclaims the sole responsibility for the views that were expressed; and he denies that separation from the great body of the profession was never contemplated. "Neither did the Association expect to be always governed by the same body of men; as it would be necessary to form a rolling committee, to be filled up from the ranks of those members for the time resident in London." It was thought that, as more unemployed men were often found in London than elsewhere, it would be better that more frequent meetings should be held there, but that an annual meeting should be arranged in the provinces. As to the arrangements for arbitration and negotiation for the sale and purchase of practices, he believes that, if a central office were opened or an agency started, any negotiations which principals might make among themselves would be entirely independent of any benefit fund. Any accountant and solicitor could arrange technical matters of business.

AN EXTRAORDINARY CARD.

SIR,—I think the enclosed card, which doubtless refers to an appointment advertised in the JOURNAL of the 27th, worthy of notice in the columns of the JOURNAL. I received it on the 26th.

"Particulars of a Government appointment now vacant, salary £800 *per annum*, and liberal allowances, for an inspector of lunatic asylums (who must have had experience in asylum management, also a knowledge of cerebral pathology), with an official application-form for same, will be forwarded on receipt of one shilling in postage stamps or otherwise, by J. Bell, 18, Plato Road, Brixton, London, S.W."

—Your obedient servant, ARTHUR STRANGE, M.D.

County Asylum, Bicton Heath, near Shrewsbury, May 28th, 1882.

*** This extraordinary communication decidedly requires explanation.

COMPULSION IN MEDICAL EDUCATION.

SIR,—Referring to your article bearing the above title, published in the JOURNAL of May 20th, I, as a young practitioner, venture to state the difficulty against which I have to contend, viz., the nature and treatment of the commones t diseases. Th first cases which the "new doctor" is called upon to attend are generally of this kind; and, on his treatment of these cases, in great measure, depends his future success or failure. I find I know but little of the nature of such cases. Is this the fault of my training, or have I brought it on myself? I think the former; for, in the large hospital where I received my medical education, there were so many interesting cases that no time was left to study everyday illnesses. If my case is general, I think that, if possible, some remedy should be found. Personally, I regret very much that I did not study with a general practitioner before joining the medical school.—I remain, etc., A YOUNG PRACTITIONER.

The Title of Doctor.

A Member.—A licentiate of a College of Physicians has no legal right to the title of Doctor, but there is a certain courtesy and custom under which many physicians are accustomed socially to accept the title, and professionally to use it, although, strictly speaking, it is an university title. We can neither advise nor suggest any means which our correspondent can take to have the title Dr. removed from his doorplate; and would advise him not to attempt so very invidious and doubtful an enterprise.

X.—Of course, Fellows of the Royal College of Surgeons are not entitled to call themselves "Dr." in virtue of their diplomas.

W. H. (Hong Kong) says: "I am anxious to obtain reliable information as to what foreign diplomas, and more especially those issued by the various licensing bodies in the United States, are recognised in England. For instance, would a diploma issued by the Medical College or University of Fort Wayne, Indiana, U.S.A., be considered a legal qualification on which to practise in England?"

*** The only registered qualifications now are those of the United Kingdom. The University of Fort Wayne, Indiana, is unknown in this country. We may add that, while no foreign qualifications can be entered in the *Medical Register*, only two can be in the *Dentists' Register*, viz., the degrees of Harvard and Michigan Universities.

The Convict Department.

Sir,—I was permitted by you, not very long ago, to warn the junior members of our profession from service in the convict department; and I cannot too strongly urge their avoidance of it, as the only means of forcing the Home Office to redress grievances, which in the army and navy were compulsorily recognised and rectified by the exertion of the same kind of pressure. It cannot be too often, nor too strongly, reiterated, that the responsibilities of a medical officer in charge of a large prison are immeasurably greater than those of a governor, whose salary is double that of the former. Instances too frequently recur which go to prove that the services of a medical officer, however meritorious he may be, fail to be adequately rewarded or even recognised. The oldest medical officer in this inglorious service has lately retired from it. After spending nearly thirty years in a responsible and dangerous charge, it has pleased the Lords of the Treasury to grant him a pension of £125 5s. a year; and they say that this annuity, added to his retired pay on an old and low scale from the Royal Navy, constitutes the superannuation allowance to which he would have been entitled as a civil servant. He had earned his pension from the navy, so that £125 5s. represent the pecuniary valuation at which the good and laborious work of a faithful servant is assessed. In an evil hour, the medical officer to whom I refer joined the convict department from the half-pay list of the Royal Navy, from which, by continued service, he would long since have enjoyed a pension of £450 *per annum*, or he might have attained a higher rank. A glance at the Blue-book, issued annually, will show the amount of professional work done by the doctor of each prison; and his contumelious treatment is visible even in these reports, for they are often mutilated, and of late, even bereft of the writer's name. The ultra-humanitarian school in which some of the young visitors under the new system of prison management are pupils, has given rise to increased and vexatious work in the medical department. Prisoners are now invited to state their complaints; and the surgeon on whom the accusations are eagerly made to rest is required to waste his time by explanations that, in the great majority of cases, only lay bare the frivolous and often groundless nature of the convict's statements, and yet the medical officer has no redress. Petitions to the Home Secretary and letters to friends are now liberally permitted, and they are rarely free from some reference to the petitioner's health or treatment. These documents also require the surgeon's confirmation or refutation; in short, the medical officer of a convict prison has plenty of work to occupy his time for many hours daily, if he do no more than sit at his desk and write official letters and reports. His work is not only arduous, and often irritating, but it is ill requited, and he stands in the position of a man who is always in an attitude of self-defence. If he have the misfortune to be ill, every hour on the sick-list is noted by a clerk, and deducted from the short period of leave granted to him annually; and in this matter the medical officer is treated with exceptional harshness. There are notorious instances of a recent date, in which the executives, from the rank of chairman to that of deputy governor and lady superintendent, have been on the sick-list for many months, and have even taken voyages to the Antipodes; whereas a medical officer's absence for a month brings a warning to him that, if he do not recover quickly, he shall have the usual notice to warders, viz., a month, to withdraw from the service. The aspersions on the character of the medical officer of Chester prison illustrate the eagerness with which the doctor is made the scapegoat whenever anything goes wrong, either in or out of his department; and should act as one more danger signal to candidates who seek employment in the miserably paid and thankless office of a prison surgeon.—I am, sir, your obedient servant,

H. L.

Favus Crusts.

Sir,—I shall be greatly obliged to any member of the profession who will assist me to obtain fresh favus crusts for cultivation experiments.—I am, etc.,

22, Queen Anne Street, W. G. Thin, M.D.

Examination of Leaves of Vegetables.

Sir,—Seeing at page 803 of our Journal for May 27th, 1882, a statement as to a new method of examining microscopically the leaves of vegetables, I wish to point out to our members that, while I cannot dispute the possibility of the plan there advised rendering a leaf transparent, I must still observe that my own experience of the use of strong mineral acid has been, that the vegetable tissue is altered or even destroyed, unless great care be used. I have many leaves and sections prepared by a process devised by the late Dr. George D. Beaky of Baltimore, U.S.A., in which a solution of chlorinated soda is the bleaching agent; I have found this much less destructive to the tissues than the strong acid. The process is fully described in *Science Gossip*, 1875, page 5. Leaves are by it rendered so entirely transparent, that the cuticle, the several layers of cells, spiral vessels, raphides, etc., are all seen under the microscope in their natural relations to each other.—Yours very truly,

George D. Brown.

Ealing, May 27th, 1882.

Unintelligible.

"The British Medical Journal", says a Cincinnati journal, "reports an ear of corn discharged through the chest. The assailant must have used a cannon, or, at least, a pistol with an abnormally large meatus. But the 'friend at our elbow' suggests that our British cousins (or grandparents) say *corn* when they intend *wheat;* and that the patient fired his own charge, after having thus loaded himself to the muzzle." Thus do languages change. Our Cincinnati reader apparently does not understand that we use the word "corn" to denote sundry cereals; while the Americans apply it to the "Indian corn".

Provident Dispensaries.

Sir,—I observed in the Journal of the 29th ultimo the report of a meeting held at the Mansion House, at which it was decided to institute a Preliminary Expenses Fund in support of the "Metropolitan Dispensaries Association". I think it behoves all medical men, general practitioners especially, to seriously consider what will be the result, if this Association should raise sufficient funds to establish dispensaries in the various districts of London.

I myself fail to see how it can benefit young practitioners who have not already secured a connection sufficient to enable them to pay their way. London and its environs are already surfeited with a number of dispensaries (in many instances worked by unqualified men), where fees are accepted which a prescribing druggist would reject. These dispensaries injure practitioners by making it almost impossible to obtain the ordinary fee for advice and medicine. Another and a much more serious evil to contend with, is the indiscriminate relief given at the out-patients' departments of the various hospitals, where people can be counted by scores who are perfectly well able to pay a general practitioner his fee of 2s. 6d. or 3s. 6d., or even more. I can instance several tradesmen, commercial travellers, their wives and families (all of whom are in good circumstances), who are at the present moment receiving gratuitous advice and medicine at the Brompton Consumption Hospital; and I have no doubt many of your readers could enumerate hundreds of similar cases at the hospitals in their locality.

London practitioners are robbed to a fearful extent in this manner, by the lax way in which relief is given to all applicants without inquiring into their circumstances. The dispensaries will not remedy this state of affairs. The people who are paltry enough to obtain medicine, etc., for nothing, when they are able to pay a doctor his fee, are not the class of people eligible to join a dispensary; and, if they did join, it would be to the loss of the practitioners in the neighbourhood. The only way to remedy the abuse of hospital relief (out-door), is for the authorities to exercise a little discrimination, and make inquiries as to the means and position of the applicant before granting a letter.

Supposing that the dispensaries succeed in checking the abuse of out-door hospital relief, they cannot benefit the practitioners round about. Those on the staff of the dispensary would receive a sum utterly inadequate to the services they had rendered, and would in all probability discover that many of the patients who had hitherto paid them for their attendance in the usual way, were now getting it for a few pence a week as dispensary patients. There are facilities enough for the poor to obtain medical attendance either from the hospitals, free dispensaries, or parish authorities; and those who are only able to pay small fees will find plenty of practitioners moderate in their charges, particularly if the ready money system be adopted. Credit is undoubtedly due to the promoters of an association to provide medical attendance for the working class with large families at a low rate, and it will certainly save medical men the unpleasantness of booking bad debts; but we shall certainly find, when these dispensaries are in working order, that a great number have joined who have no right to do so.

A little consideration, I think, should be shown to young medical men who have embarked in practice, after spending a large sum of money to enter a profession which is overstocked, ill-paid, and grossly imposed on.—Yours faithfully,

A. G.

Binaural Stethoscopes.—"M.K.Q.C.P." will find a very convenient and portable binaural stethoscope described in the British Medical Journal of November 19th, 1881. It was introduced by Messrs. Salt and Son, surgical instrument makers, Birmingham.

University Degrees.

Sir,—I read with interest a letter on this subject in a late number of your Journal, and I entirely agree with your correspondent's opinions. From the unexampled conduct of our universities in excluding applicants from medical degrees, it follows that nearly all our medical graduates have obtained them elsewhere. Most of the consulting practice in England is in the hands of Scotch graduates, not a few of them natives of that country, who thus gain the advantage over us conferred by the M.D. degree. Everyone knows the prestige this diploma carries with it, not only among the public, but also among medical men (even when the latter are aware they have undergone examinations of equal or greater severity). It seems to me unaccountable that English universities should so disregard the wish of Englishmen, often and widely expressed. Why might not Oxford, for instance, confer its degrees on the holders of English diplomas, after one or more examinations? or could anything short of a miracle induce the London University to adopt a similar course?

I fully agree with your correspondent that it is high time the matter were taken out of their hands. It has been far too much and too long neglected already.—I remain, sir, yours obediently,

M.R.C.S.E.

Petroleum as Hair-Oil.

Mr. Stevens, a British consul, states *(Oil and Drug News)* that a former servant of his, prematurely bald, whose duty it was to trim his lamps, had a habit of wiping his petroleum-besmeared hands in the scanty locks which remained to him; and after three months of lamp-trimming experience and practice of his dirty habit, he found he had a much finer head of black glossy hair than he ever possessed before. Mr. Stevens therefore tried the remedy with wonderful success on two retriever spaniels that had become suddenly bald. During the summer of 1875, his attention was called to several cases of sudden baldness of bullocks, cows, oxen, and the loss of tails and manes among horses. His previous experience induced him to suggest the use of petroleum; and it was found that, while it stayed the spread of the disease among animals in the same sheds and stables, if effected a quick and radical cure on the animals attacked. Mr. Stevens says that the petroleum should be of the most refined qualities, and should be rubbed in vigorously and quickly with the palm of the hand. It should be applied six or seven times in all, at intervals of three days, except in the case of horses' tails and manes, when more applications may be requisite.

Lieut. E. P. S.—The pamphlet is a well known disgraceful quack production, and one of which it would be very satisfactory that the public prosecutor should take notice.

Papaine in Chronic Eczema, etc.

Sir,—Will you kindly allow me brief space to answer several correspondents who have written to me privately about papaine? It is to be procured from Messrs. Christy and Co., 155, Fenchurch Street, E.C. The parts under treatment should be washed with soap and water once daily, but care should be taken not to use too much friction, as the skin is apt to become tender. I am now using the drug with considerable benefit in a case of severe warts. I find it also of use in softening hard corns.—I am, sir, your obedient servant,

Malcolm Morris

63, Montagu Square, W., May 26th, 1882.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

MIDDLEMORE PRIZE ESSAY.

THE General Secretary of the British Medical Association acknowledges the receipt of Essay in competition for the Middlemore Prize with the motto—

"Our doubts are traitors,
And make us lose the good we oft might win,
By fearing to attempt."

THE following remarkable and most impertinent document is being circulated among dentists in Dublin:

"Dublin Civil Service Medical Aid Association, Committee Rooms, 16, Eustace Street, 27th May, 1882.—Sir,—The above Association, embracing the Civil Service of the entire city and suburbs, has been formed for the purpose of procuring medical treatment for its members and their families. The Executive Committee are desirous of appointing a Dentist, and have directed us to ascertain whether you would attend the members at a reduced rate, and if so, the amount of reduction you propose to allow. Permit us the favour of an early reply.—We are, Sir, your obedient servants, Robert J. Allen, T. J. Maguire, Honorary Secretaries."

The distinction between traders and professional men in the way in which they accept remuneration for their services, has clearly been lost sight of. Medical men give their services sufficiently often, to be excused from treating with contempt a proposal to accept "reduced rates" for treating prosperous persons on a wholesale basis. It is an insult to address such communications to members of the learned professions. This circular has been forwarded to us by an eminent dentist, who in sending us, what he describes as "the enclosed impertinence," expresses his indignation. We hear for the first time of this Association. Perhaps other members of the British Medical Association have been favoured with a similar circular, and can give information of what has been the progress of this Society.

CIGARETTE-SMOKING.

SIR,—The smoking world is just now agitated by a rather serious question, the solution of which I have been requested to seek at your hands. It appears that confirmed cigarette-smokers do not merely, as in cigar- and pipe-smoking, draw the tobacco-smoke into the mouth and fauces, and then eject it through the lips or nostrils before it gets any further, but actually inhale it into the chest, and only eject it in a prolonged puff when it has apparently reached the minute cells of the lungs. The process is found particularly agreeable after a full meal; and though causing slight intoxication, with vertigo, to those who are unused to it, quickly engenders a craving which it is not easy to combat. The pricking sensation which is observed in the nostrils when the tyro in cigar-smoking ejects smoke through them, is not so noticeable in the bronchial tubes during the inhalation of cigarette-smoke; but possibly this is due to the fact that most cigarette-smokers have been hardened by previous cigar- or pipe-smoking, for there can be no doubt that all tobacco-smoke produces an irritant effect on the chests of those not accustomed to it, as seen by its setting up cough and dyspnœa.

The chief point, however, to which I have been requested to direct attention is, that if the fumes from cigar, pipe, or cigarette be instantly ejected from the mouth and throat before descending into the chest, and be made to pass through a cambric handkerchief drawn tightly across the open lips, a permanent deep yellow stain, corresponding in size and shape to the opening between the lips, and having numerous spots of a darker hue pervading it, will be left on the handkerchief; but that the prolonged puff from the chest, after inhalation from a cigarette, fails under similar circumstances to produce any but a scarcely perceptible and speedily evanescent mark. Query, What, in the latter case, becomes of the substance which stains?

I am not aware of any instances on record in which the lungs of cigarette-smokers have been specially examined. But perhaps Mr. Bond of the Westminster Hospital, or some other authority of equal note, will kindly give the matter his careful attention. It would be interesting to know whether by perseverance one could colour one's bronchial tubes as one does a meerschaum; and, if so, whether the process would be attended with risk.

I may mention that the particular tobacco with which the experiments referred to have been made is "Wills' Three-Castle"; and lest my remarks should lead to any depreciation of this particular brand, I may further mention that a foreigner, coming from the very centre of the smoking world, has pronounced it the only form of tobacco obtainable in this country which he can smoke with any degree of comfort.

As to the rice-paper wrappers with which cigarettes are made, I have burned some in a glass case, and find that they shrivel up into minute fibres, and give off a fine impalpable smoke and vapour, which, grey in colour, just renders the glass opaque. I should not consider this beneficial to the lungs, nor yet, on the other hand, very baneful. But what of the tobacco-stain?—I am, sir, your obedient servant,

D. BIDDLE.

Kingston-on-Thames, May 11th, 1882.

A PROBABLE AID TO THE TREATMENT OF PHTHISIS.

SIR,—The following facts may be found of use in the treatment of phthisis; not being in a position to try them myself, I merely offer the suggestion. In the manufacture of tin-plate as carried out in the tin-plate works at Penclawdd, Risca, near Newport, and Llanelly, South Wales, sulphuric acid is used to clean the iron plates preparatory to the tinning process. The men employed at this work lose flesh rapidly, and assume a cachectic appearance, this being attributed to the inhalation of an atmosphere impregnated with hydrogen. To obviate this, the workmen are removed from this portion of the works to that in which the tinning process takes place, where they quickly regain their former health and condition.

In melting the tin, palm-oil is used as a flux; and it is found by actual experiment that the oil, heated to the temperature of molten tin, volatilises, the air of the apartment in which the workmen now are placed being saturated with oil in the form of vapour; so that, in point of fact, the workmen, having lost flesh by working at the first process, are restored to health by exchanging to the second, by being exposed to treatment, conjointly, of inhalation of the vapour of palm-oil, and to palm-oil vapour-baths. That the latter is the case, is proved by the fact that the clothing of the workmen at this second process becomes saturated with oil. It is also asserted that pure palm-oil volatilises, and leaves no residue. At any rate, I think the oil vapour baths and inhalations might be worth trying in conjunction with the other received methods of treatment of this most intractable disease.—I am, sir, etc.,

H. OSBORN BAYFIELD, L.R.C.P.Edin., L.F.P.S.G., etc.

1, Somers Villas, Lavender Hill, S.W.

FLEA-BITES.

SIR,—In reply to your correspondent "Tormented" in the JOURNAL of May 13th, I beg to suggest that he would find great relief from his troubles by the application to the skin of a tincture of the pyrethrum roseum, made with the powder shaken up in eau-de-Cologne; a much more agreeable remedy, I believe, than oil or ointment. Many years since, there was a formula for this tincture given in the JOURNAL, which I found very serviceable to patients going abroad, in preventing the bites of mosquitoes, bugs, or fleas. I presume that "Keating's insecticide powder" (probably the pyrethrum above-mentioned) would be found to answer the purpose well.—Your obedient servant,

F. J. CORBOULD, M.D.

Reigate, May 17th.

ERRATUM.—In Mr. Herbert Thompson's Obstetric Memorandum on *Post Partum* Hæmorrhage (BRITISH MEDICAL JOURNAL, May 13th, page 695), *for* "extreme pressure", *read* "external pressure".

COMMUNICATIONS, LETTERS, etc., have been received from:—

Mr. Eastes, London; Mr. J. Lattey, London; Dr. Fairlie Clarke, Southborough; Dr. Lee, London; Mr. A. Kempe, Exeter; Mr. E. Wallis, London; Dr. T. Partridge, London; Dr. D. N. Knox, Glasgow; Dr. Gorta, Italy; Dr. Hadley, London; Mr. R. T. Stock, Kingstown; Mr. C. R. Illingworth, Accrington; Dr. H. A. Martin, Boston; Dr. R. Barnes, London; Dr. R. McDonnell, Dublin; Dr. C. Drury, Darlington; The Right Hon. H. Childers, M.P., London; A Member, Sandhurst; Dr. Thin, London; Mr. Henry C. MacBryan, Lichfield; Mr. W. E. Steavenson, London; Messrs. Arnold and Sons, London; Mr. T. M. Kendall, Ryde; Dr. Cullingworth, Manchester; Mr. H. Greig Smith, Clifton; Mr. Thomas H. Dale, Birmingham; Mr. G. R. Gilruth, Edinburgh; Our Dublin Correspondent; Dr. Henry Savage, London; Surgeon-Major MacLeod, Calcutta; Dr. Grose, Melksham; Dr. Julian J. Chisholm, Baltimore; Dr. S. Rees Philipps, Exeter; Dr. Galabin, London; Mr. E. Nettleship, London; Mr. Pittard, London; Dr. Woodhouse, Dublin; Mr. Wood, Chelsea; Our Dublin Correspondent; Secretary to the Northern Hospital, Liverpool; Mr. Lawson Tait, Birmingham; Mr. Rushton Parker, Liverpool; Mr. T. Jenner Verrall, Brighton; Dr. Burney Yeo, London; Dr. C. F. Newcome, Windermere; Mr. G. F. Masterman, Stourport; Mr. James C. Cousins, Southsea; Mr. Richard Burke, Douglas, Cork; Mr. George Meadows, Hastings; Dr. J. Symington, Edinburgh; Dr. Gillespie, St. Thomas's Hospital; Mr. G. F. Chambers, Eastbourne; Our Aberdeen Correspondent; Dr. Wallace, Parsonstown; Messrs. Salt and Co., Birmingham; Dr. Kidd, Dublin; Mr. C. N. Spinks, Warrington; M.R.C.S.; Mr. Laffan, Cashel; Mr. John Bellamy, London; Mr. W. J. Read, London; Mr. W. B. Pearsall, Dublin; Mr. Watson Cheyne, London; Servius; Mr. John Woodman, Exeter; Dr. Sawyer, Birmingham; Dr. Wallace, Rochdale; Dr. E. Creswell Baber, Brighton; C. R.; Dr. Moriarty, Cork; Mr. G. D. Brown, Ealing; Mr. F. A. Southam, Pendleton, Manchester; Mr. H. C. Burdett, London; Dr. James Ross, Manchester; Dr. Nicholas Grattan, Cork; Our Birmingham Correspondent; Dr. A. Strange, Shrewsbury; Mr. A. H. Chisholme, London; Dr. Tilt, London; Mr. W. D. Graham, Epsom; Mr. James Milward, Cardiff; Mr. W. Benthall, Derby; Mr. T. d'Orville Partridge, Assam; Mr. A. Graham, London; Mr. C. Soloman, Skirlaugh; Dr. Crichton Browne, London; Dr. W. Thornley Stoker, Dublin; Mr. G. Lyttleton, London; Mr. Malcolm Morris, London; David M. Finlay, Cradock, E. Africa; P. J. Parnell, Calcutta; etc.

BOOKS, ETC., RECEIVED.

The Pharmacopœia of the London Hospital. Compiled under the direction of a committee appointed by the London Hospital Medical Council. London: J. and A. Churchill. 1882.

The Tissues and their Structure; a description of the Elementary Tissues of the Human Body. By Alexander S. Kenny, M.R.C.S.E., Senior Demonstrator of Anatomy at King's College. London: David Bogue. 1882.

Paracentesis of the Pericardium; a consideration of the Surgical Treatment of Pericardial Effusions. By John B. Roberts, A.M., M.D. Philadelphia: J. B. Lippincott and Co. 1880.

On Mycetoma, or the Fungus Disease of India. By H. Vandyke Carter, M.D.Lond., H.M. Indian Army. London: J. and A. Churchill. 1874.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE "BRITISH MEDICAL JOURNAL".

Seven lines and under	£0 3 6
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HISTORICAL SKETCH
OF THE
BRITISH MEDICAL ASSOCIATION,

From its foundation in 1832 to the present time.

THE subjoined historical sketch of the proceedings of the BRITISH MEDICAL ASSOCIATION, during each year from its foundation in 1832, by Sir Charles Hastings, as the PROVINCIAL MEDICAL AND SURGICAL ASSOCIATION, has been compiled from the records in the *Transactions* and JOURNAL. The proceedings of the Association in regard to Medical Reform, of the Medical Reform Committee, of the Committee on Parliamentary Bills, and of the Joint Committee on State Medicine of the British Medical and Social Science Associations, will be given in separate chapters.

FIRST YEAR: 1832-33.

The Association was founded on July 19th, 1832, on which day more than fifty medical men, at the invitation of Dr. CHARLES HASTINGS, assembled in the board-room of the Worcester Infirmary. Dr. Edward Johnstone, of Birmingham, was unanimously called to the chair, and among those present were, Dr. Kidd, the Regius Professor of Physic in the University of Oxford; Dr. Barlow, Physician to the Bath United Hospital; Dr. John Conolly, then of Warwick; Dr. W. Conolly, of Cheltenham; Dr. Corrie, of Birmingham; Dr. T. Evans, jun., of Ross; Mr. Joseph Hodgson, Surgeon to the Birmingham General Hospital; Mr. W. Sands Cox, of Birmingham; Mr. Soden, of Bath; Mr. Hetling, of Bristol; and most of the medical men residing in Worcester and the neighbouring towns.

Dr. HASTINGS, addressing the gentlemen present, congratulated them that the day for forming a Provincial Medical and Surgical Association had arrived: an Association which, he trusted, was destined to exercise no inconsiderable influence on the future of medical science. He had long felt the disadvantages under which the prosecutors of medicine in English provincial towns had laboured in consequence of the want of any system of co-operation, and he hailed the day as one likely to lead to most important results. The benefits arising from the association of men for the benefit of science had long been acknowledged; and this was especially shown by the recent establishment of the British Association for the Advancement of Science.* It might be inferred, from the avidity with which the proposal to form such a society as was contemplated had been received, that the desire for a combination of forces in the medical profession, though dormant, had existed. The facilities of communication between distant towns,† both personally and by letter, had become so much greater, that distance would afford but a slight barrier to the undertaking.

Dr. Hastings said that, while he was far from thinking lightly of the influence of provincial medical men in society, he believed that they did not hold the rank in the community to which they might attain, and to which it would be the effort of the Association to stimulate them to aspire. To this end, it was important to maintain a dignified attitude before the world. Considering the attempts made in some quarters to bring about feelings of hostility between the cultivators of the different branches of medicine, the time had come when the friends of peace and harmony should declare themselves. He hoped that, in the society, no opportunity would be allowed to escape of cultivating friendly intercourse, and of exalting, as far as possible, those favoured sons of science whose example, reputation, and acquirements, were calculated not only to stimulate their brethren to exertion, but also to raise admiration of the medical art in the public mind.

There might, Dr. Hastings said, be some who, though they allowed the scheme of an association for the advancement of medical science in the provinces to be excellent in itself, yet did not admit that it could be made practically available, in consequence of the dearth of willing labourers. In refutation of such an objection, he referred to the success which had attended the publication of the *Midland Medical and Surgical Reporter*, which commenced in the year 1828, and had been edited by Dr. Hastings, with the co-operation of Dr. Malden, Mr. J. P. Sheppard, and Mr. J. Rayment, of Worcester; Dr. Darwall of Birmingham, and Dr. Burne of London. The success which had attended that journal had led to the belief that there was no reason why a society of provincial physicians and surgeons might not be formed, to collect and publish valuable information; and the proposition had been made to associate the provincial medical practitioners of England in a comprehensive co-operating institution, which, by collecting the results of individual experience, and bringing the energies of many minds to bear on unsettled points, might contribute to give medicine more precision and certainty than it possessed.

Having expressed gratification at the manner in which the proposition had been received, Dr. Hastings said that a committee had been for some time engaged in endeavouring to take advantage of the suggestions made by numerous correspondents, and had drawn up a prospectus in which the principal objects of the Association were stated to be—

1. Collection of useful information, whether speculative or practical, through original essays, or reports of provincial hospitals, infirmaries, or dispensaries, or of private practice.

2. Increase of knowledge of the medical topography of England, through statistical, meteorological, geological, and botanical inquiries.

3. Investigation of the modifications of endemic and epidemic diseases, in different situations and at various periods, so as to trace, so far as the present imperfect state of the art will permit, their connection with peculiarities of soil and climate, or with the localities, habits, and occupations of the people.

4. Advancement of medico-legal science, through succinct reports of cases occurring in provincial courts of judicature.

5. Maintenance of the honour and respectability of the profession, generally, in the provinces, by promoting friendly intercourse and free communication of its members; and by establishing among them the harmony and good feeling which ought ever to characterise a liberal profession.

Dr. Hastings said that, as one great means of carrying out these objects, it was proposed to hold an annual meeting of the members at some one of the provincial towns, changing the place of meeting each year. This meeting would not only be instrumental in producing friendly intercourse between the members of the Association, but it would also be dedicated to the promoters of medical science, as one of the members would be annually appointed to give a history of medicine during the past year, or an oration on some subject connected with medical science, or a biographical memoir of some eminent cultivator of medical sciences in the provinces. It had also been suggested, by Dr. Conolly, that a certain number of members should be appointed each year to report on the state of medicine in the several foreign countries with which the Association had literary communication.

Speaking of the objects to which the attention of the members might be directed, Dr. Hastings said that there was scarcely a branch of physiological or pathological investigation, which might not be undertaken by means of essays; and he pointed out several subjects on which knowledge was required, both in physiology and in pathology, and with regard to the action of medicines. In proof of the value of essays, he referred to the various Transactions, etc., published in London and Edinburgh, and also to the *Memoirs of the Manchester Society* and the *Midland Medical and Surgical Reporter*. He also pressed on the attention of the members the necessity of publishing the results of hospital and dispensary practice throughout the kingdom. The *Midland Medical and Surgical Reporter* had afforded valuable reports of the Birmingham Town Infirmary and Eye Infirmary, and of the Worcester Dispensary; and it was much to be desired that this line of inquiry should be assiduously followed up.

Regarding medical topography, much less had been done by the English than by their continental brethren, many of whom had contributed more or less to the formation of national medical topographies of their respective countries. The medical periodical press in England had repeatedly endeavoured, but without much success, to awaken the profession to the necessity of cultivating this branch of the knowledge; and the *Edinburgh Medical and Surgical Journal* had contained a very able sketch of a plan for memoirs of Medical Topography. The *Midland Medical and Surgical Reporter* had contained accounts of the medical topography of Worcester and of Birmingham. Dr. Hastings referred also to the value of the writings of Dr. Hawkins on Medical Statistics, Dr. (Sir James) Clark on Climate, Mr. Thackrah on Trades, and Dr. Darwall on the Diseases of Artisans.

The advancement of medico-legal science was of the highest importance. The superiority of continental medical men over the British in their knowledge of forensic medicine had long been painfully felt, and had been specially commented on by Dr. Christison. Dr. Hastings expressed his belief that, by a moderate degree of industry, succinct reports might be published by the Association of instructive cases occurring in the provincial courts of justice.

* When the formation of the Association was first contemplated by Dr. Hastings, he was not aware of the existence of the British Association.

† It must be remembered that, when this address was delivered, railway travelling was in its infancy, while the penny post and the telegraph were things of the distant future.

With regard to Medical Ethics, Dr. Hastings remarked that, with the exception of a few essays, no attempt had been made to establish a code for the guidance of those needing such direction. In a well organised profession, there could be no difficulty in adapting to its exigencies the doctrines of general ethics, the principles of which existed in every well governed mind, and were identical in all circumstances, however variously they might be applied.

He further remarked that the organisation of the profession which obtained was not what it ought to be; the whole system of medical polity in this country was both defective and erroneous. Opinions differed widely as to the evils and remedies, but few commended the existing state of things. This subject was closely connected with the advancement of science; for, if the profession were constituted as it ought to be, the harmony that would be established could not fail to be a direct means of more cordial and efficient co-operation in extending the science and improving the practice of medicine.

Having described the proposed provisional constitution of the Association, Dr. Hastings concluded his eloquent and impressive address in the following words:

"Gentlemen, you will, at any rate, admit that the objects I have thus hastily introduced to the notice of the meeting are worthy of deep meditation. The contemplation of them appears to me, indeed, to open to us a vast and unbounded prospect, and to beget high and lofty thoughts of our future proceedings. I may be sanguine in my expectations; but I cannot help indulging the gratifying, the cheering, the delightful thought, that, if we engage in this undertaking, as we are bound to do by the obligations which our profession imposes on us, with the zeal and alacrity of men anxious for the good of mankind, the Association must be of some use; must have a direct tendency to extend the empire of knowledge, and to increase our power over disease. *Valeat quantum valere debet.*"

It was unanimously resolved that a Provincial Medical and Surgical Association be formed: and a code of laws for its management was agreed on. It was decided that the affairs of the Association should be arranged by a President, two Secretaries, and a Council, to be appointed annually: that a Report of the State of the Association should be presented each year: that, at the annual meeting, a member should be appointed to give an account of the state or progress of medical science during the past year, or an oration on some subject connected with medical science, or a biographical memoir of some eminent cultivator of medical science who may have resided in the provinces: that the office of President should be honorary, and conferred on some physician or surgeon of eminence resident in any of the provincial towns comprised in the circle of the Association.

A vote of thanks was unanimously given to Dr. Hastings for the indefatigable trouble he had taken in forming a Society which owed its existence to his suggestion: and for the able, eloquent, and learned discourse with which he had opened the proceedings of the day. It was further ordered, that the address form the introductory article to the first volume of the *Provincial Medical and Surgical Transactions*.

Dr. Edward Johnstone was chosen President for the year 1832-33. Dr. Hastings and Mr. J. P. Sheppard were appointed Secretaries, and the duty of editing the *Transactions* was intrusted to them.

The number of members at the time of the meeting was 140.

Second Year: 1833-34.

The first annual meeting of the Association was held on July 19th, 1833, at the Bristol Infirmary, under the presidency of Dr. Andrew Carrick, Senior Physician to the Infirmary. The number of members had increased from 140 to 316, of whom nearly 200 were present at the meeting.

A Retrospective Address was delivered by Dr. Edward Barlow, of Bath.

In their report, the Council suggested that the example of the British Association for the Advancement of Science should be followed, by appointing some of the members to make reports on the branches of medical science. In accordance with the suggestion it was resolved:—

"That Dr. Kerr of Northampton, and Mr. Turner of Manchester, be requested to draw up a report on the present state of our knowledge of Anatomy, and present it to the next anniversary meeting."

"That Dr. Charles Henry of Manchester, and Mr. Jennings of Leamington, be requested to draw up a Report on the present state of our knowledge of the Chemistry of the Animal Fluids as illustrative of Pathology, and to present it to the anniversary meeting for 1834."

Another suggestion of the Council was, that members of the Association should be appointed to communicate with eminent medical practitioners in foreign countries, for the purpose of collecting information regarding the progress of medicine in the several countries, their medical institutions, medical topography, etc. It was also recommended that the foreign practitioners with whom correspondence was carried on should be honorary members of the Association. In accordance with these suggestions, the following gentlemen were appointed foreign correspondents: Dr. Conolly for America; Dr. Lomax Bardsley for France; Mr. Webb for Holland; Dr. John Forbes for Italy and Spain; Dr. J. C. Prichard for Germany. The Council were also empowered to make additions to the number. Subsequently, two of the corresponding members—Dr. Forbes and Dr. Prichard—declined to take office: and Dr. James Clark was appointed by the Council corresponding member for France, Germany, Switzerland, and Belgium.

A series of questions on Vaccination had been proposed by Dr. Baron of Cheltenham; and the Council recommended that they should be circulated among the members of the Association and the profession at large. A committee was appointed to draw up a report founded on the replies to the questions, consisting of Dr. Baron of Cheltenham; Dr. John Conolly of Warwick; Dr. R. Bevan of Monmouth; Dr. Hebb of Worcester; Dr. Malden of Worcester; and Dr. Evans of Gloucester, who acted as Secretary.

Certain proposals made by Dr. Baron for the establishment of a Library and of a Benefit Fund were ordered to be printed and circulated.

It was resolved: "That the Secretaries of the Association be directed to address to the Committee appointed by the House of Commons to inquire into the state of Parochial Registers, a letter expressing the great satisfaction felt by the Association that the improvement of this important branch of statistics had been taken into consideration by the Legislature, and respectfully submitting to the Committee that great benefit might be expected to accrue to medical science, and consequently to the community at large, if arrangements could be made for recording the *causes of death* in the provincial registers of mortality."

Reference was made in the Report of the Council to the propriety of establishing an annual prize. The Council did not feel justified in applying any of the money of the Association to the purpose; but they called attention to a liberal proposal made by Dr. Thackeray of Chester, who had sent £5, and had promised to give £15 in addition if nineteen other members would give £20 each. It was resolved by the meeting:

"That a subscription be opened for creating a fund to enable the Association to give prizes for essays connected with medical subjects; the said fund to accumulate until £500 be subscribed, after which time the yearly interest shall be devoted to the above-mentioned object."

This endeavour met with but little response from the members. During the year, three liberal subscriptions were received: one of £25 from Dr. Thackeray, one of £10 from Mr. Jennings of Leamington, and one of £5 from Mr. Gwynne Bird of Swansea. After this, there appear to have been no further contributions, and the attempt was for a time abandoned.

Third Year: 1834-35.

The second anniversary meeting of the Association was held at the Philosophical Institution in Cannon-Street, Birmingham, on July 18th, 1834. Dr. John Johnstone of Birmingham presided, and more than 250 members were present.

The number of members of the Association had increased to 450.

Dr. Darwall of Birmingham had been appointed at the previous annual meeting to deliver the Retrospective Address. In the interval, however, he died, and the task was undertaken by Dr. John Conolly.

Mr. Jennings presented a report on the Chemistry of the Blood as illustrated by Pathology, and Mr. Thomas Turner read a valuable report on the Present State of our Knowledge of Anatomy.

In accordance with a recommendation of the Council, a Committee, consisting of Mr. Wickenden, Mr. Parsons, and Mr. Baynham, all of Birmingham, and Dr. Baron of Cheltenham, was appointed to take into consideration Dr. Baron's proposal for forming a Library, and to report to the next anniversary meeting.

The Council, in their report, recommended that a Committee should be appointed for the purpose of considering the practicability of establishing a Medical Benevolent Charity, which had been proposed by Dr. Baron. In accordance with this suggestion, the following resolution was adopted by the meeting.

"That the following members be a Committee to take into consideration the practicability of connecting a Benevolent Society with the Association; and that they be requested to confer with the Birmingham Medical Benevolent Society, with the view of extending the benefits of that Society to the members of the Association; and that they com-

municate the result to the next anniversary meeting: Dr. Jeffreys of Liverpool; Mr. Wickenden of Birmingham; Mr. Wilson of Manchester; Dr. Baron of Cheltenham; Mr. Ransome of Manchester; Dr. Evans, Dr. Booth, and Mr. Williams, all of Birmingham."

No report was presented from the Committee on Vaccination. It was explained that the subject was a very wide one, and required much time and labour for its investigation.

Dr. Malden and Dr. Streeten, of Worcester, were requested to draw up, for the next annual meeting, a report on the Physiology of Alimentation; Dr. Booth and Dr. Evans of Birmingham, a report on the Pathology of Dropsy; and Dr. Conolly of Warwick and Mr. Hetling of Bristol, a report on the Rise and Progress of Provincial Medical Schools.

The first reference to the formation of Branches occurs in the report of Council presented at the annual meeting in 1834, in the following paragraph:

"The Council would recommend that, in towns where many members of the Association reside, occasional meetings of such members should take place, for the promotion of the general objects of the Association; namely, the free communication of professional knowledge, and the cultivation of good feeling among the members."

Fourth Year: 1835-36.

The third anniversary meeting was held in the Radcliffe Library, Oxford, on July 23rd, 1835, under the presidency of Dr. Kidd, the Regius Professor of Physic in the University. Previously to the meeting, Dr. Buckland, the Professor of Mineralogy in the University, gave an interesting demonstration of many of the fossil remains in his museum; and Mr. Costello performed lithotrity—then a novel operation in England—on a patient, in the Town hall, before a large assembly of members. The meeting was attended by more than three hundred persons.

The number of members of the Association was reported to be 500.

The Retrospective Address for the year was delivered by Dr. J. C. Prichard of Bristol. A paper on the Autumnal Fevers, Epidemic Scarlatina, and Small-pox, which prevailed at Amsterdam during the year 1834, by Dr. Niewenhuys, was also read.

Dr. John Forbes of Chichester and Dr. Bullar of Southampton were appointed to draw up a report on the actual state of knowledge of the Pathology of Continued Fever; and Dr. Thomson of Stratford, a Report on the Clinical and Therapeutical Properties of Iodine and its compounds.

It was announced at the meeting that the reports on Vaccination, on the Physiology of Alimentation, on the Pathology of Dropsy, and on Provincial Medical Schools, were not yet ready for presentation.

The Committee appointed to consider the practicability of establishing a Benevolent Society in connection with the Association presented their report. They had added to their number Dr. J. Lomax Bardsley of Manchester, and Dr. Brandreth and Dr. Scott of Liverpool. An endeavour had been made, but without success, to induce the Birmingham Medical Society to unite with the Association. The Committee had at first wished to be able to recommend to the Association a plan embracing not only a Benevolent Fund, but also an Annuity and Life Assurance Society, under the management of one or more committees. On consideration, however, they determined to confine their recommendation to the formation of a Benevolent Fund, and submitted a plan of which the following were the principal provisions:

"It is recommended that a Society be formed, to be called the Provincial Medical Benevolent Society; and that a fund be accumulated by subscriptions and donations, applicable to the following purposes: 1. To the relief of contributors who may be unable, through sickness or casualty, to continue in the performance of their professional duties; 2. To the relief of the widows and children of contributors; 3. To afford relief under temporary and unavoidable difficulties; 4. As temporary loans at the discretion of the Committee. That the fund be under the control of a Primary Managing Committee, situated in some central town, which may be agreed on by the Association, consisting of a President, Vice-President, Secretaries, Treasurer, and ordinary members.....That local committees be also formed in at least four of the larger towns.....That these committees have certain districts assigned to them. That applications for relief by contributors residing within the districts be transmitted to the local committee, and by them investigated and reported to the primary Committee. That, in cases of emergency, the local Committees shall have the power of granting immediate relief, to such amount as the Association may determine.....That no person be entitled to relief who has not contributed at least £1 1s. annually for five years preceding his application. That a discretionary power in the admission of contributors be vested in the local Committee. That the benevolent fund be not brought into operation till such a sum has been accumulated as may appear to the Managing Committee sufficient to enable them to commence in a satisfactory and efficient manner. That a statement of the operations and accounts of the Society be submitted to the Association at each anniversary meeting.'

In accordance with the suggestions of the Committee, it was resolved "That the Benevolent Committee be re-appointed, with unlimited power to form sub-committees in the several towns, so as to enable them to carry into effect their recommendations; and that they be requested to report their proceedings to the next anniversary meeting. That the following towns be nominated as fit places for the formation of Committees: Cheltenham, Bristol, Bath, Oxford, Reading, Manchester, Hereford, Worcester, Liverpool, Birmingham, Warwick, Chichester, and Monmouth; and that Cheltenham be fixed on as the town where the Central Committee shall be formed. That subscriptions be forthwith entered into. That Dr. William Conolly of Cheltenham be appointed Treasurer *pro tempore*."

The Committee appointed to consider the proposal for the formation of a Library reported that "from a consideration of the expense attending the formation and care of a valuable library, the impracticability of finding a suitable place for depositing the books, and the insurmountable difficulty of rendering the institution available to the majority of members, they were induced not to recommend the establishment of a library in connection with the Provincial Medical and Surgical Association."

At the meeting of Oxford, the subject of Poor-law Medical Relief was for the first time taken into consideration. Allusion was made in the Report of Council to the new Poor-law Act; and it was remarked that "the guardians of the poor have great power, and, as respects the medical attendance of the poor, they seem inclined to exercise that power in a manner greatly objected to by a large portion of the present respectable class of general practitioners." The appointment of a Committee on the subject was recommended. Accordingly, a committee consisting of Dr. A. W. Davies of Presteign, Mr. N. Rumsey of Beaconsfield, Mr. T. T. Griffith of Wrexham, and Mr. H. L. Smith of Southam, was appointed "to consider the best means of affording medical relief to the sick poor, and more especially with reference to the operation of the new Poor-law Act." In connection with the subject, Mr. Rumsey read a communication showing the necessity for amendment of the system of medical relief of the sick poor; and Mr. H. L. Smith read a paper in which he advocated the formation of "Self-supporting dispensaries."

In September 1835, an Eastern Provincial Medical and Surgical Association was formed at a meeting held at Bury St. Edmunds, by members of the medical profession residing in Cambridgeshire, Norfolk, Suffolk, and Essex. A committee was appointed to prepare a plan for effecting a junction with the Provincial Medical and Surgical Association instituted at Worcester.

Fifth Year: 1836-37.

The fourth anniversary meeting of the Association was held at the Royal Institution, Manchester, on July 20th and 21st, 1836, under the presidency of Dr. Edward Holme. The number of members of the Association was reported to be 600.

The Retrospective Address was delivered by Mr. John Green Crosse of Norwich. Dr. Kidd read a paper on the Anatomical and Physiological Works of Galen.

A deputation from the Eastern Provincial Medical and Surgical Association attended the meeting; and a committee of six members was appointed to consider whether a junction of the two societies was desirable, and, if so, on what terms it should take place. The Eastern Association proposed that its members should pay to the Parent Association two-thirds of the annual subscription of one guinea; that they should receive the publications of the Association; that papers written by them should be published in the *Transactions* of the Parent Association; that a meeting of the two societies should be held once in every five or six years in a town in the six eastern counties; and that the list of officers and members should be published in the *Transactions*. The consideration of the subject was postponed to the next year; and a vote of thanks was given to the members of the Eastern Association who had attended. Not long afterwards, the Eastern Association expressed to the Council their desire to dissolve as a separate body, and to become members of the Provincial Association; reserving the right to hold meetings in the Eastern Counties, and to consider themselves a Branch of the Association. The Council readily complied with this suggestion. Subsequently, in the course of the year, Branches were formed at Wells, Bath, and Southampton.

The Committee appointed at a meeting in 1835 to consider the establishment of a Benevolent Society, presented a report, in which

they stated that they had found it impossible to carry out the recommendations sanctioned at Oxford, inasmuch as these involved two distinct schemes—a Benefit Club, stipulated payments securing certain advantages; and a Benevolent Fund "having for its object the relief of distressed medical men and their families, irrespective of all claims but their misfortunes." The Committee recommended that the former scheme should be abandoned, and that the Association should limit itself to the formation of a Benevolent Fund. The report was adopted, and the Central Committees and Local Committees were reappointed. A suggestion was made in the report of the Committee, that a portion of the surplus funds of the Association might be employed in promoting the objects of the Benevolent Fund. This was objected to by Dr. Hastings, on the ground that the general fund was expressly to be applied to scientific purposes; and also because, "in order to give a character of permanence to the British Association, he was desirous hereafter to see a portion of its surplus revenues invested in the public securities, and thereby to give means of usefulness to the Association independent of its subscriptions."

The Committee appointed "to consider the best means of affording Medical Relief to the Sick Poor, more especially with reference to the operation of the New Poor-law Act", presented a most able and elaborate report, which occupies thirty-six pages of the fifth volume of the *Transactions* of the Association. It was signed by A. W. Davis, M.D. (Presteign); T. T. Griffith (Wrexham); H. L. Smith (Southam); N. Rumsey (Beaconsfield); C. B. Nankivell (Coventry); T. Workman (Basingstoke); T. Brayne (Banbury); G. Fletcher (Croydon); R. Ceely (Aylesbury); G. May (Reading); and H. W. Rumsey (Chesham). The introductory portion of the report contained some excellent observations on the question "Who are the parties that are bound to provide medical relief for paupers?"

"The legislature has wisely and humanely determined that no person shall perish for want of the necessaries of life. Among these necessaries, it has invariably reckoned medical and surgical relief; and it has created, by means of the poor rates, a fund for this, among other purposes.

"The question is, therefore, already decided—that one portion of the community must provide another portion, when sick, with medical attendance. No one has a right to say that the duty of providing for these exigencies shall fall exclusively, or in undue proportion, on the medical profession. Medical men, as private individuals, contribute their quota of the public burdens; they cannot, therefore, be required to bear, in addition to their own, that share of these burdens which belongs equally to the rest of the community.

"Your Committee are aware that the vast amount of gratuitous medical assistance that has been at all times afforded to the needy by all grades of the profession throughout the country (an amount that could not be conceived by those who were not informed on the subject) has been productive, at least, of one very injurious effect; it has induced the unthinking portion of the public to conclude that there was some sort of conventional, if not legal, obligation on the medical profession to attend, without reward, to the ailments of the poor. This kind of misapprehension, or ignorance, of the real state of the case, has doubtless been the source of many recent grievances.

"It is, therefore, worthy of consideration, whether it does not become the duty of the profession to prove the fallacy of this popular notion, by some limitation and greater discrimination in the supply of their gratuitous advice; by resisting all attempts to convert their spontaneous benevolence into a forced enaction; and by demanding a proper remuneration from those who are bound, not only by the dictates of a rational humanity, but by the laws of the country, to provide the necessary assistance for the destitute sufferers.

"There is yet another reason for suspecting the real advantages of the gratuitous services of our body; viz., the effect which is thereby produced on the poor themselves. It cannot be denied that a great proportion of the attendance afforded by the medical charities of this country tends to perpetuate the injurious habit of dependence upon others for the supply of necessaries which, by timely forethought and frugality, the working classes might procure for themselves; and it is no less obvious that benefactions which were intended for the relief of the indigent are frequently applied for the assistance of those who do not really require them, and who have no legitimate claim on the unrewarded exertions of medical practitioners. Your Committee are, therefore, of opinion that a well-regulated supply of medical relief, the cost of which should be defrayed from the legalised provision for the relief of the poor, is, on the whole, the most unexceptionable mode of extending to proper objects the aid in question."

After a thorough examination of the subject, the Committee, in approaching the end of their report, offered the following recommendations.

"Your Committee believe that, in the present state of the medical profession, and with the parochial authorities as at present constituted, no amelioration can be effected without the intervention of some third party. It will be readily granted that a fair remuneration ought to be given for the duties which professional men are called on to perform; the amount, however, of such remuneration should not be determined either by those who pay or by those who receive it; nor should it be settled by these parties jointly, at their own discretion, in every separate locality. To speak more plainly, the commissioners and guardians should not have the power of deciding what is a "fair" remuneration, for they are interested in reducing it below par; on the other hand, the medical body should not have the power of fixing it, for they are interested in raising it above par. And, further, the guardians and the medical men of every separate union should not be allowed to arrange it at their pleasure; for (as it has been proved), the former, by requiring "tenders" from the latter, or by threatening the introduction of an adventurer, may, at any time, under present circumstances, reduce the remuneration to their own notions of adequacy. The rate of remuneration should, therefore, be fixed by legislative enactment. It should be sufficient in its details, or in the aggregate, to remunerate the medical officer reasonably and justly for his time, his skill, and his expenses."

"Your Committee have no hesitation in recommending that, wherever it is practicable, a dispensary should be fitted up for the supply of medicine to the sick paupers of all the parishes within a reasonable distance, at their joint expense, unless a more convenient arrangement for this purpose can be effected; whilst the medical officers should be paid only for the duties which they perform—viz., for attendance, with a graduated charge for journeys, according to the distance and the number of patients.

"Your Committee have reason to believe that the places containing a duly qualified resident practitioner are comparatively few, where some opportunity might not also be afforded for providing the drugs from a distinct source. Where, however, this is not the case, the practitioner might be paid separately for the medicines at the druggist's price.

"By the adoption of such a principle, all the ordinary temptations to neglect the poor would be very much guarded against; and the medical officer, without pain to his best feelings, without compromise to his professional respectability, and without direct expense, would be enabled to attend the poor, and to indulge those benevolent impulses which find their highest gratification in removing or alleviating human suffering.

"Your Committee are of opinion that the whole of the arrangements for pauper medical relief should be under the control of competent authorities, chosen from the medical profession, and fully qualified for so important an office by a practical acquaintance with every variety of medico-parochial duty."

"Your Committee would also point out the great advantages which would accrue to medical statistics, and to the science of medicine in general, from a compilation and annual publication of the official returns of parochial surgeons."

It was decided by the meeting to publish the report of the Poor-law Committee in the *Transactions*, and also to print it separately for circulation. It was also resolved

"That a petition from the members of the Association, and others assembled at the anniversary meeting, stating the evils arising out of the administration of the Poor-law Amendment Act, as regards medical relief, and praying for redress, be immediately presented to both Houses of Parliament; that to the Lords by Lord Melbourne, and that to the Commons by Lord John Russell."

The petition stated that "a remuneration calculated to ensure proper attendance; a mode of appointment not derogatory to the profession; regulations for the prompt supply of medical relief to the destitute sick; and a general supervision of the medical department of the Poor-law administration by competent persons—were essential to the interests and welfare of all parties concerned."

It was also resolved to forward a copy of the petition to the College of Physicians, the College of Surgeons, and the Society of Apothecaries, and to ask for their co-operation.

Subsequently to the meeting, the Committee sent a printed appendix to the report to every member of the Council; and afterwards published the entire report and appendix for sale. On the suggestion of the Committee, the Council also addressed a circular letter to every town in the kingdom, recommending petitions to be sent to Parliament praying for an alteration in the system of parochial medical relief. As a result, numerous petitions were presented. The report presented at Manchester became, the Council reported in the following year, an authority on the subject of the medical relief of the poor.

A Committee was also appointed "to investigate and report on the various modes of extending medical relief to the sick poor, not dependent on parochial aid. The Committee consisted of the following members, with power to add to their number: Dr. John Forbes (Chichester); Dr. Walker (Huddersfield); Dr. J. Conolly (Warwick); Dr. Barlow (Bath); Mr. H. L. Smith (Southam); Mr. H. W. Rumsey (Chesham); and Mr. Nankivell (Coventry). A series of questions as to hospital relief, sick clubs, etc., was subsequently drawn up and circulated by the Committee.

SIXTH YEAR: 1837-38.

The fifth anniversary meeting of the Association was held at the Literary and Philosophical Institution, Cheltenham, on July 19th and 20th, 1837, under the presidency of Dr. Henry C. Boisragon.* The number of members had increased from 600 to 940.

An address expressive of dutiful homage and allegiance to Her Majesty Queen Victoria, who had in the previous month proceeded to the throne, was unanimously adopted, and was ordered to be presented to Her Majesty by a deputation consisting of Dr. Boisragon (President); Sir A. Cooper, Bart.; Dr. Kidd (Vice-President); Dr. James Clark; Dr. Hastings (Secretary); Dr. Barlow and Dr. John Conolly, the mover and seconder of the address.

The Retrospective Address was delivered by Dr. J. Lomax Bardsley of Manchester.

The Council reported the satisfactory arrangements which had been made with the Eastern Medical Association; and submitted to the general meeting a series of regulations for the general construction of Branches, which were approved. They provided that the General Council should provide suitable instructions for the guidance of those desirous of instituting Branches; that the initiatory proceedings and the by-laws should be submitted to the Council for approval; that all members appointed to offices by the District Branches should be forthwith enrolled as members of the General Council; and that the expenses of the Branches might be defrayed from the general fund, provided they did not exceed one-seventh of the guinea—power being reserved to the General Council to raise the allowance to one-fourth of the guinea in exceptional cases.

The Committee of the Benevolent Society reported that they had been enabled to bring the fund into operation, and to afford relief in two cases of distress. They urged the importance of supporting the fund; and suggested that a large number of contributions of as small a sum as five shillings would at once give the Society a considerable income. They suggested, also, that the smaller subscriptions might be collected with the subscriptions to the Association. The report was ordered to be adopted and printed; and the following resolutions were passed.

"That the Association do take this opportunity of expressing their thankfulness that the Benevolent Fund has been rendered useful to some of their suffering brethren; and that the suggestions contained in the report for increasing and collecting the contributions be earnestly recommended to the consideration of every member of the Association. That the central and other Committees, appointed for carrying on the business of the Benevolent Fund, be requested to continue their services. That the rules and regulations of the Benevolent Fund be printed with the account of the *Transactions* of this meeting."

A letter was read from Dr. Thackeray of Chester, offering £50 as a prize for the best essay on a medical subject to be fixed on at the meeting at Cheltenham. A Committee, consisting of Dr. Barlow, Mr. Crosse, Dr. John Conolly, Dr. Lyon, Mr. Hetling, Mr. Soden, and Dr. Forbes, was appointed to select a subject, and report the next day. They, however, obtained an extension of the time to two months.

A series of questions having been issued by the Council respecting the spread of the late epidemic of influenza, a committee, consisting of Dr. Malden, Dr. Feild, Dr. Streeten, and Mr. W. Addison, was appointed to draw up a report on the replies. The report, which bears the names of Dr. Streeten and Mr. Addison, was published in the sixth volume of the *Transactions* of the Association.

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* In the volume of the *Transactions* which contains the report of this meeting, appears a notice of an interesting discussion which took place in the Council respecting the place of meeting. After stating that Bath had been selected as the place of meeting in 1838, the report says:

"A good deal of incidental conversation took place relative to a plan, which is much favoured by several influential members of the body, of holding the Septennial Anniversary, in July 1839, in the metropolis. It was remarked that the members are desirous, in every way, of suppressing all invidious feelings between themselves and their brethren in the metropolis; and it was considered that, by holding a meeting in London, and thus coming into immediate communication with each other, the best possible understanding might exist. Besides, as several metropolitans of distinction were members of the Provincial Association, there was, on that ground, a strong inducement to meet in London. Of course, no arrangement could be made on this subject, which remains for future discussion."

With reference to matters affecting the Public Health, the following resolutions were adopted by the meeting.

"That it appears desirable to this meeting that the members of the Association, in their several localities, should urge upon the members of the Legislature the importance of an enlightened consideration of the questions touching the public health, pending in Parliament."

"That this meeting suggests to the members generally the propriety of lending their aid to carry into effect the Act which has recently passed the Legislature, to procure an improved registration of births, deaths, and fatal diseases."

"That, as the Association feels persuaded that an extensive series of observations, made in the various sanitary institutions of the kingdom, would contribute essentially to the progress of medical science, a Committee be appointed to draw up tabular forms for statistical records of disease."

A Committee, which may be considered as the first Medical Reform Committee of the Association, was appointed at the meeting in Cheltenham, by the following resolution:

"That, at the present juncture, in which it is probable that important changes may take place, it is highly expedient to watch over the interests of the profession at large; and that a Committee be appointed, consisting of the following members, with power to add to their number, whose duty it shall be to suggest to the Council, from time to time, such measures as may appear to them necessary to meet circumstances as they arise: Dr. Barlow, Mr. Crosse, Dr. Rumsey, Mr. Soden, Dr. Streeten, Mr. H. W. Rumsey, Dr. Forbes, Mr. Jordan, Mr. W. Addison, Mr. Ceely, and Mr. Soulby."

The Poor-law Committee presented a second report, containing a series of recommendations for legislative enactment, and recommending "that personal and written communications be made by members of the Association, in every locality, to their respective representatives in Parliament; also that petitions be presented immediately on the opening of Parliament, praying for a special, full, and impartial inquiry into the subject of medical relief for the poor, and for the production of official returns of all medical contracts made under the new law, of the number of practitioners appointed to the sick poor compared with those under the former system, of the extent of districts entrusted to medical officers, of the amount of their salaries, the number of patients attended, and visits performed by each medical officer; lastly, that a plan for an amended system be prepared and placed in the hands of some influential members of the Legislature, who might be disposed and able to undertake the management of the question in both Houses of Parliament." In accordance with the recommendation of the Committee, the meeting adopted a petition, deprecating the present system of Poor-law medical relief, and praying for a special inquiry. A vote of thanks was given to the Poor-law Committee, especially to Mr. Rumsey, for their important and valuable services.

SEVENTH YEAR: 1838-39.

The sixth anniversary meeting was held at the Bath Literary Institution, on July 18th and 19th, 1838, under the presidency of Dr. Edward Barlow, Senior Physician to the Bath United Hospital. The number of members had risen to 1,080.

The Retrospective Address was read by Dr. Jonas Malden of Worcester. Dr. J. Aitken of Poole read a paper on the Use of Fucus Esculentus or Tangle in Cases of Stricture of the Rectum and Urethra.

An application was received from the Southern Branch, asking for a larger allowance towards defraying local expenses than the three shillings voted by the Association. It was decided that the meeting was obliged with regret to refuse the request of the Southern Branch; but that a larger allowance for expenses than that settled by the Association at Cheltenham could not, with prudence or propriety, be conceded to the Branches.

Since the last meeting, two Branches had been formed: the Newton (now the Lancashire and Cheshire) Branch, and the Shropshire and North Wales Branch.

The Council reported that they had publicly announced that a Thackeray prize of £50 would be awarded to the author of the best essay "On the sources of the common continued fevers of Great Britain and Ireland, and the uncertainty of the circumstances which favour the diffusion of these diseases, and also those circumstances which may have a tendency to render them communicable from one person to another." The President, Vice-Presidents, Dr. Forbes, and Dr. Conolly, were appointed a committee to adjudicate the prize.

The Council also reported that, in compliance with the prayer of the petition sent by the Association to Parliament in the previous year, a Select Committee of Inquiry into Poor-law Medical Relief had been appointed by the House of Commons. The Council had appointed "the indefatigable Mr. Farr" as a delegate to urge their opinions on

the Poor-law Committee; and two of the members of the late Poor-law Committee of the Association had been examined before the Committee of the House of Commons. It was resolved "That the Poor-law Committee be re-appointed, to watch the further progress of the subject through Parliament, and to suggest to the Council from time to time such measures as may appear to them necessary, to meet the circumstances as they arise; and that Mr. Rumsey of Chesham, Mr. Ceely of Aylesbury, Mr. Addison of Malvern, Mr. Toogood of Bridgwater, and Mr. Yeatman of Frome, form that Committee."

The subject of the means of suppressing quackery was brought before the meeting in the report of Council; and it was resolved by the meeting:

"That the Central Council be empowered to form a section to consider the nature, extent, and evils of quackery, and to report on the same at the next annual meeting."

The Council suggested in their report that good effect might arise from dividing the Association into sections for the prosecution of particular departments of medicine. As the question of vaccination was then exciting considerable interest, especially on account of the recent occurrence of a severe epidemic of small-pox, they proposed that a section of members might be appointed to whom the replies to the queries issued by the Council might be sent. The meeting accordingly appointed a section of about thirty gentlemen, with power to add to their number, to carry out the objects indicated.

The Committee of the Benevolent Fund reported that the charity was making steady progress. Four grants had been made during the year of £20, £10, £5, and £40. The report contained the following recommendation.

"It is inconceivable how much good might be done, if each member would but consent to contribute even the small sum of five shillings annually to this admirable charity; and there are few among us who could not afford this small sum; whilst many others, whom Providence has blessed with larger means, will doubtless contribute in proportion, and thus be the means of relieving many meritorious but unfortunate members of our profession from the pressure of unavoidable calamity."

The Committee appointed to watch over the interests of the profession were requested to continue their services.

Eighth Year: 1839-40.

The seventh anniversary meeting was held in the Medical Institution, Liverpool, on July 24th and 25th, 1839, under the presidency of Dr. Thomas Jeffreys.*

The number of members was stated in the Report of Council to be 1,180. Deputations from two other combinations of members of the profession—the "British Medical Association" and the "Medical Association of Ireland"—attended the meeting. The former was represented by Dr. George Webster of Dulwich and Dr. Marshall Hall; the latter by Sir James Murray, Mr. Carmichael, Dr. Jacob, Dr. O'Beirne, Dr. McDonnell, and Dr. Maunsell.

Dr. Symonds of Bristol read the Retrospective Address in Medicine; and Mr. J. H. James of Exeter gave an analogous Address in Surgery. Mr. Banner of Liverpool related a successful case of excision of the elbow-joint, and showed the man who had been operated on. Mr. Read of London showed a patent syringe or "stomach-pump", and explained its application. On this, Sir James Murray claimed for himself the merit of having invented the machine, and showed his original one. He also described his method of administering magnesia in a fluid form; and showed his well known preparation of fluid magnesia.

With regard to Poor-law Medical Relief, the Council were unable to report any satisfactory progress. Notwithstanding the decided recommendation of the Parliamentary Committee to the contrary, the system of "tender" was still persevered in by several of the boards of guardians. The Poor-law Committee had been in frequent intercourse with Mr. Serjeant Talfourd, who had advised that no further step should be taken until the next session of Parliament, when the Government must again bring forward a Bill, either to continue the power of the Poor-law Commissioners, or to substitute another scheme in lieu of the present. The Poor-law Committee was re-appointed, with instructions similar to those given in the previous year.

The Committee appointed in 1837 "to watch over the interests of the profession" presented a long report, which was adopted. A form of petition was agreed on, in favour of the establishment of a single examining and licensing body in each of the divisions of the kingdom. It was also resolved:

"That Dr. Barlow, Dr. Forbes, Dr. Rumsey, and Mr. Soden, be a Committee, with power to add to their number, to carry into effect the recommendations of the Committee appointed to watch over the interests of the profession; and with the concurrence of the Council, to adopt any further measures that may appear to be necessary."

A joint committee of members of the Provincial Medical Association, the British Medical Association, and the Medical Association of Ireland, met and passed the following resolutions:—

"That Drs. Barlow, Webster, and Maunsell, be respectively the organs of communication of the different bodies which they represent; and that a free communication be forthwith commenced between these bodies for the purpose of drawing up a plan of general medical reform, in the shape of heads of a Bill to be considered by the several committees, and subsequently proposed to the Association."

"That a communication with the medical profession in Scotland, and with the local Associations in England and Ireland, be opened as soon as possible, and that the members of the Committee shall exert their influence to the same effect."

Dr. James Johnstone proposed to enable members of the Association to compound for their annual subscription by paying ten guineas; the composition fees being invested in public securities and the interest applied to the general purposes of the Association. Dr. Hastings objected to the proposal, the operation of which would be injurious to the Society, especially if many of the younger members acted on it. It was ultimately withdrawn.

The Committee of the Medical Benevolent Fund reported that the sum of £55 had been disbursed in benevolent aid during the year.

In accordance with the resolution passed at the previous annual meeting, empowering the Central Council to form a section to consider the nature, arts, and extent of quackery, the Council had appointed a Committee consisting of Dr. Cowan of Reading (chairman), Dr. Macartney of Dublin, Dr. P. Johnson of Shrewsbury, and Mr. George May of Reading. At the annual meeting, the Committee stated that they were not yet prepared to present a formal report. They had, however, been engaged in investigating the machinery of quackery and the means of its suppression; they had also investigated thoroughly the interest of Government in empiricism, and had found that the revenue from quackery was not less than £50,000 a year. In the course of their report, the Committee remarked that "the present Association furnishes us with an engine of no ordinary magnitude and influence; and while we hope that the great and leading questions which more directly affect the public welfare will ever engage its primary and earnest attention, we trust that it will also constitute a permanent *court of honour*, excluding from amongst us all whose conduct is at variance with the higher venal interests of a profession, whose dignity and usefulness we are pledged by every honourable feeling to uphold." The Committee expressed the opinion that, though the utter extinction of quackery might justly be regarded as chimerical, yet no reasonable doubt could be entertained that its daring aspect and alarming prevalence might be materially modified and controlled by well directed legislative prohibitions. They recommended, as necessary measures to be carried out by the medical profession, popular lectures on empiricism; the circulation of tracts unfolding the iniquities of the system and demonstrating its irrationality; and the exposure of its dangers and inconsistencies in the daily intercourse with its victims. The Committee were thanked for the report; and it was decided that the appointment by the Council should remain in force until the next annual meeting.

The section appointed to inquire into the present state of vaccination presented a long and very able report, which occupied ninety-eight pages of the eighth volume of the *Transactions* of the Association.* The same volume of the *Transactions* contains a long paper by Mr. R. Ceely, with coloured illustrations, on the Variolæ Vaccinæ in the Vale of Aylesbury; with an account of experiments on the Vaccination, Retro-vaccination, and variolation of cows. The report contained a large amount of evidence from the experience of practitioners as to the efficacy of vaccination in preventing small-pox. It was resolved:—

* Reference was again made at the meeting of Council to the question of holding a meeting of the Association in London. "Dr. Hastings stated that a strong inclination had existed in the Society to meet in London, and no doubt they would be received there with pleasure; but he concurred with many of the members that the time had not yet arrived when they could go there with advantage. Whether that was the general opinion of the members, he could not say."

* The Section was constituted as follows; *Chairman*, Dr. John Baron, F.R.S., Cheltenham; *Secretaries*, Dr. W. Conolly, Cheltenham; Mr. A. T. S. Dodd, Chichester; *Committee*, Dr. Joseph Brown, Sunderland; Dr. Joseph Bullar, Southampton; Mr. H. Coles, Cheltenham; Dr. J. Conolly, Hanwell; Dr. S. Cox, Edinburgh; Dr. J. G. Crosse, Norwich; Mr. King Ellison, Liverpool; Dr. J. Engledue, Portsmouth; Dr. T. Evans, Gloucester; Dr. G. Goldie, York; Mr. R. T. Gore, Bath; Mr. Greenhow, Newcastle; Dr. G. Gregory, Windsor; Dr. Heathcote, Rotherham; Mr. C. H. Hebb, Worcester; Dr. J. Kendrick, Warrington; Mr. Loe, Leeds; Dr. D. Macrorie, Liverpool; Dr. J. Malden, Worcester; Mr. D Noble, Manchester; Dr. R. Nunn, Colchester; Mr. F. Ryland, Birmingham; Dr. T. Shapter, Exeter; Dr. R. J. N. Streeten, Worcester; Mr. T. P. Teale, Leeds; and Dr. T. Ogier Ward, Shrewsbury.

"That the thanks of the meeting be given to the members forming the Vaccination Section, for the trouble they had taken in arranging the numerous answers to the queries sent out, and for their very able report, and that the same be printed and its recommendations adopted."

A carefully prepared petition on the subject of vaccination was laid before the meeting and agreed to. It asked that the practice of small-pox inoculation by ignorant and illiterate persons should be suppressed, and that it should only be permitted to persons duly qualified to practice medicine or surgery; and that provision should be made for the vaccination of the poor, by "appointing regularly educated vaccinators, with suitable salaries, in districts sufficiently numerous to embrace the whole of the poor population of the country, who shall offer gratuitous vaccination at stated periods to all within their bounds, keeping accurate registers of their proceedings, and communicating regularly with the National Vaccine Establishment."

NINTH YEAR: 1840-41.

The eighth anniversary meeting was held at the Audit House, Southampton, on July 22nd and 23rd, 1840, under the presidency of Dr. George Steed, Senior Physician to the South Hants Infirmary.

The number of members in the Association was stated in the report of Council to be 1,020.

Immediately after the delivery of the President's address, the meeting unanimously adopted addresses to the Queen, Prince Albert, and the Duchess of Kent, congratulating them on the preservation of Her Majesty from the attempt recently made on her life by an insane individual.

The adjudication of the Thackeray prize of £50, offered two years previously, was made. Eight essays had been sent in; and were examined by Dr. John Forbes, Dr. Jeffreys (the ex-president), and Dr. John Conolly. The author of the successful essay was Dr. Davidson of Glasgow.

A Report on the Progress of Surgery during the past year was read by Mr. Dodd of Chichester; and Dr. Scott of Liverpool read a Retrospective Address in Medicine. Several papers were read, by Dr. Arnold of Jamaica, Mr. Costello, Dr. Oke, Mr. Bottomley, Dr. Aitkin, Dr. Streeten, Mr. Fuge, and other members.

Dr. Hastings read to the meeting a letter which had been sent by Sergeant Talfourd to Mr. H. W. Rumsey, of Gloucester, with reference to the additions which it would be desirable to make in any Bill which might be introduced for amending the laws for the relief of the poor. The clauses proposed by Sergeant Talfourd contained the following provisions: 1. A Medical Commissioner to be appointed in addition to the three Poor-law Commissioners; 2. The Medical Commissioner to settle the extent and boundaries of medical districts throughout England and Wales within three years, and to submit a scheme to be laid before Parliament; 3. The Medical Commissioner and the Poor-law Commissioners to make orders and prescribe limits to the remuneration of medical officers, with power to suspend or vary such orders; 4. Every medical officer to make an annual district report, and transmit the same to the Medical Commissioner, the Medical Commissioner to make a general current report, to be annexed to the report of the Poor-law Commissioners and laid before Parliament; 5. Guardians to determine the amount of remuneration to be received by medical officers, subject to the order of the Commissioners, but not to advertise for or seek to obtain tenders; 6. Medical officers to have both medical and surgical qualifications, and not to be eligible before having been three years in practice; 7. The expense of medical relief to be a parochial charge. The following resolutions were unanimously passed.

"That the report of the Poor Law Committee be adopted and printed; that the thanks of this meeting be given to them for the zeal and energy manifested by them on this subject; and that they be reappointed, to watch the still further proceedings of Parliament, and that the Council be requested from time to time to take such measures as may appear to them to be necessary to meet the circumstances as they arise; that the Association entirely approves of the clauses which Mr. Sergeant Talfourd proposes to bring forward in the House of Commons when the Bill for the amendment of the Poor Law is under discussion, and recommends the members generally to endeavour at the proper season to support the learned Sergeant in his laudable exertions, by petition or otherwise."

"That the thanks of the Association be given to Mr. Sergeant Talfourd for his zealous and unwearied endeavours to amend the present system of parochial relief, and especially for having, at much pains, prepared the foregoing clauses, to propose for the adoption of the House of Commons."

The Vaccination section were thanked for their services, and were reappointed. A resolution was adopted, on the proposal of Mr. Dodd and Dr. Forbes, calling the attention of the public, and particularly the Committee of Superintendence of schools for the education of the poor, to the benefit of vaccination, and to the fact that its neglect was almost entirely composed of the lower classes; and suggesting that a certificate of vaccination, signed, after examination, by a medical man, should be required from every candidate for admission to a public charitable school, whether for infants, children, or adults.

The Committee appointed to watch over the interest of the profession presented a report, advocating especially uniformity of qualification, and as a subsequent object, the amalgamation of the medical profession. The report was adopted; the committee was thanked and reappointed, and it was resolved:

"That the Central Council be empowered to act on behalf and in the name of the Association until the next annual meeting, in presenting petitions to Parliament or in such other procedures as circumstances may render necessary."

It was also agreed, on the proposal of Dr. George Webster, seconded by Dr. Barlow,

"That it is highly important that further steps should now be taken to obtain medical reform on the principles of an uniform test of qualifications, and a representative system of government."

A second report was presented by the Committee on empiricism. It referred to the evils resulting from empirical practices, and from the sale of patent medicines; some of which could only be remedied by well directed penal restraints, while the removal of others must principally depend on the establishment of a more uniform standard of education, and in the cultivation of a higher tone of morality among the members of the medical profession.

"This last most desirable result your Committee believe the Provincial and other Associations well calculated to promote. They must tend insensibly to form a standard of conduct and feeling to which the majority will by inclination happily conform; the few, from motives of self-interest and necessity. Strict moral integrity will be regarded as more and more essential to membership, and all conduct of individuals adverse to the collective interests of the body to which they belong should be visited with public reprobation and expulsion from our ranks. If, after all our precautions, black sheep will intrude into the fold, let it at least be seen that, when discovered, they are not regarded or treated as lawful members of the flock. Your Committee would also suggest the propriety of appropriating a part of the funds of the Association in obtaining trustworthy analyses of many of the more popular and injurious quack medicines. Mystery is the great secret of empirical success; and familiarity with the composition of a nostrum would go far in the public mind to divest it of its imaginary virtues. Small tracts might be circulated for this purpose, and the aid of other societies obtained, as well as of some portions of the press, for their still more extensive and rapid diffusion. They would also urge upon the members of the Association individually the importance of exerting their moral and medical influence by means of lectures, publications, and private intercourse, in their respective localities; and by calm statements of the *truth*, and a stern refusal to connive at quackery themselves, or to sanction it in others, they could not fail to enlist on their side the thinking portion of the community, and through their means gradually influence the mass."

Dr. Cowan, who presented the report, said that, as evidence of the benefit produced by the agitation on the subject, the Liverpool Apothecaries' Company, in which many of the shareholders were medical men, had within the last year discontinued the sale of patent medicines. A druggist in Cheltenham had also given up their sale, having become convinced of its impropriety. The report was adopted, and the Committee were requested to continue their services.

The Committee of the Medical Benevolent Fund presented a report, in which regret was expressed at the imperfect support which it received. The subscriptions for the year had not been sufficient to meet the calls on the fund.

TENTH YEAR: 1841-42.

The ninth annual meeting was held at the Museum, York, on August 4th and 5th, 1841, under the presidency of Dr. Goldie, Physician to the Dispensary.

The number of members in the Association was reported to be 1,250.

An Address in Medicine was read by Dr. Streeten of Worcester, and papers were read by Dr. Fisher, Dr. Black, Mr. Newnham, and other members. Among the communications was one from Mr. Ceely, containing further observations on Variolæ Vaccinæ, illustrated by coloured drawings.

The meeting was attended by deputations from the following bodies: The British Medical Association, represented by Dr. G. Webster, Dr. Marshall Hall, and Mr. Bottomley; the North of

England Association, by Dr. Brown of Sunderland; and the Irish Association, by Dr. Maunsell and Professor Williams.

The Council reported that, on the occasion of the birth of the Princess Royal, they had presented congratulatory addresses to the Queen, H.R.H. Prince Albert, and H.R.H. the Duchess of Kent.

In the Report of Council, allusion was made, in the paragraph relating to the *Transactions*, to the means taken for the establishment of a weekly journal.

The Committee on Medical Reform presented a report, embodying a memorial to the Home Secretary in favour of the question of Medical Reform being taken in hand by the Government. After discussion, it was resolved:

"That the report of the Reform Committee be received; that the thanks of the meeting be given to them for the able manner in which they have watched over the interests of the profession; and that the Committee be reappointed."

A very elaborate report was presented by the Poor-law Committee, containing a careful criticism on the Report of the Parliamentary Committee. It was resolved:

"That the Report of the Poor-law Committee be received and printed, and that the thanks of the meeting be given to the Committee for the zeal and energy manifested by them on this subject; and that they be reappointed, to watch the further proceedings of Parliament, and to suggest to the Council from time to time such measures as may appear to them necessary to meet circumstances as they arise."

The Benevolent Fund Committee reported that they had been unable to afford any relief during the year, it having been decided that a debt of £60 18s. 7d. due to the Donation Fund should first be paid off, and that the sum of £100 should be in the hands of the Treasurer for the purpose of affording relief to distressed members.

The section on Medical Topography reported that printed circulars had been issued to the members of the Association, embracing several topics of inquiry, and particularly having reference to the comparative prevalence and mortality of Consumption. Several of the circulars had been filled up and returned, in some cases accompanied with valuable remarks. "But the principal object," the report stated, "for which these queries were made has been realised by the very important annual reports from the Registrar-General's office, and by the still more valuable (in a medical point of view) appendices affixed to them, containing the results of the labour and talent of Mr. Farr. To this gentleman, the thanks of the Association are due for the care and ability he has shown in the arrangement and calculation of the various difficult and complex tables, and for the labour he has devoted to the subject of medical statistics generally."

A report was presented from the Committee on Empiricism, in which they commented on some of the most frequently urged objections against legislative restrictions on quackery; and recommended, as means for its suppression, the abolition of the sanction of stamps and patents; the limitation of the practice of medicine to legally qualified persons; and the prohibition of the advertisement of nostrums unless their value and safety be previously ascertained by competent authority. They also recommended that all institutions for the cure or relief of diseases should be declared illegal, unless conducted or inspected by legally qualified medical men. The report was received, and the Committee were thanked and reappointed.

It was resolved unanimously:

"That, the attention of this Association having been called to the present state of the law as it affects female criminals under sentence of death, it desires to record its strong feeling of repugnance to a statute which permits the woman who has quickened to plead pregnancy in bar of execution, while the same individual, though equally the mother of a living child, but not having quickened, must suffer the extreme penalty of the law; thus making a distinction where there is no difference, and fatally, though ignorantly, sacrificing an innocent life with that of the guilty parent. And, though not prepared on the present occasion to take any decided steps, it fully recognises its obligation to adopt, at some future time, such measures as will, it trusts, lead to the abrogation of a law partial and cruel in its effects, inconsistent with the progress of knowledge and civilisation, and consequently revolting to the feelings and claims of humanity.

A section was appointed to investigate the pathology of cancer, consisting of the following gentlemen, with power to add to their number: Dr. Fisher (Cambridge); Mr. A. T. S. Dodd (Chichester); Mr. D. Noble (Manchester); Mr. Drewry Ottley (Exeter); and Mr. Henry Russell (York).

Eleventh Year: 1842-43.

The tenth annual meeting was held at the Athenæum, Exeter, on August 3rd and 4th, 1842: Mr. J. H. James, Surgeon to the Devon and Exeter Hospital, being President.

The number of members was reported to be 1350.

A Retrospective Address in Medicine was read by Dr. J. Black of Manchester. An Address in Surgery was to have been delivered by Mr. Sands Cox of Birmingham, but he was prevented, by being detained as a witness in a case of infanticide. Papers were read by Mr. W. Collyns, Dr. Wallis, Mr. W. Addison (on the corpuscles of the blood and the formation of tubercle), Dr. W. Budd (on symmetrical lesions), and several other members.

A letter from Dr. Branson of Cambridge was read, in which the formation of a publishing society was suggested for the consideration of the members. It was resolved "That the meeting offer their thanks to Dr. Branson for his suggestions relative to a medical publishing society, and the members would be happy to find that such a society could be supported by the profession."

The Medical Reform Committee presented a report of the proceedings of the past year.

The thanks of the general meeting were given to the Poor-law Committee, for the zeal and energy manifested by them on the subject of Poor-law medical relief. In February 1843, the Central Council and the Branches memorialised the Secretary of State on the remaining defects in the administration of medical relief, referring, *inter alia*, to the absence of specific directions for the regulation and increase of medical salaries, the inefficiency of the new regulations respecting the extent of medical districts, the continuance of the system of contracts for the services of medical practitioners (in regard to vaccination), and the proposed establishment of medical clubs in unions.

The Committee of the Benevolent Fund—of which Dr. Baron was president and Dr. William Conolly secretary and treasurer—presented a report, in which they expressed regret at the inadequate support which the fund had received, and appealed for increased aid. They noticed with satisfaction, that the regulations for the management of the Fund had been adopted almost *verbatim* by the Medical Benevolent Fund Society of Ireland, an institution lately formed, and which appeared to be taken up with great spirit and energy by the members of the profession in the sister country. It was resolved:

"That the report of the Benevolent Committee be received and adopted, and that the thanks of this meeting be given to them for the exertions they have made to increase the funds of this important Branch of the Association."

A special vote of thanks was given to Drs. Hennis Green and Streeten, for the liberal arrangements made by them for the weekly supply of the *Provincial Medical and Surgical Journal* to members of the Association.

Twelfth Year: 1843-44.

The eleventh anniversary meeting was held on August 2nd and 3rd, 1843, in the hall of the Philosophical and Literary Society at Leeds, under the presidency of Mr. William Hey, surgeon to the General Infirmary, and lecturer on surgery in the School of Medicine. Before the expiration of his year of office, this excellent member of a family celebrated in the annals of surgery died.

The number of members was 1,628, including honorary and corresponding members.

Retrospective Addresses were read, in Medicine by Dr. Shapter, and in Surgery by Mr. William Hey, junior. Papers were read by Mr. T. P. Teale, Mr. Nunneley, Mr. J. H. James, Mr. Estlin, Mr. Newnham, and Mr. W. Addison; and Mr. Sibson exhibited and explained his contrivance for making mechanical diagrams of the positions of the organs of the chest and abdomen in health and disease.

Dr. Hastings and Mr. Sheppard retired from the office of Secretary. It was decided to appoint a permanent President of Council, who would also act as Treasurer; and Dr. Hastings was elected by acclamation to the joint office. Dr. R. J. N. Streeten was appointed Secretary, with a salary of £100 *per annum*.

The Report of Council contained an account of the proceedings which had taken place during the past year with reference to medical reform.

The Committee of the Benevolent Fund presented a report to the annual meeting, in which they announced with satisfaction that, after having been obliged, from want of sufficient support, to suspend their operations for more than two years, they had been enabled since the last meeting to give relief to twenty cases of distress; the sum of £247 being thus expended. The report was received and adopted, and the thanks of the meeting were given to the Committee for the exertions they had made to increase the funds.

A vote of thanks was given at the meeting to Dr. Green and Dr. Streeten for the liberal arrangements made by them for the supply of the *Provincial Medical Journal* to the members of the Association.

THIRTEENTH YEAR: 1844-45.

The twelfth anniversary meeting was held at the County Hall, Northampton, on August 7th and 8th, 1844, under the presidency of Dr. Archibald Robertson, F.R.S., Physician to the General Infirmary.

The Council reported that 219 members had joined the Association during the year, and that the total number of members was 1,784.

A Retrospective Address on Anatomy and Physiology was delivered by Dr. William Budd, of Bristol; and a retrospective Address in Medicine by Dr. C. Cowan, of Reading. Papers were read by Mr. Newnham of Farnham, Dr. Faircloth, Mr. E. Daniell, and other members.

The following motion, with reference to the late President, was proposed by Dr. Favell of Sheffield, seconded by Mr. J. S. Soden of Bath, and carried unanimously.

"That this meeting is deeply sensible of the loss which the Association has sustained, since the last anniversary, in the decease of the President, Mr. Hey; and that they are desirous of recording, on this occasion, their feelings of esteem and veneration with which his memory must ever be regarded, and of offering to his family the sincere expression of their condolence and sympathy."

A deputation from the Taunton and West Somerset Medical Association attended the meeting, offering to join the Provincial Association. On the proposal of Dr. Hastings, it was resolved that the members of the Taunton Association be admitted and enrolled members of the Provincial Medical and Surgical Association, and constituted a Branch under the ordinary rules.

The report of the Council contained an account of the proceedings which had ended in a change of the management of the JOURNAL. In the course of the meeting, a proposal was made to raise the annual subscription to one guinea and a half. This met with no support; and a Committee was appointed "to take into consideration whether it be expedient for the Association to continue the publication of a weekly medical periodical".*

The subject of the establishment of schools of preliminary education of sons of medical men, on the principle of co-operation, was brought before the meeting by Mr. Thomas Martin of Reigate. He proposed the following motion, which was seconded by Dr. Forbes, and carried:

"That the following gentlemen do form a committee, with power to add to their number: Mr. Martin (Reigate), Dr. Hardwicke (Kensington), Mr. Nunneley (Leeds), Dr. Edwards (Chester), Dr. Heygate (Derby), Dr. W. Budd (Bristol), Dr. Hodgkin (London), Mr. Hodgson (Birmingham), Dr. Forbes (London), Mr. Daniell (Newport Pagnell), to consider the best means of establishing a school for the comprehensive and liberal education of the sons of medical men, and to report on the same either to the Council of the Association, or at the next anniversary."

With regard to Poor-law Medical Relief, the Council reported that, since the last anniversary, the whole subject had undergone an investigation before a Committee of the House of Commons, presided over by Lord Ashley. Much of the information afforded to the Committee was derived from the valuable reports published by the Association; and additional facts had been supplied by gentlemen who forwarded replies to a series of questions circulated by the Council. On the appointment of Lord Ashley's Committee, the Council, at the instance of the eminent surgeon Mr. Guthrie, who had taken much interest in the matter, nominated Mr. Robert Ceely of Aylesbury and Mr. H. W. Rumsey of Gloucester to represent the Association before the Committee. These gentlemen submitted a plan of which the following were the heads.

1. That the provision of medical aid for the poor be separated from the administration of the Poor-laws, with the reservation of certain powers to the Poor-law Commissioners and the Boards of Guardians. 2. That the administration of medical relief be combined with the regulation of the sanitary condition of the labouring population, and be committed to authorities, central and local, to be constituted expressly for the management of that department. 3. That the expenses of this public provision of medical and sanitary care be defrayed out of funds, distinct from the poor-rates, and to be raised for the purpose in every locality. 4. That an adequate remuneration, equitably adjusted, be paid to a sufficient number of medical officers, appointed to take care of the poor, in conveniently arranged districts. 5. That medicines be supplied to the sick poor by the proposed authorities, the cost thereof being defrayed out of the funds before mentioned; and that, in places where the separate provision of medicine may be impracticable, the medical officers be paid at a fixed rate for the supply of the same. 6. That the poor, when sick or hurt, be provided freely and promptly with aid, no official check being interposed between them and the relief they need; and that the receipt of medical relief shall not constitute them paupers.

The Committee of the Benevolent Fund reported that there had been a very satisfactory increase in the amount both of subscriptions and of donations; and that thirteen cases had been relieved at a cost of £105.

Beyond a statement of the events of the past year, scarcely any allusion was made to Medical Reform at the annual meeting. The subsequent proceedings of the Association with reference to this matter will be found in a future page.

* The following Committee was appointed: Dr. Budd (Bristol), Dr. Toogood (Bridgwater), Dr. Cowan (Reading), Mr. Soden (Bath), Mr. Estlin (Bristol), Mr. Smith (Southam), Dr. Black (Manchester), Mr. Wickham (Winchester), Mr. Newnham (Farnham), and Dr. Favell (Sheffield).

FOURTEENTH YEAR: 1845-46.

The thirteenth anniversary meeting was held at the Cutlers' Hall, Sheffield, on July 30th and 31st, 1845, under the presidency of Dr. Charles F. Favell, Physician to the Infirmary. Dr. Corden Thompson had been nominated at the previous annual meeting as president-elect, but declined to accept office, on the ground that he differed from some members of the Association on the subject of medical protection. Dr. Favell was, therefore, elected president at the meeting.

The number of members of the Association was stated to be 1,927.

A Retrospective Address in Medicine was delivered by Dr. Edward Charlton, of Newcastle-on-Tyne; and a Retrospective Address on Surgery by Mr. T. Pridgin Teale, of Leeds. A resolution was passed, that fifty copies of the Retrospective Addresses should in future be presented to their authors, at the expense of the Association.

A motion was proposed, that the sum of £100 should be paid from the funds of the Association to the Medical Benevolent Fund. After discussion, however, it was withdrawn. The Report of the Benevolent Fund showed that £220 had been distributed to twenty-four applicants. It was resolved:

"That a committee be appointed to consider the best means of improving the efficiency of the Benevolent Fund, and the various plans which had been prepared for that purpose, and to report on the same at the next anniversary meeting."

Mr. Daniell, of Newport Pagnell, brought forward a proposal for the establishment of an Annuity Fund for decayed members of the Association, and the widows and orphans of members. A committee was appointed to discuss and arrange the preliminary steps for its formation.*

A special report on a claim made by Dr. Hennis Green, for compensation for losses sustained in connection with the JOURNAL, was presented by the Council; and it was decided to raise the amount required (£516 11s. 4d.) by a voluntary subscription. It was also decided to reduce the size of the JOURNAL in order to lessen the expense.

The Committee appointed to consider the subject of establishing schools for the sons of medical men presented a report. Subscriptions to the amount of £1,610 only had been promised, and the Committee therefore requested a more efficient patronage of the plan, so that they might be enabled to invite a meeting of subscribers with a view to further proceedings.

A report was read from the Committee on Medical Reform, advocating uniformity of examination as essential. The report was adopted, and the Secretary was directed to send a copy at once to Sir James Graham, with reference to his Bill.

FIFTEENTH YEAR: 1846-47.

The fourteenth anniversary meeting of the Association was held at St. Andrew's Hall, Norwich, on August 19th and 20th, 1846, under the presidency of Mr. John Green Crosse, Senior Surgeon to the Norfolk and Norwich Hospital.

The number of members was stated in the report of Council to be 1,856.

A Retrospective Address in Medicine was read by Dr. W. Harcourt Ranking, of Bury St. Edmunds. Several papers were read, among which was one by Mr. Firth, referring to the presence of arsenic in the soil of various parts of the county of Norfolk, and the importance of this in medico-legal investigations. Mr. Avery, of the Charing Cross Hospital, showed instruments devised for examining the larynx, urethra, and other internal parts of the body. The President gave an account of some curious ancient documents relating to the practice of medicine and surgery in Norwich, which had been

* The Committee consisted of Dr. Robertson, Mr. H. Terry, Mr. R. Faircloth, Dr. Kerr, Dr. Mackness, Mr. Ceely, Mr. H. W. Ramsey, Mr. Henry Jackson, Mr. J. P. Garlick, Mr. J. Haxworthy, Mr. B. Greenwood, Mr. Thomas Paget, Mr. J. G. Crosse, and Mr. J. G. Appleton.

discovered by Mr. Goddard in investigating, by order of the authorities, the records of the city.

The Council reported that the amount of the subscriptions hitherto received on account of the fund proposed to be raised for the payment of the award made by the arbitrators in the claim of Dr. Hennis Green had fallen short of what had been anticipated; and therefore a part of the general funds of the Association had been applied towards defraying the claim. The management of the publications of the Association was again considered; and a Committee on the subject was appointed.

At the meeting at Norwich, it was proposed to raise a fund among the members of the Council for the purpose of offering prizes, and in other ways promoting scientific investigations; and the appropriation of the sum collected was entrusted to a committee.

With regard to Medical Reform, regret was expressed in the Report of the Council that a Medical Reform Act had not been passed. The Council, however, expressed an opinion in favour of a Registration Bill; and a Committee was appointed to petition in favour of such a measure.

Reference was made in the Report of Council to the intention announced on the part of Her Majesty's Government, to take the payment of the salaries of the Poor-law medical officers partly into the hands of the Government. Attention was also directed to the cases of Mr. Cantrell of Wirksworth, who had complained, but without effect, of the insufficient salary paid for his work, and Mr. Martin of Evesham, who had been refused a fee for a surgical operation. A Committee was appointed to consider the conduct of the Poor-law authorities with reference to these cases, and to take such steps as they might deem necessary. The Committee consisted of Mr. Bree (Stowmarket); Mr. Daniell (Newport Pagnell); Mr. Rumsey (Gloucester); Mr. Ceely (Aylesbury); and Dr. Toogood (Torquay). It was also recommended in the resolutions that a memorial to the Home Secretary should be prepared and signed by the President on behalf of the meeting. There is, however, in the account of the meeting in the *Provincial Medical and Surgical Journal*, no record of this having been done, or of any report having been made by the Committee.

A paragraph in the Report of Council called attention to the subject of the public health. It was remarked that, in the extensive measures contemplated for the improvement of the health of towns, there were many proposed provisions which could neither be properly estimated nor effectively carried out without the co-operation of medical practitioners; and therefore that the Association should have its attention directed to the subject.

The Committee appointed to consider the proposal for the establishment and organisation of a school for the sons of medical men reported that, notwithstanding the general assent with which the proposition was at first met, it had been received with such general indifference, and the amount of contributions was so inadequate, that they thought the scheme must be abandoned. At the same time, they hoped that the project might be revived at some future day under happier auspices and with a better result. The total amount promised had amounted to only £1,625; whereas it had been estimated that at least £10,000 would be required. The report was adopted; and Mr. Martin was thanked for his able advocacy of the matter.

The report of the Benevolent Fund showed that £155 had been distributed among seventeen claimants.

A report of the Committee appointed at the last meeting to carry out the project of establishing a General Medical Annuity Fund was presented by Mr. Daniell, who moved that the report of the Committee should be approved, and that the Fund should be considered an integral part of the Association. After some discussion, however, an amendment was carried: "That the Annuity Fund be not considered an object of the Association." A vote of thanks was unanimously given to Mr. Daniell, whom all acknowledged to have been stimulated in his exertions by the purest benevolence and kindness.

Sixteenth Year: 1847-48.

The fifteenth anniversary meeting was held in the Town Hall, Derby, on August 4th and 5th, 1847: the President being Dr. James Heygate, Physician to the Derbyshire General Infirmary.

The number of members was reported to be 1858.

An Address in Surgery was delivered by Mr. J. H. Walsh, Worcester, the subject being "the Inhalation of Sulphurous Ether." Dr. Shearman of Rotherham delivered the Address in Medicine; it was "A Retrospective Sketch of the Advances made in the Detection and Treatment of some of the Principal Diseases of the Chest, with a glance at the changes observed in the Secretions during their course." Mr. Sibson showed his new instrument for ascertaining the comparative movements of the chest in respiration; and several papers were read by members.

A motion was carried, on the proposal of Mr. Soden, seconded by Dr. Hastings, for the appointment of a Committee "to consider the expediency of making some alterations in the laws of the Association; especially with regard to the admission of members, the manner of dealing with those who offended against ethical laws, and the subject of arrears." The Committee consisted of Dr. John Conolly (Hanwell); Mr. Soden (Sunbury); Mr. T. Paget (Leicester); Mr. Nunneley (Leeds); and Mr. Martin (Reigate). On the following day, the Committee recommended that notice of alterations in the laws should be given for the next annual meeting.

Reports were presented from the Committee on the publications of the Association, stating their opinion as to the best means of giving them the highest possible character. The reports were unanimously approved. In accordance with the recommendation of the Committee, Dr. W. H. Ranking, Editor of the *Half-Yearly Abstract of the Medical Sciences*, was appointed foreign editor. A series of questions on the medicinal action of Arsenic was issued, of which Mr. Hunt was appointed to receive the answers; and Mr. D. W. Crompton of Manchester was appointed to draw up a report on Burns and Scalds, embodying, as far as possible, the experience and opinions of the profession.

The report of a meeting of Poor-law medical officers and other medical men, held at Matlock Bath on July 28th, 1847, to consider the question of remuneration and other matters, was read to the meeting by Mr. Cantrell of Wirksworth, who had acted as chairman. The resolutions adopted at the meeting were to the effect that the remuneration of Poor-law medical officers was unequal, and in most cases inadequate; and that the treatment which they received from Boards of Guardians and Poor-law Commissioners tended to lower the status of the profession; that the medical department of the Poor-law could only be carried out satisfactorily by medical men practically acquainted with the sanitary condition of the poor and the duties required of the medical officers; and that illegal practice had increased to so serious an extent as to demand abolition. After a long discussion, the following members were appointed a committee to consider the subject: Dr. Hodgkin, Dr. Hutchinson, Mr. Eddison, Mr. Sibson, Mr. Borough, Mr. Martin, Mr. Tasker, and Mr. Price. This committee drew up a remonstrance, addressed to Sir George Grey, the Home Secretary; and it was decided that the President of the Association, with the members of the committee, should form a deputation for the purpose of presenting it.

In October, the members of this committee, in conjunction with other medical men, summoned a meeting of Poor-law medical officers, which was held at the Hanover Square Rooms, and at which a committee was appointed (including the President of the Association, Dr. Hodgkin, and others), to promote reform in the administration of Poor-law medical relief. In November, the committee, of which Dr. Thomas Hodgkin was appointed chairman, sent a circular letter to the medical officers of unions, requesting answers to a series of questions on population, acreage, number of sick, salary, extras, etc.; and asking opinions as to *(a)* payment per case; *(b)* a fixed salary based on the number of cases attended and the mileage; *(c)* payment for extra cases exclusive of midwifery; *(d)* fixed payment founded on the number of population and area. In April 1848, a deputation from the general committee of Poor-law medical officers had an interview with Mr. Buller, the President of the Poor-law Commission, and presented a series of resolutions in favour of fixed salary, extra payment for midwifery and important surgical cases, payment of the whole medical attendance of the poor from the consolidated fund, the appointment by Government of a director-general and inspectors-general of Poor-law medical practice, permanence of appointment of medical officers, and the granting of medical relief as a loan in cases of temporary destitution. On May 30th, a deputation of Poor-law medical officers, with representatives of the Provincial Medical and Surgical Association, and also the President and other members of the Royal College of Surgeons of England and the Master and Wardens of the Society of Apothecaries, had an interview with Sir George Grey, and urged on his consideration the claims of the medical officers.

The proceedings of the past year with respect to Medical Reform were summarised in the Report of the Committee; and, at the annual meeting, it was resolved "That the Committee be empowered to take such proceedings to advance the progress of Medical Reform as to them may seem necessary; and, that in any case of difficulty which may arise they be requested to consult the following gentlemen: Dr. Lyon (Manchester), Mr. Soden (Sunbury), Mr. Martin (Reigate), Dr. Chambers (Colchester), Mr. Bree (Stowmarket), Dr. Radford (Manchester), and Mr. Norman (Bath)."

In 1848, on the promulgation of a proposed Charter of the Royal College of Physicians, the Council called the attention of the Physicians in England residing in the provinces to the bearing of the charter on

their rights and privileges; and, in April, in a memorial addressed to the College, they pressed on that body the alterations which had been suggested. With one exception (viz., a proposal that Doctors of Medicine of British Universities, whose degrees dated from 1848, and were in general practice might at any time hereafter be admitted to the College on retiring from such practice, without examination, and on payment of a fee), the recommendations of the Council were adopted by the College, and embodied in the draft of the new Charter. Early in the year, a conference was held between the Medical Corporate bodies and a local society of general Practitioners called the National Institute of Medicine, Surgery, and Midwifery; and the heads of a measure of medical legislation were agreed on, including the appointment of a General Council, registration of practitioners and of students, reciprocity of practice, etc. On the publication of this document, the Council appealed to the members of the College of Surgeons in general practice, and residing in the provinces, for an expression of their opinion, but did not receive any communications which rendered it necessary to adopt measures on the subject.

The report of the Medical Benevolent Fund, presented at the annual meeting in Derby, showed that relief to the amount of £155 had been afforded in seventeen cases during the year. Dr. William Conolly resigned, on account of failing health, the joint office of secretary and treasurer, which he had held from the institution of the fund; and Mr. William Newnham of Farnham was appointed in his room.

The Council reported that the proposal made at the previous annual meeting to raise a prize fund had been so far successful, that they had been enabled to offer £50 as a prize for the best report on "The Cerebral Affections of Infancy."

In compliance with a recommendation in the report of Council, the following gentlemen were appointed, at the annual meeting, a Committee to watch the progress of any sanitary measures which might be brought forward in Parliament: Dr. J. Conolly (Hanwell); Dr. Soulby (Dover); Dr. Duncan (Liverpool); Dr. Hodgkin (London); Mr. Nunneley (Leeds); Mr. Soden (Sunbury).

Seventeenth Year: 1848-49.

The sixteenth anniversary meeting was held at the Assembly Rooms, Bath, on August 16th and 17th, 1848, under the presidency of Mr. George Norman, Senior Surgeon to the Bath United Hospital. It had been decided in 1847 that the meeting should be held at Taunton; but the illness, and subsequent death, of the President-elect, Dr. Macmullen, led to a proposal that the meeting should not take place in that town, but at Bath. Accordingly, the Council of the Association availed themselves of the opportunity of summoning the Association to meet a second time in that city.

The number of members of the Association was reported to be 1,795.

Dr. William Davies of Bath delivered the Address in Medicine, the subject being "Maculated Fever". A biographical memoir of the late Dr. Holme of Manchester, a vice-president of the Association, written by Dr. Charles Henry, was read by Dr. Hastings. Mr. Spry of Truro communicated a case, in which he had produced local anæsthesia by chloroform, in the removal of a tumour from the foot; Dr. Hastings communicated a case of paralysis, following the continual use of arsenic in small doses; Dr. Barham of Truro read suggestions for an inquiry into the Medical Topography of England; and papers were also read by Dr. Tunstall of Bath, Mr. W. Jackson of Sheffield, Dr. Cowan of Reading, and other members.

For the Prize of £50, offered by the Council, for the best essay on the Cerebral Affections of Infancy, there were two competitors. The judges, Dr. Heygate of Derby and Dr. Robertson of Nottingham, reported that both essays were of a very high order of merit. The prize was awarded to Dr. Alexander Duke, of Great Brunswick Street, Dublin.

Dr. George B. Wood, Professor of Materia Medica in the University of Pennsylvania, was present at the meeting as a delegate from the American Medical Association. Dr. Wood was appointed a honorary corresponding member; and was requested to convey to the American Association the thanks of the Provincial Medical Association, with an expression of reciprocity of fraternal sentiments.

The Committee on the Amendment of the Laws brought up a report, recommending for adoption two new laws: one providing for the removal of members found to have been guilty of professional impropriety in their conduct, by the vote of the majority at a general meeting; and another providing for the payment of the subscription of one guinea in advance, and the withholding of the publications of the Society from members who had not paid at the end of the year. The suggestions of the Committee were approved, and the regulations proposed by them were ordered to be incorporated with the laws of the Association.

The report of the Medical Benevolent Fund stated that, though the number of cases relieved had been less than in the previous year, the amount of subscriptions had not been sufficient to enable the committee to afford adequate succour.

Dr. William Budd called attention to a recently passed by-law of the Royal College of Surgeons of England, and pointed out the injustice which it inflicted on the provincial schools. He moved the following resolution, which, after discussion, was carried with only one dissentient.

"Having observed that, according to one of the by-laws of the College of Surgeons, regulating the course of study required of those who desire to become candidates for the Fellowship, three years of that course must necessarily be passed in attendance on London schools or hospitals, the Association begs most earnestly to protest against such regulation, as introducing a principle hitherto unknown in the by-laws of the College. Up to this time, persons presenting themselves for examination to the College have not had any questions put to them, as to whether their educations were obtained in London or in the country; and the Association would beg respectfully to impress upon the Council of the College how desirable it is that the same spirit should continue to govern the regulations to be observed by all persons who present themselves for examination, whether for the Membership or Fellowship—the examination the candidate may be able successfully to undergo being, as heretofore, the test of qualification."

The Committee on Poor-law Medical Relief presented a report of the proceedings of the past year, and the following resolution was adopted on the proposal of Dr. Cowan (Reading), seconded by Dr. Wallis (Bristol):

"That this meeting, having fully considered the present false position of Poor-law medical officers, is of opinion that the interests of the profession, of the sick poor, and of the ratepayers will be essentially advanced by the plan of amended legislation, deduced from a return of facts and suggestions received from Poor-law medical officers throughout the country, and appended to the memorial recently presented to Sir George Grey by the Convention of Poor-law Medical Officers. It therefore pledges itself to use its continued influence in support of the plan, and to memorialise the Government, in order that it may be embraced in any new measures which may be enacted.'

It was also agreed that a memorial in favour of the plan of the Convention should be forwarded to Mr. Charles Buller, the President of the Poor-law Board.

In commenting on the subject of Medical Reform, in their Report, the Council remarked that it was to be hoped that the information collected by the Committee of the House of Commons (appointed in accordance with the proposal of Mr. Wakley) would conduce to the introduction of a Bill into the House at an early period of the next session of Parliament, under such favourable auspices as would insure its passing into a law. No further steps appear to have been taken at the time by the Association; nor did anything of importance in relation to Medical Reform occur during the remainder of the year.

In May, 1869, Dr. Streeten, who had for several years filled the offices of Secretary and Editor, died in the forty-ninth year of his age. At the first meeting after his death, the Worcester Council unanimously passed a resolution expressing their high sense of his merit, and their deep regret that the Association had been deprived of his able, indefatigable, and zealous services, at a period of life which gave promise of many years of usefulness.

Eighteenth Year: 1849-50.

The year 1849 is memorable as being that in which the Association visited the place of its birth. On August 1st and 2nd, the seventeenth anniversary meeting was held at Worcester, in the rooms of the Natural History Society, under the presidency of Dr. Hastings, Physician to the Worcester Infirmary, and founder of the Association.

The number of members on the list was reported to be about 1,760.

An Address in Physiology was delivered by Dr. Sibson, of Nottingham; and Dr. C. W. Bell, of Manchester, delivered an address in Medicine.

Mr. J. P. Sheppard, of Worcester who had previously filled the office of secretary to the Association in conjunction with Dr. Hastings, was again elected Secretary, in the room of the late Dr. Streeten.

The President and Vice-Presidents of the Association were appointed a Committee, with power to fill up the vacancy in the office of Editor, the appointment being subject to confirmation or rejection at the annual meeting in 1850. A proposal that the Committee should inquire into the cost of the production of the JOURNAL, and whether it should continue to be printed at Worcester, was lost. In September

Dr. W. H. Ranking of Norwich, and Mr. J. H. Walsh of Worcester, were appointed joint editors.

The following resolution, with regard to the epidemic of cholera then prevailing, was adopted at the annual meeting:

"That the Council be requested to take into their consideration whether it will not be desirable, as soon as the present epidemic of cholera shall have passed away, to issue a series of questions similar to those issued after the close of the epidemic extant in 1837, requesting information respecting the origin, progress, and duration of the epidemic; its symptoms and treatment; the atmospheric phenomena preceding and attending it; together with such other particulars as may be necessary for the elucidation of many questions of interest connected with its appearance."

In pursuance of this resolution, a series of fifteen questions was issued, the replies to which were collected and summarised by Mr. Thomas Hunt, of London, and published in the JOURNAL for 1849 and 1850.

A case in which the professional conduct of a member was seriously involved came before the meeting. A Mr. Blake had some time previously, by means of false certificates, obtained a diploma from the College of Surgeons, and commenced practising. The West Somerset Branch brought the matter before the College of Surgeons, who removed Mr. Blake's name from their list, and deprived him of his diploma. He still, however, continued to practise in Taunton; but the profession there refused to associate with him, or meet him in consultation. Mr. Edwards of Wiveliscombe, on the contrary, had frequently gone to Taunton and consulted with Mr. Blake. In addition to being a member of the Association, Mr. Edwards was the President-elect of the Taunton Branch. The Branch brought the matter before the Worcester Council; and, in accordance with their advice, requested Mr. Edwards to resign the presidency; which he accordingly did. Mr. Edward's name still remained on the books of the Association; and it was, therefore, necessary to carry into operation the rule framed for the purpose of meeting such cases. Accordingly, the name of Mr. Edwards was removed from the list of members of the Association, "on account of unprofessional conduct in habitually consulting with an unqualified person". A resolution was also unanimously passed, expressing high admiration of the conduct of the West Somerset Branch in acting with so much decision and energy in upholding the dignity and honour of the profession.

A Committee, consisting of Dr. Greenhill, Dr. Robertson, Dr. J. Conolly, Dr. Mackness, and Mr. Flint, was appointed to consider the best mode of bringing the subject of Medical Ethics before the Association, and to draw up a short code of Medical Ethics to be forwarded to the Central Council before the annual meeting in 1850.

The report of the Medical Benevolent Fund showed that thirty-four applicants had received aid during the past year.

The Association at the annual meeting appointed a Committee, consisting of the President of the Association, Dr. Baron, Mr. Ceely, Dr. J. Conolly, and Dr. Forbes, to correspond and co-operate with the Committee formed in London for the erection of a public monument to the illustrious Jenner, the discoverer of vaccination.

Mr. C. F. J. Lord, the Secretary to the Poor Law Medical Convention, attended as a deputation from that body. He thanked the Association, in the name of his Committee, for the support which the Association had given to the cause of the Poor-law medical staff, and asked a further expression of opinion on the subject. It was resolved unanimously: "to again memorialise the Poor-Law Board, and petition Parliament, to obtain a system of Poor-law medical relief, with regulations relating to sanitary matters, at once favourable to the poor, just to the medical officers, and equitable to the ratepayers."

Attention was called at the Annual Meeting by Dr. Sibson, on behalf of Dr. Toogood, of Torquay, who was unavoidably absent, to the prevelance of secret poisoning by arsenic. A Committee, consisting of Dr. Sibson, Dr. Tunstall, and Mr. Fuge, was appointed to draw up a petition on the subject. This was done, and a petition was adopted by the meeting, containing the following suggestions:

"That no druggist or shopkeeper be allowed to sell arsenic without a licence, under a penalty. That no person be allowed to sell small quantities of arsenic, unless combined with some material, the administration of which with food would at once be detected by the appearance or taste. That no person should be allowed to purchase arsenic unless accompanied by a witness. That the vendor should keep a book, in which he should make an entry of every sale of arsenic, to which the purchaser and his witness should affix his name and place of abode, and that this should be attested by the vendor."

In July, 1850—to the great gratification and pleasure not only of the Association, but of the medical profession generally—the honour of knighthood was conferred by her Majesty on Dr. Hastings.

NINETEENTH YEAR: 1850-51.

The eighteenth annual meeting was held in the rooms of the Literary and Philosophical Society, Hull, on August 7th and 8th, 1850; Dr. Fewster R. Horner, Senior Physician to the General Infirmary, being President.

Immediately after the delivery of the President's Address, the following resolution was proposed by Mr. Caleb Williams of York, seconded by Dr. John Conolly, and carried by acclamation: "That the members of the Association wish, at the commencement of their proceedings on the present occasion, to express to their esteemed President, Sir Charles Hastings, its founder, their cordial congratulations on the honour recently conferred on him by Her Majesty; and to record the feelings of sincere gratification which it has afforded them, whether regarding it as an honour eminently deserved, or as a most gracious acknowledgment on the part of the Queen, of those accomplishments, exertions, and virtues, which best contribute to adorn and dignify the medical profession."

The number of members in the Association was reported to be about 1,800.

An Address in Medicine was delivered by Dr. Henry Cooper of Hull, the subject being Secondary and Associated Diseases. Papers were read by Dr. Radclyffe Hall, Dr. Sibson, Dr. Paxton, and other members.

The appointment of Editors, made by the Central Council, was approved; and a Committee, consisting of Dr. Robertson, Mr. Soden, Dr. Conolly, Dr. Lyon, and Sir Charles Hastings, was appointed to consider whether any and what improvements could be effected in the publications of the Association.

The report of the Arsenic Committee was presented; and the following resolution was adopted:

"That a petition against the indiscriminate sale of poisons be presented to both Houses of Parliament, similar to that presented in March last, and that the Branches of the Association be recommended to adopt similar petitions."

The Committee were thanked for their labours, and re-appointed. In the following year, a Bill founded on the recommendations of the Committee was introduced into Parliament, and passed into law.

The Report of the Medical Benevolent Fund stated that £439 had been distributed among 45 applicants. The Committee of the Fund had hitherto sat at Cheltenham; but it was now decided to remove it to London.*

A report was presented by the Committee on Cholera; and it was resolved: "That the thanks of the meeting be given to Mr. Hunt, of Bedford Square, London, for having made strenuous exertions to obtain information from the members of the Association relative to the spread of the late epidemic of cholera in this country; and also to Dr. Williams of Worcester, for having made the abstract from the replies, which has been read at the anniversary; and that the same be published in the ensuing volume of *Transactions* of the Association."

A deputation from the Shropshire Branch, consisting of Mr. W. P. Brooks and Mr. Cartwright, attended the meeting for the purpose of soliciting the advocacy by the Association of the claims of the medical officers of the Army and Navy and Militia services. The subject was very ably brought before the meeting by Mr. Brooks and Mr. J. S. Soden (who had accompanied Sir Ralph Abercrombie's expedition in 1801); and a memorial to Lord John Russell, then Prime Minister, praying that the medical officers of the army and navy might be admitted to a share in the distribution of military honours by the Queen, was adopted. A resolution was also passed, thanking Lieutenant-General Sir Howard Douglas and Major-General Sir De Lacy Evans "for their lucid description, in the House of Commons, of the perilous nature of the services rendered by the medical officers of the army and navy; and for their generous and eloquent advocacy of their claims to military honours."

The subject of Medical Topography, to which much attention had been paid in the earlier years of the Association, but which had fallen into abeyance, was brought before the meeting by Dr. Lyon; and it was resolved:

"That next year, in the district to be visited by the Association, a request be made that the subject be revived, either by adding to the papers already published in the Society's *Transactions*, or *vivâ voce*, or by some voluntary way, such as may meet the convenience of the party or parties on whom the performance may devolve."

Dr. Mackness, of Hastings, was appointed to prepare a paper on the

* The members of the Committee appointed were: Mr. John Bacot, Dr. Bernard, Dr. G. Burrows, Dr. Cameron, Mr. John Churchill, Sir James Clark, Bart., Dr. J. Conolly, Dr. W. Conolly, Mr. T. C. Cook, Mr. T. Copeland, Dr. Forbes, Mr. T. Hewlett, Mr. T. Hunt, Mr. J. Ince, Dr. Lear, Mr. F. Salmon, Mr. J. Soden, Mr. J. Toynbee, Dr. C. West, and Dr. C. J. B. Williams.

medical topography of the county of Sussex, for the next annual meeting.

The report of Council contained a statement of the proceedings of the year with respect to medical reform. They had requested all the members to consider the subject and repeat their decision to the Council; taking as a basis the principles of uniform and sufficient qualification, equal right to practice, and the representative principle in the formation of the Councils or governing bodies. On the replies received, the Council had forwarded a memorial, which had been presented by the President of the Association, to Sir George Grey.

TWENTIETH YEAR: 1851-52.

The nineteenth anniversary meeting was held at the Pavilion, Brighton, on August 13th and 14th, 1851, under the presidency of Dr. George S. Jenks, Physician to the Surrey County Hospital.

The number of members was stated in the report of Council to be about the same as at the last anniversary.

Mr. B. Vallance, of Brighton, delivered an Address in Surgery; and Dr. W. King, of the same place, the Address in Medicine. Dr. Mackness having died during the year, a lecture on the Medical Topography of Surrey was delivered by Dr. Gideon Mantell. Papers were read by Dr. Malden, Dr. Conolly, Mr. Bree, Dr. Radclyffe Hall, and other members.

The Committee on the publications of the Association presented a report, in which, *inter alia*, they expressed the opinion that the JOURNAL should continue to be published once a fortnight; that the system of conjoint editorship should be continued; that the reviews should be analytical rather than critical; that the editorial or leading articles should be continued; and that prizes should be given for Hospital Reports. The report was approved.

It was stated that, in consequence of various circumstances, the Committee on Medical Ethics, appointed at Worcester, were not yet prepared with a report. The president, in his opening address, alluded to the quackeries and impostures of the day; and the subject was formally brought before the meeting by the appointment of a Committee, consisting of Dr. Cormack, Dr. Tunstall, and Dr. Ranking, to consider the course proper to be adopted with respect to irregular practice. The Committee, the next day, presented a report, embodying a series of resolutions condemnatory of homœopathy.* The report was adopted, and a Committee, consisting of Sir C. Hastings, Dr. Cormack, Dr. Tunstall, Dr. Ranking, Dr. Malden, and Dr. Cowan, was appointed to frame laws on the subject.

A report was presented from the Arsenic Committee, describing their successful operations in getting their recommendations respecting the sale of arsenic adopted in Parliament.

The subject of the income-tax, as it affected members of the medical profession, was brought before the meeting by Dr. Thomas Smith of Cheltenham; and a Committee, consisting of Dr. Smith, Dr. Malden, Mr. Fowler, Dr. Cannon, Mr. Colthurst, and Mr. Lowe, was appointed "for the purpose of investigating the subject of taxation, so injuriously and oppressively affecting the medical profession."

TWENTY-FIRST YEAR: 1852-53.

The annual meeting in 1852 was held on July 21st and 22nd, at Oxford, under the presidency of Dr. J. A. Ogle, Regius Professor of Medicine in the University. Manchester had been fixed on as the place of meeting; but, soon after the last anniversary, the venerable Regius Professor of Medicine, Dr. Kidd, who had presided over the Association in 1835, expressed to the Council a wish that the anniversary meeting might take place in Oxford, and recommended Dr. Ogle as President. With the concurrence of the Manchester Council, and also in view of some temporary difficulties which stood in the way of holding the meeting in Manchester, it was determined to hold the meeting in Oxford. Dr. Kidd, however, had not the gratification of again meeting the members of the Association; he died while the necessary arrangements were being completed. The number of members was stated in the report of Council to be 1,625.

The Address in Medicine was delivered by Dr. Eason Wilkinson of Manchester; and that in Surgery by Mr. J. Torry Hester of Oxford. Papers were read by Mr. Hussey of Oxford, Mr. Toynbee of London, and Dr. Hutchinson of Derby.

During the meeting, the honorary degree of D.C.L. was conferred by the University on Sir Charles Hastings, Dr. John Forbes (who was not long afterwards knighted), and Dr. John Conolly.

The report of the Committee on the Property and Income Tax, appointed at the preceding annual meeting, was read by Dr. Thomas Smith of Cheltenham. The hope was expressed in the report that the tax would, in the next session of Parliament, be either materially modified or totally repealed; and the members of the Association were recommended to petition against its continuance.

The report of the Committee on Irregular Practice was read at the annual meeting. It concluded by proposing the following by-laws, which were adopted.

"1. That candidates for admission to the Provincial Medical and Surgical Association shall be required to state, in writing, to the members proposing them, that they neither are, nor intend to become, professors or practitioners of homœopathy.

"2. That, when any member is convicted by the Central Council, or by any of the local councils, of practising homœopathy, or of holding professional intercourse with a homœopathic professor or practitioner, this conviction, along with the necessary proof of its justice, shall be officially reported by the Secretary of the Central Council, or by the Secretary of any of the Local Councils, to the next ensuing anniversary meeting of the Association; that it shall then be competent for the meeting, providing there be a concurring majority of two-thirds of those then present, to direct the president in the chair to erase the name of such convicted member at once from the roll of members; but, that it shall likewise be competent for the meeting, by a simple majority, either honourably to acquit the accused, or to accept from him, in entire satisfaction for his conduct, an expression of regret, and a promise not to repeat it; or to postpone final judgment till the next anniversary meeting."

The draft of a Medical Reform Bill, which had been drawn up by Mr. George Hastings, was considered and approved; and a committee was appointed to take charge of it, consisting of Dr. Robertson, Mr. Cartwright, Mr. Walsh of Worcester, Mr. Bore of Stowmarket, Mr. Noble of Manchester, and Mr. Bottomley of Croydon.

A change of great importance in its bearing on the welfare of the Association was this year made in the management of the JOURNAL. At the meeting in Oxford, a proposal was brought forward by Dr. Cowan of Reading, who supported it in an eloquent and vigorous speech, that the JOURNAL, instead of being published fortnightly at Manchester, "should be issued weekly, and edited and published in London." After a full discussion, the motion was carried; and a Committee was appointed to carry out Dr. Cowan's proposal, consisting of Dr. Cowan, Dr. James Edwards, Dr. Greenhill, Mr. Thomas Hunt, and Dr. George Webster. The Committee soon afterwards appointed Dr. John Rose Cormack as editor. Dr. Alexander Henry was appointed Sub-editor, and still continues to hold the office. In the beginning of January 1853, the first number of the JOURNAL under the new arrangement appeared in London, under the title of the ASSOCIATION MEDICAL JOURNAL.

In 1852, two prizes of £21 each, offered by the Council for the best reports of medical and of surgical cases, were awarded; that for medical cases to Mr. Arthur Oakes, and that for surgical cases to Mr. W. J. Moore.

TWENTY-SECOND YEAR: 1853-54.

Swansea having been chosen at the meeting in Oxford as the place of meeting for 1853, the members assembled there on August 10th and 11th, under the presidency of Dr. George Gwynne Bird, Physician to the Infirmary. The address in Surgery was read by Mr. Augustin Prichard of Bristol; and that in Medicine by Dr. Radclyffe Hall of Torquay, who chose as his subject "Nature's Modes of Arresting

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* "1. That it is the opinion of this Association that homœopathy, as propounded by Hahnemann and practised by his followers, is so utterly opposed to science and common sense, as well as so completely at variance with the experience of the medical profession, that it ought to be in no way or degree practised or countenanced by any regularly educated medical practitioner. 2. That homœopathic practitioners, through the press, the platform, and the pulpit, have endeavoured to heap contempt upon the practice of medicine and surgery as followed by members of this Association and by the profession at large. 3. That for these reasons it is derogatory to the honour of members of this Association to hold any kind of professional intercourse with homœopathic practitioners. 4. That there are three classes of practitioners who ought not to be members of this Association, viz., 1st, real homœopathic practitioners; 2nd, those who practise homœopathy in combination with other systems of treatment; and 3rd, those who, under various pretences, meet in consultation, or hold professional intercourse with, those who practise homœopathy. 5. That a Committee of seven be appointed to frame laws in accordance with these resolutions, to be submitted to the next annual meeting of the Association. 6. That the thanks of the Association are eminently due and are hereby given to the Presidents and Fellows of the Royal Colleges of Physicians and Surgeons of Edinburgh for their determined stand against homœopathic delusions and impostures. 7. That the thanks of the Association are also due and are hereby given to the Universities of Edinburgh and St. Andrew's, for their resolution to refuse their diplomas to practitioners of homœopathy; but the Association feels imperatively called on to express its disapproval of any school of medicine which retains among its teachers anyone who holds homœopathic opinions. 8. That these resolutions be printed, and transmitted to all the medical licensing bodies and medical schools in the United Kingdom; and that they likewise be inserted in the *Times* newspaper, the *Morning Post*, the *North British Advertiser*, *Saunders's News Letter*, all the British and Irish medical periodicals, and in such other journals as the Council may sanction upon the recommendation of the Branch Associations."

Tubercular Disease of the Lungs." Papers were read by Dr. Tunstall, Dr. Thomas Williams, and Dr. Sibson.

The report of Council stated that the number of members on the list was 1,853.

An animated debate took place in connection with the reports of the Central Council and of the Journal Committee on the results of the change in the management of the JOURNAL. Sir Charles Hastings and other members expressed their appreciation of the improvement which had taken place in the character of the JOURNAL, but, at the same time, felt alarm at the expense which was incurred, and which was apparently not met by the income. On the other hand, Mr. Michael, Dr. Cowan, and others, held that the financial position was more satisfactory than had been represented by the Central Council; and it was pointed out that much of the difficulty arose from the non-payment of subscriptions, the arrears due at the time amounting to £1,093. Ultimately, the Report of the Journal Committee was received and adopted, and the Committee were requested to continue their labours."

The Committee on Medical Reform presented a report in which they recapitulated the proceedings of the past year, and were reappointed.

The eighteenth annual report of the Medical Benevolent Fund was presented. It stated that seventy cases had been relieved at a cost of £654, and appealed earnestly for extended support.

A rather unpleasant personal matter came under consideration during the meeting. Professor Syme of Edinburgh, who had not long joined the Association, had withdrawn in consequence of some remarks on professional disputes in Scotland, contained in the address in Surgery delivered at Oxford by Mr. Hester. After some discussion, the following resolution was adopted.

"That the Association regrets that there should be any misunderstanding between Mr. Syme and Mr. Hester; but that the Association does not hold itself responsible for the sentiments expressed in the papers which may be published in the *Transactions*, and recommended for publication on account of their general merits."

The important subject of Medical Ethics was brought before the annual meeting in 1853, by Mr. W. H. Michael; and the following resolution was adopted in accordance with his proposal.

"That a Committee, consisting of Dr. Cowan, Dr. Sibson, Dr. Cormack, and four other members, along with the secretaries of the District Branches, be appointed to frame a code of ethical laws for the Association, and to report to the next annual meeting."

In March 1854, Mr. J. P. Sheppard of Worcester died. He had rendered valuable service to the Association as Secretary, in conjunction with Dr. Hastings, from its formation in 1832 until 1843; and again as sole Secretary from 1849 up to the time of his death. In a biographical notice by Sir Charles Hastings (JOURNAL, March 17th, 1854), the writer says: "It is not necessary for me to speak of the manner in which he performed these duties. Every member can himself bear testimony to the courtesy, the exactitude, the industry, and the ability he displayed in his prominent and difficult position." Dr. P. H. Williams, physician to the Worcester Infirmary, was appointed by the Council his successor in the office of Secretary.

TWENTY-THIRD YEAR: 1854-55.

The twenty-second annual meeting, held at Manchester on September 13th and 14th, 1854, was presided over by Mr. William James Wilson, Surgeon to the Royal Infirmary of that city. Dr. Conolly delivered an address in Medicine, on the "Non-restraint System in the Treatment of Insanity"; and Dr. Radford of Manchester delivered an address in Midwifery.

The number of members of the Association was stated in the Report of Council to be 2,227.

The death of Mr. Sheppard, Secretary to the Association, was alluded to in feeling terms in the report; and a special resolution, expressive of grateful recollection of his services, was unanimously adopted by the meeting. As already stated, Dr. P. H. Williams of Worcester had been appointed his successor *pro tempore*, and the ratification of the appointment by the meeting was suggested by the Council. An amendment, however, was brought forward by Dr. Cowan of Reading, and seconded by Mr. Peter Martin of Reigate, to the following effect: "That, in consequence of the transference of the publication of the JOURNAL from Worcester to London, a paid Secretary at Worcester is no longer desirable; and that the duties of the office be in future discharged by the Editor of the JOURNAL, in conjunction with a salaried commercial assistant, who shall keep all the Association accounts, collect the subscriptions of members, and assist in the commercial department of the JOURNAL."*

The proposal of Dr. Cowan, after a prolonged debate, was adopted by a large majority. After formally accepting the appointment of Secretary to the Association, Dr. Cormack referred to the efficient manner in which Dr. Williams had performed his duties, and proposed a resolution, which was carried unanimously, that the best thanks of the Association should be given to Dr. Williams, and that his salary should be paid up to the end of a year from the date of his appointment.

In connection with the preceding subject, a question arose as to the constitution and powers of the central Council at Worcester. It appeared that the members of the General Council at Worcester had hitherto acted by usage, without any delegation of power from the great body of the Association. After consideration, it was decided—

"That the members of the General Council resident in and within twenty miles of Worcester be requested to act as an Executive Council, and to continue their services as hitherto in furtherance of the business of the Association, to which Executive Council the Editor of the JOURNAL and the Secretary of the Association shall be responsible."

The annual meeting in 1854 witnessed the opening of the discussion of a question of the highest importance to the Association: viz., the change of its name. It had for some time been felt by many members that, as the Association now contained a considerable number of metropolitan members, and as it in fact sought to unite the profession in Great Britain, the name "Provincial Medical and Surgical", by which it had hitherto been known, was no longer appropriate, and that the Society should be called the "British Medical and Surgical Association". A motion embodying this opinion was proposed by Mr. Peter Martin and seconded by Dr. Lankester. After a discussion, however, the motion was withdrawn; and a resolution was adopted,

"That, in the opinion of this meeting, the representative principle ought to be fully adopted in the constitution of the governing Council of the Provincial Medical and Surgical Association; and that a Committee be appointed, consisting of the President, the President-elect, the President of the Council, the Editor and General Secretary, Dr. P. Williams, the late General Secretary, and the Secretaries of the Branches, to examine, revise, alter, and amend the laws of the Association, especially those relating to the members of the Council and the constitution of the Branches; and to have the power of conducting their proceedings by letter."

The amended resolution also instructed the Committee to ascertain the opinion of each member of the Association on the whole of the changes recommended, and to submit their report to the next annual meeting, it having been for four weeks in the hands of the members.

The Committee thus appointed, having held several meetings, agreed on a revised code of laws, which was published in the JOURNAL of May 25th, 1855, and discussed at the subsequent annual meeting.

The Report of the Committee of the Medical Benevolent Fund, presented at the annual meeting, showed that relief had been afforded to 67 cases at a cost of £556 12s.; and that there were ten annuitants, receiving £147 a year.

No report was presented at the annual meeting from the Medico-Ethical Committee appointed in the previous year; Mr. Michael, who had been instructed to prepare a report, having been unavoidably prevented from doing so. The Committee was reappointed.

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* In proposing this resolution, Dr. Cowan made some remarks which deserve reproduction, as they contain an expression of opinion, the correctness of which has been proved by the steadily increasing improvement in the financial condition of the Association during the past ten years, during which the business administration has been carried on in London, under the management of a non-professional Secretary. He said:

"The commercial business of the Association must be transacted in London. The removal of the JOURNAL to London involves of necessity the appointment of a commercial secretary in London. It appears in the accounts that we are now paying £96 as commission to advertising agents; now, our commercial assistant should have much of the duty for which that amount is paid devolving upon him. The fact is that, with an agent devoting his time and attention to the business of the JOURNAL, we could double the advertisements.....We should not appoint a *professional gentleman*, but a man of business, who would undertake this matter in conjunction with the Editor."

Mr. Peter Martin had also given notice of a resolution similar in character to that of Dr. Cowan, and even more strikingly in accordance with what has since been found beneficial to the Association. It was as follows:

"That the Secretary shall reside in London, and that his duties should be as follows: To conduct the correspondence of the Association; to attend the meetings of the Council, and to take the necessary minutes of their proceedings; to attend the meetings of the Association, to take minutes of the proceedings, and to transmit a copy of them to the Editor of the Journal; to superintend and keep accounts of the whole financial affairs of the Association, and the commercial affairs of the Journal; to see that the subscriptions are duly paid by the members, and that defaulters are dealt with according to the law; to prepare annually a full and complete list of the names and residences of the members of the Association, to be presented to the Council at their annual meeting, and afterwards printed in the Journal."

This notice of motion was, however, withdrawn in consequence of the adoption of the resolution proposed by Dr. Cowan.

On July 19th, 1855, the Association was deprived by death of its President, Mr. Wilson of Manchester, where he had practised forty years, and had been since 1826 one of the surgeons to the Royal Infirmary.

TWENTY-FOURTH YEAR: 1855-56.

The twenty-third annual meeting was held on August 15th and 16th, 1855, in York; Dr. Thomas Simpson, Physician to the County Hospital, York, being President. The number of members of the Association was stated in the Report of Council to be 2,188.*

The time of the meeting was almost entirely occupied with the discussion of the financial condition of the Association and JOURNAL, and of the new code of laws which had been prepared by the Committee appointed for the purpose, and published in the JOURNAL. At the previous annual meeting, Dr. Bell Salter of Ryde had been appointed to deliver the Address in Medicine, and Mr. Richard Hey of York that in Surgery. Owing to ill-health, however, Mr. Hey was unable to deliver his address; and the entire occupation of the time of the meeting by discussion of business matters prevented both Dr. Salter's address, and some papers which had been prepared, from being read.

The draft code of laws having been read, an important discussion as to the name of the Association took place; and after a long debate, it was decided, by a majority of 50 against 31, that the name "Provincial Medical and Surgical Association" should be retained. The following were some of the most important provisions of the new laws.

The offices of President of the Council and Treasurer of the Association were again conferred on Sir Charles Hastings for life; and it was provided that the offices, when they became vacant, should each be held for three years.

It was decided that the General Council should consist of the President and other officers of the Association, and of members elected by the Branches as follows: in a Branch of less than thirty members, the President as sole representative, with the acting Honorary Secretary if the members amounted to thirty or more, and one additional representative for every complete number of twenty members beyond thirty. A law was also passed, permitting the election at the annual meetings of additional members of Council, in the proportion of one for every twenty members not included in any Branch; and it was provided that all who were members of Council prior to the meeting of 1855 should continue to hold office as long as they remained members of the Association. It was determined that the Executive Council should consist of the President of the Council, the General Secretary, and ten members to be elected by the General Council from their own body, together with one Secretary from each Branch; and they were empowered to delegate their powers to any five members of their body.

The offices of Secretary of the Association and Editor of the JOURNAL which had been at the previous annual meeting conferred on Dr. Cormack, were disjoined by a new by-law, which provided, "That the offices of Secretary and Editor of the JOURNAL shall not be held by the same person." In consequence of the adoption of this by-law, Dr. Cormack resigned the office of Editor of the JOURNAL, as well as that of Secretary.

In the law relating to the JOURNAL, it was provided that the Editor should be responsible for all that appeared in it, except such matter as might be printed by direction of the Executive Council. The occasional publication of *Transactions* was authorised "if the funds of the Association permit."

In connection with the proposed laws, a memorial had been drawn up and signed by 453 members of the Association, for presentation to the annual meeting, recommending the adoption of the title of "British" Medical Association, and the organisation of the Association on the representative principle. In arranging the order of business, however, this memorial, which came late into the secretary's hands, was placed last in the programme; consequently it was not read until it was too late for any effect to be produced by it.

The adoption of the Code of Laws, in which the old name of the Association was retained, and the representative principle imperfectly carried out, produced much disappointment. The newly appointed Executive Council, therefore, at their first meeting, which was held in Birmingham on September 7th, framed for publication in the JOURNAL a "conciliatory address, calling upon the members to combine heartily for the promotion of the great objects of the Association, and imploring them to forego all minor differences of opinion in the desire to advance the progress of medical science, and to maintain peace and harmony among the members of the Association." A great amount of dissatisfaction, however, still prevailed; and a considerable body of members declared their readiness to secede, and form a new British Medical Association. On the other hand, many who had most strongly advocated a reform in the name and government of the Association were averse to any steps which might lead to a disruption of the Association. Requisitions were signed by members of the Metropolitan Counties, Bath and Bristol, and other Branches, asking the President of Executive Council to convene a special general meeting of the Association, to reconsider the laws. The Executive Council also decided on obtaining by means of voting papers the opinion of each member of the Association as to the change of name.

In pursuance of the requisitions, a special general meeting was held at Birmingham on November 20th, at which Dr. Simpson presided, and about two hundred members were present. Sir Charles Hastings read a document expressing the views of the Executive Council. It stated that nearly 1100 replies to the voting papers had been received, and that there was a decided majority in favour of the change of name; and Sir Charles stated that, as the majority was so decided, he not only withdrew all opposition, but would himself, at the annual meeting in Birmingham, propose the necessary change of law for the alteration of the name of the Association from "Provincial" to "British." Having completed the reading of a graceful and judicious address, Sir Charles Hastings proposed the following resolutions, which agreed closely with the suggestions made in a memorial signed by nearly 500 members of the Association, and presented to the meeting.

"1. That this meeting recommends that the name of the Association be changed to 'British Medical Association' at the next annual meeting. 2. That the Council of the Association be elected on the principle of absolute representation; so that each member of the general body may have, by his representative, a voice in the management of its affairs. 3. That the Branches be requested to consider the best mode in which the election can be conducted. 4. That the Secretary be requested to give due notice, in his official capacity, of the intended alteration in the laws now recommended."

To these were added the following, on the proposal of Mr. Michael, and with the concurrence of Sir Charles Hastings. "1. That the following gentlemen be appointed a Committee to co-operate with, and form part of, the Executive Council, for the purpose of carrying out the foregoing resolutions: W. Budd, M.D. (Bristol); B. W. Richardson, M.D. (London); G. Webster, M.D. (Dulwich); A. P. Stewart, M.D. (London); C. Cowan, M.D. (Reading); C. M. Burnett, M.D. (Alton); H. Dayman, Esq. (Milbrook, Southampton); H. Ansell, Esq. (London); W. Davies, M.D. (Bath); W. D. Husband, Esq., (York); T. Nunneley, Esq. (Leeds); J. R. Cormack, M.D. (London); C. R. Hall, M.D. (Torquay); and T. Shapter, M.D. (Exeter). 2. That this meeting strongly recommends that, in order that the financial affairs of the Association may be placed on a fair basis, the accounts of the Provincial Medical and Surgical Association be closed and audited at the end of the present year; that no part of the income of the ensuing year be applied to the payment of liabilities previously incurred; and that the liabilities for the present year be discharged within six months from the assets of this and previous years; and that any deficiency that may be found to exist at the end of the year be defrayed by a *pro ratâ* subscription."

These resolutions, several members having spoken in support of them, were carried almost unanimously. In consequence of the decision of the meeting, the members who had expressed their intention to secede from the Association on account of the proceedings at York, promptly withdrew their resignations: and unity was happily restored.

The office of Secretary, which became vacant in consequence of the separation of the office from that of Editor, was filled at the annual meeting by the appointment of Dr. P. H. Williams of Worcester; and Dr. Andrew Wynter was subsequently elected, by the Executive Council, Editor of the JOURNAL in the place of Dr. Cormack, who, as has already been mentioned, resigned his office.

The first meeting of the Committee appointed to revise the laws was held in Birmingham on December 21st. Their first act was to take steps to carry out the resolution of the special meeting respecting the pecuniary liabilities of the Association, by calling on each existing member of the Association to pay a contribution of ten shillings in addition to his annual subscription. This call, before the end of 1856, produced a sum of £442, to which some additions were subsequently made.

The Medical Reform Committee presented to the annual meeting a report, giving an account of its proceedings during the past year, and recommending the taking of steps to reintroduce the Bill of the Association into Parliament. The report was adopted, and the Committee were reappointed, a sum of £50 being voted to them for expenses. The following resolutions were also adopted: "1. That, with a view to an

* This probably included a large number of members in arrears, as the report of Council of the following year stated the number in 1855 to be 2,094.

energetic support of the Medical Bill on its introduction into Parliament, it is desirable to establish an organisation for the purpose of petitioning either House, and of otherwise forwarding the progress of the measure; and that this object will be best achieved by obtaining in each locality where the Association has any members a local Secretary or Secretaries, who may communicate with the Secretary of the Committee in London. 2. That the members of the Association, in their different districts, are earnestly exhorted to place themselves in communication with their respective representatives in Parliament, and to urge on them the necessity of supporting reforms by their votes and voices in the House. 3. That the cordial thanks of the Association are returned to Mr. Headlam, M.P., Mr. Brady, M.P., and Mr. Craufurd, M.P., for their exertions in the introduction of the Medical Bill into the House of Commons during the past session; and that these honourable gentlemen are respectfully requested to continue their exertions in the cause of medical reform."

A special vote of thanks was also given to Mr. G. W. Hastings, for his untiring zeal as Secretary to the Medical Reform Committee.

Twenty-fifth Year: 1856-57.

The Association met on July 29th, 1856, at Birmingham, for the second time, under the Presidency of Dr. James Johnstone, a son of the first president of the Association. The time of the meeting was extended from two to three days.

The report of Council stated the number of members to be 2,125.

The new code of laws, prepared by the Committee appointed at the special meeting held at Birmingham in November 1855, was discussed, and, with some alterations on matters of detail, was adopted. It is only necessary here to state the chief points in which it differed from that adopted at York. There were as follows:—1. The Association was to be hereafter termed the "British Medical Association." 2. The members of Council, other than the *ex-officio* members, were to be elected solely by the Branches, in the proportion of one to every twenty members, in addition to the Honorary Secretary of each Branch. 3. Every candidate for membership of the Association to be recommended by *three* members. 4. The designation "Committee of Council" was substituted for that of "Executive Council"; and the power formerly given to the Committee to delegate its functions to five members, was abrogated. The offices of President of the Council and Treasurer were again conferred for life on Sir Charles Hastings; who, however, declared his intention of placing the presidency, at the end of three years, in the hands of the Association. The new laws, as amended, were unanimously adopted.

The Medical Reform Committee presented a report, and were reappointed, with the addition of Dr. A. Henry, who was soon afterwards associated with Mr. Hastings in the office of Secretary.

In consequence of the settlement of the question of reform in the organisation of the Association, which had for some years caused much agitation, a larger number of contributions on medical science and practice were brought forward at the annual meeting in 1856 than had been possible for several previous years. An Address in Surgery, "On the Treatment of Cancer by means of Caustics," was read by Mr. Langston Parker of Birmingham; and an Address in Medicine was read by Dr. Bell Salter of Ryde, the subject being "A Summary of our Present Knowledge of the Laws of Epidemics." Papers were also read by Dr. Sibson, Dr. W. Budd, Dr. Edward Smith, Mr. Erasmus Wilson, and other members.

Twenty-sixth Year: 1857-58.

The twenty-fifth annual meeting was held on July 28th, 29th, and 30th, 1857, at Nottingham; Mr. Booth Eddison, Surgeon to the General Hospital, being President. The number of members of the Association was stated in the report of Council to be 2,065.

An Address in Physiology was delivered by Dr. Lankester, who gave an account of the Recent Progress of Knowledge of the Forms, Structure, Development, and Treatment, of Human Entozoa. Mr. Southam of Manchester read an Address in Surgery, on Cancer and its Treatment; and an Address in Medicine was read by Dr. Tindal Robertson of Nottingham, the subject being the Progress of Sanitary Science. Papers were also read by Mr. Henry Thompson, Mr. Hatton, Dr. Edward Smith, Sir H. Cooper, and Dr. Sibson.

A subject of a somewhat painful character came under the notice of the Association at the first meeting. Dr. F. R. Horner of Hull, who was president of the Association in 1850, had adopted the practice of homœopathy. His immediate removal from the Association was not possible, as the Secretary had been informed of his defection too late for the notice required in the laws to be given; but the meeting at once decided that his name should be erased from the list of vice-presidents. Further proceedings were rendered unnecessary by Dr. Horner's withdrawal from the Association before the next annual meeting.

The Council drew attention in the report to the fact that a commission was sitting for the purpose of considering the means of improving the organisation of the Medical Department of the Army; and recommended that a memorial in favour of reform in the medical department of the army, and also in that of the navy, should be adopted by the meeting and presented to the Government. A committee, consisting of Mr. Flint, Mr. Soden, Dr. W. Budd, Dr. Wynter, Mr. Tidmas, and Mr. Nunneley, was accordingly appointed to draw up a memorial. This was done; and the memorial was approved, and copies were ordered to be sent to Lord Panmure, Sir Charles Wood, and the Royal Commissioners for inquiring into the Medical Department of the Army. The memorial referred to the unsatisfactory condition, and consequent impairment of the efficiency, of the medical department of the army and navy; expressed the pleasure with which the meeting of the British Medical Association had heard of the appointment of the Commission, and hoped that the inquiry would be extended to the navy. It also contained an expression of hope the inquiries would result in such alterations in the regulations of both services as would place the medical officers in a condition of full equality as regards position, rewards, honorary distinctions whether of title or decoration, and retiring pensions, with other officers of the service, and secure due authority to their recommendations for the welfare of the men.

The Medical Reform Committee presented to the annual meeting a report of their proceedings during the year, and were reappointed, with the addition of Dr. W. Davies of Bath, Mr. Augustin Prichard of Clifton, Dr. B. W. Richardson of London, and Dr. J. Vose of Liverpool. A vote of thanks was also given to Mr. Headlam for his ability and zeal in promoting the progress of a Medical Bill, and also to the 225 members of the House of Commons, who formed the majority by which the second reading of the Bill was passed.

On a subsequent day of the meeting, Sir Charles Hastings announced that he had received a communication from the Right Hon. W. Cowper, implying his intention to introduce a Medical Reform Bill in the next session of Parliament, and requesting a personal interview with Sir Charles before deciding on a plan. The following resolutions were thereon agreed to.

"That it gives this meeting the highest gratification that the President of the Council, Sir Charles Hastings, has received a letter from the Right Hon. W. Cowper, on the part of the Government, stating that he will introduce a Medical Reform Bill early next session, and inviting Sir Charles Hastings to a personal interview, with a view to consulting him before deciding on a plan.

"That this meeting earnestly and with confidence press on the Government to accept in their Bill the sound principles of medical legislation which have always been advocated by the Association, which have been, in the main, introduced in Mr. Headlam's Bills of 1856 and 1857, and which have been triumphantly recognised by the House of Commons by a very large majority."

A few days afterwards, Sir Charles Hastings had an interview with Mr. Cowper, and explained to him the wishes of the Association.

Twenty-seventh Year: 1858-59.

For a quarter of a century, the meetings of the Association had been confined to the large provincial cities and towns of England; neither London, nor Scotland, nor Ireland, having been visited. In 1857, however, a most cordial invitation was received from Edinburgh, for the British Medical Association to hold its meeting there in 1858. This was heartily accepted; and accordingly, on July 29th, 30th, and 31st, 1858, the Association met in Edinburgh, under the presidency of Dr. William Pulteney Alison, the eminent Professor of Practice of Physic in the University. The meetings were held in the University buildings, which had been kindly placed at the disposal of the Association by the Senatus.

The number of members was stated in the Report of Council to be 2,180.

An Address in Therapeutics was delivered by Professor Christison; an Address in Surgery by Professor Miller; and an Address in Midwifery by Professor J. Y. Simpson. At a *conversazione* given by the Royal College of Physicians, Dr. W. R. Sanders, the conservator of the museum, gave an address on some of the principal preparations contained in it; and, at a reception given by the Royal College of Surgeons, an address on the Indestructibility of Force was delivered by Dr. George Wilson, Professor of Technology in the University. Papers were also read by Mr. G. M. Humphry, Mr. Jonathan Hutchinson, Dr. Alexander Wood, Dr. G. L. Bonnar, Dr. E. Smith, and Mr. I. B. Brown. Dr. Wood's communication was on the Treatment of Neuralgic

Pains by subcutaneous Narcotic Injections—a mode of treatment which he had shortly before introduced into practice.

The Medical Reform Committee presented their report for the past year, giving an account of the progress of the Medical Bill—very soon to become the Medical Act—since the last annual meeting. The Committee, in concluding the Report, expressed their thanks to the Right Hon. W. Cowper for his persevering exertions; to the Right Hon. Mr. Secretary Walpole, for his valuable aid during the progress of the Bill; to the Branches of the Association, who had supported the Bill by resolutions and petitions; and to Mr. George Hastings, the Secretary to the Committee. The following resolutions were passed by the meeting:

"That the Report now read be received and adopted, and that the Committee be reappointed under the title of the Committee on Medical Legislation, with the addition of Professor Simpson, Professor E. W. Murphy, and Dr. Forbes Winslow; and that they be specially directed to draw the attention of Government to the necessity of appointing, as the six members of Council to be nominated by Her Majesty, persons really representing the bulk of the medical profession."

"That the thanks of the British Medical Association be given to the Right Hon. W. F. Cowper, M.P., for his able and persevering exertions in the cause of medical reform, which exertions have mainly secured the enactment of the Medical Act just passed; and for his personal courtesy to the representatives of the Association."

An unanimous vote of thanks was also given to Mr. G. W. Hastings for his long, arduous, and valuable services in the cause of medical reform.

When the Medical Council, as provided in the Act, was appointed, Sir Charles Hastings was one of the four members nominated by the Crown for England; the others being Sir James Clark, Mr. William Lawrence, and Mr. T. P. Teale. This appointment naturally gave much satisfaction to the Association, inasmuch as it recognised not only the important part which Sir Charles had taken in promoting medical reform, but also the fact that he, as promoter and leader of the British Medical Association, was the natural and fit exponent of the wishes of a large portion of the medical profession.

The subject of Medical Ethics was brought before the Association by Dr. Barker of Bedford, who proposed the appointment of a Committee to prepare a well-considered expression of the duties of members of the medical profession towards society at large. The proposal was adopted, and a Committee was nominated.

Professional intercourse with homœopaths was again denounced at the annual meeting; and the following resolution was carried by a large majority:

"That the Provincial Medical and Surgical Association having, by resolutions passed at its annual meeting held at Brighton in 1851, and by laws in accordance therewith adopted at its annual meeting held at Oxford in 1852, declared that homœopathic practitioners, and those who consult professionally with them, are not qualified for membership—the British Medical Association do hereby instruct the General Council to prepare a draft, incorporating with the existing code of laws of the British Medical Association the substance of the laws relating to irregular practice, adopted by the Provincial Medical and Surgical Association in 1852, and to report to next annual meeting."

The twenty-third annual report of the Medical Benevolent Fund was presented at the annual meeting. It announced the liberal gift of 500 guineas from Mr. J. Toynbee. The sum of £792 10s. had been expended in the assistance of urgent cases, and £214 in annuities. Mr. Newnham, late of Farnham, was elected an honorary member of the Association, in recognition of his great, disinterested, and long continued labours in promoting the success of the fund.

Twenty-eighth Year: 1859-60.

The Annual Meeting in 1859 was held in the Medical Institution, Liverpool, on July 27th, 28th, and 29th, under the presidency of Dr. James R. W. Vose, Physician to the Royal Infirmary. This was the second meeting of the Association in Liverpool. To the great regret of the members, the infirm state of his health prevented Professor Alison from being present in order to personally retire from the chair, or from even sending an address to be read on the occasion. Within two months afterwards—on September 22nd—this eminent and respected physician died at the age of 69.

It was stated in the Report of Council that the number of members of the Association had increased to 2310, and that a new Branch had been formed in Dublin.

An Address in Medicine was delivered by Dr. Edward Waters of Chester; and an Address in Physiology by Dr. A. T. H. Waters of Liverpool. Papers were also read by Dr. Birkbeck Nevins, Dr. Hibbert Taylor, Dr. R. T. Evanson, and several other members.

In fulfilment of the promise which he made when the laws of the Association were revised in 1856, Sir Charles Hastings tendered his resignation of the offices of President of Council and Treasurer; but, in accordance with the earnest and unanimous desire of the members, he withdrew his resignation.

Special attention was directed in the Report of the Council to the financial position of the Association. Although a debt of nearly £2000 which existed at the end of 1856 had been considerably diminished, the process of reduction was slow; and in the course of the meeting a recommendation from the Council was proposed for adoption: "That, for the liquidation of the debt of the Association, a voluntary subscription by the members be instituted for the next two years, at the rate of five shillings *per annum*." An amendment was proposed, that each member should pay his own postage of the JOURNAL for one year. It was, however, pointed out that a compulsory contribution would be injurious to the Association; that, if members would pay their subscriptions punctually, the amount received would be quite equal to the expenses. The proposal in favour of a voluntary contribution of five shillings was adopted.

It was reported to the annual meeting that the Medico-Ethical Committee appointed in the previous year had not been able to complete a report. The committee was re-appointed with the addition of Dr. Styrap of Shrewsbury, the Secretary of the Salopian Medico-Ethical Society, which had amalgamated with the Shropshire Branch of the Association, the two forming the Shropshire Ethical Branch.

The Medical Reform Committee, under the name of the Committee on Medical Legislation, presented a report, in which the recent issue of the Royal Warrants concerning the medical officers of the army and navy was alluded to with satisfaction. The Committee recommended attention in the coming year to Poor-law medical reform, public vaccination, and the sale of poisons; and in the discussion on the adoption of the report, Dr. Mackesy of Waterford suggested the representation of the medical profession in Parliament as a proper subject for consideration. The following resolution was agreed to:—

"That the Committee on Medical Legislation be re-appointed, with the addition of Richard Griffin, Esq., and Dr. E. C. Seaton; that they be instructed to carefully watch the working of the Medical Act, especially in regard to preliminary and professional education; that they be desired to take into consideration, during the coming year, the subjects of the representation of the profession in Parliament, Poor-law medical reform, public vaccination, and the sale of poisons; and that they be authorised and form sub-committees, if necessary, for the examination of the several subjects, and to consult and co-operate with such individuals and public bodies as may to them seem advisable."

In 1859, the Royal College of Physicians of Edinburgh instituted a licence in medicine, and decided to admit to it qualified medical men already in practice, on the recommendation of two practitioners, without examination, and on payment of a fee. The subject was brought before the Association at the annual meeting in the form of a complaint that the College had admitted as a licentiate a man who had been for many years practising homœopathy. After discussion, it was resolved "That, in the opinion of the members of the Association, the admission of homœopathists as licentiates by the Edinburgh College of Physicians is highly reprehensible; and that the College is bound to make inquiries as to the character and standing of a man not known to any of its members."

The report of the Medical Benevolent Fund stated that there was increase on the amount of subscription, and that a legacy of £3,000 had been left to the fund. The sum of £1,067 had been distributed to ninety-two applicants for temporary aid, and £255 10s. to sixteen annuitants.

Twenty-ninth Year: 1860-61.

The annual meeting in 1860 was held in Torquay on August 1st, 2nd, and 3rd, Dr. C. Radclyffe Hall, Physician to the Hospital for Consumption in that town, presiding. The total number of members in the Association was announced to be 2,215.

An Address in Medicine was delivered by Dr. Barham of Truro, the subject being "Climate in some of its Medical Aspects". Mr. De la Garde of Exeter delivered an Address in Surgery; and Mr. W. J. Square of Plymouth gave an Address in Ophthalmic Surgery. Papers were also read by Dr. Brown-Séquard, Dr. Wollaston, Dr. W. Budd, Dr. B. W. Richardson, and other members.

At the beginning of 1861, Dr. Markham succeeded Dr. Wynter as Editor of the JOURNAL. From that time, the JOURNAL has been published each year in two volumes, in place of one.

The question of the representation of the medical profession in the House of Commons was again brought forward at the annual meeting

by Dr. Mackesy; and the following resolution was adopted, on the proposal of Sir Charles Hastings:

"That, considering the number, respectability, and special acquirements of the medical profession in these kingdoms, neither are their interests fully attended to, nor their views on sanitary arrangements adequately represented in Parliament."

No report was presented at the annual meeting from the Committee on Medical Legislation. It was proposed:

"That the Medical Legislation Committee be reappointed, with power to add to their number. That it be an instruction from this meeting to the Committee that, in framing an amendment on the present Act, or, if necessary, a new Bill altogether, the Committee shall endeavour to embody the following principles: 1. The removal of all further power from the corporations and universities to institute special and pseudo-medical qualifications; 2. The introduction into the Medical Council of a larger number of members unconnected with the corporations and universities; 3. The suggestion of a plan which shall save the profession from the necessity of individually enforcing the penalties enacted by Section XLVII of the Medical Act against those who illegally assume medical titles."

These resolutions were criticised by Sir Charles Hastings, who regarded the first and second suggestions as impracticable, and pointed out that objection would be made in the House of Commons to increasing the number of members of the Medical Council. He advised that the Committee should be simply instructed to try to obtain an improvement of the Medical Act. The resolutions were adopted by a large majority; whereon Sir Charles Hastings intimated his wish to retire from the Committee.

A scheme for the institution of prizes was brought before the annual meeting, and the following resolution was adopted.

"That a sum of £40 be placed at the disposal of the Committee of Council, to be applied, whenever they shall find it convenient to the funds of the Association, for the promotion of one or two gold medals, as annual prizes for essays or papers to be written by members of the Association; the subjects and awards to be placed under the direction of the Committee."

A discussion took place at the annual meeting on Special Hospitals. A short time previously, several of the leading members of the profession, including Sir Charles Hastings, had published a protest against "the modern practice of opening small institutions, under the name of hospitals, for particular forms of disease, in the treatment of which no other management, appliance, or instruction is required, than is already supplied in the existing general hospitals". It was moved:

"That this Association observes with great regret the difference of opinion in the profession on the subject of special hospitals. That, while it cannot but express the opinion that the existence of special hospitals is attended with many disadvantages, the abolition of such hospitals is impossible until there is a great reform in the public and professional management of the general hospitals."

After discussion, the following amendment was moved by Dr. Markham, seconded by Sir Charles Hastings, and carried:

"That a Committee of twelve be appointed to investigate the whole question of hospital management throughout the country, and to report upon it at the next annual meeting."*

After the completion of the ordinary business of the meeting, a proposal regarding the formation of a medical diaconate was brought before the members, by desire of the Bishop of Exeter, by the Rev. Chancellor Martin. The members who spoke on the occasion, however, agreed in regarding the proposal as impracticable. A proposal was made to refer the matter to a committee; but this was withdrawn, and the discussion concluded with the adoption of a resolution thanking the Bishop of Exeter and the Rev. Chancellor Martin for the manner in which they had brought the subject before the meeting.

THIRTIETH YEAR: 1861-62.

The annual meeting in 1861 was held in Canterbury, under the presidency of Dr. Alfred Lochée, Physician to the Kent and Canterbury Hospital, on July 23rd, 24th, and 25th. The number of members of the Association was reported to be 2,150.

An Address in Medicine was delivered by Dr. Markham, and an Address in Surgery by Mr. G. Hoffmann of Margate. Papers were read by Mr. P. C. Price, Mr. Spencer Wells, Dr. B. W. Richardson, Mr. G. Rigden, Mr. A. B. Steele, Mr. E. Lund, Mr. I. B. Brown, Dr. T. Lewis, Mr. W. Webber, and Dr. G. D. Gibb.

The attitude to be assumed towards homœopaths again came under notice. For some time previously, considerable dissatisfaction had been felt in consequence of Mr. (afterwards Sir William) Fergusson having met a notorious homœopath in consultation, and also in consequence of the appointment of a homœopath to the office of Staff-Surgeon to the Royal Guernsey Militia. The subject was brought before the meeting by Dr. B. W. Richardson, who moved the following resolutions:

"1. That this meeting repeats and confirms the resolutions passed by the Association at the meetings held at Brighton in 1851 and at Oxford in 1852, in all that relates to homœopathy, and to the recognition of its practitioners by members of the medical body.

"2. That this meeting not only declares it contrary to professional honour and honesty, and subversive of science, for legitimate practitioners of medicine to hold professional intercourse with homœopaths, but refuses equally to accept from those who express their disbelief in the homœopathic system any excuses for such professional intercourse, founded on the plea either of mental reservation or of necessity."

These resolutions were, after some discussion, carried without a dissentient vote.

The subject of special hospitals was brought before the annual meeting. The Committee appointed at the previous meeting had not yet been able to prepare a report. A discussion, however, followed on a paper read by Mr. W. Martin, in which the author expressed his opinion that the system of special hospitals was "a necessary consequence of the advance of intelligence, both in and out of the profession", and that it approved "an ever increasing means of adaptation to the wants of humanity". He held also that great improvements in medical sciences and art might be confidently expected from a judicious extension of the system. Various opinions were expressed as to the necessity and merits of special hospitals; but no resolution was adopted by the meeting.

The Report of the Medical Benevolent Fund stated that the sum of £890 had been given in grants to 99 applicants, and that 16 annuitants had received £288.

At the annual meeting, allusion was made in [the report of Council to the fact that a Select Committee of the House of Commons was considering the subject of Poor-law Medical Relief. No resolution appears to have been passed by the general meeting; but, at the meeting of the Committee of Council on November 5th, a Committee, consisting of Sir C. Hastings, Mr. Bottomley, Mr. Cartwright, Mr. Bartleet, Mr. Watkin Williams, and Mr. O. Pemberton, was appointed to consider the report of the evidence given before the Select Committee, and to prepare a memorial for presentation to the Committee.

THIRTY-FIRST YEAR: 1862-63.

The annual meeting of the Association in 1862 was held in London. The holding of an annual meeting in London had been contemplated some years previously; but it was felt that, so long as the Association was Provincial in name and in character, such a proceeding would be scarcely appropriate. All objection on this ground was removed when the Association became British; and, at the annual meeting of the Metropolitan Counties Branch in 1860, Dr. Quain proposed that the Association should be invited to meet in London in 1862, in which year an International Exhibition was to be held, which would be a source of attraction to many members. Some apprehension was expressed, that the provincial members might object; but Dr. Quain was able to reply that he had already ascertained the opinion of Sir Charles Hastings, who thought it would be of the highest benefit that the Association should from time to time meet in London, and that the Metropolis should take part in the working of the Association. The suggestion was adopted; and in the next year, 1861, a cordial invitation from the metropolitan members was presented to the annual meeting in Canterbury, and accepted unanimously. Accordingly, on August 5th, 6th, 7th, and 8th, the members assembled in the Library of the Royal College of Physicians, which had been courteously placed at the disposal of the Association for the occasion; Dr. George Burrows being in the chair. The duration of the meeting was one day longer than on previous occasions.

The total number of members of the Association was reported to be 2,120.

Three Addresses were delivered during the meeting: one in Medicine by Dr. W. H. Walshe; one on Surgery by Mr. James Paget; and one on Physiology by Dr. W. Sharpey. Papers were also read by Dr. B. W. Richardson, Dr. Sibson, Mr. Ernest Hart, Mr. J. V. Solomon, Dr. Handfield Jones, Dr. Brown-Séquard, Dr. Evanson, Mr. C. H.

* The following gentlemen were nominated as members of the Committee: Dr. W. O. Markham; Mr. Jonathan Hutchinson; Dr. William Ogle; Dr. B. W. Richardson; Dr. Edward Smith; and Dr. A. P. Stewart—of London; Dr. C. R. Hall, (Torquay); Sir C. Hastings, M.D. (Worcester); Dr. A. Lochée (Canterbury); Dr. J. B. Melson (Birmingham); Mr. George Norman (Bath); and Dr. James R. W. Vose, (Liverpool).

Moore, Dr. T. Inman, Mr. J. Higginbottom, Dr. J. Hughes Bennett, Mr. W. Bowman, Dr. E. Cutler, Dr. Wynn Williams, and Dr. G. Harley.

The reading of a paper by Dr. Handfield Jones, entitled "Suggestions for an Inquiry into the Action of Medicines," was followed by the appointment of a Committee for the purpose suggested, consisting of Dr. Handfield Jones, Dr. Acland, Dr. Fleming, Dr. Farr, Mr. Crompton, Dr. Hughes Bennett, Mr. Hodson, Dr. Webster, and Dr. G. Harley, with power to add to their number. This Committee, of which Dr. Hughes Bennett was appointed chairman, presented, on a subsequent day of the meeting, a report in which they proposed a series of subjects for investigation during the ensuing year. The Committee suggested that a schedule for each subject should be drawn up, containing the age, sex, and other points requiring attention; that the schedule for each subject should be prepared by a different member of the Committee, who should arrange for distribution of the schedule, receive the returns, and draw up a report to be presented to the next meeting of the Association. The recommendations of the Committee were adopted by the meeting; the means of raising the necessary funds being left to the Committee of Council.

A charge of professional misconduct, brought by Mr. William Webber against Mr. Spencer Wells, came under the notice of the annual meeting; and a Committee, consisting of Dr. Westall, Mr. Bottomley, and Mr. Huckstall Smith, were appointed to investigate the matter. They reported that they were of opinion that no evidence had been laid before them of any professional misconduct on the part of Mr. Spencer Wells.

A series of resolutions, respecting the registration of births, deaths, and diseases in Ireland, were prepared at the annual meeting by Dr. H. W. Rumsey, seconded by Dr. Richardson, and carried unanimously.*

In reference to this subject, the Committee of Council, at a meeting on November 4th, passed the following resolution:

"That the Council of the British Medical Association is willing to co-operate with the Social Science Association in the presentation of a memorial to Parliament, for the purpose of obtaining a Bill for the Registration of Births and Deaths in Ireland."

Thirty-second Year: 1863-64.

The thirty-first annual meeting was held at the Victoria Rooms, Clifton, on August 5th, 6th, and 7th, 1863, under the presidency of Dr. J. A. Symonds, Consulting Physician to the Bristol General Hospital. The number of members of the Association was reported to be 2,217.

An Address in Medicine was delivered by Dr. William Budd, who took Variolæ Ovinæ as his subject. Mr. Augustin Prichard delivered an Address in Surgery, on the treatment of Carbuncle; Dr. W. B. Herapath, an Address in Chemistry in its relation to Medicine and its Collateral Sciences; and Dr. J. G. Swayne an Address in Midwifery.

* The resolutions were as follows. "1. That in any measure of legislation for the registration of births and deaths in Ireland, this Association deems it highly important that the local machinery for such registration should be altogether distinct from that for the registration of marriages; and is happy to perceive that the principle has been recognised in the Bills which have been introduced into the House of Commons during this and the preceding sessions of Parliament. 2. That it is most desirable to introduce into any such measure the principle of local scientific supervision of the returns of births and deaths. 3. That the office of Superintendent Registrar of births and deaths ought to be held by persons well acquainted with the physical and biological sciences, versed in sanitary and vital statistics, and accustomed to make medico-legal investigations. 4. That it is desirable to combine with the superintendence of the registration of births and deaths the registration of all sickness attended in public institutions or at the public expense. 5. That each superintendent registrar should be required to publish, for the information of the local administrative authorities and the instruction of the inhabitants of his district, an annual report of the results of registration, as also a quarterly summary of the deaths and diseases, with their causes, according to forms to be determined by the Registrar-General for Ireland. 6. That, in the local reports of mortality and sickness, it is important to specify age and occupation, to record meteorological observations, and to note local events and circumstances affecting the public health. 7. That it is desirable to require the authentication of the cause or mode of death by a certificate from a legally qualified medical practitioner; and that, where no such certificate is delivered, the subregistrar be required to inform the superintendent, who should forthwith make inquiry into the case. 8. That the registration of births should be compulsory; and that still-births (after the sixth month of utero-gestation), when not certified by a legally qualified medical practitioner, should be subject to the regulation stated in the last resolution. 9. That the boundaries of registration districts and subdistricts ought, as nearly as possible, to conform to the limits of existing districts for the relief of the poor, and for the administration of medical aid (union and dispensary districts), having due regard to the jurisdiction of local sanitary authorities. 10. That the proposed scientific superintendents, as statistical inquirers and reporters for national purposes, should be made independent of local and party influences, debarred from private medical practice, and paid out of national funds. 11. That the Council of this Association be requested to open communications with the Government, and with the Poor-law Commission of Ireland, for the purpose of laying before them the suggestions of the Association, and of conferring with them as to the best mode of embodying them in a legislative enactment."

Papers were read at the annual meeting by Dr. G. Budd, Dr. B. W. Richardson, Dr. W. O. Markham, Mr. W. M. Clarke, Mr. T. S. Fletcher, Dr. Graily Hewitt, Dr. Gibb, Dr. M. Mackenzie, Dr. A. P. Stewart, Mr. Nunneley, Dr. C. B. Radcliffe, Mr. Erasmus Wilson, and others.

Dr. P. H. Williams, of Worcester, who had held the office of secretary to the Association for eight years, resigned on account of increasing professional engagements; and Mr. T. Watkin Williams, of Birmingham, was appointed his successor. A vote of thanks for his services was given to Dr. Williams.

The Council recommended in their report, that a memorial should be presented to the Royal College of Surgeons of England, requesting them to take into consideration the propriety of altering their by-laws, or, if necessary, obtaining the legal powers for enabling non-resident Fellows of the College to vote by proxy at the annual election of members of Council, in accordance with the principle already advantageously adopted in the Universities of Oxford and Cambridge. This suggestion was approved, and a memorial, signed by the President and General Secretary, was subsequently presented to the President and Council of the College. A reply was received from Mr. Belfour, the Secretary to the College, pointing out that the voting at the election of members of Council was regulated by the charter of the College, and not by the by-laws.

Reference was also made in the report of Council, and the efforts necessary for the improvement of the condition of the medical officers of the army and navy, and on the proposal of Mr. Husband, the meeting adopted memorials to the Secretary of State for War and the First Lord of the Admiralty, relative to the grievances under which the medical officers of the army and navy suffered, through the warrants establishing their rank with their combatant brethren being virtually set at nought by the commanding officers.

A proposal to establish a Medical Provident Association was brought before the annual meeting by Dr. Richardson, who moved:

"That a Committee be appointed to consider and report on the question, whether it is possible to establish, under the direction of the Association, a Relief Fund, which shall enable the widows of members, or the orphans of members, or members themselves during sickness, to receive pecuniary aid by annuity or otherwise, on the principle of mutual protection and right."

A Committee was accordingly appointed and was directed to report to the next annual meeting of the Association. It consisted of Sir Charles Hastings, M.D., Mr. Edward Daniell, Dr. Henry Day, Mr. George Pound, Dr. J. M. Bryan, Dr. A. P. Stewart, Mr. R. B. Carter, Mr. E. Bartleet, Mr. H. Gramsham, and Dr. B. W. Richardson.

Three members of the Association—Dr. Edward Waters of Chester, Mr. William Adams of London, and Dr. Philbrick of Leamington—had been most unjustly made the subjects of legal prosecutions on account of alleged professional misconduct. A great amount of sympathy with these gentlemen had been expressed by the medical profession; and, at the annual meeting, the following resolution was proposed by Dr. Radclyffe Hall, seconded by Dr. Richardson, and carried by acclamation:—

"That this Association has observed with extreme pain the legal persecutions to which Dr. Waters of Chester, Mr. Adams of London, and Dr. Philbrick of Leamington—all members of the Association—have been so unjustly subjected during the past year; that this meeting offers to each of these gentlemen its profoundest sympathy, and tenders to each of them the expression of its entire conviction that their moral and professional character and position stand unimpeached.

"This meeting also takes the opportunity of deprecating the conduct of any members of the medical profession who render assistance in the legal persecution of their brethren on mere suspicion, or on grounds which have not even the semblance of being substantial."

The latter part of the resolution had reference to the line of conduct which had been followed by certain medical witnesses on the respective trials.

Thirty-third Year: 1864-65.

The thirty-second annual meeting was held in the Senate House of the University of Cambridge, on August 3rd, 4th, and 5th, 1864, under the presidency of Dr. George Edward Paget, Physician to Addenbrooke's Hospital, and Linacre Lecturer in Physic in the University.

The number of members of the Association was reported to have increased to 2,422.

An Address in Medicine was delivered by Dr. E. L. Ormerod of Brighton, who gave a review of the present state of Cardiac Pathology; and Dr. Humphry of Cambridge delivered an Address in Surgery. Important papers were read by Mr. Spencer Wells on Some of the Causes of Excessive Mortality after Surgical Operations; and by Dr.

William Budd on the Rinderpest or Cattle-plague. Papers were also read by Dr. Sansom, Mr. J. V. Solomon, Dr. Routh, Dr. S. Martyn, Dr. C. B. Radcliffe, Dr. H. Dick, Mr. J. Bridger, and Dr. Richardson.

The Hastings Gold Medal was presented for the first time. It was awarded by the adjudicators—Dr. Sharpey, Dr. Richardson, and Dr. A. T. H. Waters—to Dr. J. L. W. Thudichum, for his essay on Urochrome, the colouring matter of the urine.

The proceedings which had taken place regarding the modes of election of Members of Council of the Royal College of Surgeons were reported by the Council of the Association, who recommended that a memorial on the subject should be again presented, and that the Committee of Council should be empowered to take any other steps which they might deem requisite to obtain the desired alteration. Accordingly, a memorial to the same effect as in the previous year was presented in September to the Council of the College, who, in January 1865, replied that, having taken the matter into consideration, they "saw no reason to alter their opinion upon the subject."

In the interval since the previous annual meeting, the cause of the Army Medical Officers had been warmly advocated by several of the Branches of the Association, by whom memorials on the subject had been presented. A deputation of the Metropolitan Counties Branch had also had an interview with Earl de Grey and Ripon, Secretary of State for War. The subject was again brought under the notice of the Association in the report of Council; and a Committee, consisting of Sir C. Hastings, Dr. Radclyffe Hall, Dr. Sibson, Mr. Bartleet, Dr. Falconer, Dr. Richardson, Dr. Routh, and Dr. Stewart, was appointed to consider and report on the subject. This Committee presented a report to the annual meeting; concluding with the following recommendation:—

"The Committee recommend that the collective and individual influence of the Association should be directed towards the restoration in its integrity of the Royal Warrant of 1858, and its subsequent enforcement; and also towards the discontinuance by command of the employment of acting assistant-surgeons without examination. The most obvious means for carrying out this recommendation is the adoption of memorials, by this Association and its Branches, to the Secretary for War, the Commander-in-Chief, the Secretary of State for India, and the Director-General of the Army Medical Department. But they attach the greatest importance to the thorough discussion of this question by both Houses of Parliament; and, with this view, they recommend the adoption of petitions to the legislature, and the communication to individual members of the fullest information as to a question so closely related to the welfare and efficiency of the British and Indian armies."

The report was adopted, and it was resolved by the meeting that memorials be prepared and presented in accordance with the recommendation.

The report of the Medical Benevolent Fund, presented to the annual meeting, showed that relief had been afforded in seventy-eight cases at an expense of £538; and that £140 had been paid in annuities.

The Committee appointed at the previous annual meeting to consider the desirability of establishing a Medical Provident Fund, presented a report to the meeting in 1864. It was based mainly on the advice given by Mr. Tidd Pratt, who had been consulted by the Committee. They advised that the proposal to grant annuities and to make provisions for widows and children should be abandoned, and the fund devoted entirely to payments to members during sickness; and they expressed a strong opinion that the obtaining of a charter of incorporation would both strengthen the Association and would place the Relief Fund in a favourable position. They recommended:

"That the Relief Fund might be commenced forthwith, from the nominal date of the 1st of July last past; and that the subscribers should be eligible to receive benefit from the 1st of July 1865, after payment of their second annual subscription.

"That, in order to carry out the project, a Board of Directors should be nominated in the following manner: to wit, one director to be appointed by the Members or Council of every Branch; or, in the case of very large Branches, two or even three directors, in proportion to the numerical strength; three or five directors to be appointed by the Committee of Council on account of members not represented by Branches; a chairman to be elected by the annual meeting from the body of the Association; the directorate thus formed to have power to appoint their own officers, and to determine their remuneration. They shall present the annual report at the time of the annual meeting of the Association."

After full discussion, the report of the Committee was adopted; and Dr. Richardson was appointed chairman of the Board of Directors. It was also resolved:

"That the first directorate be requested to consider carefully the question, whether it ought not to be necessary for each member of the Board, and each member entitled to vote at the election of members of the Board, to be a member of the Provident Fund."

Thirty-fourth Year: 1865-66.

The annual meeting in 1865 was held at the College, Leamington, on August 1st, 2nd, 3rd, and 4th; Dr. Samuel J. Jeaffreson, Physician to the Leamington and Warneford Hospital, presided. The number of members of the Association was reported to be 2,368.

An Address in Medicine was delivered by Professor Stokes of Dublin; and an Address in Surgery by Professor Syme of Edinburgh.

A new feature was introduced at this meeting; viz., discussions on subjects connected with scientific medicine. A discussion on the question "Are there any Antecedent Conditions influencing the Production of Cancer?" was opened by Mr. C. H. Moore, Surgeon to the Middlesex Hospital. At the end of the discussion, the following resolution was adopted:

"That, the subject of cancer and its origin having been discussed by this Association, and there appearing to the Association to be evidence that the disease may depend upon local or social causes, the Association respectfully requests the medical officer of Her Majesty's Most Honourable Privy Council to appoint a medical and surgical commission to investigate the subject in relation to England, and to publish the results of the inquiry in his annual report."

Dr. B. W. Richardson introduced a discussion on the question "Is there any Foundation for the Hypothesis of the Origination of Disease by Zymosis or Ferment?"

Dr. Symonds opened a discussion on the question "What Measures should be advocated by the Association for securing an Improved Position to Medical Scientific Witnesses in Courts of Law?" After the discussion, it was resolved:

"That a Committee be appointed to take into consideration the present position of medical practitioners in respect to medico-legal investigations, and to confer as to the expediency of pressing on the legislature the appointment of State physicians, whose duties might embrace both medico-legal inquiries and the care of the public health; that the Committee be requested to present their report at the next annual meeting of the Association, or to report to the Committee of Council; that the Committee of Council be requested to devote a sum not exceeding £20 for the purpose of carrying out the objects of this resolution; and that the following gentlemen be requested to serve on the Committee now appointed: Dr. Jeaffreson, Sir Charles Hastings, Dr. Richardson, Dr. A. P. Stewart, Dr. T. H. Barker, Dr. Radclyffe Hall, Dr. Acland, T. Heckstall Smith, Esq., Dr. Tindal Robertson, Dr. Westall, and Dr. Harrington Tuke." The names of Dr. Symonds and Mr. H. W. Rumsey, the mover and seconder of the resolution, were also added. A grant of £10 was subsequently made to the Committee by the Committee of Council.

Dr. Tindal Robertson also opened a discussion on the question "Why are Sanitary Measures not always followed by a Decrease of Mortality?"

Papers were also read at the meeting by Mr. Jonathan Hutchinson, Mr. Furneaux Jordan, Mr. J. K. Spender, Mr. T. P. Teale, jun., Dr. Marion Sims, Dr. W. Budd, Dr. A. Fleming, Dr. J. G. Davey, Dr. Boeck of Christiania, Mr. J. V. Solomon, Mr. Nunneley, Dr. Gibb, Dr. Morell Mackenzie, Dr. C. B. Radcliffe, and Dr. Hitchman. Ophthalmic instruments were shown by Mr. J. Z. Laurence; and preparations of iron, etc., by Dr. Richardson.

A proposal to obtain a charter of incorporation for the Association was brought before the annual meeting. During the year, a Subcommittee of the Committee of Council had been engaged in considering the subject, and had published a report, with a draft of the charter, in the JOURNAL. After discussion, it was resolved:

"That this meeting approves of the principle of obtaining a charter of incorporation, and that the Committee of Council be instructed to continue their efforts to obtain a charter.

The Hastings medal was awarded by the adjudicators, Dr. Acland, Dr. Paget, and Dr. Parkes, to Dr. T. Herbert Barker of Bedford, for an essay on Deodorisation and Disinfection, and was presented to him at the annual meeting.

A report was presented by the Board of Directors of the Medical Provident Society. After discussion, Dr. Richardson was re-elected Chairman, and Mr. John Clay, Vice-Chairman; and a special vote of thanks was given to Mr. Finlaison, the eminent actuary, for the valuable services which he had gratuitously rendered in the preparation of the tables of annual payments.

A proposal was made to the meeting that the BRITISH MEDICAL JOURNAL should be discontinued, and be replaced by a less expensive journal, directed with a view to increase knowledge, and to promote

better legislation on questions of public hygiene and state medicine. As an amendment to this, the formation of an Editorial Committee from the Council was suggested, to which the paid Editor should refer for counsel and assistance in especial cases of doubt or difficulty, and more especially in all cases involving questions of a personal or social character. A further amendment was moved, and was carried almost unanimously in a largely attended meeting: "That it is inexpedient to disturb the existing arrangements with regard to the JOURNAL; *(a)* because Dr. Markham has proved himself quite equal to the responsibilities devolving upon him; *(b)* because the tone and management has gone on improving; and that general support and sympathy from the members of the Association, especially of those connected with the public medical and surgical institutions of the kingdom, are alone wanted to make the JOURNAL an organ suited to carry out the principles upon which the Association is founded."

A proposal was made that a Committee should be appointed to promote the election of medical representatives in the House of Commons. It did not, however, meet with the approval of the meeting, and was withdrawn.

Dr. Ransome of Manchester, called the attention of the meeting to the importance of the Registration of Disease, and moved "That a Committee be appointed to encourage the Registration of Disease, and to devise the best means of obtaining the evidence of members upon medical questions having a practical bearing."

This motion, which was seconded by Dr. Philipson of Newcastle-on-Tyne, was unanimously adopted, and a Committee was appointed as follows: Dr. Acland, Dr. Hughes Bennett, Mr. S. Crompton, Dr. W. Farr, Dr. A. Fleming, Dr. G. Harley, Dr. Hodgson, Dr. Handfield Jones, Mr. R. C. Browne, Dr. J. E. Morgan, Dr. W. Ogle, Dr. Philipson, Dr. Ransome, Dr. Stewart, Dr. Sibson, Mr. T. Turner, Dr. E. Waters, and Dr. Eason Wilkinson. A grant of £10 was afterwards made to this Committee by the Committee of Council.

The President asked the opinion of the meeting on the question: "Whether it be consistent for physicians or surgeons of hospitals to sign, by order of the Managing Committee, a return of the time they enter on their duties each day of attendance, the time of leaving, and the amount of professional labour performed." It was unanimously decided: "That such regulation is inconsistent with the function and dignity of members of the medical profession."

Attention was drawn by Dr. Stewart to a series of biographies of living medical men, which was being published; and to the fact that, eleven years previously, the practice had been strongly condemned at a large meeting of the medical profession in London. He moved:

"That this meeting sees no reason to deviate from the strong and very general verdict of condemnation, which was pronounced in 1854 on the practice of publishing the biographies of living members of the medical profession."

The resolution was carried almost unanimously.

A memorial was again adopted for presentation to the Council of the Royal College of Surgeons, in favour of the use of voting papers in the election of members of Council. A memorial was accordingly presented, together with about fifty memorials on the same subject, obtained by the General Secretary of the Association, and signed by a large number of Fellows of the College resident in the provinces. A counter-memorial was also presented to the Council of the College. The reply of the Council of the College was that, having deliberately considered the memorial, they did not think it expedient to apply to Government for a new or supplementary charter to carry out the request contained in the memorial.

Memorials to the First Lord of the Admiralty and to the Secretary of State for War, respecting the position of medical officers, were also adopted at the annual meeting. The memorials asked for the restoration of the Warrant of 1858 in its integrity, as regarded the army; and of the Warrant of 1859, in the case of the navy. The memorials were referred to a committee, which had been appointed by Government to inquire into the condition of the army and navy medical officers.

THIRTY-FIFTH YEAR: 1866-67.

The thirty-fourth annual meeting was held in the Music Hall, Chester, on August 7th, 8th, 9th, and 10th, 1866, under the presidency of Dr. Edward Waters, Physician to the Infirmary.

A short time previously to the annual meeting, the Association was deprived by death of its most respected founder, Sir Charles Hastings. For some time, Sir Charles had suffered from serious illness; and, at a meeting of Committee of Council held on July 5th, 1866, at which he was unable to be present, he tendered his resignation of the office of Treasurer. This was accepted with much regret; and the hope was expressed that he might be able to continue the duties of President of Council. He died on July 30th, in the seventy-third year of his age. He had been present at every meeting of the Association from its commencement; and had, in the positions of Secretary, Treasurer, and President of Council, shown an unwearied interest in its welfare. Before proceeding to the ordinary business, the members, on assembling at the annual meeting, unanimously adopted the following resolution, proposed by Dr. Jeaffreson (the retiring President), and seconded by Mr. Carden of Worcester.

"That the British Medical Association, assembled at the general meeting at Chester, desires to express its deep sorrow at the loss the Association has sustained in the death of its much loved and highly esteemed Founder, President of Council, and Treasurer, Sir Charles Hastings, who, from the period of its establishment to the present time, has, with singular courtesy and fidelity, exerted his highest powers for the promotion of the best interests of the Association; and that a copy of this resolution be forwarded by the President to the family of the late Sir Charles Hastings, with the condolence of the Association in the bereavement they have sustained."

On a subsequent day of the meeting, Professor Stokes moved, Dr. Jeaffreson seconded, and it was unanimously resolved:

"That this meeting cannot separate without taking some steps towards a lasting testimony to the memory of their much loved Founder, President, President of Council, and Treasurer, Sir Charles Hastings; and, in order to extend and perpetuate his memory, it is desirable that in future the Hastings Medal be awarded for distinguished labours in medical science to any member of the profession, of any country; and that this prize, now provided by the funds of the Association, be provided and supplemented by a sum of money, the produce of a special fund, to be established by subscription, and called the Hastings Memorial Fund; this resolution to be referred to the Council, to be carried out in detail."

Mr. George W. Hastings, the son of Sir Charles Hastings, who had for many years acted as the adviser of the Association in regard to Medical Reform, was unanimously elected an honorary member of the Association, "in recognition of his own distinguished merits, and of his father's long and invaluable services to the Association". The existing law of the Society as to the formalities to be observed in the election of honorary members was suspended for the occasion.

The number of members of the Association was stated, in the Report of Council presented at the annual meeting, to be 2,462.

An Address in Medicine was delivered by Professor Hughes Bennett of Edinburgh, and an Address in Surgery by Mr. W. Bowman of London. In his address, Dr. Bennett recommended the appointment of a Committee by the Association to investigate the value of different modes of treatment of disease. To the usual vote of thanks to Dr. Bennett for his address, the meeting unanimously added an instruction to the Committee of Council to consider the practical suggestions which he had made. The Committee of Council, at a meeting held on October 4th, granted a sum of £25 from the funds of the Association to a Committee to be appointed by and under the direction of Professor Hughes Bennett, to investigate the Action of Mercury upon Animals.

Special discussions, for which arrangements had been previously made, were held on the following subjects: The Influence of Hospitals on Health and Mortality (Dr. Sibson and Mr. Holmes); Is the Expectant Treatment to be relied on in any Form of Acute Disease? (Dr. Stewart); Are there any trustworthy Facts as to the Origin of Pyæmia? (Mr. Alfred Baker).

Papers were read by Mr. Nunneley, Mr. A. B. Steele, Mr. Zachariah Laurence, Mr. I. B. Brown, Dr. H. Dick, Dr. Broadbent, Dr. Thorburn, Dr. Henry Day, Dr. Birkbeck Nevins, and Mr. T. T. Griffith. Dr. W. Rutherford of Edinburgh exhibited and described Du Bois Reymond's Myographion; and Mr. Christopher demonstrated, in the Infirmary, the use of Desormeaux's Endoscope, as modified by Dr. Cruise.

Dr. Sibson of London was elected President of Council, and Dr. Falconer of Bath, Treasurer; each for three years, in the room of Sir Charles Hastings. Mr. Watkin Williams was re-elected Secretary; and, Sir Charles Hastings having, in a letter to Dr. Jeaffreson, expressed a hope that his remuneration might be increased, it was referred to the Committee of Council to consider how this might be done.

The subject of a Charter of Incorporation for the Association was again brought before the annual meeting. A draft of the proposed Charter had been published in the JOURNAL under the direction of the Committee of Council; and a resolution was passed, approving it and directing the Committee to obtain it. Subsequently, however, it was pointed out that the subject was one which required more discussion; and it was resolved to suspend the resolution already passed, and to refer back the Charter to the Committee of Council, with the understanding that the subject should be specially discussed at the next gene-

ral meeting of the Association. It appears, however, that no further steps were taken in the matter.

A report was presented from the Directors of the Medical Provident Society; and the Chairman and Vice-Chairman were reappointed. Before the next annual meeting, the Society was dissolved in consequence of not meeting with adequate support; all contributions to the Society, and a large proportion of the donations to the auxiliary fund, being returned to the respective contributors and donors.

The Hastings Gold Medal was presented to Mr. Furneaux Jordan of Birmingham—to whom it had been awarded by the adjudicators, Mr. Carden, Mr. Hilton, and Mr. Southam—for an essay on Shock after Surgical Operations and Injuries.

Dr. Mackesy of Waterford proposed at the annual meeting a resolution in favour of representation in Parliament being granted to the Medical Profession in its collective capacity, and of endeavouring to obtain this by means of memorials to the Government and petitions to Parliament. Objections to any proposal for the Parliamentary representation of a profession as a whole were pointed out by several members; and the resolution was withdrawn.

In consequence of the course taken by the Council of the Royal College of Surgeons regarding the use of voting-papers in the election of members of Council, the Council of the Association recommended that a deputation should be appointed to bring the subject under the notice of the Home Secretary. They also recommended that a deputation should wait upon the Home Secretary, at the proper time, in support of an amendment of the Medical Act. It was decided by the meeting to leave the appointment of those deputations in the hands of the Committee of Council.

In pursuance of the instructions thus given, the Committee of Council, through the President of Council, intimated to the General Medical Council their determination to assist them in obtaining an amendment of the Medical Act, by petitions to both Houses of Parliament, and by representations to Her Majesty's Government. The President of Council also addressed to the Secretary of State for the Home Department a letter on the same subject. The Committee of Council also appointed a Subcommittee, consisting of Dr. Waters of Chester, Dr. Simpson, and Mr. Southam of Manchester, Mr. Husband of York, and Mr. Nunneley of Leeds, to consider and report on the best mode to be followed in obtaining a fuller representation of the profession on the General Medical Council.

A report was presented from the Committee on the Registration of Disease.

Dr. Markham, who had very ably edited the JOURNAL from the commencement of 1861, in August 1866 was appointed a Medical Inspector under the Local Government Board, and in consequence thereof resigned his editorial duties. The Committee of Council appointed Mr. Ernest Hart as his successor; and at the same time nominated a "Journal Reference Committee," consisting of the President of the Association, the President-elect, the President of Council, Dr. Markham, and Dr. Stewart.

THIRTY-SIXTH YEAR: 1867-68.

The year 1867 is memorable as being the first in which the Association met in Ireland. Cordial invitations had been received at the previous annual meeting from the authorities of the University of Dublin, of the King and Queen's College of Physicians, and of the Royal College of Surgeons in Ireland; and accordingly the thirty-fifth annual meeting was held in Trinity College, on August 6th, 7th, 8th, and 9th, under the Presidency of Dr. William Stokes, Regius Professor of Physic in the University.

The number of members of the Association was stated in the Report of Council to be 3,382.

An Address in Medicine was delivered by Sir Dominic Corrigan, Bart., and an Address in Surgery by Professor R. W. Smith. A discussion on State Medicine in Great Britain was opened by Dr. H. W. Rumsey; and at its conclusion the following resolutions were adopted:

"That the Association desires to express its decided approval of the plan proposed by Dr. Farr; namely, the appointment of a registration medical officer in every registration district, or group of districts, with medico-legal and sanitary functions, and pledges itself to support that measure, as the initiative step to a national organisation for purposes of State medicine." "That the Committee of Council be instructed to direct their early or special attention to the amendment of the sanitary laws; to invite the co-operation, for this end, of the Council of the National Association for the Promotion of Social Science; and to urge the branches of this Association to promote the same important object by local efforts, by representation to individual members of Parliament, and, if need be, by deputations to her Majesty's Government." "That a Committee be appointed, consisting of Dr. Acland, Dr. Symonds, Dr. Falconer, Dr. Lankester, Dr. Rumsey, Dr. Burke, Dr. Mapother, Dr. A. T. H. Waters, Dr. Tindal Robertson, Dr. Gairdner, Mr. Ransome, Dr. J. E. Morgan, Dr. Philipson, and Dr. Stewart, to collect information, in such manner as they may think best, on the subjects brought before the Association by Dr. Rumsey; and that the Committee of Council be empowered to make such pecuniary grant as the funds of the Association will permit towards the expenses of this inquiry."

The scientific business of the meeting was for the first time arranged in sections, of which there were four, viz., Medicine, Physiology, Surgery, and Midwifery. Various papers were read and discussed in each section.

Another innovation introduced at this meeting was the issuing of a "daily journal" of the proceedings. This course has since been followed at each annual meeting, with great convenience to the members.

The University of Dublin conferred the honorary degree of M.D. on Dr. Acland of Oxford, Mr. W. Bowman of London, Dr. Paget of Cambridge, Mr. Rumsey of Cheltenham, Dr. Sibson of London, Sir James Simpson, Bart., of Edinburgh, Mr. Syme of Edinburgh, and Mr. T. P. Teale, of Leeds. The King and Queen's College of Physicians, at a *conversazione*, conferred the honorary diploma of Fellowship on Dr. A. P. Stewart of London, Dr. J. Hughes Bennett of Edinburgh, Dr. E. Waters of Chester, Dr. R. W. Falconer of Bath, Mr. Lockhart Clarke of London, Dr. W. O. Markham of London, Dr. G. T. Gream of London, Mr. Spencer Wells of London, and Dr. Giovanni Polli of Milan. The honorary Fellowship of the Royal College of Surgeons of Dublin was conferred on Mr. Syme and Mr. Bowman.

On the recommendation of the Council, Mr. Ernest Hart was appointed the authorised representative of the Association in the International Medical Congress, about to assemble in Paris.

The Committee on the Observation and Registration of Disease presented a Report. They stated that a specimen schedule for the use of contributors to the returns had been sent to each member of the Association, and had been adopted by the medical officers of health for St. Marleybone and Birmingham, and by the Sanitary Association of Manchester and Salford, and they expressed approval of the proposal made by Dr. Farr, that a registration medical officer should be appointed in each superintendent registrar's district; they again urged the desirability of appointing, in each Branch of the Association, honorary registrars for the purpose of obtaining the evidence of members on practical medical questions. The report was adopted.

An application having been made by the Committee on Parliamentary Bills, appointed by the Metropolitan Counties Branch, for a grant towards the payment of expenses, it was agreed that the sum of £10 should be allowed, and that the Committee should be increased by one member from each Branch of the Association*.

THIRTY-SEVENTH YEAR: 1868-69.

The Association met, for the third time, at Oxford, on August 4th, 5th, 6th, and 7th, 1868, under the presidency of Dr. H. W. Acland, Regius Professor of Physic in the University. The general meetings, and the meetings of the Sections, were held in the University buildings.

The number of members of the Association was stated in the report of Council to be 3,627.

There were four Sections: Medicine, Surgery, Physiology, Midwifery, and Public Medicine.

Alterations in the laws were made, providing that it should be necessary for each candidate for membership of the Association to have the votes of three-fourths of the members present at the meeting of Committee of Council or Branch Council at which he might be proposed, and also regulating the admission of honorary members to the Association.

A Committee, consisting of Dr. Sibson, Dr. Russell Reynolds, Dr. W. T. Gairdner, Mr. Southam, and Dr. William Roberts, was appointed to consider the mode of electing the General Council. The Committee reported that they had agreed on the following proposals:

"1. That the Committee of Council be empowered to propose to the first general meeting, at each annual meeting, a list of persons to serve on the Council for the ensuing year from among the members who do not reside in localities where Branches exist.

"2. That the number of persons so proposed shall be in the

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* An account of the proceedings of this Committee is given at page 881

proportion, as nearly as possible, of one to every twenty such members.

"3. That it be permitted to members residing in localities where no Branches exist to nominate (if they so choose) representatives to serve in the Council in the proportion of one to twenty of their number, in which case the Committee of Council shall not nominate for such locality."

The report was adopted, and was referred to the Committee of Council for execution.

A motion was proposed by the Rev. Dr. Bell, to the effect that the subscriptions of the members should be paid to the Treasurer and not to the General Secretary, and that lists of paid subscriptions in the JOURNAL might take the place of separate receipts, was referred to a Committee consisting of the Rev. Dr. Bell, Dr. Falconer, Dr. H. Marshall, Mr. T. T. Griffith, Mr. Ernest Hart, and Dr. S. Gibbon. They reported that the Treasurer's accounts were so admirably arranged as not to require any suggestion. They recommended that receipts for the annual subscriptions be given on a form of printed receipt issued by the General Treasurer; that the moneys received by the General Secretary from the local Secretaries should be paid direct into the Treasurer's banking account; that the counterfoils of the receipts upon all such annual subscriptions be included in the audit; and that the auditors should have before them the means of ascertaining the greatest number of JOURNALS issued during the year. It was resolved that the report of the Committee, with Dr. Bell's resolution, be referred to the Committee of Council, to carry out the recommendations if practicable.

The honorary degree of D.C.L. was conferred by the Vice-Chancellor of the University on Sir Charles Locock, Sir William Jenner, the Rev. Samuel Haughton, M.D., Dr. Gull, Mr. James Paget, Mr. John Simon, and Mr. Syme.

A new and interesting feature of the meeting of the Association was the Annual Museum. It originated in a suggestion made by Mr. Jonathan Hutchinson, viz., that an exhibition of objects invented or collected during the year—a museum which should, in fact, show "the cream of the year's progress" in medicine and surgery—could hardly fail to be of great practical value to visitors attending the meeting. The local officers of the Association at Oxford immediately took up the suggestion; and their efforts, aided by the prompt and active co-operation of Mr. Hutchinson himself, resulted in a fairly successful realisation of his scheme. The exhibition was held in one of the lecture-rooms of the University Museum. Every specimen was labelled with a clear, concise description. The objects contributed from various quarters on this occasion came under four heads:—1. Pathological Drawings, Preparations, Wax models, etc.; 2. New Instruments and Appliances in Medicine and Surgery; 3. Drugs and Articles of Medical Diet; 4. New English and Foreign Medical Works. The Museum has since proved an interesting accessory of each annual meeting.

An Address in Medicine was delivered by Dr. W. W. Gull, and an Address in Physiology by Dr. Rolleston. The Rev. Dr. Haughton, of Dublin, read a paper on the Sources of Vital and Mechanical Force derived from Food, and its Influence on Medical Practice.

Dr. Hughes Bennett read the first part of a report on the Action of Mercury on the Liver, in which he dealt with the history of the subject. In pursuance of the resolution passed at the meeting at Chester in 1866, he had formed a Committee in Edinburgh, consisting of Professor Christison, Professor Douglas Maclagan, Dr. James Rogers, Dr. W. Rutherford, Dr. T. R. Fraser, and Dr. Arthur Gamgee, for the investigations, which had special relation to the action of mercury as a cholagogue. The physiological, materia medica, and medico-legal laboratories of the University had been placed at the disposal of the Committee. The question of making further pecuniary grants to the Committee was referred to the Committee of Council.

A letter having been received from the Poor-law Medical Officers' Association, asking for the co-operation of the British Medical Association, it was resolved at the annual meeting that a Committee be appointed to confer with the Council of the Poor-law Medical Officers' Association, and to co-operate in promoting the interests of Poor-law Medical Reform.*

The Committee on State Medicine, which had been conjoined with a Committee of the Social Science Association, presented a report embodying an elaborate expression of their opinions with regard to the requirements of sanitary legislation. The report was adopted, and a Public Health Committee was appointed.*

A report was presented by the Committee on Parliamentary Bills. It contained an account of the proceedings of the Committee with regard to the Vaccination Bill, the Artisans' Dwellings Bill, the Medical Practitioners (Colonies) Bill, the Poor Relief Bill, the Pharmacy Bill, and Baby-farming. The Committee was reappointed, with the addition of several members.†

In the spring of 1869, Mr. Ernest Hart retired from the management of the BRITISH MEDICAL JOURNAL, which he had held since 1866; and the Committee of Council appointed Mr. Jonathan Hutchinson as his successor.

At the annual meeting in 1868, it was decided to present a petition to Parliament on the subject of Secondary Education, which had been under the consideration of a Royal Commission. Accordingly, in the Parliamentary Session of 1869, a petition was presented, in which it was stated "that the Association has reason to fear that, notwithstanding the regulations of the medical corporations and universities of the United Kingdom which have been designed to secure the preliminary general education of medical students, some of them have great difficulty in maintaining a sufficient standard of acquirement, owing to the inefficient state of secondary education in the schools of the country;" and praying that Parliament would "allow but little time to elapse before such laws shall be enacted as will remedy existing defects in endowed schools, and otherwise place the secondary education of the country in a satisfactory state".

THIRTY-EIGHTH YEAR: 1869-70.

The thirty-sevent meeting of the Association was held in the Philosophical Hall, Leeds, on July 27th, 28th, 29th, and 30th, 1869. The President was Dr. Charles Chadwick, Physician to the Leeds Fever Hospital and General Infirmary. Unfortunately, he was prevented from being present during the greater part of the meeting, in consequence of a severe domestic bereavement, which evoked a feeling of deep sympathy on the part of the members. His place was taken, first by Dr. Sibson, and then by Mr. Husband, Presidents of Council. The number of members in the Association was reported to be 4,095.

Dr. Sibson retired from the office of President of Council, the three years' term of office to which he was appointed in 1866 having expired; and Mr. W. D. Husband was elected his successor.

Mr. Watkin Williams was re-elected Secretary of the Association, and his salary was fixed at £300 *per annum*.

A proposal was made that an alteration should be made in the laws, providing that the number of elected members of Committee of Council should be increased from ten to twenty. An amendment to this was proposed, to the effect that a Committee should be appointed to consider whether the laws relating to the constitution and powers of the Committee of Council, or any other laws of the Association, required amendment. After discussion, both the motion and the amendment were rejected.

An Address in Medicine was delivered by Sir William Jenner, Bart.; an Address in Midwifery by Dr. T. E. Beatty; and an Address in Surgery by Mr. Nunneley. There were five sections, viz.: Medicine, Surgery, Midwifery, Physiology, and State Medicine.

Advantage was taken of the opportunity offered by the erection and recent occupation of the new Infirmary at Leeds, to bring before the meeting the question of the construction of hospitals, especially in its medical aspects. The subject formed the chief topic of the opening address of the President, Dr. Chadwick; and on a subsequent day, an address on the same subject was given at the invitation of the President of Council, by Captain Douglas Galton, C.B., an authority whose experience in the matter is well known. The delivery of Captain Galton's address was followed by a discussion.

A report of the Medical Benevolent Fund was presented, in which it was stated that 106 cases of distress had been relieved at a cost of £853. There are twenty-seven annuitants.

The Committee on Registration of Disease presented a report, in which it was stated that a system of registration of cases of disease occurring in public practice was still carried on at Manchester and Sal-

* The Committee consisted of the following gentlemen, with power to add to their number: Dr. Sibson, Dr. Falconer, Dr. Stewart, Dr. Heslop (Birmingham), Dr. Newnham (Wolverhampton), Mr. Fleischmann (Cheltenham), Mr. Heckstall Smith (St. Mary Cray), Mr. Ernest Hart, Mr. Edwin Chadwick, C.B., Mr. Charles Neate, M.P., Dr. Armstrong (Cork), Dr. Beatty (Dublin), Dr. T. L. Mackesy (Waterford), Dr. Macnamara, Dr. Quinan, Mr. Tufnell, and Dr. Mapother (Dublin), Dr. Gairdner (Glasgow), and Dr. Hughes Bennett (Edinburgh).

* The members of the Committee were: Dr. Acland, Dr. Arlidge, Mr. T. J. Dyke, Dr. Gairdner, Dr. Alfred Hill, Dr. Mapother, Dr. Maudsley, Dr. Paget, Dr. A. Ransome, Dr. Rumsey, Dr. Strange, Dr. A. T. Waters, Dr. Burke, Dr. Falconer, Mr. Ernest Hart, Dr. Lankester, Sir J. Ranald Martin, Dr. J. E. Morgan, Dr. Philipson, Dr. Tindal Robertson, Mr. Heckstall Smith, Dr. J. A. Symonds, and Dr. A. P. Stewart.

† The members added were: Sir Dominic Corrigan, Bart. (Dublin), Dr. W. Mac Cormac (Belfast), Rev. S. Haughton, M.D. (Dublin), Dr. R. Macnamar. (Dublin), Dr. Aquilla Smith (Dublin), Dr. R. McDonnell (Dublin), Dr. G. H Porter (Dublin), Dr. Mapother (Dublin), Dr. Gairdner (Glasgow), and Dr. Hughes Bennett (Edinburgh).

ford, St. Marylebone, Birmingham, Newcastle-on-Tyne, and Gateshead. The Committee also called attention to a proposal made by Dr. Farr in the last report of the Registrar-General, for the appointment of a Resigtration Medical Officer in each Superintendent Registrar's district; and recommended that the Association should urge the importance of this proposal on the Secretary of State. The report was adopted, and it was further agreed "That it is desirable that the report of the Committee be forwarded to the Right Honourable the Chairman of the Royal Sanitary Commission; accompanied by a request that the Commission will be pleased to examine a member of this Committee, Dr. Sibson, F.R.S., or some other, on the subject, with a view to pointing out to the said Commission the great importance to the public and to science of the registration of diseases."

The Committee on the representation of the profession on the Medical Council presented a report, which was adopted. The following resolution, proposed by the Rev. Dr. Haughton, was also carried by a large majority: "That the British Medical Association are of opinion that the graduates and licentiates of the Universities and Medical Corporations should have the power of electing their own representatives into the Council."

It was objected by some members that, if the Committee were strictly bound by this resolution, it would interfere materially with the promotion of the object which they had in view—the direct representation of the profession; and subsequently the following resolution was adopted: "That the Committee on the direct representation of the profession in the Medical Council be reappointed, with the addition of the Rev. Professor Haughton and Dr. Sibson, with power to carry out the resolutions of the general meeting, or such parts of them as the Committee may be able; that Dr. E. Waters be chairman and convener."

A report was presented from the Joint Committee on State Medicine. Appended to the report was a memorial to the Secretary of State and the Chancellor of the Exchequer, praying that the inquiries of the Royal Sanitary Commission might be extended to the metropolis, to Scotland, and to Ireland, the approval of which was recommended by the Committee. The Report was received and adopted; and the Committee of Council was empowered to make such grant of money as they might see fit for defraying the necessary expenses of the Committee. The Committee was reappointed.* At a subsequent meeting of the Committee of Council, the sum of £10 was voted towards defraying the expenses of the Committee.

A letter was read, which had been written by Dr. Gross to Dr. Acland, inviting the Association to send representatives to the meeting of the American Medical Association to be held the following year in Washington. It was decided by the meeting that the Committee of Council should be instructed to endeavour to obtain those representatives. The Government of the United States had deputed Dr. Norman Pinkney, of the American Navy, to attend the meeting and give a report of the proceedings. He was also appointed a delegate to the meeting by the American Medical Association. Through a misunderstanding, however, as to the time of the meeting in Leeds, he did not arrive until the following week.

In accordance with a recommendation made by the Section of Physiology, it was resolved:

"That it be remitted to the Committee of Council to decide on some subject of original investigation, and to appoint a Committee to conduct such investigation, and to report at the next annual meeting; the Committte of Council to be also empowered to grant such sum as may be considered necessary for carrying on the investigation and the experiments connected therewith."

In compliance with this resolution, the Committee of Council appointed Dr. Hughes Bennett, the Professor of Chemistry in the University of Edinburgh, and their Assistants, to be a Committee to investigate the effects of antidotes to the effects of strychnia and of opium, and granted £50 as payment to the Assistants. At another meeting of the Committee of Council, on December 3rd, 1869, the Therapeutical Investigation Committee was appointed, to consist of Dr. Hughes Bennett, Dr. Rogers, Dr. McAdam, Mr. Smith, and Dr. McKendrick; and it was decided that £100 be paid to the assistants at the convenience of the treasurer.

A report was presented from the Committee on Parliamentary Bills; but, through a misunderstanding in the course of the business, no steps were taken for its adoption or the reappointment of the Committee, which consequently lapsed. The report contained an account of the proceedings of the Committee with respect to the Pharmacy Act Amendment Bill, the Medical Officers (Ireland) Superannuation Bill, the Medical Acts Amendment Bill, the Metropolitan Poor Act (1867) Amendment Bill, the Hospitals, etc., Rating Exemption Bill, the County Coroners' Bill, the Adulteration of Food and Drink Act Amendment Bill, the Bills for amending the Contagious Diseases Act and the Vaccination Acts, etc.

On May 15th, 1870, a special meeting was held to consider a Bill to amend the Medical Act of 1858, which had been introduced into the House of Lords by Earl de Grey and Ripon, President of the Privy Council. On the following day, a deputation of a large number of members of the Asssociation waited on the Lord President, and submitted to his consideration a clause providing for the introduction of direct representatives of the profession into the General Medical Council.

* The Committee, as reappointed, consisted of Dr. Rumsey, Chairman; Dr. Acland, Dr. Arlidge, Mr. Dyke, Dr. Falconer, Dr. Gairdner, Dr. A. Hill, Dr. Lankester, Dr. Lewis, Dr. Mapother, Sir J. R. Martin, C.B., Dr. Maudsley, Dr. J. E. Morgan, Dr. Paget, Dr. Philipson, Dr. A. Ransome, Dr. Tindal Robertson, Mr. Heckstall Smith, Dr. Strange, Dr. A. T. H. Waters, and Dr. Stewart; with power to add to their number.

THIRTY-NINTH YEAR: 1870-71.

The thirty-eighth annual meering of the Association was held at Newcastle-on-Tyne, under the presidency of Dr. Edward Charlton, Senior Physician to the Infirmary. The general meetings were held in the lecture-room of the Literary and Philosophical Society. The Mayor, Sheriff, and Under-Sheriff, in their robes of office, were present at the opening meeting. This was the first time in the history of the Association that the municipal authorities had officially shown their interest in the proceedings of the Association.

The number of members of the Association was stated in the Report of Council to be 4,258.

An Address in Medicine was delivered by Dr. Sibson, who chose as his subject the influence of Rest and Ease in the Treatment of Acute Rheumatism. Dr. G. Y. Heath delivered an Address in Surgery.

There were six Sections for the reading and discussion of papers; viz. Medicine, Surgery, Physiology, Midwifery, Public Medicine, and Psychology.

The honorary degree of D.C.L. of the University of Durham was conferred on Dr. Charlton, Dr. Chadwick, Dr. Falconer, Dr. Sibson, Dr. Acland, Dr. Paget, and Dr. Stokes.

A motion for an inquiry into the constitution and operation of the Committee of Council was brought forward, but was negatived. Dr. R. Elliot also proposed the annual publication of a volume of *Transactions*, but, after some discussion, withdrew his motion.

The Committee on the Registration of Disease presented a report, in which they recommended that a deputation from this Association should seek an interview with Mr. Göschen, and that the gentlemen composing it should be instructed to state:—1. The importance to the public and to science of such a registration of disease; 2. The success of the scheme adopted by this Association, and its employment for ten years in Manchester and Salford and St. Marylebone; for five years at Birmingham; for four years at Newcastle-on-Tyne; and for fifteen months at Preston; 3. That the method of registration proposed provides for a uniform schedule of disease; 4. That it might be performed by the resident medical officers of public institutions and by the Poor-law medical officers, who should be fairly remunerated for this addition to their labours; 5. That the appointment of "Registration Medical Officers" would not only facilitate the registration of disease, but would greatly improve other services of State Medicine.

The report was adopted, and it was resolved that a deputation, consisting of Dr. Rumsey, Dr. Sibson, Dr. A. P. Stewart, Dr. Morgan, and Dr. Ransome, should seek an interview with the President of the Poor-law Board, to represent to him the views of the Association with respect to the registration of disease.

The Parliamentary Bills Committee having fallen into abeyance, authority was given at the annual meeting to the Committee of Council to take steps for its reconstitution.

The following resolution, on the recommendation of the Section of Public Medicine, was adopted by the general meeting:

"That the Committee of this Association, appointed at Oxford in 1868, for the purpose of considering the subject of Medical Relief to the Poor in Great Britain and Ireland, and of co-operating with the Poor-law Officers' Association, shall be reappointed, with power to add to their number."

On October 14th, a joint meeting of the two Committees was held, at which a series of important resolutions were agreed on.*

* The resolutions were as follows. "1. That medical relief and the sanitary care of the poorer classes (with which the registration of diseases is indissolubly connected), are questions which ought not to be treated independently of each other; and that they require to be settled on improved principles, by a connected and consistent scheme of legislation and administration. 2. That, with regard to medical relief under the Poor law, it is desirable to establish in England and Wales a system of district dispensaries, similar in many respects to that which has been for some years in operation in Ireland (of which a system of registration of disease forms an

Dr. Hughes Bennett having presented to the Physiological Section an interim report from the Committee on the Action of Medicines, the Committee adopted the following resolution, which also received the approval of the general meeting:

"That the Physiological Section, having heard the interim report (by Professor Bennett, the chairman) of the Committee appointed at the Leeds meeting of the British Medical Association in 1869, to investigate the antagonism of medicines, etc., and recognising the importance of the results which have been obtained both to science and to practical medicine, wish strongly to urge on the Council of the Association the desirability of aiding in every way in its power the prosecution of those investigations."

Mr. Jonathan Hutchinson having resigned the office of editor of the BRITISH MEDICAL JOURNAL, Mr. Ernest Hart was re-elected editor at a meeting of the Committee of the Council held at Newcastle during the annual meeting.

A report was presented from the Direct Representation Committee, giving an account of the proceedings with respect to the Medical Bill which had been introduced into Parliament. Its adoption having been moved, Dr. Acland moved the following amendment, which was seconded by Dr. Embleton:

"That this meeting learns with regret—1. That a Committee of this Association has refused, in the name of the Association, the offer of Mr. Forster, Vice-President of the Privy Council, to grant a Committee of the House of Commons at the next session of Parliament to inquire into the question of direct representation in the Medical Council. 2. That, in consequence of this refusal, the Government declined to proceed with the Medical Bill, on which Lord de Grey, Lord President of the Privy Council, has bestowed great labour and attention, in connection with the Council and its Executive Committee, containing representatives from England, Scotland, and Ireland. 3. That hereby much valuable time has been lost to the public in the settlement of various important measures affecting medical education, as well as the hearty co-operation of a Government truly anxious to promote the best interests of every branch of the medical profession."

After considerable discussion, the report of the Committee was adopted by a large majority, and the following resolution was also passed:

"That the following gentlemen be appointed a Medical Reform Committee, with full power to take such steps as they deem necessary to secure the adoption of the principles of medical reform advocated by the Association in any Bill which may be brought before Parliament, viz., the President of the Association, the President-elect, the President of the Council, the Treasurer, Dr. Edward Waters, Dr. Chadwick, Mr. Southam, Dr. Sibson, Dr. A. P. Stewart, Mr. W. H. Michael, the Rev. Dr. Haughton, Mr. Heckstall Smith, Dr. Davey, Dr. Hughes Bennett, and the General Secretary."

The adoption of the report of the Committee was soon afterwards followed by the secession from the Association of three of its Vice-presidents—Drs. Acland, Paget, and Stokes; also of Drs. Embleton and Rumsey; all of whom were members of the General Medical Council.

The following resolution was also passed in the Public Medicine Section, and approved by the meeting.

"That, in future sanitary legislation, the smoke-nuisance and other gaseous pollutions of the atmosphere should be dealt with by compulsory measures, to be carried into effect by authorities independent of the district, and instructed by local inspectors, unfettered by local interests and feelings."

At the annual meeting, it was announced in the report of the Council that the adjudicators of the Hastings Medal—Dr. Charlton, Dr. A. P. Stewart, and Dr. A. T. H. Waters—had not yet been able to come to a decision as to the merits of the essays presented for competition. They subsequently awarded the medal to Dr. J. Milner Fothergill, for his essay on "Digitalis: its Mode of Action and its Use."

FORTIETH YEAR: 1871-72.

The thirty-ninth annual meeting of the Association was held in Plymouth on August 8th, 9th, 10th, and 11th, 1871, under the presidency of Mr. John Whipple, Consulting-Surgeon to the South Devon and East Cornwall Hospital. The general meetings took place in the Plymouth Royal Hotel, except on one day, when a meeting was held at the Town Hall in Devonport.

Addresses of welcome were presented to the Association by the Mayors and Corporations of Plymouth and Devonport.

The number of members of the Association was reported to be 4,403.

An Address in Medicine was delivered by Dr. George Johnson, who chose as his subject "Nature and Art in the Cure of Disease." Professor Lister delivered an Address in Surgery, the subject being "The Antiseptic System of Treatment." The Sections were: Medicine; Surgery; Midwifery; and Public Medicine.

The mode of conducting the business of the Association was brought under the notice of the meeting in the report of the Council, in which an account was given of two inquiries conducted in the previous year by the Committee of Council; and it was recommended that the General Secretary should in future reside in London. In accordance with the recommendations of Council, an alteration was made in the laws, by which it was provided that "there shall be one paid Secretary, who shall reside in London, and devote his whole time to the business management of the Association and of the JOURNAL office; and it was decided that he should not be an *ex officio* member of the Council or of the Committee of Council. Mr. Watkin Williams was requested to act as Secretary up to the end of the year; and it was resolved that he be presented with £200, in place of the usual salary (£300 *per annum*). He was also thanked for his zealous services during the eight years in which he had held the office of Secretary. At a meeting of the Committee of Council, held on October 31st, Mr. Francis Fowke was elected General Secretary of the Association and Manager of the JOURNAL Office, and entered on his duties at the beginning of 1872.

Several other changes in the laws of the Association were also made. The President-elect and the Vice-Presidents were added to the Council. It was decided that candidates for the membership of the Association must make application in writing, and be recommended by three members; and that members might be admitted on and after July 1st in each year, the subscription to the end of the year being half a guinea.

A proposal was made to omit the Secretaries of Branches from the Committee of Council, and to increase the number of elected members from ten to twenty-five. This was strongly opposed, and was withdrawn. A motion that members of Council desirous of seats on the Committee of Council should make a formal declaration to that effect, and be nominated by six members of the Association, was negatived.

A report was presented at the annual meeting by the Committee on the Observation and Registration of Disease. Appended to it was an extract from the Report of the Royal Sanitary Commission, which contained arguments in favour of a registration of disease, apparently identical with that proposed by the Association. The Committee recommended that a memorial should be presented to the Government praying that provision might be made, in any measure of sanitary reform, for the registration of disease, and for allowing health-officers to make immediate use of the returns of disease before their transmission to the Government. It was resolved:

"That this Association, whilst it gratefully acknowledges the favourable reception accorded to its views on the subject of the registration of disease, both by the Government and the Royal Sanitary Commission, desires to urge the importance of making the returns accurate, and immediately so available in the localities from which they are procured; and therefore points out the need of a superior health-officer in every area of sufficient size, by whom, amongst other duties, the returns could be collected, and immediately applied to the wants of the district. Also that the Committee on the Observation and Registration of Disease be reappointed."

The Parliamentary Bills Committee, which had been recently reconstituted, presented a report of proceedings with respect to the Coro-

important part) with great benefit, not only to the sick poor, but also to the public health and the control of pauperism; and that, in every district, medicines and other remedial appliances be provided, under inspection, at the cost of the local authorities. 3. That, in order to secure efficient treatment of the sick poor, and adequate remuneration to their medical attendants, it is important that the area and population of medical districts, and the salaries of the medical officers, be resettled (as far as practicable) on an uniform basis, by a code of regulations or general orders, having statutory force; no local exemptions being permitted without the sanction of the central authority. 4. That the position, the tenure of office, the qualifications, and the duties of the medical officers be determined and regulated by the same code of regulations; and that the salaries of the medical officers be defrayed either wholly out of the consolidated fund, or partly from that fund and partly from a county rate. 5. That a general registration of disease be instituted; and that all new cases of sickness, etc., coming under treatment at the public cost, whether in union districts and workhouses, or in public and charitable institutions, be returned every week or oftener in times of pestilence (according to an uniform system of nomenclature and record), by the resident medical officers of such institutions, and by the Poor-law medical officers, who should be fairly remunerated for this addition to their labours. 6. That the above returns of disease be collected and revised by a registration medical officer, or by a medical officer of health acting as such, in every superintendent registrar's district or group of districts, so as to constitute a register for the use of local authorities; and that a copy thereof be forwarded at stated intervals to the central authority. 7. That certain preventive duties relating to the sanitary condition of the poor be performed by the Poor-law medical officers, as deputy health-officers; and that they be paid for such sanitary duties on a scale to be determined by the central authority. 8. That, in order to rectify and prevent abuses, the medical and sanitary care of the poor in districts and workhouses be subjected to periodical inspection, either by the proposed chief officer of health, debarred from private practice, or by medical inspectors under the central authority, or by both. 9. That, in any rearrangement of sanitary organisation resulting from the inquiry of the Royal Sanitary Commission, it is desirable that the foregoing propositions should be embodied."

ners' Bill, the Lunacy (Ireland) Bill, the Bill for the Treatment of Habitual Drunkards, the regulation of Baby-farming, the Poor-law Medical Service, the proposed Local Government Board, the Vaccination Acts Amendment Bill, and other matters. The report was adopted, and the Committee reappointed.

A report was read from the Joint Committee of the British Medical and Social Science Associations. It consisted of an elaborate and careful critical examination of the Report of the Royal Sanitary Commission, which had been appointed in compliance with a request submitted in May 1868 to Her Majesty's Ministers by a deputation from the above named Associations. The report was adopted, and the Committee was appointed.

The Poor-law Committee presented, at the annual meeting, a report of their proceedings during the year, and were reappointed, with Mr. Ernest Hart as chairman. In February 1872, the Committee had a conference with the Council of the Poor-law Medical Officers' Association; and a deputation from the two bodies waited on Mr. Stansfeld, the President of the Local Government Board, to make a statement of what was required in the way of amended medical relief in its special relation to public health. Especial attention was directed to the importance of establishing dispensaries; and the objections to making Poor-law officers medical officers of health over large areas were pointed out.

FORTY-FIRST YEAR: 1872-73.

The fortieth annual meeting was held in King Edward's School, Birmingham, on August 6th, 7th, 8th, and 9th, 1872, under the presidency of Mr. Alfred Baker, Senior Surgeon to the General Hospital.

The number of members of the Association had increased to 4,700.

A proposal was made for the payment, from the funds of the Association, of the travelling expenses of members of the Committee of Council and of Subcommittees, in cases where provision for such payment did not already exist. This was opposed strongly by several members; and on being put to the vote, the motion was lost by a large majority.

A sum of £25 was voted to Mr. Ernest Hart, in acknowledgment of the services rendered by him in the voluntary supervision of the business department of the JOURNAL previously to the appointment of a Secretary in London.

Mr. Husband's term of office as President of Council having expired, Mr. G. Southam of Manchester was chosen to succeed him. The thanks of the meeting were voted to Mr. Husband for the manner in which he had discharged his duties, and he was elected a Vice-President of the Association for life.

An Address in Medicine was delivered by Dr. Samuel Wilks, and an Address in Surgery by Mr. Oliver Pemberton. The scientific business of the meeting was conducted in five sections, viz., Medicine, Surgery, Midwifery, Public Medicine, and Psychology.

An address of welcome was received from the Mayor and Corporation of Birmingham, and was duly acknowledged by the meeting.

No invitation for the meeting of the Association in 1873 having been received, the Committee of Council was authorised to make arrangements for the meeting and to appoint a President-elect. At the meeting of the Committee of Council on November 13th, invitations were received from Scarborough and from London. The invitation from London was accepted, and Sir William Fergusson was appointed President-elect.

The Medical Reform Committee presented a brief report, in which they stated that during the past year they had suspended active exertions, being desirous not to impede, by any independent attempt at legislation, the endeavours which the corporations were making to form conjoint examining boards. The report was adopted, and the Committee was reappointed.

A report was also presented from the Joint Committee on State Medicine.

The Poor-law Committee presented to the annual meeting an account of their proceedings during the year, and were reappointed.

The Committee on the Registration of Disease presented a brief report, in which they repeated the recommendation made at the previous annual meeting. They recommended that, in the next session, a a further memorial in favour of registration of disease—no provision for which had been made in recent sanitary legislation—should be again presented to the Government and to Parliament. It was pointed out that the necessity for establishing a national system of registration was shown by the partial failure of the ordinary efforts that had been made to establish such registration. The report was adopted, and the Committee reappointed; and it was also resolved that a memorial should be addressed to the Local Government Board and a Petition to Parliament embodying the views of the Association on the subject of registration of disease. Accordingly, in May 1873, a petition was signed by the President of the Association, the President of Council, the Treasurer, and Dr. Ransome, honorary secretary of the Registration Committee, and presented to Parliament.

FORTY-SECOND YEAR: 1873-74.

The Association met a second time in London in 1873. The meetings were held in King's College on August 5th, 6th, 7th, and 8th, under the presidency of Sir William Fergusson, Bart., senior Surgeon to King's College Hospital.

The number of members of the Association was reported to be 5,400.

An Address in Medicine was delivered by Dr. E. A. Parkes; an Address in Surgery by Mr. John Wood; and an Address in Physiology by Dr. Burdon Sanderson. There were six sections for the reading of papers: viz., Medicine, Surgery, Obstetric Medicine, Public Medicine, Psychology, and Physiology.

The Hastings Gold Medal was presented to Mr. Lawson Tait of Birmingham, for his essay on the Pathology and Treatment of Ovarian Diseases.

Several alterations were made in the laws of the Association. The readers of addresses and presidents of sections were added to the Council. The number of elected members of the Committee of Council was increased from ten to twenty. It was also provided that the twenty members should be nominated for election by the Committee of Council, but that any two members of the Association might also have power to nominate candidates. It was also decided that the financial accounts of each year should be examined and audited by a public accountant, and that his report should be published in the JOURNAL within the first four months of the year. A resolution was also passed, requesting the Committee of Council to draw up a complete code of laws and by-laws for the government of the Association, based on the existing laws, with such alterations as might be advisable, and to report to the next general or Council meeting of the Association.

In accordance with the instruction, the Committee of Council, at a meeting in October 1873, appointed a subcommittee, consisting of the President of Council (Mr. Southam), Dr. Falconer, Mr. Husband, Mr. Wheelhouse, Mr. Nicholson, and Dr. Steele, to consider and report on the laws.

The Committee on the Registration of Disease presented a report, and recommended that a memorial and petition on the subject should be again presented during the next session of Parliament. The report was adopted, and the Committee was reappointed. In accordance with the recommendation of the Committee, a memorial was subsequently presented to the President of the Local Government Board, praying for a national system of registration of disease, and a petition to the same effect was laid before the House of Commons by Dr. Lyon Playfair.

A report was presented by the Joint Committee on State Medicine. They had been engaged in watching the working of the new Public Health Act, and had observed it to possess very different features in different parts of the country; there being a want of unanimity of counsel or action in the central authority and in the various sanitary authorities under the control and direction of the Act. The report was adopted, and the Committee was reappointed, with the addition of Dr. Rumsey.

The Medical Reform Committee presented a report of the proceedings of the past year, and pointed out that one advantage that had resulted from the action of the Association was, that it had been again shown that no measure of medical reform would be accepted by the Association and the profession, which did not provide for the direct representation of the profession on the Medical Council. Satisfaction was also expressed at the steps which had been taken to form a conjoint examining board for England. The report was adopted, and the Committee was reappointed.

The Parliamentary Bills Committee presented to the annual meeting a report of their proceedings with reference to the Public Health Bill of Sir C. Adderley, the Registration of Births and Deaths Bill, the Education and Registration of Midwives, and the new Army Medical Warrant. The report was adopted, and the Committee was reappointed; the thanks of the Association being given to them for their valuable and important services.

In compliance with a recommendation of the Section of Public Medicine, "that a Committee should be appointed to consider the best means of providing for an adequate qualification in State Medicine for all public medical officers", the annual meeting appointed a Committee for the purpose.*

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* The Committee on Qualification in State Medicine consisted of Mr. D. Dalrymple, M.P., Mr. G. W. Hastings, Dr. E. A. Parkes, Dr. T. P. Heslop, Dr. Arthur Ransome, Dr. F. E. Anstie, Mr. Ernest Hart, Dr. A. P. Stewart, Mr. W. H.

In April 1874, a series of recommendations were agreed to by the Committee.

An important change in the constitution of the Association was entered on this year. The question of its incorporation by Royal Charter had been contemplated; at one time, the proposal was brought seriously before the general meeting, and appeared likely to be carried out; it was, however, abandoned, in consequence of the expense that would attend the obtaining of a charter. In 1873, it was announced in the Report of Council that the difficulty had been overcome by the changes made in the Public Companies' Act, which enabled scientific associations to obtain all the benefits of a charter at a comparatively slight cost; and that the legal adviser of the Association, Mr. Upton, had taken the preliminary steps for carrying out this object. In view of the incorporation of the Association, the Council recommended a revision of the laws.

FORTY-THIRD YEAR: 1874-75.

In 1874, on August 11th, 12th, 13th, and 14th, the Association met a second time in Norwich; the President being Dr. Edward Copeman, Physician to the Norfolk and Norwich Hospital. The number of members in the Association was reported to be 5,443.

An Address in Medicine was delivered by Dr. J. Russell Reynolds of London; an Address in Surgery by Mr. William Cadge of Norwich; and an Address in Obstetric Medicine by Dr. J. Matthews Duncan, then of Edinburgh. The subject of Mr. Cadge's address was Renal and Vesical Calculus; and that of Dr. Duncan was Puerperal Pyæmia. There were four sections, viz.: Medicine, Surgery, Obstetric Medicine, and Public Medicine.

The name of Dr. Paget of Cambridge, who had seceded from the Association, as already mentioned, in 1870, and had lately rejoined it, was, in accordance with a recommendation of the Council, replaced on the list of Vice-Presidents.

The incorporation of the Association, referred to at the meeting in 1873, was carried into effect in 1874. At Norwich, a special meeting was held on one of the days to consider the subject. Mr. Upton, the Solicitor to the Association, explained that, under the Joint Stock Companies Acts of 1862 and 1867, a body could be incorporated by license of the Board of Trade. This had a great advantage in point of expense over incorporation by Royal Charter; and while alterations in the Articles of Association under a charter could only be made through an expensive proceeding, an alteration under the Board of Trade could be made in a very simple way, and the by-laws could be altered at any time. He pointed out that incorporation was necessary to protect the property of the Association, and to give it power to recover debts. The liability of the members would be limited to one guinea annually. It was resolved: "That it is expedient that the members of the British Medical Association be incorporated, pursuant to the provisions of the Joint Stock Companies' Acts (1862 and 1867)." "That the Memorandum and Articles, as prepared and explained by the Solicitor, be approved and adopted; and that the Association be incorporated pursuant to the terms and provisions thereof." "That every member of the unincorporated body be recommended to become a member of the corporate body, and that the Secretary be requested to obtain forthwith the necessary assent from members for that purpose."

A code of by-laws had also been prepared, but, as it was found that some of them were not quite in accordance with the present rules of the Association, the consideration of them was therefore deferred.

In consequence of the Articles of Association requiring that the first general meeting of the incorporated Association should be held before the end of 1874, a meeting was held at Birmingham on November 4th, under the presidency of Mr. Southam, President of Council. The days for the next annual meeting were fixed; and the consideration of the by-laws was referred to the Committee of Council. In accordance therewith, the Committee of Council appointed a Sub-Committee consisting of Mr. Southam (President), Dr. Falconer (Treasurer), Dr. Steele, Mr. Husband, Mr. Wheelhouse, and Mr. Nicholson, to consider and form the by-laws.

A recommendation was made in the report of Council presented at the annual meeting, that £200 should be applied to the purpose of making grants in aid of researches in medical science and collateral subjects; and that a Committee should be appointed to advise the Committee of Council as to the distribution of the proposed grants. The proposal was approved by the meeting; and the Committee of Council was authorised to appoint a Grant-in-aid Committee in accordance with the recommendation of the Council. In consequence of this instruction, the Committee of Council, at a meeting held on November 4th, decided that the Committee for reporting on scientific grants should consist of ten members; viz. five members of the Committee of Council and five non-members, with the President of Council and Treasurer as *ex officio* members. The members of the Committee of Council appointed were Mr. Wheelhouse, Mr. A. Baker, Dr. Wade, Mr. Callender, and Dr. Sibson, To these were added Dr. Charlton Bastian, Dr. Michael Foster, Dr. Sharpey, Dr. Wilks, and Mr. Ernest Hart. Dr. Sibson was appointed Chairman, and Mr. Hart Secretary.

Dr. Hughes Bennett laid before the meeting a paper giving the results of the researches carried on by the Committee appointed to investigate the Antagonism of Medicines. It embraced the results of experimental inquiries extending over five years, into the antagonistic properties existing between—1. hydrate of chloral and strychnia; 2. sulphate of atropia and Calabar bean; 3. hydrate of chloral and Calabar bean; 4. hydrochlorate and meconate of morphia and Calabar bean; 5. sulphate of atropia and meconate of morphia; 6. meconate of morphia and theine; 7. meconate of morphia and caffeine; 8. meconate of morphia and guarinine; 9. meconate of morphia and infusion of tea; 10. meconate of morphia and infusion of coffee; 11. extract of Calabar bean and strychnia; 12. hydrate of bromal and atropia. This report was published in full in the second volume of the BRITISH MEDICAL JOURNAL for 1874.

The Medical Reform Committee, in reporting their proceedings during the past year, stated that, although in the existing circumstances it had not been thought advisable to press forward the Bill of the Association in Parliament, the measure had been prepared. The report was approved, and the Committee was reappointed, Dr. Wade and Dr. Balthazar Foster being substituted for Dr. Charlton and Mr. Nunneley, both deceased; and Dr. Philipson of Newcastle and Dr. Copeman of Norwich being added to the Committee. It was also decided that copies of the report should be sent to the members of the Medical Council and of the Councils of the licensing bodies.

The Committee on Registration of Disease presented a report at the annual meeting, in which they called attention to a proposal for the compulsory notification of all cases of infectious diseases, made first by the Manchester and Salford Sanitary Association, and approved by the joint Committee on State Medicine. They also recommended that, further, medical officers should be paid at the rate of twopence or threepence for each case recorded, or should receive a sum varying from two to four guineas *per annum* in consideration of satisfactory weekly returns of new cases of disease, such as might be deemed needful by the Local Government Board.

The Joint Committee on the State Medicine reported that a large number of circulars had been issued in order to obtain information as to the working of the Public Health Act of 1872, and that much valuable information had been received; but that there had not been sufficient time to arrange them and found resolutions on them. The report was adopted, and the Committee was re-appointed.

The Parliamentary Bills Committee presented a report of their proceedings with regard to the proposed scheme of the Obstetrical Society for the education and examination of midwives, the condition of the medical officers of the army and navy, the Sanitary Acts Amendment Bill, the Registration of Births and Deaths Bill, and the Irish Public Health Bill. With regard to the last-named measure, the Committee had corporated with the Joint Committee representing the Dublin Medical Colleges and Corporations, and the Sanitary Associations of Dublin. The report was adopted, and the Committee were thanked and reappointed.

The Committee on Qualification in State Medicine presented a report embodying certain recommendations. It appeared, however, that the report had not been finally adopted by the Committee as a whole; and in place of being adopted, it was referred to the Committee of Council, who appointed a Subcommittee, consisting of Dr. A. Carpenter, Mr. Callender, and Mr. Wheelhouse, to reconsider the matter. In accordance with the advice of the Subcommittee, they adopted recommendations comprising the suggestion, that every corporation legally entitled to grant negotiable qualifications should also have power to grant a diploma in State Medicine, capable of being registered under the Medical Act; the qualification to include an adequate knowledge both of legal medicine or medical jurisprudence, and of preventive medicine or public hygiene, comprehending medical police, and the management of medical institutions supported by national or local taxation. It was also recommended that the General Medical Council should be empowered and required to prepare a scheme for an examination in State Medicine. The scheme to

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Michael, Dr. J. T. Arlidge, Mr. Robert Ceely, Dr. R. MacDonnell, Dr. H. W. Rumsey, and Dr. J. W. Tripe (Secretary); with power to add to their number. The following gentlemen were afterwards added to the Committee: Mr. John Liddle, Dr. T. W. Grimshaw, Dr. W. T. Gairdner, Dr. Corfield, Dr. J. W. Moore, Mr. T. J. Dyke, Dr. F. T. Bond, Dr. W S. Trench, Dr. R. Elliot, and Dr. M. W. Taylor.

specify : (*a.*)The number, qualifications, duration in office, duties, and remuneration of the examiners ; (*b.*) The subjects of examination ; (*c.*) The nature and methods of examination ; (*d.*) The forms of diploma or certificate to be granted by any board of qualified examiners ; (*e.*) The fees, if any, to be paid by candidates for examination ; (*f.*) The places and times for holding the examinations ; also that each licensing body should be empowered to grant the diploma in State Medicine to qualified medical men now holding office of a certain standing, and to medical officers of the army and navy after a practical *viva voce* examination.

It was announced at the annual meeting, that Dr. Seguin of New York had been appointed a delegate to England and France, to press for the appointment of a Commission, and to prepare an uniform plan of instruments, scales, and tables of observation. The subject was referred to the Committee of Council.

During the meeting in Norwich, M. Magnan of Paris performed experiments on two dogs, for the purpose of bringing before the profession in England the results at which he had arrived from his researches on the action of alcohol and absinthe. In consequence, proceedings were instituted at Norwich by the Royal Society for the Prevention of Cruelty to Animals against M. Magnan, and Messrs. H. S. Robinson, J. B. Pitt, R. W. White, and H. Turner, members of the Local Committee, for that they "did unlawfully ill-treat, abuse, and torture certain animals—to wit, two dogs—contrary to the statute." The magistrates dismissed the case, as it was not proved that the English defendants took any part in the experiments ; but they considered the case a proper one for the Society to prosecute. The matter was subsequently brought by the Local Executive Committee at Norwich before the Committee of Council, by whom the following resolution was passed at a meeting held on January 14th, 1875 :

"That the Committee of Council sympathises with the honorary secretaries of the Norwich meeting, and approves the action they have taken with respect to the recent discussion on Vivisection ; that it desires to congratulate those gentlemen on the result of the trial arising out of that discussion ; and recommends that the expense to which they have been put in defending themselves be paid out of the funds of the Association."

FORTY-FOURTH YEAR : 1875-76.

The forty-third annual meeting of the Association was held in Edinburgh, on August 3rd, 4th, 5th, and 6th, 1875, under the presidency of Sir Robert Christison, Bart., M.D., Professor of Materia Medica in the University. This was the second visit of the Association to Edinburgh, the first having taken place in 1858.

The number of members was reported to be 6,112.

At the first general meeting, which was held in the Free Church Assembly Rooms, the magistrates and Town Council of Edinburgh were present in their robes of office ; and the senior magistrate (Bailie Tawse), in the absence of the Lord Provost, welcomed the Association to Edinburgh.

An Address in Medicine was delivered by Dr. Warburton Begbie, who took as his subject "The Ancient and Modern Practice of Medicine." Professor Spence delivered an Address in Surgery; and Professor Rutherford an Address in Physiology. There were six Sections: Medicine ; Surgery ; Obstetric Medicine ; Public Medicine; Psychology; and Physiology.

A revised code of by-laws, in accordance with the Articles of Association, was adopted. They consisted of the old laws of the Association put into new shape, with a few alterations. The incorporation of the Association also rendered necessary the re-election of the Vice-Presidents, which was accordingly done.

Dr. Falconer, who had been Treasurer of the Association since 1866, was elected President of Council, in the room of Mr. Southam, whose term of office had expired ; and Mr. Husband was elected Treasurer, in the room of Dr. Falconer. Mr. Southam and Dr. Falconer were thanked for their past valuable services, and were elected Vice-Presidents of the Association. Under the new laws, the tenure of the office of Treasurer was made triennial, instead of being permanent ; and provision was made that the retiring Treasurer should become a Vice-president.

Since the presentation of a prize of £50, by Dr. Thackeray of Chester, in the early days of the Association, there had been no instances in which individual members had placed large sums of money at the disposal of the Association for the promotion of medical knowledge. In 1874, however, Dr. A. P. Stewart, on his retirement from the office of Honorary Secretary to the Metropolitan Counties Branch, after having held it seventeen years, was presented with a sum of £500, raised by subscription, in recognition of his valuable services to the Association as well as to his Branch. Of the above sum, he very generously presented £400 to the Committee of Council, on behalf of the Association, the interest to be applied, under certain regulations, as a fund in aid of investigations on the origin, spread, and prevention of epidemic diseases. The Committee of Council accepted Dr. Stewart's generous donation ; and the following resolution was passed by the general meeting.

"That the best thanks of the Association are due, and are hereby given, to Dr. Stewart for his generous and disinterested grant of £400; and the Association trusts that Dr. Stewart may long be spared to assist in the consideration of its disposal."

Mr. Samuel Wood, of Shrewsbury, also placed at the disposal of the Association a sum of £25, for the best essay on Pyæmia. The thanks of the Association were given to Mr. Wood for his liberal donation. Unfortunately, no essay worthy of a prize has been presented ; and the sum was some years ago returned to Mr. Wood.

The inadequate remuneration of civil practitioners acting temporarily as army surgeons having been brought under the notice of the Committee of Council by the Aberdeen Branch, reference was made to the subject in the report of Council ; and the general meeting adopted a resolution, empowering and requesting the President to sign a petition to the Secretary of State for War calling his attention to the matter.

The question of the desirability of admitting ladies as members of the Association was brought before the Association by Mr. Oliver Pemberton, who moved :

"That it be an instruction to the Secretary, between now and the next annual meeting, to issue a circular addressed to every member of the Association, requesting an opinion, 'yes' or 'no,' as to the admission of female practitioners to membership."

After some discussion, the motion was carried.

A report was presented from the Committee on Qualifications in State Medicine, embodying the recommendations agreed to by the Committee of Council in the previous year. The report was received and adopted, and it was directed that copies should be sent to the members of the General Medical Council.

The joint Committee on State Medicine presented a report, commenting on the Public Health Bill which had been brought into Parliament. The report also expressed regret that Dr. Rumsey, who for forty years had taken an active part in the progress of sanitary science, had been disabled by paralysis. The report was unanimously adopted.

A report from the Scientific Grants Committee was presented, received, and adopted. Grants to the amount of £165 had been made, of which, however, only £54 12s. had as yet been expended. In accordance with a recommendation of the Committee, a grant of £30 was made to Professor Rutherford and M. Vignal for their researches on the Biliary Secretion, an account of which was given by Dr. Rutherford in his Address on Physiology. A grant of £300 was made for the year 1876.

The Parliamentary Bills Committee presented a report of its proceedings with reference to the Artisans' Dwellings Bill, the Adulteration Acts Amendment Bill, and the Public Health Acts Amendment Bill. It also expressed satisfaction that a Royal Warrant had been issued, granting to the medical officers of the navy a considerable number of the concessions as to rank, pay, and retirement, which had been laid before the Committee. Representations in reference to the grievances of the army medical officers had been laid before the Secretary of State for War. The report was adopted.

The advisability of legislative restrictions for Habitual Drunkards was brought before the Association in the Report of Council. The subject had been considered by the Branches ; and at a meeting of the Committee of Council on July 13th a resolution from the Metropolitan Counties Branch, calling attention to the subject, had been taken into consideration, and a Committee, consisting of Dr. Stewart, Mr. W. C. Garman, Dr. Farquharson, Dr. Bodington, Mr. Nicholson, Dr. A. Carpenter, and Dr. B. Foster, were appointed. The subject was also discussed in the Section of Public Medicine, where the following resolution was passed.

"That excessive intemperance is in many cases a symptom of a special form of insanity, which requires special treatment with a view—1, to the recovery of those affected ; and 2, to the protection and advantage of them and society ; that, in the present state of the law, such treatment is not attainable ; and that it is desirable that legal provisions be made to render it attainable."

This resolution was laid before the general meeting, and it was resolved :

"That the Association desires to afford assistance in aid of the views expressed in the foregoing resolution, and that the resolution be referred to

the Committee on Habitual Drunkards recently appointed by the Committee of Council."

The following resolution, passed in the Section of Public Medicine, with reference to the Medical Relief of the Poor in Scotland, was laid before the general meeting.

"That, in the opinion of this Section, the interests of the sick poor in Scotland would be furthered, and the system of parochial relief would be placed on a more satisfactory footing, if the following measures of reform were adopted universally throughout Scotland; namely, that the cost of medicines be supplied by every parochial board, exclusive of the salary of the medical officer; that medical officers be removable from office by the Board of Supervision only; that the parochial board be required to superannuate such officers; and that the parliamentary grant in aid of medical relief be placed on the same footing as in England and Wales."

It was resolved by the meeting:

"That Sir Robert Christison, Dr. W. T. Gairdner (Glasgow), Dr. Matthews Duncan (Edinburgh), Mr. Ernest Hart, Dr. Strachan (Dollar), Dr. Joseph Rogers (London), Dr. Littlejohn (Edinburgh), Dr. Mackay (Elgin), and Dr. Alexander Ogston (Aberdeen), be a Committee to carry out the resolution of the Public Medicine Section relating to the system of poor relief in Scotland, with power to add to their number; and that Dr. Matthews Duncan be appointed chairman."

A resolution passed by the Section of Surgery, with reference to anæsthetic agents, was presented to the general meeting. It was as follows:

"That this Section is of opinion that it is desirable that a Committee be appointed to inquire into, and report upon, the use in surgery of various anæsthetic agents, and mixtures of such agents; that it be part of the object of such Committee to collect and summarise the evidence of British practitioners of surgery and medicine, as to the relative advantages of chloroform, ether, nitrous oxide gas, and other agents, and to carry on suitable experimental investigations; that Professor Lister of Edinburgh; Professor Pirrie of Aberdeen; Mr. Annandale, Dr. Thomas Keith, Dr. J. Duncan, Dr. McKendrick, and Dr. Crum-Brown, of Edinburgh; Dr. Burdon Sanderson, Mr. Spencer Wells, Mr. Ernest Hart, and Mr. Clover, of London; Dr. MacDonnell and Mr. J. Morgan, of Dublin, be requested to act as a Committee for this purpose, with power to add to their number."

It was decided by the meeting that, in accordance with the resolution, a Committee should be appointed, consisting of the above-named gentlemen, with power to add to their number; and that application for a grant should be referred to the Scientific Grants Committee.

No special report was presented from the Medical Reform Committee; but a paragraph in the report of the Council stated that, in accordance with their previous policy, they had refrained from urging the Bill of the Association on the Legislature, in order not to trammel the laudable efforts of the English corporations towards the formation of a conjoint examining board.

Forty-fifth Year: 1876-77.

The forty-fourth annual meeting of the Association was held at the Cutlers' Hall, Sheffield, on August 1st, 2nd, 3rd, and 4th, 1876, under the presidency of Dr. Martin de Bartolomé, Physician to the General Infirmary of that town. It had been decided at the meeting in Edinburgh that the next annual meeting should be held in Brighton; and Sir J. Cordy Burrows was appointed President-elect. Local difficulties, however, arose in the way of carrying out the necessary arrangements; and the death of the President-elect in March 1876 led the Council of the South-Eastern Branch to suggest to the Committee of Council that it was inexpedient to hold the annual meeting in Brighton. This suggestion was brought before the Committee of Council in April; and at the same time an invitation was received from Sheffield, which was accepted.

The number of members of the Association was stated in the Report of Council to be nearly 7,000.

The Address in Medicine was delivered by Dr. E. H. Sieveking; an Address in Surgery by Mr. W. F. Favell; and an Address in Public Medicine by Dr. Alfred Carpenter. The Sections were four: Medicine, Surgery, Obstetric Medicine, and Public Medicine.

The Committee on the Registration of Disease presented a report, in which the opinion was expressed that any measure for the registration of all cases of infectious disease must be compulsory in order to be effective. Reference was made to the question whether the duty of reporting the case should rest with the householder or with the medical attendant; and the Committee concluded by expressing the opinion that the proper person to make the returns to the sanitary authority should in the first instance be the person in charge of the case, or the householder, and not the medical attendant upon the case. The report was adopted.

The Medical Reform Committee presented a report in which they referred with regret to the fact that, in filling three vacancies among the Crown representatives in the General Medical Council, neither the Association nor the great body of General Practitioners had been recognised. They regretted also that the Medical Council had not succeeded in the establishment of conjoint examining boards. They had not helped legislation during the past season, but had been able to conciliate the support of members on both sides of the House to the Bill of the Association; and they would consider the advisability of introducing it in the next session of Parliament. The report was approved, and the Committee was reappointed.

A Report was presented from the Parliamentary Bills Committee, giving an account of its proceedings, with regard especially to the Poor-law Amendment Bill (Scotland). The report was adopted, and the Committee reappointed.

The Scientific Grants Committee presented a Report, and were reappointed; and it was resolved to appropriate a sum not exceeding £300 to grants.

The Committee on Legislative Restrictions for Habitual Drunkards reported that they had held several meetings, but hitherto had not been able to take any decided action. They had found that mistaken notions prevailed as to the objects to be attained, and that there was a suspicion of any action likely to interfere with the liberty of the subject. To meet this difficulty, they had obtained the co-operation of the Social Science Association, and had prepared, for signature by the general public as well as by the medical profession, a petition for the passing of a measure for the control and cure of habitual drunkards. The motion for the adoption of the report was carried, after some opposition, by a large majority, and the Committee were reappointed.

A resolution was forwarded by members of the East York and North Lincoln Branch, urging the Association to take into consideration the desirability of prosecuting illegal practitioners, and also stating that it was desirable to form committees of defence, to take the necessary steps to prevent unqualified persons from practising, and to protect the public from illegal practitioners. The resolution was referred to the Committee of Council, with power to carry out the suggestion contained therein. In accordance with this instruction, the Committee of Council, at their meeting in October 1876, appointed a sub-committee to consider the matter, consisting of Dr. Falconer (President of Council), Dr. Chadwick, Dr. E. Waters, Mr. Nicholson, Dr. Bartolomé, Dr. A. Carpenter, Dr. Parsons, Mr. Manby, and Dr. Foster, with power to add to their number.

The Joint Committee on State Medicine presented a report of the proceedings of the past year. The report was adopted, and the committee was reappointed.*

No invitation having been received for the meeting in 1877, the Committee of Council were authorised to make the necessary arrangements for the meeting, and to appoint a president-elect. At a meeting of the Committee, held on November 8th, an invitation was received from Manchester. It was accepted, and Dr. Eason Wilkinson was nominated as the future president.

Forty-sixth Year: 1877-78.

The forty-fifth annual meeting of the Association was held at Manchester, on August 7th, 8th, 9th, and 10th, 1877, under the presidency of Dr. Eason Wilkinson, Senior Physician to the Manchester Royal Infirmary. The first meeting was held in the Concert Hall, and the subsequent meetings in Owens College.

The number of members was reported to be 7,147.

An Address in Medicine was given by Dr. W. Roberts of Manchester, the subject being "The Doctrine of Contagium Vivum, and its Application to Medicine;" an Address in Surgery by Mr. Spencer Wells on "The Past, Present, and Future of Scientific Surgery;" and an Address in Obstetric Medicine, by Dr. Robert Barnes, on "The Scientific and Political Position of Obstetrics." There were six Sections: Medicine; Surgery; Obstetric Medicine; Public Medicine; Physiology; and Psychology. Discussions on certain special subjects were held in several of the Sections, viz.: in Medicine—Aortic Aneurysms, and the Treatment of Pleuritic Effusions; in Surgery—Excision of the Knee, the Treatment of Stricture of the Urethra, and Antiseptic Surgery; in Obstetric Medicine—Transfusion of Blood; in Public Medicine—Hospital Out-patient Reform, and the Contagious Diseases Acts; in Psy-

* The following were the members of the Committee: Dr. J. T. Arlidge, Dr. E. Ballard, Dr. F. T. Bond, Dr. W. M. Burke, Dr. Corfield, Mr. David Davies, Mr. T. J. Dyke, Dr. Falconer, Dr. W. T. Gairdner, Mr. Ernest Hart, Mr. A. Haviland, Dr. James Lewis, Mr. J. Liddle, Dr. H. F. Parsons, Dr. G. H. Philipson, Dr. A. Ransome, Dr. M. K. Robinson, Dr. Joseph Rogers, Mr. Heckstall Smith, Dr. J. W. Tripe, Dr. N. Tyacke, Dr. E. Wilson, and Dr. A. P. Stewart (Secretary); with power to add to their number.

chology—the Treatment of Habitual Drunkards. In addition to the ordinary proceedings, special demonstrations were given by M. Charcot of Paris, on the Relations of Tuberculous and Caseous Pneumonia; by Dr. Sayre of New York, on the Application of the Plaster-of-Paris Jacket in Spinal Curvature; by Professor Ludwig of Leipsic; and others.

A proposal was made, that a committee should be appointed, to endeavour to make the JOURNAL a perfect epitome of the science as well as the practice of medicine, and at the same time utilise the members in clearing up disputed points in the diagnosis or treatment of disease; also, to be responsible for the management of the JOURNAL, and any correspondence admitted to its columns. After discussion, the following amendment was carried by a very large majority.

"That the Association is thoroughly satisfied with the manner in which the JOURNAL has been edited, and considers that no change is desirable."

No invitation having been received for the following year, the Committee of Council were instructed to arrange for the place of meeting, and to appoint a president-elect. At the meeting of the committee, on October 10th, an invitation from Bath was received and accepted, and Dr. R. W. Falconer was nominated president-elect. An invitation was at the same time received from Cork.

The first award of the medal for distinguished merit, recently instituted by the Committee of Council, was made known at this meeting. It was made in favour of the medical men who were concerned in watching over the miners, who had been imprisoned for eleven days in April 1877 by a colliery accident at Ty Newydd, Pont-y-pridd. A gold medal was awarded to Mr. H. Naunton Davies, the surgeon to the colliery; silver medals to Mr. Washington David, Mr. Edgar Dukes, and Mr. Edward W. S. Davis; and bronze medals to Mr. T. W. Parry, Mr. C. J. Jones, Mr. F. H. Thompson, Mr. G. Neal, Mr. P. James, Mr. Rees Hopkins, Mr. I. A. Lewis, and Dr. E. Lloyd; all of whom had waited in the pit, and had rendered essential service when the miners were released. An engrossed copy of the following resolution was presented to each of these gentlemen:

"That the British Medical Association, having taken into consideration the heroic conduct, self-denial, and humanity of the medical men at the recent accident at Pont-y-pridd Colliery, are of opinion that their behaviour merits the highest praise and public recognition on the part of the Association, and therefore they resolve to present to them these medals."

The medals were not ready at the time of the meeting of the Association, but were presented at a dinner given to the recipients by the Committee of Council at the Grosvenor Restaurant in New Bond Street on January 9th. It was resolved at the annual meeting "That the medal now for the first time awarded, be henceforth awarded for distinguished merit."

The Committee on the Registration of Disease presented a report, in which they suggested that steps should be taken to frame a legislative enactment that would enforce the registration of all cases of infectious disease, on the method already approved by the Association; and that the subject should be referred to the Parliamentary Bills Committee to consider in what form it could be best dealt with by the Legislature. After a discussion, during which a proposal to refer the report back to the Committee was rejected, the report was adopted and the Committee reappointed. At the meeting of the Committee of Council on October 10th, it was decided, in accordance with a recommendation from the Registration of Disease Committee, that copies of the report of the Committee, together with an extract from the report of 1876, should be presented to all the Boards of Guardians and the Urban and Rural Sanitary Authorities in England and Wales.

The Scientific Grants Committee presented a report, which was adopted, and the Committee was reappointed. A sum not to exceed £500 was granted, to be applied by the Committee.

The Committee on Habitual Drunkards reported that a Bill had been prepared by a society for promoting Legislation for the Control and Cure of Habitual Drunkards, and had been approved by the Committee. It had been introduced into the House of Commons by Dr. Cameron, M.P. for Glasgow; but in consequence of the lateness of its introduction, it had not reached a second reading. The report was received and adopted, and the Committee reappointed.*

The subject was discussed in the Section of Psychology, and the following resolution was then passed, and was subsequently reported to the general meeting.

"That it is the opinion of the Psychological Section of the British Medical Association that legislative action is imperatively necessary for the treatment of Habitual Drunkards, and that this object would be best effected by the establishment of distinct institutions for their treatment."

The Joint Committee on State Medicine of the British Medical and Social Science Associations presented a report of their proceedings in the past year, and were reappointed.

The Parliamentary Bills Committee presented a report of their proceedings with reference to factory legislation, militia surgeons, and the Public Health Bill for Ireland. The report was adopted, and the Committee appointed for the next twelve months.*

The Committee appointed in 1875 to inquire into the action of anæsthetics presented a report, recommending the appointment of a sub-committee, consisting of Dr. McKendrick, Dr. Ramsey, and Dr. Coats, all of Glasgow; and that a grant of £50 should be made from the Scientific Grants Fund. The report was approved and the Committee was reappointed.

The Medical Reform Committee reported that they had deemed it advisable to refrain from pushing forward the Bill of the Association, in order not to interfere with the efforts of the universities and training bodies of England to form a conjoint board. The report also referred to the efforts made in past years to obtain representation of the profession in the Medical Council, and urged that they should be continued. When the motion for the reception of the report and the reappointment of the Committee was proposed, a rider was proposed, "That it be an instruction to the Committee to prepare a short Bill to amend the fortieth section" (the penal section) "of the Medical Act." The motion with the rider was carried, whereupon Dr. Edward Waters, the Chairman, and several other members of the Committee, declined to act any longer, on the ground that the adoption of the rider damaged seriously the prospects of thorough medical reform. Subsequently, however, they remained on the Committee. In 1878, two Bills for the amendment of public medicine, the following resolution was adopted by the general meeting:

"That a Committee, consisting of the following gentlemen, be appointed, with full authority to use the influence of the Association, to procure such changes in the administration of out-patient relief at hospitals as they find necessary, and that the working of the present system of provident dispensaries in Manchester be carefully investigated and reported upon, viz., Dr. Eason Wilkinson, Dr. A. P. Stewart, Dr. Alfred Meadows, Mr. T. Holmes, Dr. R. J. Lee, Dr. Joseph Rogers, Dr. Ford Anderson, Mr. Nelson Hardy, Dr. Brierley, Dr. Haddon, and Dr. Borchardt."

At the meeting of Committee of Council on October 10th, a sub-committee was appointed to consider the arrangements of future annual meetings and the regulations for the Association medal.

The question of removing the offices of the Association to more commodious premises than those which it occupied in Great Queen Street, Lincoln's Inn Fields, having been some time under consideration, the Committee of Council, on January 9th, 1878, decided on taking the house No. 161A Strand, for a term of twenty-one years; in which house the printing of the JOURNAL as well as the general business of the Association should be carried on. The wisdom of this proceeding was questioned by some members; and, on April 2nd, a special meeting of the Association was held to consider the subject. It was moved:

"That this meeting desires to express its opinion that, in the selection of a house for the Association, it is desirable that the Council, Committee, and waiting-rooms should be separate from the printing and publishing offices."

An amendment, however, was carried by a large majority:

"That, in the opinion of this meeting, the arrangements contemplated by the Committee of Council in leasing the premises in the Strand are of a nature to promote the successful conduct of the business of the Association."

At the same meeting a discussion took place on the manner of reporting the proceedings of the Committee of Council in the JOURNAL. It was moved:

"That this meeting is of opinion that the reports of the proceedings of the Committee of Council should be published in as complete and intelligible a form as is consistent with the conduct of business; and that in no case should important revelations affecting the general welfare of the Association be omitted."

* The members were Dr. Alfred Carpenter, Mr. S. S. Alford, Dr. G. F. Blandford, Mr. W. Cadge, Dr. J. W. Eastwood, Dr. B. Foster, Mr. W. C. Garman, Mr. John Gay, Mr. C. Holthouse, Mr. C. Macnamara, Dr. H. Morris, Mr. G. W. Mould, Mr. R. H. B. Nicholson, Dr. A. P. Stewart, Dr. R. Farquharson, and Dr. E. H. Vinen.

* The following were the Committee: Mr. Ernest Hart, Mr. Alford, Dr. Bryan, Dr. Case, Mr. Curgenven, Dr. J. C. Bucknill, Dr. Davey, Mr. J. D. Harris, Mr. Reginald Harrison, Dr. A. Henry, Mr. W. Holder, Dr. C. Holman, Mr. C. F. J. Lord, Dr. A. Meadows, Dr. E. Morris, Surgeon Myers, Dr. Paul, Dr. Philipson, Dr. Quain, Dr. W. Reeves, Mr. W. Rivington, Dr. J. Rogers, Mr. Rogers-Harrison, Dr. J. Seaton, Dr. A. P. Stewart, Mr. Tosswill, and Dr. C. Williams; with power to add to their number

An amendment to this resolution was passed :

"That it is necessary, for the successful transaction of the business of the Association, that the publication of reports of meetings of the Committee of Council should be left to the discretion of the Committee of Council."

This amendment was carried by a very large majority ; the members thus expressing their confidence that the Committee would act in the manner most beneficial to the Association.

Another question brought before the special meeting was that of the admissibility of ladies as members of the Association. Some years previously, two ladies holding medical degrees had been admitted to this Association, and had attended the annual meetings and read papers. Against this, several members had remonstrated ; and it was resolved that the subject should be discussed in the Association. At the special meeting it was resolved :

"That the Committee of Council be instructed to take the opinion of counsel as to the rights of the lady members, and to report to the annual meeting." At the meeting of Committee of Council on April 17th, the subject was referred to a Sub-committee, consisting of the President of Council (Dr. Falconer), Dr. Chadwick, Dr. Sieveking, Dr. Wade, Dr. Parsons, Dr. Borchardt, and Dr. Holman, to whom was given power to act in the matter. At the request of this Sub-Committee, a series of questions as to the rights of lady members and the forms of the Association with regard to them was prepared by Mr. F. A. Bosanquet, Worcester ; and the questions were submitted to Mr. J. P. Benjamin, Q.C., and Mr. Bosanquet. The questions, with the answers, were embodied in a report presented to the Committee of Council on July 10th ; and notice was given of an addition to the law regulating the admission of members, limiting the form of election to "male members."

In May 1878, another prize was placed at the disposal of the Association, by the liberality of an old member, Mr. Richard Middlemore of Birmingham, who offered £300 for the purpose of founding a prize "to be awarded every three years for the best essay on the scientific and practical value of the improvements which have taken place in ophthalmic medicine and surgery."

Forty-seventh Year: 1878-79.

The Association met, for the third time, in Bath, on August 6th, 7th, 8th, and 9th, 1878: Dr. R. Wilbraham Falconer, Consulting Physician to the Royal United Hospital, being President. The number of members in the Association was 7,536.

In consequence of the recent sudden death of the esteemed President, Dr. Eason Wilkinson, the chair was taken at the opening of the meeting by the Treasurer, Mr. Husband, who read a brief Address which Dr. Wilkinson had prepared for the occasion. The following resolution, moved by Dr. A. P. Stewart, and seconded by Dr. Borchardt, was unanimously adopted: "That this meeting, deploring the sudden removal by death of the much esteemed President of the British Medical Association, Dr. Eason Wilkinson, desires to record its admiration of his constant devotion during many years to the interests of the Association; of his sense of professional honour; of his unswerving and unostentatious philanthropy; of the exemplary purity and sweetness of his professional character, which endears his memory to a multitude of sorrowing friends; and of the kindness and munificent hospitality shown during the late annual meeting at Manchester by himself and his family, to whom not the meeting only, but the entire Association, with grateful remembrance of the past, offers its deepest sympathy in their hour of sorrow."

An Address in Medicine was delivered by Dr. H. F. A. Goodridge, the subject being the Pathology of Fever. Mr. C. G. Wheelhouse gave an Address in Surgery, being a Review of the Progress of Surgery ; and Professor Douglas Maclagan delivered an Address in Forensic Medicine, treating the subject from a Scotch point of view. There were five sections: Medicine, Surgery, Obstetric Medicine, Public Medicine, and Physiology. Special discussions took place in the section of Medicine, on the Differential Diagnosis and Treatment of the Modes of Intestinal Obstruction ; and in the section of Obstetric Medicine, on the Evils of Practices intended to act as Checks on Population.

Dr. Alfred Carpenter of Croydon was elected President of Council for the next three years, in the room of Dr. Falconer, whose term of office had expired ; and Mr. Husband was re-elected Treasurer.

One of the meetings was made special for the purpose of discussing certain proposed changes in the laws. The first had reference to the admissibility of ladies as members of the Association. Dr. Wade moved, and Dr. Stewart seconded, as a new Article of Association, that "No female shall be eligible for election as a member of the Association". This was opposed by Dr. Norman Kerr, Dr. Borchardt, and Mrs. Garrett-Anderson, and supported by Mr. Sissons, Mr. Husband, and Mr. Barrow. It was carried by a large majority; and an addition was made to the by-law respecting the admission of members by the Committee of Council or by any Branch Council, to the effect that "the power of such Branch Council shall only extend to the election of male persons".

It had been pointed out by the counsel consulted in the matter of the admission of ladies, that the election of members in the interval between the incorporation of the Association and the adoption of the new by-laws was not legal—there being no power of election. Among the persons thus illegally elected was a lady. It being necessary that the election should be legally made, the Association authorised the Committee of Council "to pass a resolution declaring elected all male persons who were elected by it or by any Branch Council during the interval between the incorporation of the Association and the 3rd of August, 1875, but whose election was invalid on account of there being no provision then in existence for the election of members." In accordance with this resolution, the Committee of Council, at a meeting on October 9th, formally elected the 710 male persons who had been irregularly admitted in the interval above mentioned.

A series of regulations for the Medal for Distinguished Merit was adopted.

The Joint Committee on State Medicine presented a report at the annual meeting, and was reappointed. The Medical Reform Committee also presented a report, and was reappointed.

The Committee on Legislation for Habitual Drunkards reported that Dr. Cameron's Bill, with the compulsory clauses omitted, had been again brought into Parliament; and, having passed the second reading, was in Committee. The report was adopted, and the Committee was reappointed.*

The Bill referred to was not proceeded with, but was reintroduced early in the session of 1879, and on July 3rd received the Royal assent, under the title of "The Habitual Drunkards' Act".

The Committee on Hospital Out-Patient Reform presented a report, to which was appended a report of the Subcommittee on the working of the Provident Dispensary System in Manchester. The report was adopted, and the Committee was reappointed.†

A report was presented from the Scientific Grants Committee, showing that the grants made during the year had amounted to £413 15s., of which £77 17s. would be returned. The sum granted included a special grant of £100 for an investigation of Rabies and Hydrophobia. The Committee asked for a further grant of £300 for the coming year. It was resolved that the report be received and adopted, and that the Committee be reappointed.‡

The Parliamentary Bills Committee presented a report of their proceedings with reference to Coroners' Courts, the Army Medical Department, the Factory Acts Amendment Bill, the Public Health (Ireland) Bill, the Dental Practitioners' Bill. The Committee were reappointed, with power to add to their number.

In December, 1878, on the occurrence of the lamented death of the Princess Alice of Hesse, the President of Council sent a lettter of condolence, in the name of the Association, to Her Majesty the Queen. This action received the approval of the Committee of Council at their next meeting.

Forty-eighth Year: 1879-80.

In August, 1879, the British Medical Association visited Ireland for the second time ; the fifty-seventh annual meeting being held in Queen's College, Cork, on August 5th, 6th, 7th, and 8th, under the presidency of Dr. Denis C. O'Connor, Professor of the Practice of Medicine in the College.

The number of members was reported to be 7,810.

An Address in Medicine was delivered by Dr. Alfred Hudson, of Dublin, who took as his subject Laennec : his Labours and their Influence in Medicine. Mr. W. S. Savory delivered an Address in Surgery, on the Prevention of Blood-poisoning in the Practice of Surgery ; and Dr. Andrew Fergus of Glasgow gave an Address on Public Medicine. The Sections were : Medicine, Surgery, Obstetric

* The Committee consisted of Dr. A. Carpenter, Mr. S. Alford, Dr. Blandford Mr. W. Cadge, Dr. Eastwood, Dr. B. Foster, Mr. Garman, Mr. J. Gay, Mr. Holthouse, Mr. C. Macnamara, Dr. H. Morris, Mr. G. W. Mould, Mr. R. H. B. Nicholson, Dr. A. P. Stewart, Dr. Farquharson, and Dr. Vinen ; with power to add to their number.

† The Committee consisted of the following members: Dr. Borchardt, Mr. Wickham Barnes, Dr. Brierley, Dr. J. Haddon, Mr. Nelson Hardy, Mr. T. Holmes, Dr. R. J. Lee, Dr. A. Meadows, Dr. J. Rogers, Dr. A. E. Sansom, and Dr. A. P. Stewart; with power to add to their number.

‡ The members of the Committee were: Mr. G. W. Callender, F.R.S., Dr. Falconer, Mr. Husband, Mr. A. Baker, Dr. Lauder Brunton, F.R.S., Dr. Chadwick, Mr. Curling, Dr. M. Foster, F.R.S., Dr. R. McDonnell, F.R.S., Dr. W. Rutherford, F.R.S., Dr. Burdon Sanderson, F.R.S., Dr. W. Sharpey, F.R.S., Dr. Sieveking, Dr. A. P. Stewart, Dr. Wade, Dr. E. Waters, Mr. C. G. Wheelhouse, Dr. S. Wilks, F.R.S., and Mr. Ernest Hart ; with power to add to their number.

Medicine, Public Medicine, Psychology, and Physiology. A Subsection of Dermatology was appended to the Section of Medicine. To the Section of Surgery was appended a Subsection of Ophthalmology and Otology. Special discussions were held as follows: In the Section of Medicine; the Value of Mountain Air on the Treatment of Phthisis; Alcohol in Fever; and Tracheotomy in Croup; in the Subsection of Dermatology; Lupus, its Varieties and Treatment; in the Section of Surgery, Subcutaneous Osteotomy, the Diagnosis and Treatment of Joint-Diseases, and the Treatment of Aneurysm by Electrolysis; in the Subsection of Ophthalmology, the Treatment of Glaucoma, Examination for Colour-Blindness, the Use of Eserine, Pilocarpine, etc., the Treatment of Detached Retina, Tobacco and Alcoholic Amblyopia, and Diphtheritic Ophthalmia; in Otology, the Therapeutic Value of Intratympanic Injections of Medicated Fluids in Catarrhal Affections of the Middle Ear, and Tinnitus Aurium; in the Section of Obstetric Medicine, Intra-uterine Medication, and Hæmorrhage from the Genital Organs during Pregnancy and Parturition; in the Section of Public Medicine, the Influence of Drinking Water in originating or propagating Enteric Fever, Diarrhœa, Diphtheria, and Scarlatina; and the manner of dealing with Convalescents from Acute Infectious Diseases, so as to limit the spread of disease; in the Section of Psychology, the Prevention of Insanity; in the Section of Physiology; the Physiology of Inhibition, and the influence of Sight on Nutrition.

The Gold Medal for Distinguished Merit had been awarded by the Committee of Council to Surgeon-Major James Reynolds, V.C., in consideration of the extraordinary professional services rendered by him at Rorke's Drift, Zululand, on January 22nd and 23rd, 1879. In the absence of Surgeon-Major Reynolds, the medal was received for him by Surgeon-General Crawford, the head of the Medical Department of the Army in Ireland, who had been deputed by the Director-General, Sir William Muir, to attend the meeting for the purpose. Surgeon-Major Reynolds was afterwards, on the proposal of the Committee of Council, entertained at a dinner, which was attended by a large number of members, on November 26th.

A report was presented from the Medical Committee. It was received and adopted; and the Committee was reappointed, with power to add to their number.*

It was also resolved: "That the warmest thanks of the Association in public meeting assembled are due, and are hereby offered, to Mr. Arthur Mills, M.P., for his eminent and able advocacy of the principles of medical reform."

The Committee on Legislation for Habitual Drunkards reported the passing of the Habitual Drunkards Act, and recommended that strenuous exertions should be made to procure the formation of a society for the purpose of providing a residence for patients of the kind described in the Act. The report was adopted, and the Committee reappointed.

The Scientific Grants Committee reported that, of grants amounting to £351 7s. 10d., £177 5s. had been returned. The report was received, and, in accordance with the recommendation of the Committee, a further sum, not to exceed £300, was granted.

The Hospital Out-patient Reform Committee presented a report of their proceedings with respect to the reform of the out-patient system in the metropolis, and the working of the provident dispensary system in Manchester. The report was adopted, and the Committee was reappointed, with power to add to their number.†

The Committee on the Registration of Disease presented a report in which objections to compelling medical men to certify cases of infectious disease under their care are pointed out. The report was adopted, and the Committee was reappointed, with power to add to their number.‡

The Joint Committee on State Medicine was reappointed.

The Parliamentary Bills Committee presented a report, stating that their attention had been directed during the past year to the condition of the army medical officers, the amendment of coroners' law, medical education at the University of Oxford, the amendment of the Sale of Food and Drugs Act, prison surgeons in Ireland, and animal vaccination. The Committee was reappointed.

The question of the adoption of the metric system was brought before the meeting. Dr. Seguin gave an account of the progress of the system in America; and, on the proposal of Mr. Ernest Hart, a Committee was appointed to consider and report whether it would be desirable to adopt the metric system in medicine in Great Britain and Ireland; and whether the British Medical Association should by any means, and if so, by what, facilitate its introduction.*

At a meeting of the Committee of Council in January 1880, a series of resolutions on Medical Education, passed by the Metropolitan County Branch, was received; and it was directed that a copy should be sent to the secretary of each Branch, for the purpose of being submitted to the Branches.

In February 1880, the following resolution was adopted by the Committee of Council, with reference to the recent appointment of a Registrar-General in the room of Major Graham, resigned.

"That the Committee of Council of the British Medical Association observe with deep regret that Her Majesty's Government have not considered it their duty to confer on Dr. William Farr, F.R.S., the office of Registrar-General, lately vacated by the retirement of Major Graham. That Dr. Farr's remarkable abilities and high intelligence, acknowledged with singular unanimity by all competent judges, both at home and abroad; his constant connection for forty-two years with the registration department, which he has contributed so largely to render famous throughout the civilised world; and the kindliness, discretion, and unwearied zeal which he has manifested in the discharge of all his official duties, had seemed to this Committee to point him out as pre-eminently qualified to administer, as head of the department, the system of which he had done so much to create and bring into working order. That as this promotion, so much desired and so confidently expected by many, has been judged inexpedient, this Committee can but express the earnest hope that Her Majesty's Government will recommend that some signal mark of Her Majesty's favour be conferred on Dr. Farr, in recognition of the rare and distinguished services he has rendered to the nation, to humanity, and to the science of vital statistics, with the solid progress of which, during this century, his name is, and will remain, inseparably associated."

Forty-ninth Year: 1880-81.

The forty-eighth Annual Meeting was held in the Senate House, Cambridge, on August 10th, 11th, 12th, and 13th, 1880, under the presidency of Dr. George Murray Humphry, F.R.S., Professor of Anatomy in the University of Cambridge, and Senior Surgeon to Addenbrooke's Hospital.

The number of members in the Association was reported to be 8,052. An Address in Medicine was delivered by Dr. Bradbury, the subject being "Modern Scientific Medicine;" an Address in Surgery by Mr. T. Holmes, on "Fergusson and Conservative Surgery"; and an Address in Surgery by Dr. Michael Foster, on "the Relations of Physiology to Pathology." There were eight Sections, viz., Medicine, Surgery, Obstetric Medicine, Public Medicine, Psychology, Physiology, Pathology, and Ophthalmology; also a Subsection of Otology. Special discussions took place as follows:—In Medicine, on Hysterical Anæstheria and on Asthma; in Surgery, on the treatment of Wounds and on Stricture of the Urethra; in Otology, on the Therapeutic Value of Electricity in Ear-Diseases, and on the Comparative Value of the various Mechanical Aids to Hearing; in Obstetric Medicine, on Uterine Hæmostatics, and on the Removal of Tumours by Uterine Section; in Public Medicine, on the General Working of the Public Health Administration in Great Britain and Ireland, and on Diseases communicable to Man from Diseased Animals used as Food; in Psychology, on the Influence of Alcohol in the Causation of Insanity; in Physiology, on the Seat of the Formation of Urea in the Body, and on Sleep and Hypnotism; in Pathology, on the Influence of Injuries and Morbid Conditions of the Nervous System on Nutrition, and on Micro-organisms and their relation to Disease; and in Ophthalmology, on the Nature of Glaucoma, and on Toxic Amaurosis, especially in relation to Perception of Colours.

In his opening Address, Professor Humphry suggested that the Association should undertake the collection of facts relating to disease, in a careful and systematic manner, with a view to its being carried out thoroughly. He recommended that the work should be carried out by a medical investigation committee, with a secretary or registrar.

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* The Committee, as reappointed, consisted of Dr. E. Waters, Dr. R. W. Falconer, Mr. W. D. Husband, Dr. Alfred Carpenter, Dr. M. M. De Bartolomé, Dr. C. Chadwick, Dr. E. Copeman, Dr. J. G. Davey, Dr. Balthazar Foster, Dr. T. W. Grimshaw, Mr. H. Nelson Hardy, Mr. Ernest Hart, Rev. S. Haughton, Dr. D. J. Leech, Mr. F. E. Manby, Mr. W. H. Michael, Q.C., Mr. R. H. B. Nicholson, Dr. A. P. Stewart, Dr. W. F. Wade, and Mr. C. G. Wheelhouse.

† The Committee consisted of Mr. T. Holmes, Mr. J. Wickham Barnes, Dr. L. Borchardt, Dr. J. B. Brierley, Mr. T. Dane, Dr. John Haddon, Mr. H. Nelson Hardy, Dr. Robert J. Lee, Dr. Alfred Meadows, Dr. R. Quain, Dr. Joseph Rogers, Mr. S. Sibley, Dr. A. E. Sansome, Dr. A. P. Stewart, Mr. C. Macnamara.

‡ The Committee consisted of Dr. A. Ransome, Mr. W. Armistead, Dr. R. C. Brown, Dr. W. M. Burke, Dr. S. Crompton, Dr. W. Farr, Dr. W. T. Gairdner, Dr. G. Harley, Mr. A. Haviland, Dr. Alfred Hill, Dr. Handfield Jones, Dr. E. D. Mapother, Mr. T. Mellor, Dr. J. E. Morgan, Dr. D. Noble, and Dr. W. Ogle.

* The Committee consisted of Dr. Clifford Allbutt, Dr. Lauder Brunton, Dr. A. Carpenter, Dr. Farquharson, Dr. T. Fraser (Edinburgh), Dr. Harvey, Dr. Quain, Dr. Sieveking, and Mr. Ernest Hart, convener, with power to add to their number.

For the scope of the proposal, he referred to letters by Dr. Arthur Ransome and Dr. Mahomed, which had been published in the BRITISH MEDICAL JOURNAL some months previously. After the conclusion of the address, a resolution was unanimously passed, thanking Dr. Humphry for his valuable suggestions, and requesting the Committee of Council to consider how they would best be carried out to a practical result. In accordance with this instruction, the Committee of Council, at their meeting in the following October, appointed a Sub-committee on the subject, consisting of Dr. Carpenter (President of Council), Mr. Husband, Dr. Sieveking, Dr. Clifford Allbutt, Dr. B. Foster, Professor Humphry, Dr. Ransome, and Dr. Mahomed. In the following April, the sub-committee brought up a report, which was approved, and ordered to be submitted to the next annual meeting.

A series of regulations for the conduct of the annual meetings was agreed on. A resolution was also passed, that, in the opinion of the meeting, the price of the dinner-ticket should not include a charge for wine; and the Committee of Council were requested to make the necessary provision.

The honorary degree of LL.D. was conferred on Dr. Brown-Séquard of Paris; Dr. Donders of Utrecht; Dr. S. D. Gross of Philadelphia; Sir W. Jenner, Bart., K.C.B.; Sir W. W. Gull, Bart.; Sir G. Burrows, Bart., Mr. W. Bowman, the Rev. S. Haughton, M.D., Mr. Joseph Lister, Dr. D. C. O'Connor, Mr. J. Simon, and Dr. Andrew Wood.

The Committee of Council was authorised to select the place of meeting in 1881, and, if required, to pay the expenses of the meeting.

The Gold Medal for distinguished merit, which had been awarded by the Committee of Council to Dr. William Farr, C.B., was presented at the annual meeting, and was received by Dr. Acland on behalf of Dr. Farr, who was unable to be present. The award was made by the Committee of Council in the following terms:

"That the gold medal of the Association be awarded by the Committee of Council of the British Medical Association to William Farr, M.D., F.R.S., D.C.L., C.B., as an expression of their high appreciation of his long, unwearied, and successful labours in behalf of statistical and sanitary science; as a recognition of the light he has thrown upon many physiological and pathological problems, and on account of the extraordinary services his work has rendered to the advancement of the health of the nation."

Reports were presented from the Medical Reform Committee, the Scientific Grants Committee, the Joint Committee on State Medicine, the Habitual Drunkards Committee, the Hospital Out-patient Reform Committee, and the Parliamentary Bills Committee. The last contained an account of the proceedings of the Committee with reference to the Medical Services of the Army and Navy and the Indian Army, the Coroners' Bill, the Protection of Infant Life, the Registration of Infectious Diseases, Vaccination from the Calf, and the Vaccination Act Amendment Bill; and appended to the report was a paragraph calling attention to the time and attention given by the chairman, Mr. Ernest Hart, to the consideration of the important subjects brought before the Committee, and for the careful and laborious reports which he had prepared and copied, as materials for judgment on the various subjects. All the reports were adopted, and the Committees were reappointed.

An event of a hitherto unknown nature in the history of the Association took place this year. In the autumn of 1880, a respected member, Dr. Macnaughton Jones of Cork, had been subjected to much unmerited annoyance in consequence of the fatal termination of a case of scarlatina in which he had used pilocarpin. The editor of the BRITISH MEDICAL JOURNAL, in the performance of his duty, commented on the case; using expressions in regard to the persons concerned which were at least not more severe than those which occurred in the comments of other medical periodicals. The father of the patient, however, considering himself personally injured by some remarks in the editor's article, and imagining that it had been written by Dr. Macnaughton Jones himself, brought an action for libel against the BRITISH MEDICAL JOURNAL, which was tried at Cork in April 1881. The jury were unable to agree on a verdict, and were discharged. A new trial was subsequently contemplated, but the matter was settled, the Association paying a large amount of costs.

Early in 1881, Mr. W. D. Husband, who had for many years rendered valuable services to the Association, as a Branch member, a member of the Committee of Council, President of Council, and Treasurer, resigned the treasurership, which he held for six and a half years, on account of ill-health. The Committee of Council, at their meeting on February 5th, unanimously adopted the following resolution.

"That the Committee of Council, through their chairman, communicate to Mr. Husband their deep regret on the receipt of his communication, not merely in consideration of the great loss which will be sustained by the Association, but likewise for its cause, the serious failure in his health. The proof Mr. Husband has given through the many years of his active interest in the aims and operations of this Association, and the efficient assistance he has rendered, alike as President of Council and Treasurer, in promoting their successful accomplishment, fill the Committee of Council with the warmest gratitude, and they desire to express to Mr. Husband their hope that by temporary retirement his health may be restored, and that he may once again resume a more or less active function in their affairs."

At the same meeting, Dr. Wade was unanimously appointed to the office of Treasurer until the forthcoming annual meeting.

FIFTIETH YEAR: 1881-82.

At the annual meeting in 1880, the Committee of Council had been authorised to make the necessary arrangements for the meeting in 1881. In doing this, they had to take into consideration the fact, that the International Medical Congress was about to meet in London in August. Ultimately, they accepted an invitation from Ryde, in the Isle of Wight; and the forty-ninth annual meeting was held there on August 9th, 10th, 11th, and 12th, under the presidency of Mr. B. Barrow, Consulting Surgeon to the Royal Isle of Wight Infirmary.

The number of members of the Association was reported to be 9,202.

An Address in Medicine was delivered by Dr. J. S. Bristowe, and an Address in Surgery by Mr. Jonathan Hutchinson. There were four Sections—viz., Medicine, Surgery, Obstetric Medicine, and Public Medicine; and a Subsection of Otology. Special subjects were discussed in the Sections, as follows: in Medicine, Dilatation of the Stomach, Acute Spinal Paralysis, and Jaundice; in Surgery, Resection of the Knee-joint in Early Life, and the Early Recognition and Treatment of Spinal Caries; in Obstetric Medicine, the Removal of the Ovaries in cases of Dysmenorrhœa and of Fibroid Tumours, and the Mechanical Treatment of Uterine Flexions and Displacements; and in Public Medicine, on Vaccination with Calf-Lymph, the Origin and Diffusion of Enteric Fever and Fevers, the Management of Infectious Diseases under the Public Health Act, Hospitals for Infectious Diseases, and Cremation.

Dr. Carpenter's term of office as President of Council having expired, Mr. C. G. Wheelhouse was elected in his stead. Dr. Wade was elected Treasurer for the next three years. Dr. Carpenter was thanked for the manner in which he had performed the duties of his office, and was made a permanent Vice-president. Mr. Husband, who was already a Vice-president, received the thanks of the meeting for his earnest, wise, devoted, and successful services as Treasurer.

The report of Council contained the following interesting paragraph with respect to the forthcoming fiftieth anniversary meeting of the Association.

"On the eve of the fiftieth anniversary of the Association, the Worcestershire and Herefordshire Branch of the Association was legally recognised by your Committee of Council; and your Council learn with much gratification the intention of the profession residing in Worcester, the birthplace of the Association, to invite the members to hold their fiftieth anniversary in that city, and thus not only to secure an agreeable place of meeting, but also to pay a merited tribute to the memory of the founder, Sir Charles Hastings. At the meeting at Chester in 1866, a subscription was started in order to raise a fund which should be devoted to his honour. This movement realised (with subsequent accumulation of interest) £539 13s. 4d., which during the current year has been paid over to the account of the Association, and has since been invested in London and North-Western Four Per Cent. Debenture Stock. Your Committee of Council, considering that the wishes of the donors would be thereby and to that extent satisfactorily carried out, have, at the suggestion of the Worcestershire and Herefordshire Branch, ordered a bust of Sir Charles Hastings from Mr. Brock, the celebrated sculptor, at a cost of 150 guineas. This will be placed in some suitable position in the city of Worcester."

At the meeting in August, the bust of Sir Charles Hastings will be formally presented to the Mayor and Corporation of Worcester.

The sub-committee appointed by the Committee of Council to carry out Professor Humphry's suggestions with regard to collective investigation, presented a report, and proposed the following scheme:

"1. That a Committee of seven be appointed annually at the Michaelmas quarterly meeting, by the Committee of Council, to arrange, superintend, and direct the work of combined observation, and be named the 'Combined Observation Committee.' That the Committee have power to add to their number. 2. That the Committee meet at such times and places as they think fit, and report at least once in each year to the Committee of Council; and that their report be presented at the annual meeting of the Association. 3. That the Committee shall have power to appoint a Secretary, who shall be

paid (£200 annually) from the funds of the Association, and who shall act under the direction of the Committee, and shall hold office during their pleasure. 4. That the Secretary shall attend such Branch Meetings of the Association as may be desirable for the purpose of explaining the nature and objects of the investigations, and of interesting and directing the members of the Association in the work. 5. That the travelling and other necessary expenses of the Secretary, to the amount of not more than £100 in any year, having been submitted to and approved by the 'Combined Observation Committee,' shall be paid out of the funds of the Association. 6. That communications to the members of the Association, and others, for the purposes of the investigation, shall be made through the JOURNAL, or from the offices of the Association, in accordance with the usual regulations. 7. That the Branches of the Association be invited to appoint registrars who may assist in the work, and that such registrars shall, together with the 'Combined Observation Committee,' form a 'General Committee,) to determine from time to time the subjects for investigation, and the manner in which such investigations shall be conducted."

The report was adopted, and it was referred to the Council to carry out the proposals of the Subcommittee.

In October, the Committee of Council appointed Mr. Wheelhouse (President of Council), Dr. Carpenter, Mr. Husband, Dr. Sieveking, Dr. Clifford Allbutt, Dr. B. Foster, Professor Humphry, and Dr. Ransome, to be the Collective Investigation Committee. In the present year, the Committee have appointed as Secretary Dr. F. A. Mahomed, and the work has already been entered on, inquiries with regard to several diseases having been instituted.

The subject of the value of Experiments on Animals was brought before the annual meeting by Professor Humphry; who, after a very able address on the subject, moved:

"That this Association desires to express its deep sense of the importance of Vivisection to the advancement of Medical Science, and the belief that the further prohibition of it would be attended with serious injury to the community, by preventing investigations which are calculated to provide the better knowledge and the treatment of disease in animals as well as in men."

The resolution was carried, with only one dissentient.

The Parliamentary Bills Committee presented a report of its proceedings with reference to the Notification of Infectious Diseases, the Naval Medical Warrant, the Indian Medical Officers, and other matters. The report was adopted, and the Committee was reappointed. A proposal that the Committee should be instructed to support a Bill then in Parliament, for the compulsory notification of infectious diseases, in which the duty of reporting was laid on the medical attendant, was negatived by a large majority.

Reports were also presented from the Medical Reform Committee, the Committee on Legislative Restrictions for Habitual Drunkards, and the Scientific Grants Committee. The reports were adopted.

IN the foregoing notes, we have chiefly recorded the work of the Association as a great organisation for social, political, and ethical purposes; saying but little of its scientific work, and altogether omitting any notice of certain accessory circumstances of the annual meetings, which have in no small degree tended to enhance the pleasure of these meetings, and indirectly to promote those feelings of professional harmony and good will, the cultivation of which is one of the objects of the Association.

In the first place must be mentioned the arrangements which have for several years been made for holding Divine Service in the town visited by the Association, and the preaching of an appropriate sermon, which has on several occasions been followed by a collection on behalf of that most praiseworthy charity, which had its origin in the Association, the Medical Benevolent Fund.

For many years, it was the custom to have a public breakfast on one of the days of meeting. This practice has, however, long fallen into desuetude. The annual dinner, however, has been a constant feature. Until 1867, it took place on the last day of meeting; but in that year the day was changed to Thursday—the business continuing on Friday. These festive gatherings have always been most pleasant.

On the part of resident members of the Association, the hospitality has been of the most generous and profuse character. No trouble or expense has been spared by the presidents, and their colleagues in the locality, in giving to their visitors a cordial reception.

The reception of the Association by the public, in the places which it has visited, has been most cordial. Through the influence of the local committees, every convenience in the form of rooms for meeting has been placed at the disposal of the Association; the municipal authorities have several times taken part in the opening proceedings; and, in the great industrial towns and cities, the leading manufacturers have freely opened their places of labour to the inspection of members.

Another important accessory feature which has for many years characterised the annual meetings, has consisted in the excursions to the chief places of interest in the neighbourhood; for which arrangements have been made, at a great expenditure of labour, by local Committees. Opportunity has thus been given for visiting and admiring the beauties of local scenery; and access has been given to the chief places of historic and public interest, on many occasions opened to the Association by the cordial liberality of their possessors.

In concluding, it is but right to mention that very much of the success attending the meetings has been due to the cordial and zealous labours of the local committees and their honorary secretaries. The amount of work which has fallen to their lot has been great; with what success it has been carried out, those who have attended the annual meetings can testify.

PRESIDENTS OF THE ASSOCIATION AND PLACES OF MEETING.

THE subjoined list shows the places of meeting and the names of the Presidents for each year. The asterisks denote the names of those who are still alive.

Year.	Place of Meeting.	President.
1832	Worcester	Edward Johnstone, M.D.
1833	Bristol	Andrew Carrick, M.D.
1834	Birmingham	John Johnstone, M.D., F.R.S.
1835	Oxford	John Kidd, M.D., F.R.S.
1836	Manchester	Edward Holme, M.D.
1837	Cheltenham	Henry C. Boisragon, M.D.
1838	Bath	Edward Barlow, M.D.
1839	Liverpool	Thomas Jeffreys, M.D.
1840	Southampton	George Steed, M.D.
1841	York	George Goldie, M.D.
1842	Exeter	John H. James, Esq.
1843	Leeds	William Hey, Esq,
1844	Northampton	Archibald Robertson, M.D., F.R.S.
1845	Sheffield	William Favell, Esq.
1846	Norwich	John G. Crosse, Esq.
1847	Derby	James Heygate, M.D., F.R.S.
1848	Bath	George Norman, Esq.
1849	Worcester	Charles Hastings, M.D.
1850	Hull	Fewster R. Horner, M.D.
1851	Brighton	George S. Jenks, M.D.
1852	Oxford	John W. Ogle, M.D.
1853	Swansea	G. Gwynne Bird, M.D.
1854	Manchester	William J. Wilson, Esq.
1855	York	Thomas Simpson, M.D.
1856	Birmingham	James Johnstone, M.D.
1857	Nottingham	Booth Eddison, Esq.
1858	Edinburgh	William P. Alison, M.D., F.R.S.E.
1859	Liverpool	James R. W. Vose, M.D.
1860	Torquay	C. Radclyffe Hall, M.D.
1861	Canterbury	*Alfred Lochée, M.D.
1862	London	*George Burrows, M.D., F.R.S.
1863	Clifton	John A. Symonds, M.D., F.R.S.E.
1864	Cambridge	*George E. Paget, M.D., F.R.S.
1865	Leamington	Samuel J. Jeaffreson, M.B.
1866	Chester	*Edward Waters, M.D.
1867	Dublin	William Stokes, M.D., D.C.L.
1868	Oxford	*Henry W. Acland, M.D., F.R.S.
1869	Leeds	*Charles Chadwick, M.D., D.C.L.
1870	Newcastle-on-Tyne	Edward Charlton, M.D.
1871	Plymouth	John Whipple, Esq.
1872	Birmingham	*Alfred Baker, Esq.
1873	London	Sir William Fergusson, Bart., F.R.S.
1874	Norwich	Edward Copeman, M.D.
1875	Edinburgh	Sir Robert Christison, Bart., M.D., D.C.L., LL.D.
1876	Sheffield	*M. Martin De Bartolomé, M.D.
1877	Manchester	M. A. Eason Wilkinson, M.D.
1878	Bath	Randle W. Falconer, M.D., D.C.L.
1879	Cork	*Denis C. O'Connor, M.D.
1880	Cambridge	*George M. Humphry, M.D., F.R.S.
1881	Ryde	*Benjamin Barrow, Esq.

The President-elect for 1882 is William Strange, M.D., of Worcester.

THE COMMITTEE ON PARLIAMENTARY BILLS.

THIS Committee had its origin in a suggestion made by Dr. Septimus Gibbon to the Council of the Metropolitan Counties Branch, that it would be expedient to appoint a special committee for the purpose of watching the progress of Bills introduced into Parliament affecting the medical profession. A special meeting of the Branch was held on February 16th, 1864, to consider the proposal; when it was unanimously resolved:

"That a Committee be appointed to watch the progress of all Bills introduced into Parliament affecting the medical profession: to communicate with the Committee of Council of the Parent Association, and with the other Branches; and to report to the Branch on all questions having relation to the political and social interests of the profession."

The Council of the Branch were appointed as the Committee, with power to add to their number. The Committee thus constituted at once proceeded to work, and at the annual meeting of the Branch in July of the same year presented a report. Reports were also presented in 1865, 1866, and 1867. In the latter year, application was made by the Metropolitan Counties Branch to the Council of the Association, for a grant of £10 towards defraying expenses. This was complied with, and, on the recommendation of the Council at the annual meeting of the Association, it was decided to invite the other Branches to send representatives. In 1868, it was decided that the members of the Committee, other than the representatives of Branches, should be appointed at the annual meetings of the Association. The Committee, which had up to this time been a Committee of the Metropolitan Counties Branch, became a Committee of the Association, with representatives from the Branches. From that time, the Committee has presented a report at each meeting of the Association; with the exception of 1870, when, the Committee having in the previous year been, through a misunderstanding, allowed to become defunct, no report was presented. Since 1871, when the Committee was revived, Mr. Ernest Hart has acted as Chairman.

The following is a list of the present members of the Committee: Mr. Ernest Hart (Chairman); Dr. Fancourt Barnes; Dr. Robert Barnes; Mr. J. Wickham Barnes; Dr. Bryan, Northampton; Dr. J. C. Bucknill, F.R.S.; Dr. A. Carpenter, Croydon; Dr. Andrew Clark; Mr. J. B. Curgenven; Dr. W. C. Grigg; Mr. H. Nelson Hardy; Mr. J. D. Harris, Shrewsbury; Mr. Reginald Harrison, Liverpool; Dr. A. Henry; Dr. Holman, Reigate; Dr. Norman S. Kerr; Dr. Macmillan, Hull; Dr. Alfred Meadows; Dr. E. Morris, Spalding; Surgeon A. B. R. Myers, Coldstream Guards; Dr. D. Nicolson, Broadmoor; Dr. W. M. Ord; Dr. J. H. Paul; Mr. S. B. Partridge, Anerley; Dr. G. H. Philipson, Newcastle-on-Tyne; Dr. R. Quain, F.R.S.; Dr. S. Rees Philipps, Exeter; Mr. W. Rivington; Dr. Joseph Rogers; Mr. C. H. Rogers Harrison; Dr. J. Seaton, Sunbury; Mr. S. W. Sibley; Dr. A. P. Stewart; Dr. Michael W. Taylor, Penrith; Dr. E. H. Vinen; and Dr. Charles Williams, Llanbedr, Merionethshire.

The subjoined is a summary, derived from the reports published in the JOURNAL, of the proceedings of the Committee with reference to the subjects which it has had under consideration.

GOVERNMENT ANNUITIES.—In 1864, the Committee reported that the Government Annuities Bill, like the Post Office Savings Banks Act, by encouraging provident habits, was calculated indirectly to benefit medical practitioners. They had inquired into the details of payment for the medical examination of proposers for the small assurances, and had resolved to endeavour to get an adequate fee allowed; but they were informed that it was intended to give a fair rate of remuneration for the medical examinations. In the following year, however, the Committee reported that the fee for medical examination and reports—2s. 6d. for policies below, and 5s. for those above £60, was much lower than the scale of remuneration which the Committee had expected, or than the scale which they had proposed, of an uniform rate of 5s., or one varying from 2s. 6d. to 10s. 6d., according to the sum insured. In an interview with the Postmaster-General, they protested against the inadequacy of the fee, especially for the voluminous reports required. The Postmaster-General declined to increase the fee, but promised to try to shorten the reports.

INSANE PRISONERS.—In 1864, the Committee examined Sir George Grey's Insane Prisoners Act Amendment Bill, and endeavoured to get the words "legally qualified medical practitioners" inserted in place of "physicians" or "surgeons", so that the holders of the Apothecaries' licence might not be disqualified from certifying. They also endeavoured to get a clause introduced, providing extra payment for certifying criminal lunatics, in order that prison surgeons might become entitled to a fee.

DISEASES OF CATTLE.—The Committee in 1864 made an ineffectual attempt to get the appointment of "cattle inspectors" and "examiners of unwholesome meat" under the Cattle Diseases Bill and the Cattle Importation Bill limited to duly qualified medical practitioners, or to veterinary surgeons holding the diploma of some recognised institution.

CONTAGIOUS (VENEREAL) DISEASES.—In 1864, the Committee reported that they had resolved to urge on the promoters of the Contagious Diseases Bill the propriety of paying medical practitioners at a definite rate for the duties to be performed under the Bill. In 1866, the Committee expressed satisfaction that the amended Bill, introduced by Lord Clarence Paget, proposed to properly appoint and remunerate surgeons to examine and attend diseased women at certain stations, instead of making use of the unpaid services of the honorary medical officers of hospitals.

REGULATION OF PHARMACY.—The Committee in 1864 reported that they had examined a Bill prepared by the Pharmaceutical Society, but not yet introduced into Parliament; and they recommended it to the careful consideration of the professsion. In 1865, two Bills for regulating the qualifications of chemists and druggists were introduced by Sir Fitzroy Kelly and Sir John Shelley, and were referred to a Select Committee of the House of Commons. The Parliamentary Bills Committee feared "that the temptation to irregular practice" (on the part of druggists) "would be increased by raising the educational status of chemists and druggists". They therefore endeavoured to get a clause introduced, rendering it illegal for any registered chemist or druggist to act as a medical practitioner, under a penalty not exceeding £5. They also endeavoured to get a clause inserted, providing that no patent medicine should be sold unless a sworn certificate of its composition had been lodged with the Registrar appointed by the Act. A deputation waited on Sir Fitzroy Kelly; and the Secretary had interviews with the Chairman (Sir John Shelley) and other members of the Select Committtee. The Committee also caused copies of the proposed amendments to be circulated among members of Parliament, and presented a petition in their favour, which was referred to the Select Committee. The Select Committee, after examining both Bills and hearing evidence, decided that legislation was requisite to regulate the sale of poisons; and that the subject of an examination for chemists and druggists should be deferred. In 1868, a Bill promoted by the Pharmaceutical Society, for regulating the sale of poisons and the qualifications of chemists and druggists, was introduced into the House of Lords. The Committee pressed certain amendments on the attention of members of Parliament interested in the measure; viz.: 1. That the schedule of poisons and the examination of chemists and druggists should be under the supervision of the General Medical Council, rather than of the Privy Council; 2. That persons registered under the Act should be prohibited from acting in any way as medical practitioners; 3. That no patent or secret medicine should be sold unless a sworn certificate of its composition were lodged with the Registrar appointed under the Act. The Committee feared that the Bill would not afford sufficient protection against accidental or criminal poisoning, or against carelessness in the use of patent medicines; also, that it would lead to an increase of irregular medical practice by pharmaceutical chemists, inasmuch as, in place of the recommendation No. 2 of the Committee, a clause was introduced which was proposed by the General Medical Council, providing merely that registration under the Pharmacy Act should not entitle anyone to practise medicine or surgery. An amendment was introduced into the Bill, restricting the right of medical practitioners in dispensing medicine to legally qualified apothecaries. This was regarded by the Committee as an undesirable invasion of the rights of medical practitioners not connected with the Apothecaries' Society. This provision produced much remonstrance from practitioners in Scotland; and, in 1869, a Bill to amend the Act, so as to exempt medical men in Scotland from its operation, was introduced by Lord Robert Montagu. In consequence of the representations made by the Committee, his lordship consented to give the amendment a wider range; and a clause was enacted, securing the right of dispensing medicines to all legally qualified medical practitioners, both present and future, who should have passed an examination in pharmacy.

MEDICAL SERVICE OF THE ARMY.—At a meeting of the Committee on May 18th, 1873, the recently issued Army Medical Warrant was taken into consideration, and statements and communications from persons interested in the service were read, relating to the feeling of dissatisfaction which the Warrant had produced in the service, and in the medical profession generally. A memorandum on the points objected to in the Warrant and in a recent Army Circular was prepared and adopted. On June 13th, a deputation of the Committee waited on Mr. Cardwell, the Secretary of State for War, and explained fully the objects which they had in view. Mr. Cardwell, who gave a very courteous and attentive reception to the deputation, promised to take

the proposals of the Committee into consideration. In November, a supplementary Royal Warrant was issued, a copy of which was sent to Mr. Ernest Hart, the Chairman of the Committee, with a letter from Lord Lansdowne, on the part of Mr. Cardwell, stating that he was anxious that no reasonable or removable cause of dissatisfaction should exist among the medical officers of the army. The Warrant provided that the pay of 17s. 6d. a day should be restored to surgeons of fifteen years' service, and that forage or forage allowance should be granted, with certain limitations. By direction of the Committee, the Chairman addressed a letter to Mr. Cardwell, pointing out that the partial concessions granted were not sufficient to allay the discontent produced among the officers by the recent Warrant. In May 1874, a deputation from the Committee waited on Mr. Gathorne Hardy, then Secretary of State for War, and made a series of suggestions as to retirement, membership of the regimental mess, forage, promotion, precedence in rank, duties of principal medical officers, etc. In 1878, a Committee was appointed by the House of Commons to inquire into the causes of the unpopularity of the Army Medical Department; and a statement on the subject, prepared at official request by the Chairman of the Committee, was forwarded to the Secretary of State for War, and was also placed in the hands of several members of Parliament. A schedule of questions was addressed by the War Office to the Chairman, relating to the average emoluments of civil practitioners, copies of which were forwarded to the members of the Committee and to the Secretaries of the Branches of the Association. About thirty answers were received, of which a tabulated analysis was made by the Committee and sent to the War Office; it being at the same time, however, pointed out that they were necessarily wanting in data. In 1879, the Committee presented to Colonel Stanley, the Secretary for War, a memorial explaining the views of the Committee on the amendments required. The Committee especially objected to the proposal to substitute nomination for competitive examinations as the means of entrance. In 1880, a Royal Warrant was prepared, which embodied to a satisfactory extent the recommendations of the Committee, and was successful in producing an increased number of candidates for the medical service of the Army.

INDIAN MEDICAL SERVICE.—Towards the close of the Parliamentary session of 1864, a Bill was introduced, the object of which was to enable the Secretary of State for India to substitute a system of patronage for competitive examinations in recruiting the Indian Medical Service. The Committee regarded the measure as one injuriously affecting the status and interests of the profession at large, and of the Indian Medical Service in particular; and, with the view of opposing it, they entered into communication with several members of Parliament. It was rejected on the third reading. In July 1880, at the request of the Indian medical officers, the Chairman of the Committee accompanied a deputation to Lord Hartington, Secretary of State for India, respecting the grievances produced by recent changes in the regulations affecting the Medical Service of the Indian Army. The Chairman expressed the interest which the British Medical Association felt in the subject, and recommended the case of the Indian Army medical officers to favourable consideration. The intervention of the Committee was, in 1881, acknowledged by the Indian Medical Defence Committee as having been effective and valuable.

MEDICAL OFFICERS OF THE NAVY.—In December 1873, a deputation of the Committee waited on Sir A. Armstrong, the Director-General of the Medical Department of the Navy, to bring under his notice certain complaints that medical officers in the navy had not been allowed to resign. Sir A. Armstrong gave an explanation, which satisfied the Committee that the statements as to the inability of medical officers to resign required modification. He also said "that the opinion of so important a body as the British Medical Association was necessarily influential in determining the degree of favour with which the naval medical service was regarded; and he was desirous of advancing the interests of the service in every way, and should always be prepared and pleased to entertain any statements referring to it from the Parliamentary Committee, and to afford any explanations." In June 1874, a deputation of the Parliamentary Bills Committee, after considering a document prepared by the chairman, waited on the First Lord of the Admiralty, to call his attention to the causes of the deficient supply of surgeons to the navy, and to suggest means for the removal of the grievances of which the medical officers complained. In 1875, the Committee reported with satisfaction that a Royal Warrant had been issued, granting a considerable number of the concessions as to rank, pay, and retirement, which were suggested by the deputation. In 1880, the Chairman laid before the Committee a statement of the disabilities of the medical officers of the navy, regarding which he had collected much information; and a Subcommittee was appointed to prepare a memorial to be presented by a deputation. A draft scheme for the improvement of the condition of the medical officers was drawn up by Mr. Hart, the Chairman of the Committee, at the request of one of the Lords of the Admiralty, and was submitted to the Board of Admiralty, by whom it was referred to a departmental Committee. In 1881, a new Royal Warrant, embodying largely the recommendations contained in the memorandum drawn up by Mr. Hart, was issued. The Committee reported at the annual meeting that, though it did not entirely carry out all that was desired, it did so to a large extent; and that it conferred a considerable boon on the service, and had been accepted with much satisfaction.

MILITIA SURGEONS.—At a meeting of the Committee in April 1872, attention was drawn to the injury that would probably be inflicted on militia surgeons by forthcoming changes in the Army Regulations; and the Committee promised their co-operation with the militia surgeons in order to prevent such injury. In 1877, the Committee had an interview with Mr. Gathorne Hardy, the Secretary for War, in order to lay before him the claims of the militia surgeons in reference to the injurious operation on them of the recent Royal Warrant, which materially diminished their income by removing from them an important and remunerative part of their duties.

SUPERANNUATION OF POOR-LAW OFFICERS.—In 1865, a Bill to provide for superannuation allowances to officers of unions in Ireland was introduced into Parliament by Sir Robert Peel. In order that the medical officers might not be excluded from its benefits, the Committee endeavoured, through Dr. Brady, M.P., but without success, to procure the omission of the words limiting the benefit of the Bill to persons "whose whole time had been devoted to the service of the union". This Bill did not pass; and, in 1869, Dr. Brady (a member of the Committee) introduced into Parliament a Bill "giving power to guardians, with consent of the Poor-law Commissioners, to grant superannuation to any officer who should at any time become incapable of discharging the duties of his office with efficiency.....not exceeding two-thirds of the income." The Committee gave Dr. Brady all the support they could in carrying this Bill through Parliament. This Bill ultimately passed. The Committee has also expressed approval of a Bill now in Parliament, affecting the superanuation of Poor-law officers in Ireland.

METROPOLITAN ASYLUMS.—In the session of 1867, the Committee examined Mr. Gathorne Hardy's Bill for the establishment in the metropolis of asylums for the sick, insane, and other classes of the poor, etc. They regarded it as of a well digested and a thoroughly practical character. They endeavoured, however, to get one-third of the Dispensary Committee proposed on the Bill nominated by the Poor-law Board from among magistrates or members of the learned professions, resident in the metropolis; and also to get compensation for workhouse medical officers in case of modification of their duties or districts. These suggested alterations were discussed in the House of Commons, but were not adopted. The Committee also recommended to the Poor-law Board, that one or more medical gentlemen should be appointed as managers of asylums; and this suggestion was carried out by the appointment of Dr. Sibson, Mr. Timothy Holmes, and Mr. Bostock.

MEDICAL RELIEF OF THE POOR.—In April 1868, a deputation of the Committee had an interview with the Earl of Devon, President of the Poor-law Board, in order to urge the necessity of medical and sanitary inspection of workhouses. Mr. Ernest Hart was appointed to represent the Committee in giving evidence before the Select Committee of the House of Lords on the Poor Relief Bill. In 1871, Mr. F. S. Corrance, M.P., in an interview with the Committee, expressed his intention of introducing a measure for the purpose of applying to England some part of the Irish Poor-law Medical System. The Committee regarded the scheme as beneficial, and were prepared to support it at the proper time.

THE LOCAL GOVERNMENT BILL.—In 1871, the Committee decided on supporting Mr. Stansfeld's Bill for the consolidation of the departments of Medical Relief, Poor Relief, and Public Health, into one "Local Government Board", as a measure of immediate and obvious advantage.

POOR-LAW (SCOTLAND).—At the meeting of the Committee in April 1872, communications from Scottish medical officers respecting the Poor-law (Scotland) Bill were read. The Committee expressed the opinion that it should contain a provision for the superannuation of medical officers, and directed that steps should be taken to bring the matter under the notice of Parliament. In 1876, the Committee took into consideration the Poor-law Medical Relief (Scotland) Bill, and appointed a deputation to the Lord Advocate of Scotland and Mr. Cross to express approval of the Bill, and suggest that power should be given to appoint and pay dispensers in suitable places. They also decided to petition in favour of the Bill, with the proposed modification. On May 20th, the Committee had an interview with the Lord

Advocate. The Bill, though meeting with much support, was withdrawn in consequence of the pressure of business.

SANITARY LEGISLATION.—Early in 1866, the Committee agreed on the following resolutions. "1. That a speedy and inexpensive appeal should be provided from the decisions of local authorities; and that the body best fitted for a Court of Appeal is the Health Department of the Privy Council. 2. That the appointment of Medical Officers of Health and Inspectors of Nuisances should be made, as in the metropolis, compulsory instead of permissive. 3. That the appointment and dismissal of Medical Officers of Health should be subject to the approval of the Health Department of the Privy Council. 4. That, in counties, the appointment of Medical Officers of Health should be vested in the justices; and that they should be paid out of the poor-rates. 5. That the provision of local refuges for those labouring under contagious diseases should be rendered compulsory on parishes, etc. 6. That the early removal of persons labouring under such diseases should also be made compulsory. 7. That local authorities should be compelled to provide carriages for the removal of such patients." These resolutions were approved by the Metropolitan Counties Branch at a meeting held on April 16th, with the exception of the sixth; and a resolution was passed "That a return should be yearly presented to Parliament of the names of the Medical Officers of Health and Inspectors of Nuisances throughout the country, and of the salaries paid to them." A provision that the Health Department of the Privy Council should have power to carry out its decisions, was also added to the first resolution. The Committee, in their report presented at the annual meeting of the Branch, announced that some of the provisions recommended had been introduced by Mr. H. A. Bruce into his Bill to Amend the Law relating to the Public Health; and remarked that probably, if the profession would exert its influence with Parliament, the other provisions might be incorporated in the measure. On July 24th, 1866, a deputation from the Committee had an interview with the Duke of Buckingham, Lord President of the Privy Council, and submitted a memorial on the Public Health Bill; explaining also the resolutions agreed on by the Branch. In 1872, the Committee, acting in accord with the State Medicine Committee of the Association, took into consideration the Public Health Bill which had been introduced into Parliament. On March 16th, they expressed regret that it did not provide—"1, for a complete consolidation of the sanitary department of central administration; 2, for the establishment of adequately large and simplified areas of local administration, and the consolidation of all functions within such areas; 3, for a suitable intermediate authority, such as a county board; 4, for the appointment in each municipal area of a highly qualified medical officer of health, required to devote the whole of his time to his duties." A number of petitions, embodying the resolutions of the Association and of the Joint Committee on State Medicine, were presented to Parliament, many of them through the medium of the Branches of the Association, by whom much support had been given to the Committee. The Committee, however, did not consider it advisable to urge amendments which might have imperilled the passing of the Bill, and therefore confined their action to urging on Mr. Stansfeld, President of the Local Government Board, the necessity of strengthening and making more apparent the powers of the Government to unite districts so as to form an adequate area, to provide for the appointment of a medical officer over a large area by the urban and rural authorities; to provide that half the salaries of the medical officers of health should be paid out of the Consolidated Fund, and that they should not be removed except on grounds satisfactory to the central authority. In 1873, a Bill was introduced by Sir Charles Adderley for the collection and adoption of the amendments of the sanitary laws recommended by the Royal Commissioners on the subject. The Committee called attention to the clause which provided for powers to compel Poor-law medical officers to render services, but made no provision for paying them; and a clause remedying the defect was introduced by Mr. Donald Dalrymple. In 1875, the Committee decided on co-operating with the Metropolitan Board of Health in regard to improvements in the Public Health Bill.

In 1874, the Committee co-operated with the joint Committee representing the Dublin colleges and corporations, and the Sanitary Association of Dublin, in the improvement of the Public Health Bill for Ireland. In their report, the Committee stated that "the Dublin Committee had very courteously acknowledged the assistance which the Chairman of the Parliamentary Bills Committee was able to render on the occasion." In 1878, a Public Health Bill for Ireland being again introduced into Parliament, the Committee co-operated with the Irish Medical Association in bringing before the Secretary for Ireland, Sir Michael Hicks Beach, the necessity of making certain amendments in the Bill. Some of the suggestions of the Committee were adopted.

VACCINATION.—In 1866, on the introduction, by Mr. Bruce, of a Bill "to consolidate and amend the statutes relating to Vaccination in England," the Committee gave much attention to its provisions. They endeavoured to persuade Mr. Bruce, and the Select Committee on the Bill, to abandon the attempt—as it had hitherto proved futile—to form a complete register of all children successfully vaccinated; and to increase the minimum fee from 1s. 6d. and 2s. 6d. to 2s. 6d. and 3s. 6d. respectively, and also to allow a fee for the vaccination of infants and children in the workhouses. The proposals as to payment were adopted by the Select Committee, except that the additional shilling was made dependent on the Privy Council's approval of the quantity and quality of the vaccination; but the scheme of forming a register of vaccination was retained. On July 24th, a deputation of the Committee waited on the Duke of Buckingham, Lord President of the Privy Council, and urged that vaccination might be greatly promoted, if the Poor-law Board would advise the guardians to pay a more adequate fee for the operation, and would cancel the standing order prohibiting payment for vaccination in workhouses. The Bill was withdrawn soon afterwards. In 1867, it was reintroduced into the House of Commons by Lord Robert Montagu. The Committee held two meetings, in May 1867, and discussed the clauses; after which they had an interview with Lord Robert Montagu, and proposed amendments to the following effect: That the minimum fee should be 2s. 6d.; that revaccination should not be restricted to cases in which it was ordered by the Privy Council, and that it should be paid for at the ordinary rate for primary cases, instead of two-thirds; that the registration of certificates of vaccination should be simplified; and that a fine of 20s. should not be inflicted on vaccinators for not filling up certificates. Nothing was done in the House of Commons towards making these amendments; and the Committeee took steps to get the objectionable clauses reconsidered in the House of Lords. Their lordships referred the Bill to a Select Committee, which introduced several amendments; but, by the rules of Parliament, they were unable to introduce the chief amendments suggested by the Committee, as they related to fees and penalties. The Bill was sent back to the House of Commons, and passed in a form in which, the Committee feared, "its accumulated penalties, and its unnecessarily restrictive and coercive provisions, would prejudice public opinion against the principle of compulsory vaccination itself." In 1871, a Bill to amend the Vaccination Act was introduced into Parliament, one clause of which provided that not more than two penalties (for neglect or refusal of vaccination) should be enforced, nor more than one penalty when it amounted to more than twenty shillings. The Committee, regarding this clause as vicious in principle, recommended that it should be expunged. This clause was struck out by the House of Lords; and the amendment was consented to by Mr. Forster, who had charge of the Bill in the House of Commons, on the ground that resistance to it would cause delay in the passing of the Act. In 1872, the Committee opposed a "Vaccination Acts Amendment Bill," which proposed to stop penalties for non-compliance with the law after the second fine. In 1881, a Vaccination Act Amendment Bill was introduced by Mr. Dodson, for the abolition of multiple penalties for the neglect or refusal of vaccination. The Committee took steps to oppose the Bill; and a highly influential deputation of members of the Association and others waited on Mr. Dodson, and explained to him the objections to the measure. The Bill was withdrawn.

VACCINATION FROM THE CALF.—In November 1879, Mr. Ernest Hart presented to the Committee a detailed report on the subject of vaccination from the calf, in which he stated the favourable conclusions which he had drawn from an examination of the vaccination stations in Belgium, and recommended that the subject should be considered with a view to making representations on the subject. It was decided that a conference on the subject should be held. Accordingly, a conference, which was largely attended, was held on December 4th, 18th, and 30th, at the rooms of the Medical Society of London, and was addressed by, among others, Dr. Cameron, M.P., Mr. J. Greene, Dr. Stevens, Mr. H. Lee, Dr. Warlomont of Brussels, Dr. Ballard, Dr. A. Carpenter, Mr. R. Ceely, Dr. Cory, and Professor Simonds. On February 9th, 1880, a deputation of the Committee waited on Mr. Sclater-Booth, President of the Local Government Board, to lay before him the results of the conference, which had adopted the conclusions of the above-named report, and to urge accordingly that there should be a central department from which animal lymph might be distributed, so as to allow the public and the profession an alternative means of procuring a lymph which would not be liable to the objections sometimes raised against the lymph ordinarily in use. The Local Government Board have since agreed to establish a central department for the supply of calf-lymph for the vaccinators; and a vote for the purpose has been taken this year.

ARTISANS' DWELLINGS.—In 1868, the Committee took into consideration Mr. Torrens's Artisans' and Labourers' Dwellings Bill, and

endeavoured, but unsuccessfully, to obtain a provision that the salary and removal of the health-officer should be subject to the approval of the Home Secretary, or the Health Department of the Privy Council. They also resolved: "That the officer of health under this Act should be a registered medical practitioner; that the appointment and salary should be permanent, with a view to secure the independence and efficiency of the officers in the discharge of their local duties, subject to the approval of the Home Secretary." In 1875, the Committee succeeded in obtaining the introduction, into the Artisans' Dwellings Bill, of amendments relating to areas of measurement, to the protection of medical officers in performing their duties, and to diminishing the expense attending the preparation and approval of improvement schemes.

PROTECTION OF INFANT LIFE.—In 1868, a series of investigations into the system of baby-farming having been carried out in the BRITISH MEDICAL JOURNAL, the Earl of Shaftesbury founded thereon a question in the House of Lords; and the President of the Privy Council intimated the intention of the Government to adopt measures for the registration and inspection of the houses of persons taking children to nurse. The Committee supported the opinion that the Poor-law medical officers might be entrusted with the duty of inspection. In 1871, the Committee supported the endeavours made by Mr. Ernest Hart, Mr. Curgenven, Mr. Benson Baker, and others, to obtain the enactment of measures calculated to lessen the destruction of infant life, and to regulate baby-farming; and, in 1872, they reported with satisfaction that, after investigation by a Select Committee, which had called the chairman as the first witness, an Act for the purpose had been passed. A petition in its favour had been sent from the Committee during its passage through Parliament. In 1880, the Committee called the attention of the Home Office to the necessity for extending and strengthening the provisions of the Infant Life Protection Act; and a deputation waited on the Home Secretary and made suggestions: 1, for the registration of persons taking one child to nurse for the purpose of gain; 2, concerning the advisability of making the Act compulsory on all local authorities; 3, for the inclusion within the purposes of the Act of houses and other public institutions for the reception of foundlings and nursed children. The deputation was promised that attention should be given to these representations; but the change of Government prevented any steps from being then taken.

MEDICAL REFORM.—In April 1868, the Committee examined the Medical Practitioners' (Colonies) Bill, and resolved that a deputation should wait on the Duke of Buckingham and Chandos, to urge on his Grace either to withdraw the Bill, or to frame its provisions in accordance with the clauses relating to colonial graduates and practitioners introduced by Government into the Medical Acts Amendment Bill. In 1869, the Committee took into consideration the Draft Medical Acts Amendment Bill, drawn up by the Medical Council. They objected to the erasure of the names of practitioners from the *Register*, on the ground of their having ceased to practice; and also to the registration of foreign and colonial qualifications. They also recommended, in order to provide for the direct representation of the profession in the Medical Council, that the seventeen members elected by the universities and corporations should be reduced to nine; and that eight seats should be filled by the votes of the registered medical practitioners of the United Kingdom. The amendments were submitted to the General Medical Council, and by them referred to a Committee on the Bill. In May 1876, the Committee expressed disapproval of the Medical Acts Amendment Bill then before Parliament, on the ground that it proposed to admit to registration, by women, degrees of foreign universities which are not registrable by men. In February 1878, the Committee expressed approval of Dr. Lush's Medical Acts Amendment Bill, providing penalties against the use of medical titles for the purpose of gain, and other matters. In 1879, the Committee appointed the chairman to act with the Medical Reform Committee in drawing up a *précis* of the arguments in favour of modifications in the constitution of the General Medical Council.

ADULTERATION OF FOOD AND DRINK.—In 1869, the Committee endeavoured to secure a provision in the Adulteration of Food and Drink Act (1860) Amendment Bill, to the effect that the food analyst should "possess the diploma of some Corporation or Society authorised to grant medical or pharmaceutical degrees in Great Britain and Ireland". In 1875, a Bill to amend the Adulteration Act was introduced into Parliament, and received the careful consideration of the Committee, who succeeded in obtaining the assent of the Government to considerable amendments. They regarded the measure, however, as being far from complete or satisfactory. In 1879, the Committee took into consideration the Sale of Food and Drugs Bill then before Parliament, and co-operated with Mr. Wigner, the secretary to the Society of Public Analysts, in drawing up a memorial against the objectionable clauses of the Bill, and praying that the analysis of water at the fee of £1 1s. should be provided for in the Bill.

THE CORONER'S COURT.—In 1869, a Bill for regulating the election and duties of county coroners was introduced into Parliament. The Committee took active steps to oppose the main provisions of the measure, by which the appointment would have been placed in the hands of the Lord Chancellor or the Home Secretary. They proposed to vest the election either in the registered freeholders, or in the justices of the peace for the county. The first of these proposals was adopted by the Committee of the House of Commons, the electorate being at the same time enlarged. The Bill was withdrawn.

In 1871, the Committee energetically opposed clauses in the Coroners' Bill then before Parliament (afterwards withdrawn), which threatened to deprive Poor-law medical officers and others of their fees for *post mortem* examinations conducted for inquests. In November 1877, a subcommittee met in conference with several teachers of medical jurisprudence and medical coroners, on the subject of the law relating to the appointment of coroners and the conduct of their courts. A large amount of information was obtained, and a report was drawn up. The materials of information collected were forwarded to the Home Secretary, who promised that consideration should be given to the documents in the preparation of any Bill on the subject. In 1879, a Bill regarding the Coroner's Courts was introduced into the House of Commons, and referred to a Select Committee. The Parliamentary Bills Committee examined the Bill at two meetings, having the advantage of the assistance and advice of the late Dr. A. S. Taylor. The following resolutions were adopted.

"That, in the opinion of this Committee, the duties of a coroner should consist in making an inquiry with the view of determining the cause of death; and that the coroner should not possess the power of issuing warrants for the committal of a person charged with manslaughter or murder, but that his report and depositions should be placed before a justice of the peace for further proceedings.

"That the qualification of a person to be appointed or elected as a coroner should be, that he has served either as an officer of health or has passed an examination in State Medicine.

"That, in the opinion of this Committee, it is desirable, in view of the present costly and vicious mode of election, that the election of county coroners should no longer remain in the hands of the county freeholders; and that the nomination or election of 'franchise coroners' by universities, boroughs, corporations, or deans and chapters, or by the Lord Steward of the Queen's Household, should be suppressed."

It was considered that the appointment might be placed in the hands of, 1, the Lord Chancellor; 2, the Lord Chancellor associated with the President of the Medical Council or of the Royal College of Physicians or of Surgeons; 3, the Home Secretary in conjunction with the President of either College; or, 4 (as had been suggested by the Home Secretary), a county Board of Management, or the magistrates. Copies of the resolutions and of the report referred to above were sent to the Select Committee, with a request that Dr. A. S. Taylor might be allowed to give verbal evidence in support of the resolutions. The Select Committee, however, closed its proceedings without hearing Dr. Taylor's evidence. In November 1879, the Committee appointed Dr. A. S. Taylor, Mr. Sibley, and Dr. Joseph Rogers to be a subcommittee to examine the Coroners' Bill. In January 1880, this subcommittee presented a report, which was adopted; and the members of the subcommittee, with the chairman, were appointed a deputation to wait on Mr. Cross, the Home Secretary. The deputation had an interview with Mr. Cross on February 19th, and stated the objections to the proposals of the Select Committee. The chief points insisted on were these. "1. Medical men should not be excluded from holding the office of coroner, for which their professional knowledge especially fits them. 2. When medical services are required of infirmary or hospital surgeons in reference to giving evidence at coroners' inquests, the customary fees for such services should be paid as in other cases." In consequence of the change of Government the Bill was abandoned, and no measure of the kind has since been brought before Parliament.

LUNACY REGULATION (IRELAND).—In 1871, the Committee expressed approval of the amendments on Lord O'Hagan's Lunacy (Ireland) Bill, proposed by Sir Dominic Corrigan, with the view of preventing the imposition on the surgeons of Ireland of duties without fee or reward. They also supported a Bill introduced by Sir Dominic Corrigan, with the view of affording just remuneration to the Irish Poor-law medical officers for certifying dangerous lunatics, and of improving the superannuation of medical officers of asylums in Ireland.

MASTERS AND SERVANTS (WAGES) BILL.—While this Bill was in Parliament, in April 1872, the Committee examined it, and passed a resolution, "That the Chairman be authorised to communicate with the Secretary of State for the Home Department, and with members

of Parliament, with a view to the amendment of the eleventh clause of the Bill, by the introduction of a power to continue the important system of weekly deductions for the formation of a medical and sick-assurance fund.

MINES REGULATION BILL.—In April 1872, the Committee "observed with regret that, in the Mines Regulation Bill, there was no provision to guard against the employment of children and young persons who were disqualified by inadequate physical development or deformity, or by the presence of disease"; and recommended that the present organisation of inspection of factories should be extended to mines. The Chairman was authorised to take the necessary steps in reference to this, and to express to the Association of Certifying Factory Surgeons the willingness of the Committee to co-operate with them.

EDUCATION AND REGISTRATION OF MIDWIVES.—In 1873, the Committee reported that they had represented to Mr. Stansfeld, the President of the Poor-law Board, the evils arising from the employment of ignorant women as midwives, and the absence of any means for affording or testing their education. Mr. Stansfeld expressed his approval of the views laid before him, and requested Mr. Hart to prepare and submit to him a scheme for the education and registration of midwives. The Obstetrical Society, it was stated, was also prepared to give assistance. At a meeting in November, Mr. Hart laid before the Committee a scheme prepared by the Obstetrical Society for the education and registration of midwives; and Dr. C. Holman, Dr. Desmond, and Dr. J. H. Aveling were appointed a subcommittee "to consider the scheme of the Obstetrical Society for the education and registration of midwives, and to make such remarks or alterations as they may consider necessary, and to circulate the same to the delegates of the Branches and the Committee, with the request that they will take an early opportunity of submitting the same to the Councils of their respective Branches, and communicate the result to the Chairman of the Committee." A modified scheme was afterwards drawn up and published in the JOURNAL, and submitted to the consideration of the Branches of the Association. In 1879, the Committee appointed a subcommittee, consisting of Dr. W. S. Playfair, Dr. J. H. Aveling, and Dr. C. Holman, to co-operate with the Medical Reform Committee in procuring amendments of the clauses relating to midwives in the Medical Acts Amendment Bill then before Parliament. The clauses having been withdrawn, the subcommittee were requested to confer with a subcommittee of the Obstetrical Society on the question of taking up the clauses and amending them on the basis of a scheme proposed by the Society, in order that they might be introduced as a separate Bill. Since that time, much attention has been given to the subject by a Committee, including the Chairman, Dr. Quain, F.R.S., Dr. Priestley, Dr. Barnes, Dr. Aveling, Dr. Grigg, Dr. Holman, Mr. Sibley, and Mr. Nelson Hardy, who have prepared a Draft Bill for the Education and Registration of Midwives, which, it is intended, will be introduced into Parliament when a favourable opportunity occurs.

REGISTRATION OF BIRTHS AND DEATHS.—In 1873, various amendments were made in the Registration of Births and Deaths Bill, at the instance of the Committee. A deputation of the Committee, in conjunction with the Obstetrical Society of London, waited on the President of the Local Government Board, to request that provision for the registration of still-born children should be made in the Bill. The Bill was withdrawn for the session. In 1874, a Bill being again introduced, the Committee originated and supported amendments for the prevention of the illicit disposal of the bodies of infants under criminal pretences, as though still-born, and for providing for a regular inspection of bodies not regularly certified before burial. They also attempted, but without success, to obtain an improvement in the means of remuneration for certificates of death.

THE VIVISECTION BILL.—In May 1876, the Committee held a conference with the teachers of Physiology in reference to the "Cruelty to Animals Bill" then before Parliament. The chairman placed before the meeting a report on the subject; and the Committee agreed to a series of amendments. The report and amendments were circulated among the Branches of the Association, and to the universities and medical licensing bodies in Great Britain. A memorial was prepared, which was signed by more than two thousand members of the Association; and the Committee had an interview with Lord Carnarvon, at which the principal objections to the Bill were stated. Subsequently, Lord Carnarvon consented to certain modifications which removed some of the objections. The Bill as passed in the House of Lords being seriously obstructive to science, and having been supported in a manner which seemed to imply serious imputations on the humanity of the profession generally and of British physiologists, the Committee resolved to oppose it in the House of Commons unless important modifications were introduced. A large and influential deputation, summoned by the Committee, waited on Mr. Cross, at which the objections to the proposed form of legislation were expressed; and several of these were met and removed in Committee of the House of Commons.

FACTORY LEGISLATION.—In 1877, the Committee took into consideration the Factories and Workshops Bill which had been introduced into Parliament by the Home Secretary. They joined with the Association of Certifying Surgeons in laying before Mr. Cross a statement of the dangers likely to arise to the children of the poor from the changes which were proposed in the Bill. The Bill was withdrawn, and was again introduced in 1878. The Committee again co-operated with the Association of Factory Surgeons, and met with important success in procuring the introduction of amendments into the Bill, which afterwards passed.

DENTAL PRACTITIONERS.—In February 1878, the Committee examined the Dental Practitioners' Bill, and adopted a resolution to the effect that persons holding a licence in dentistry should be entitled to be registered as dentists, and that surgeons taking licences in dental surgery should be registered as dental surgeons. They also expressed the opinion that all persons registered under the Medical Act should be entitled to practise dental surgery, notwithstanding any provision for special registration of dentists. This suggestion was approved by Sir John Lubbock, who had charge of the Bill; and he introduced an amendment securing to all practitioners registered under the Medical Act full privileges of dental practice. On June 8th, the Committee again discussed the Bill, especially with reference to the use of the term "surgeon"; and ultimately decided to approve of it as amended in the House of Commons.

IRISH PRISON SURGEONS.—In 1879, the attention of the Committee was called by the North of Ireland Branch of the Association to the condition of infirmary surgeons who are also officers of gaols. The Committee resolved: "That, in the opinion of this meeting, the present position of infirmary surgeons in respect to their gaol work is a practical injustice to them." Copies of the resolution were sent to the Chief Secretary for Ireland, and to the medical members of Parliament. A promise was received from the Irish authorities that the matter should be considered, and that the Committee should receive further communication in relation thereto.

THE FACULTY OF MEDICINE AT OXFORD.—In 1879, the Committee adopted a memorial to the House of Commons and the University Commission and Council, praying for the restoration of an efficient Faculty of Medicine to Oxford. Copies of the memorial were also sent to the members of the Association. The memorial, which received about 2,000 signatures, was sent to Parliament and to the university authorities, and was by the latter referred to a Committee of the Hebdomadal Council. Several important reforms have been and are in course of being introduced in the sense of the prayer of the memorial; but much remains to be done.

LOCAL SANITARY LEGISLATION: REGISTRATION AND NOTIFICATION OF INFECTIOUS DISEASES.—In March 1879, the Committee, at the request of the Committee of Council, took this subject into consideration, with special regard to the question whether the notification of infectious disease should be made by the medical attendant. It was resolved—

"That, in accordance with repeated annual reports of the Registration of Diseases Committee of the British Medical Association, and with resolutions confirming the same at successive annual meetings of the Association, this Committee recognises the necessity of early and compulsory notification of cases of certain infectious diseases; it is of opinion that such notification should be made compulsory and formal by the medical man to the family, or guardian, or person in charge of the patient; and that the duty of notifying such diseases to the local authorities should be imposed upon such friends or guardians."

In November 1879 and February 1880, the Committee took into consideration reports by the Chairman, regarding local legislative measures for the notification of cases of infectious disease. The report of 1879 included a model clause, which was approved by the Committee. Both reports were ordered to be printed and circulated among sanitary officers, members of Parliament, and others interested in the subject. A further report by the chairman was considered at a meeting of the Committee in March 1881, and presented to the Government. The reports have been published in full in the BRITISH MEDICAL JOURNAL, and have drawn effective attention to the great variety and extent, and the stringent and hard character, of many of the sanitary clauses in local Acts, which had previously passed without public attention or general parliamentary revision. On the motion of Mr. Hopwood, M.P., a Special Committee of the House of Commons has been appointed, which rigidly investigates all novel changes in local Bills under these heads.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1882.

SUBSCRIPTIONS to the Association for 1882 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JUNE 10TH, 1882.

THE BRITISH MEDICAL ASSOCIATION.

THE near approach of the jubilee meeting of the British Medical Association has suggested to us, that a chronicle of the chief events in its career would be interesting. We have therefore compiled, from the records in the *Transactions* and JOURNAL, a sketch of its history from its establishment down to the present time.

Fifty years ago, the provincial medical practitioners of England did not, as a rule, hold that position to which the patriotic zeal and discerning penetration of Sir Charles Hastings and his fellow-workers perceived them to be entitled. Their position was one of obscurity, which the shining of even such great lights as Hey, Dalrymple, Crosse, James, and many others, was not sufficient to dispel. It was the great merit of Hastings that he showed his fellow provincials a way of escape from this state of obscurity and neglect, and gradually instilled into them the important principles of harmony of action and loftiness of aim in aid of the scientific advancement and the social dignity of their profession, and inspired them with confidence in their own powers. At the jubilee meeting, others will speak of the venerated founder of the Association in terms befitting his memory. But we may here call attention to his address to the small body of provincial colleagues who responded to his invitation to meet, in July 1832, in the board-room of the Infirmary at Worcester. That address, of which an abstract is given in our historical sketch, indicates the clear and far-seeing view which he took of the requirements, scientific and social, of medicine, as well as his confidence in the powers of such men as those whom he addressed to fulfil these requirements. With the aid of men of like mind with himself—Barlow, Kidd, Johnstone, John and William Conolly, Hodgson, Sands Cox, Baron, and others—he founded that Association, which, not reaching its first thousand until its sixth year, now reckons its nine thousand members, and spreads its Branches over the British empire and its colonies.

Under the stimulation and guidance of its founder, the aims of the Association were, from the first, ambitious and comprehensive. No great question of the day, in which medicine was concerned, was too formidable for it to attack, and that in a manner which can only excite admiration. We may refer to the proceedings of its early years with reference to Vaccination, the Medical Relief of the Poor, the mode of giving aid to distressed members of the Medical Profession and their families, Medical Reform; to the exhaustive reports on Vaccination, and on the Medical Relief of the Poor, which its earlier committees drew up, and which will be found in the volumes of the *Transactions* and the PROVINCIAL JOURNAL; to the energy and pertinacity with which it again and again assailed the legislature, in advocacy of measures calculated to increase the usefulness and uphold the dignity of the profession, and at the same time to be beneficial to the public; to its careful elaboration of a scheme for the relief of distressed members of the profession and their families; and to its persistent endeavours, still continued because not yet crowned with complete success, to obtain a satisfactory legal organisation of the medical profession. Such great matters the Association undertook while yet it consisted of only a few hundred provincial members; and the labours of the men of that time were attended with an amount of success which has done much to prepare the field for the exertions of their successors, increased tenfold in number, and spread over every part of the British Empire.

Passing rapidly from the distant past to the present, it will be seen that the series of energetic labours on the part of the Association, for the benefit of medicine and of humanity has never been broken; and that, with its increased numbers and influence, the range of its operations has been evidenced. The action of its standing Committees has been most salutary. Its Medical Reform Committee, under the judicious management of Dr. Edward Waters and his colleagues, still holds on with persevering energy in the endeavour to obtain those reforms which the Association demanded nearly forty years ago. The Committee on Parliamentary Bills, under the presidency of Mr. Ernest Hart, keeps a watchful eye on all public measures affecting the medical profession, and has, by its representations to Government and the Legislature, done no small amount of good—as will be seen from the summary of its proceedings which we publish in another page. The Committee on State Medicine, acting in conjunction with a similar Committee of the Social Science Association, seeks to improve the sanitary law of the country, and its mode of administration. Its Committees on the Registration of Disease, on the Treatment of Habitual Drunkards, and on other matters requiring special investigation and persevering and judicious treatment, all aid in securing to the Association the chief place in the estimation of the public, as well as of the profession, as an agent of beneficent design and great power. Its Committee on Scientific Grants guides its Council in the application of a portion of the funds of the Association to the encouragement of researches calculated to advance the science and improve the practice of medicine; and its youngest Committee, that on Collective Investigation, has entered with energy on a task which was long ago partially attempted, but which is now entered on under much more favourable auspices and with a far greater hope of success. Of the labours of these Committees we had intended to give summaries in the present number; but the pressure on the space at our disposal compels us to postpone the task to future numbers of the JOURNAL.

We had intended also to give a sketch of the history of those important organisations which have proved themselves so efficient in carrying out the objects for which the Association was founded—its Branches. It was not long after the formation of the Association that the value of such organisations was foreseen; and their development has gone on gradually, until they have now spread over nearly the whole of the United Kingdom, and have in late years been formed in the colonies.

Connecting all these agencies, and affording to the Association an indispensable means of carrying out its purposes of good, is its weekly organ, the BRITISH MEDICAL JOURNAL. We must defer to another number the fulfilment of an intention to give a detailed history of this from its commencement, a little more than forty years ago; but, in another column, we will refer briefly to the part which it has taken during the last fifteen years in carrying out the purposes for which the Association was founded. That the value of the JOURNAL, as the organ of the Association, especially in its improved condition, and with its rare comprehensive and systematic range of action, has been recognised, is proved by the great and rapid increase which the Association has in recent years undergone; the numbers having increased from little more than 3,000 in 1867, to considerably more than 9,000 at the present time.

The Association has not been without periods of turmoil and anxiety. When it was perceived, by many of its earnest members, that it had been entering on a range of action the catholicity of which did not accord with its limited name, and the proposal was made to give it the more appropriate and comprehensive title of British, alarm was caused among some of those who had taken the leading part in its foundation, and had been its firmest friends, lest its character as the great supporter of the interests of provincial medical men should suffer.

When, however, it was found that the change was desired by the great majority of the members, it was readily agreed to; and since that time none have worked with greater cordiality in the management of the Association, than those who at one time strenuously opposed measures which they regarded as revolutionary and dangerous. Looking back on the records of the discussions, we find one motive underlying all differences of opinion—an honest desire for the prosperity and usefulness of the Association.

The financial condition of the Association is now in a highly satisfactory state, but it was for many years a source of much anxiety; and, if there were anything connected with the Association which caused trouble to the mind of its venerated founder and first treasurer, it must have been the monetary difficulties which constantly came in his way. In 1871, there was a debt of £2,000 due from the Association. From that time, the state of affairs has changed; and the Association has not only paid all its yearly expenses, greatly increased though they have been, but has invested £10,000 in good securities. To all concerned, and especially to its late excellent and judicious treasurer, Mr. Husband, this condition of prosperity must be a source of deep satisfaction.

Increase of prosperity involves increase of responsibility. That the Association will continue to recognise that responsibility, there can be no question. It has done much good work; much still lies before it; and if the record at its jubilee is so favourable, what limit can be placed on the hope of the account which it will give of itself at its centenary?

THE BRITISH MEDICAL JOURNAL.

It was our intention to give, in the present number, a history of the JOURNAL from its commencement in 1841. We are compelled, however, to defer the fulfilment of this purpose, and to confine our remarks on the present occasion to a reference to the part which it has taken during the last fifteen years in carrying out the purposes for which the Association was founded.

When the present editor first came into office in 1866, it was agreed, on his suggestion, to enlarge the JOURNAL, and to commence a vigorous development of the several departments. This was commenced in 1867; and from that time the JOURNAL has gone on steadily increasing, until the number of pages in each half-yearly volume has risen from about 600 in 1867 to more than 1000. To increase the utility of the JOURNAL special departments have from time to time being either developed, or newly formed.

In 1868, a department was created under the title of "Poor-law Medical Science" for the special discussion of all questions affecting the interests of the Poor-law Medical Officers. This arrangement has had the happiest effect in providing authoritative and powerful support for these meritorious public servants throughout the kingdom, and giving them, as it were, at once a definite *locus standi* in the medical republic, and a common meeting-place in which they can, from week to week, note any discussion of principle, or any detail of facts, which affect the interests of this important part of the service. In order to ensure that this department should be conducted with a thorough knowledge and in active sympathy with the needs of the great body of general practitioners employed in the Poor-law Medical Service, it was placed under the special care of Dr. Joseph Rogers, President of the Council of the Poor-law Medical Officers' Association, whose advocacy of the interests of general practitioners and medical officers may always be depended upon. It is well known that this department has rendered effective service to the Poor-law Medical Officers as a body, by its vigilant defence of their interests, as well as to individual members under circumstances of peculiar hardship.

When the development of the Sanitary Acts and the creation of the great body of medical health-officers indicated that the interests of the practitioners of the country were about to assume a special phase in connection with the service, special attention was devoted to the development of the department of public health in connection with that of the Poor-law service. Here, again, the assistance of highly experienced and skilled persons throughout the provinces was obtained, and this department has been so conducted as to afford a survey of the work of the great body of practitioners who are aiding in the care of the public health, and performing public duties in respect to sanitation throughout the country. The analysis of this great body of reports, involving much labour, has been carried out in a manner which, we may venture to say, has attracted the attention of the most eminent sanitary authorities throughout the world, and reflects no small credit on the gentleman whose services have been available for the purpose.

Again, the development of cottage hospitals throughout England, and the new departures which have been taken of late years in the administration of hospitals, indicated the advisability of devoting a recognised department for the reception and study of communications and information from all sides, relating to the progress of provincial hospitals, of cottage hospitals, and of provident dispensaries. Such a department was accordingly organised in 1877, with the able assistance of Dr. Fairlie Clarke of Southborough and others, by whom all documents and communications relating to this subject are systematically analysed.

The Army and Navy Medical Services have, from 1873, also had a special department in our columns. Free use has been made of this space, and the correspondence which we receive is sometimes very considerable, although of course only a very small proportion of that which is received is intended for publication. Of the services which the BRITISH MEDICAL JOURNAL has been able to render to the army and navy, much has been said by leading personages of those services; and constant communication with representative members of all rank enables us to hope that the sympathy which exists between the editorial department of this JOURNAL and the officers of the army and navy, may continue to serve a useful purpose in protecting and advancing the interests of those departments on all occasions. Of late years, the number of members of the two services who have joined the Association has greatly multiplied.

The JOURNAL has sought, by the establishment of a department of Clinical, Obstetric, and similar Memoranda, to encourage the busy practitioner, in town and in country, to record interesting and valuable cases occurring in his practice, but requiring only a brief history. It has set apart columns for the special record of news concerning the profession in Scotland and Ireland, and has established a staff of correspondents in these divisions of the kingdom, as well as in many of the large cities and towns. It has also widened the range of hospital reports and of reports of medical societies, so as to include all parts of the kingdom.

In thus increasing on all sides the editorial labours connected with the JOURNAL, the object has been held in view, in all cases, of unstintingly devoting the space of the JOURNAL to the interests of the profession at large, and especially to provincial interests and to the interests of practitioners resident in the sister countries.

In the creation of these successive departments, we have met with that sincere form of flattery which consists of imitation, by the ablest and most powerful of our contemporaries. Such competition we hail with great satisfaction, for it is at once powerful testimony of the justness of the views entertained in these continuous developments of the sphere of influence and work of the JOURNAL, and shows us also a healthy rivalry, which as much as anything else tends to that constant progress which it is our object to maintain. Of the JOURNAL generally, in respect to its scientific contents, we may be content to quote the statement of Dr. Bradbury, in his Address on Medicine, delivered at Cambridge. Commenting on the scientific merits of the JOURNAL, he said: "Speaking on the subject of scientific medicine, I cannot but allude to the benefits which our Association especially has conferred upon this branch of study through her scientific grants, and through our most excellent JOURNAL, which is not surpassed in this or any other country in the scientific material

which its pages weekly contain. In preparing this address, I have been struck with the very great care which is taken in our JOURNAL to bring before us all that is best in modern scientific medicine."

The system long since adopted of providing leaders illustrating the progress of science, of classifying papers relating to one series of subjects, and of seeking out the best and latest writers upon the newest questions in medical science, has, we trust, been fruitful in advancing the progress of medicine and surgery. At any rate, it has secured for this JOURNAL an enviable reputation abroad, and, we trust, also at home. Of this European reputation, we have the repeated testimony of foreign journals, which speak of the BRITISH MEDICAL JOURNAL always as of the very highest order of journalistic and scientific merit. Recently, we have received several communications, asking for principles and details of the Editorial conduct of the BRITISH MEDICAL JOURNAL, for the guidance of our brethren in America, who do us the honour to regard this JOURNAL as a type of what a medical journal should be, and propose to imitate and adopt its characteristics, in the journal which many of the leading members of the American Medical Association desire to found.

We hope that we may not be accused of making our own panegyric, if we venture to quote, among the latest appreciations (from an American source) of the value of the BRITISH MEDICAL JOURNAL, the words of Dr. Joseph H. Warren of Massachusetts, Chairman of the Committee of Foreign Delegates, in his report presented at the thirty-second annual meeting of the American Medical Association. He says: "I refer you to the BRITISH MEDICAL JOURNAL, a weekly and influential journal published by the Association, and considered by far the best journal of its kind in the English language. As such it is a journal for us as an Association to pattern after, both in management and much of its detail.....I would, Mr. President and Fellows. that the American Medical Association had in place of its ponderous annual publication, a weekly journal published under its own immediate auspices; and I would that at its head we had an Editor with a vigour equal to that of Mr. Hart. I think I am not mistaken nor overconfident, when I say that such an editor and such a journal would be the means of developing from an atrophied membership of to-day some real honest work, and of displaying the mighty power and the wonderful but latent scientific matter that now lie dormant in the hands of our fellow-members."

The appreciation which the vigorous development of the JOURNAL has met with at home has been nowhere b etter shown than in the rapid growth which the Association has undergone since 1867, in which year was adopted a system of periodical distribution of copies of the JOURNAL to members of the profession who had not yet joined the Association, with an invitation to become members of it. It is not unreasonable to conclude that no small part of the rapid increase in the number of members of the Association is due to the satisfactory impressions produced upon the minds of those in whose hands the JOURNAL was in this way placed—in many instances probably for the first time. In other ways, which it is unnecessary to specify, the JOURNAL has been steadily employed in cultivating the interests of the various branches, and in assisting directlp as well as indirectly in the formation of new branches and the extension of the older ones.

In the last fifteen years, the Association has trebled the numbers which it had reached in thirty-five years growth. Whatever may have brought about such a result, it is at least satisfactory, and deserves to be noted.

Of the difficulties and responsibility of our task, it is unnecessary to speak. The position of an editor must be singularly difficult, who has to exercise daily discretion in the discussion of affairs concerning which it must often happen that the members of the Association which he represents take differing views. On the other hand, in the personal responsibility of the Editor, and in the constitution of the Journal Committee, in which provincial interests have predominance, there is a guarantee that, if differences of opinion cannot be prevented, they can at least be referred to a tribunal, which meets frequently, and is so constituted as to be essentially representative, impartial, and entirely free from undue local influence. Happily there has always prevailed complete harmony between the executive and administrative officers of the Association, and the means of communication provided as described for safeguarding the control of the JOURNAL. This organisation furnishes, it may be hoped, the best assurance that the JOURNAL will continue to serve, as it is, we trust, freely conceded that it has thus far served, the best interests of the the Association and the medical profession.

In concluding these remarks on the JOURNAL, we cannot omit to acknowledge with feelings of deep gratitude the valuable assistance which we have at all times received from the gentlemen who have co-operated with us in the several departments, and especially from the sub-editors: Dr. Alexander Henry, who has held the office for nearly thirty years; the late Dr. John Murray; Mr. George Eastes; Dr. Fancourt Barnes; and Mr. Alban Doran.

A SESSION of the General Medical Council commences on June 27th, and a meeting of the Executive Committee has been fixed for the 26th instant.

THE honorary degree of D.C.L. Oxford will be conferred at the approaching Encœnia upon Dr. Allen Thomson, M. Pasteur, and Sir William Muir.

THE President and Fellows of the Royal College of Physicians have issued cards for a *conversazione* on the evening of the 14th of June.

HIS Royal Highness the Duke of Connaught will distribute the prizes to the students of St. Thomas's Hospital on June 17th.

MR. CHARLES MACNAMARA, Surgeon and Lecturer on Surgery to the Westminster Hospital, is a candidate for a seat in the Council of the Royal College of Surgeons.

WE have to acknowledge the receipt of £10 from Professor Gairdner of Glasgow, for the fund being raised on behalf of the family of the late Sir John Rose Cormack.

MR. ALFRED BUTTERWORTH of Oldham has this week generously forwarded to the Secretary of the Oldham Infirmary a cheque for £1,000, to assist in the endowment of one of the new wards of that institution.

WITH regret we announce the death of two eminent members of the profession; Dr. T. B. Peacock, Physician to St. Thomas's Hospital, whose death occurred suddenly on June 1st; and Mr. Spence, Professor of Surgery in the University of Edinburgh, who died on Tuesday last. Want of space compels us to defer obituary notices of them until next week.

SIR HENRY THOMPSON has commenced "a new departure" in medical book—publishing which is worthy of notice, and may prove what the Germans call a "pathbreaking" innovation. He has republished his well known series of lectures in a really cheap edition in double-columns, with limp cover, very fully illustrated, at three shillings and sixpence.

No such cheap book has yet been presented to the medical world. In America where a fight is going on as to who shall be the first to pirate English medical works and issue them at the lowest possible rates, Mr. Keetley's popular Index of Surgery, published in this country by Messrs. Smith, Elder, and Co., is being issued at about two shillings, and large editions are selling, but the mechanical execution is wretched, and of course all that is looked for in this competition of rival American publishers is a shade of profit to the trader, the author being left out of the question.

. THESE are not terms on which publishing could be carried on in this country. Sir H. Thompson's book is very well brought out, and the mechanical execution leaves no room for criticism, especially considering the price. Only books for which a very large professional circulation can be confidently predicated could be published in this form, for it may be reasonably calculated that with all the advantages of illustrations in hand from prior editions, and of printing largely from printed "copy", not fewer than twenty-five hundred copies of this book must be sold before any margin of profit can be reached. Now, of ordinary medical books, a thousand is a fair edition, and two thousand is a full edition of any but quite the most popular of text books. It may be, however, that by considerably cheapening the price of medical books, the circle of readers may be very much extended indeed, and thus a new system of publishing of popular text books at cheap rates may be inaugurated.

THE cause of the death of the eminent Italian patriot, Garibaldi, was laryngeal paralysis following on bronchitis. The fatal illness was of only one day's duration. There was no *post mortem* examination. General Garibaldi, in his will, ordered that his body should be cremated; but circumstances have prevented his instructions from being carried out.

HOSPITAL SECRETARIES.

THE Governors of St. Mary's Hospital have appointed as their secretary Mr. P. J. Michelli, assistant-secretary to the Dreadnought Seamen's Hospital. Mr. Michelli has been carefully trained, under Mr. Burdett at Greenwich, in all the duties—financial, executive, commissariat, secretarial—which it is necessary a successful hospital superintendent should know. Without such knowledge the hospital must suffer; and the sooner this fact is recognised, and steps are taken to train men in all the duties appertaining to a hospital superintendent-secretary, the better will it be for all interested in the competent management of our hospitals.

STATISTICS OF FATAL POISONING.

THE Registrar-General's recently issued report, giving the statistics of death by poisoning, has, as the *Pharmaceutical Journal* points out, a particular interest, viewed in connection with the important question which the Government has of late been considering—the desirability of adopting some further protective measures to regulate the sale of poisons in this country. The death-rate from accidental poisoning has been for some years steadily increasing, and, in the five years ending with 1880, is found to be 15.3 per cent. higher than in the five years preceding. The number of deaths during 1880 ascribable to accidental poisoning was 14 per 1,000,000, while the number ascribable to suicide was 8 per 1,000,000. The total number of deaths from poison being 568, of this number 353 are referable to accident, and 215 to suicide. While the number of violent deaths in 1880 shows a decrease of 9 per cent. on the mean of the preceding ten years, the number of deaths from suicide shows a higher ratio (77 per 1,000,000) than in any previous year, except in 1879, when the rate was 80 per 1,000,000. For the five years previous to this date (1880), it appears that suicide had been on the increase. It is also shown that this form of death is more common with males than with females, and that it prevails more extensively among the educated classes. In the ten years 1871-80, the number of male persons registered as having committed suicide by poisoning was 78.9 per 1,000 cases of suicide in all ways, and the number of females 172.2 per 1,000. The means adopted for self-destruction are found to vary widely in the two sexes. Males generally incline to the use of drugs which, from their more intimate knowledge of poisons, they know are likely to be attended with the least amount of pain. Out of 1,000 males, 567 adopted narcotic poisons; while, out of an equal number of women, 246 only used this means for destroying life. Females, it was found, resorted to the use of strychnia, arsenic, phosphorus, and other preparations easily obtainable in substances sold for the destruction of vermin; and to carbolic acid, vitriol, and other substances which are common articles of domestic use.

IRELAND.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

AN unusually large attendance last Saturday at the Annual Meeting of the College, for the reception of the report of the outgoing Council, showed the great interest taken by the Fellows in the subject that has so keenly exercised the College during the past few weeks, and which has been commented on from different points of view in the JOURNAL. On the report being brought forward, Dr. Robert McDonnell moved, and Dr. Darby, of Bray, seconded, a resolution proposing that, in consequence of the state of the College funds, that portion of the report which dealt with the proposed expenditure of a sum of £3,000 on improvements in connection with the school of the College, be referred back to the Council for reconsideration. Mr. Wharton moved an amendment to the effect that the College was bound, both by its interests and by its charter, to maintain its school in the best possible manner. An objection was made to the amendment on the ground of its raising an issue not put forward in the resolution. The President, however, decided to receive the amendment; and after a long and warm debate, lasting from twelve to half-past four o'clock, a division was taken, with the result that there voted for it, exclusive of tellers, 71; and against it, 39. Thereupon the amendment was put as a substantive resolution and passed, the same division being accepted. The effect of this is assumed to be that a majority of the College approves the action of the Council in reference to the proposed alterations and additions for the improvement of the school buildings. However viewed, the amendment was a skilfully framed one. It pledged the college to maintain its connection with its school, and thus anticipated Dr. McDonnell's resolution to the contrary (*vide* last week's JOURNAL, p. 835), which was to come on for subsequent discussion. It ignored all financial considerations. And having once definitely asserted the duty of the college to maintain its schools, it rationally and necessarily followed therefrom that the college should support it in a state of creditable efficiency. The contest for the Vice-Presidency of the college, and the election of the Council last Monday, brought together one of the largest colleges that has met for a similar purpose for some years past. One hundred and seventy-six Fellows attended; many of them having come from England as well as from distant parts of Ireland to vote. Owing to the efforts made by the candidates for the Vice-Presidency and by their friends, some excitement and uncertainty was felt as to the result of the voting. In the end Mr. Wheeler obtained twenty more votes than his opponent, Mr. Stokes, and was accordingly declared elected. The numbers were for Mr. Wheeler, 95; for Mr. Stokes, 75. Mr. Barton was elected President of the College, and the following gentlemen, in order of Fellowship seniority, the Council for the ensuing year:—William Colles, Richard G. H. Butcher, George H. Porter, James H. Wharton, William A. Elliott, George H. Kidd, T. Jolliffe Tufnell, Edward Hamilton, Rawdon Macnamara, Robert M'Donnell, Edward D. Mapother, Archibald H. Jacob, Henry Gray Croly, Edward Halloran Bennett, Philip Crampton Smyly, John Denham, Anthony H. Corley, William Thornley Stoker, and Samuel Chaplin. It will thus be seen that all the members of the outgoing Council who sought re-election were, with the exception of Mr. J. A. Baker, re-elected. The two new members are Dr. A. H. Jacob, who resigned his seat on the Council last April, for the purpose of seeking the Chair of Ophthalmic Surgery, to which he has been since elected, and Mr. Henry Gray Croly. There were fourteen unsuccessful candidates.

DEATH DURING ADMINISTRATION OF CHLOROFORM.

DR. WHYTE, city coroner for Dublin, held an inquest at the Rotunda Lying-in Hospital, last week, on the body of an unmarried country-woman, aged thirty-four, who died under the following circumstances. The patient, who was apparently a healthy woman, was the subject of a large ovarian tumour. The abdomen measured 38 inches. It

was dceided to perform ovariotomy, as the tumour was increasing rapidly. No indications of cardiac or renal disease were ascertained. Chloroform was administered by Junker's apparatus, and the administration was proceeding satisfactorily, and the patient becoming anæsthetised, when the Master, Dr. Atthill, proceeded to make the primary cutaneous incision. Immediately on his having done so—the chloroform having been inhaled for about four minutes, and only one drachm used—the pupils became suddenly dilated, the face livid, and simultaneously both heart and respiration failed. The usual remedies, including galvanism, inversion, hypodermic injection of ether, and venesection, were resorted to without avail. An attempt was also made to take blood from the left temporal artery; but only a few drops of a dark colour could be obtained. Artificial respiration was kept up for an hour, but she never rallied from the first. The jury returned a verdict that the woman died from collapse while under the influence of chloroform, but they entirely exonerated the medical staff from any responsibility in connection with the occurrence. After the inquest, a *post mortem* examination was made. The ovarian tumour weighed over 26 lbs., and the diaphragm was pushed up.

THE JUBILEE MEETING, 1882.

THE arrangements for the jubilee meeting of the Association are in a forward and satisfactory condition. For the lectures, there is a promise of many subjects for discussion, and of numerous papers, etc. On Tuesday, a dinner will be given by the Mayor of Worcester to the officers of the Association and to the officers of sections.

Wednesday will be jubilee day, *par excellence*. The local Branch will give a luncheon to the whole Association in the Shire Hall. Mr. Hastings, M.P., will give some memorials of his father's life; and Mr. Husband, the late treasurer, will give an eulogy of Sir Charles Hastings as regards his work in connection with the Association. Afterwards, the President will present a marble bust of the founder of the Association to the Mayor and citizens of Worcester. The evening will be occupied by a performance of the oratorio of the *Creation* in the cathedral, to which members and their ladies will be admitted on showing cards of membership.

On Thursday will be the dinner, to which the city and county magnates will be invited. This will take place in the handsomely decorated Guildhall, newly restored.

On Friday, Lord Beauchamp, Lord-Lieutenant of the County, will entertain the members and the *élite* of the county at a garden-party at Madresfield Court, to which the members will be conveyed by special train.

On Friday evening, a *soirée* will be given at the Shire Hall by the President, in conjunction with Mr. G. W. Hastings, M.P.

There will be an exhibition of works of art, and of the industries and manufactures of the county, open during the stay of the Association in Worcester, which will afford members much interest.

The excursions on Saturday will be to the Malvern Hills; to the beautiful scenery of the Wye, Tintern Abbey, etc.; to Stratford-on-Avon and the memorials of Shakespeare; to Warwick Castle, and Kenilworth.

IRISH MEDICAL ASSOCIATION.

THE annual general meeting of our sister Association was held on Monday last, at the Royal College of Surgeons in Stephen's Green, at noon; Dr. Banks, President of the Association and President-elect of the Dublin Branch of the British Medical Association, in the chair. Dr. Chapman, honorary secretary, read the report of the Council for the past year. The chief matters of interest referred to in the report, and upon which resolutions were subsequently adopted by the meeting, were Medical Reform Bills, Superannuation, the Notification of Infectious Diseases, Vaccination, Fees for Medical Witnesses, and the Abuse of the Dispensary Medical Relief System. It was shown that the Union Officers' Superannuation (Ireland) Bill, now before Parliament, when altered in the manner promised by Government, would not afford uniform justice to the claims of medical and other union officers, and would not meet the requirements of the public service. The Council was therefore requested to endeavour to have the said Bill so amended that it shall become a thoroughly satisfactory measure.

With reference to the Bill for the Notification of Infectious Diseases in Ireland, drafted by the representatives of the Association, and by the representatives of the Dublin Branch of the British Medical Association, wh ch, after its approval by both these bodies, as well as by the King and Queen's College of Physicians and the Royal College of Surgeons, has been introduced in the House of Commons by Mr. Meldon, and read the first time, it was stated that the Bill stands "blocked" by Mr. Thomassen, M.P., and by Mr. Gray, M.P.

The principle of the new Bill is to make the notification of infectious diseases throughout Ireland compulsory on the householder or custodian of the patient, with a voluntary right on the part of the medical practitioner to notify the case to the sanitary authority; provided that, whenever a medical practitioner voluntarily undertakes to notify a case, but not otherwise, he shall be bound to do so. The Association considers this a happy solution of the difficulty, and trust that so important a public benefit and protection as must necessarily arise from a good and efficient system of early notification of infectious diseases may soon be conferred on the community.

Mr. Gray, M.P., has re-introduced his Bill of last session; but it, too, stands "blocked" by Mr. Thomassen. The principle of Mr. Gray's Bill is, that the medical practitioner shall, under penalty of five pounds, notify to the sanitary authority each case of infectious disease—a method to which the medical profession is strenuously opposed.

The enactment of a good and effective system of easy and compulsory notification of infectious diseases is a matter of much importance in the public interest, and no opposition appears to have been offered to it. Mr. Gray, M.P., admits its importance, but at the same time does not appear willing to consent to the passing of any Bill but his own. The consideration of public health must therefore patiently await the withdrawal Mr. Gray's Bill before any system can be legalised which would effectually check the avoidable spread of infectious diseases in Ireland; but the Association trusts all obstacles to legislation regarding a subject so essential may soon be overcome.

As regards Vaccination, it is the opinion of the Irish Medical Association, that the administration of the law regarding public vaccination in Ireland is unsatisfactory, and that a more vigilant supervision and improved system of inspection are essential for the better protection of the public against small-pox. It recommends that a distinct department of the Local Government Board should be created, with power to make and enforce the general observance of such regulations as may, in the public interest, be necessary; and that the English system of inspection of public vaccinations, under which awards are granted for excellence in results, should be extended to Ireland.

The abuse of the system of dispensary relief has been often under the notice of the Association, and there is no question that the indiscriminate issue of tickets for Dispensary Medical Relief to persons who can well afford to pay has a demoralising effect on such persons, improperly imposes upon the ratepayers heavy expense, and upon the Medical Officers much illegitimate labour and considerable loss. The Council has therefore been requested to take such steps as they deem best with a view to prevent abuse of the present system. The following resolution was also adopted:—That, in the opinion of this Association, it is desirable that legislation be sought with a view to enactment of a system to provide for the support of the widows and orphans of poor-law medical officers, which was submitted by the Council to the last annual general meeting.

During the past year thirty-six new members have joined the Association, and its financial position is exceptionally good.

The following officers were elected for the ensuing year: *President:* Dr. Molony, Tulla. *Viee-Presidents—Leinster*, T. L. Whistler, Bray; *Ulster*—A. K. Young, Monaghan; *Munster*—W. D. Hemphill, Clonmel; *Connaught*—J. Harrison, Roscommon.

In the evening, the annual dinner took place at the Royal College of Surgeons; Dr. Molony, the newly elected President, in the chair. Dr. Lyons, in returning thanks for the House of Commons, spoke of the inadequate representation in it of the profession of medicine. Until medical men, he said, were prepared to make the sacrifices necessary for that purpose, they would never occupy before the public and the empire the position to which they were fully entitled. The fact was now universally recognised, that the public wanted more thorough information in the legislature on the subject of hygiene and sanitary legislation than they had hitherto enjoyed. There was only one way of giving that information, and that was by an adequate representation of the profession of medicine in the House. Mr. Meldon, Q.C., M.P., in responding also to the same toast, said he quite agreed with Dr. Lyons as to the necessity of a better representation of the medical profession in the House of Commons. There was an organised party in that House which opposed all kinds of sanitary legislation. But he also wished to know why the medical profession was not represented in the House of Lords. The rewards and prizes which were at present open to the medical profession were most insignificant. Great legal reforms had lately been originated in the House of Lords; and, with a medical representative there, legislation of great practical utility, in a medical

point of view, might also be originated. The toast of "The Army and Navy" was responded to by Surgeon-General Furlong, and by Mr. Davis, R.N. Dr. Banks, Ex-President of the King and Queen's College of Physicians, and Mr. Chaplin, immediate ex-President of the Royal College of Surgeons, in the absence of the Presidents and Vice-Presidents, responded to the toast of "The Colleges of Physicians and Surgeons". The toast of "The British Medical Association and its Dublin Branch" was very cordially received, and ably responded to by Dr. Kidd. Several other toasts followed; and the company separated at a late hour, having spent a pleasant evening and enjoyed some excellent music.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A MONTHLY meeting of the Council of the College was held on Thursday, the 8th June. The minutes of the previous Council held on the 11th May were read, and were confirmed after a strong contest regarding that portion relating to the referring of rejected candidates for the Pass membership to their studies for various periods, according as they have evinced deficiency of knowledge at their examination.

Reports were received from the Board and Court of Examiners, and from other Committees. The Vice-Presidents presented their report on the letter from the Secretary of State for the Home Department, inquiring whether the Council had any suggestion to make for the amendment of the law relating to the sale of poisons. The Vice-Presidents, in the absence of the President from illness, in pursuance of the Resolution of the Council of the 13th April, reported that they had carefully considered the provisions of the Act relating to the sale of Poisons, and altering and amending the Pharmacy Act of 1852, and that they had conferred with the Council of the Pharmaceutical Society thereon, and submitted to the Council the following recommendations as embodying the reply to the letter of the 21st March, from the Secretary of State: That it is neither necessary nor practicable that any further restrictions should be placed on the sale of medicines containing poisons dispensed from ordinary prescriptions by legally qualified medical practitioners; that there should be greater restrictions placed on the sale, *by wholesale*, of certain virulent Poisons, such as Strychnine, Aconitine, and all poisonous vegetable alkaloids and their salts.; that further restrictions should be provided by law, so as to more efficiently control the sale of poisonous patent medicines; and that the power which the Act confers on the Pharmaceutical Society to make, with the consent of the Privy Council, any additions to, or alterations in, Schedule A, is a wholesome provision, and a sufficient guarantee that from time to time further changes in that schedule will be effected, as new poisons are introduced into common use. The report was adopted.

The Report of the Nomination Committee, in which it was recommended that the various examiners in medicine and midwifery be re-elected, was also adopted; as was also their recommendation that in future all candidates for the primary anatomical and physiological examinations, whether for the diploma of Member or of Fellow of the College, be only required to attend one winter course of lectures on Anatomy, instead of two courses of such lectures.

Mr. Marshall moved that the attention of the teachers at the various schools be called to the resolution of the Council relating to the elementary examination in anatomy and physiology at the end of the first winter session, and that they be invited to confer with the Committee of the Council appointed to consider the matter, with a view to the carrying out of the suggestion of the Council.

Mr. Henry Power was nominated Arris and Gale Lecturer on Anatomy and Physiology. The other professors and lecturers were re-appointed for the ensuing year.

ASSOCIATION INTELLIGENCE.

BRITISH MEDICAL ASSOCIATION:

FIFTIETH ANNUAL MEETING.

THE Fiftieth Annual Meeting of the British Medical Association will be held at Worcester, on Tuesday, Wednesday, Thursday, and Friday, August 8th, 9th, 10th, and 11th, 1882.

President: BENJAMIN BARROW, F.R.C.S., Consulting-Surgeon to the Royal Isle of Wight Infirmary.

President-elect: WILLIAM STRANGE, M.D., Senior Physician to the General Infirmary, Worcester.

An Address in Medicine will be delivered by W. F. WADE, F.R.C.P., Physician to the Birmingham General Hospital.

An Address in Surgery will be delivered by WILLIAM STOKES, M.D., F.R.C.S.I., Professor of Surgery in the Royal College of Surgeons, Ireland.

The business of the Association will be transacted in Eight Sections, viz.:—

SECTION A. MEDICINE.—*President:* Thos. Clifford Allbutt, M.D., F.R.S. *Vice-Presidents:* George W. Balfour, M.D.; William Henry Broadbent, M.D.; G. H. Philipson, M.D. *Secretaries:* Edwin Rickards, M.B., 14, Newhall Street, Birmingham; H. Ashby, M.D., 13, St. John Street, Manchester.

SECTION B. SURGERY.—*President:* Augustin Prichard, F.R.C.S. *Vice-Presidents:* T. W. Walsh, F.R.C.S.; Reginald Harrison, F.R.C.S.; T. H. Bartleet, M.B., F.R.C.S. *Secretaries:* F. E. Manby, F.R.C.S., 10, King Street, Wolverhampton; Richard Clement Lucas, M.B., F.R.C.S., 18, Finsbury Square, E.C.

SECTION C. OBSTETRIC MEDICINE.—*President:* William Leishman, M.D. *Vice-Presidents:* Henry Vevers, M.R.C.S.; J. G. Sinclair Coghill, M.D.; Arthur W. Edis, M.D. *Secretaries:* C. J. Cullingworth, M.D., 25, St. John Street, Manchester; Tom Bates, L.R.C.P., Worcester.

SECTION D. PUBLIC MEDICINE.—*President:* Alfred Carpenter, M.D. *Vice-Presidents:* Alfred Hill, M.D.; Horace Swete, M.D.; E. T. Wilson, M.B. *Secretaries:* Geo. Haynes Fosbroke, jun., M.R.C.S., Bidford, Redditch; Francis Edward Atkinson, L.R.C.P., Settle, Yorkshire.

SECTION E. ANATOMY AND PHYSIOLOGY.—*President:* George M. Humphry, M.D., F.R.S. *Vice-Presidents:* S. S. Roden, M.D.; Frank Payne, M.D.; Gerald Yeo, M.D. *Secretaries:* J. B. Haycraft, M.D., Mason's College, Birmingham; James Shuter, M.B., F.R.C.S., 58, New Broad Street, London.

SECTION F. PATHOLOGY.—*President:* J. Hughlings Jackson, M.D., F.R.S. *Vice-Presidents:* W. R. Gowers, M.D.; H. T. Butlin, F.R.C.S.; Wm. Smith Greenfield, M.D. *Secretaries:* Sidney Coupland, M.D., 14, Weymouth Street, London; F. Treves, F.R.C.S., 18, Gordon Square, London.

SECTION G. OPHTHALMOLOGY.—*President:* James Vose Solomon, F.R.C.S. *Vice-Presidents:* David Everett, F.R.C.S.; F. Mason, M.R.C.S.; Edwyn Andrew, M.D. *Secretaries:* Geo. Edwin Hyde, L.R.C.P., Worcester; J. A. Nunneley, M.B., 22, Park Place, Leeds.

SECTION H. OTOLOGY.—*President:* W. Laidlaw Purves, M.D. *Vice-Presidents:* Geo. P. Field, M.R.C.S.; A. H. Jacob, M.D.; E. Cresswell Baber, M.B. *Secretaries:* J. J. Kirk Duncanson, M.D., 22, Drumsheugh Gardens, Edinburgh; Peter McBride, M.D., 20, Alva Street, Edinburgh.

Honorary Local Secretaries: George W. Crowe, M.D., Shaw Street, Worcester; H. C. Moore, M.R.C.S., 7, King Street, Hereford; Thelwell Pike, M.D., 2, Montpellier, Great Malvern.

Honorary Treasurer: G. A. Sheppard, M.R.C.S., Worcester.

TUESDAY, AUGUST 8TH.

2.15 P.M.—Meeting of Committee of Council.
3 P.M.—Meeting of the Council of 1881-82.
4.15 P.M.—Service in the Cathedral, with sermon by the Dean of Worcester.
8 P.M.—General Meeting. President's Address; Annual Report of Council, and other business.
Tea and Coffee after the Meeting.

WEDNESDAY, AUGUST 9TH. (Jubilee day).

9.30 A.M.—Meeting of Council of 1882-83.
11 A.M.—Second General Meeting. Address in Medicine.
1.30 P.M.—Luncheon given by the Worcester and Hereford Branch to Members of the Association (limited to 500), and afterwards presentation of bust of Sir Charles Hastings to the Mayor and Corporation of Worcester.
3 to 5.30 P.M.—Sectional Meetings.
7.45 P.M.—Special Service in the Cathedral, at which, by permission of the Dean, Haydn's Sacred Oratorio, "The Creation", will be performed by the Philharmonic Society, assisted by members of the Gloucester and Hereford Choirs, and conducted by W. Done, Esq., Organist to the Cathedral.

THURSDAY, AUGUST 10TH.

9 A.M.—Meeting of the Committee of Council.
10 A.M.—Third General Meeting. Reports of Committees.
11 A.M.—Address in Surgery.
2 to 5.30 P.M.—Sectional Meetings.
6.30 P.M.—Public Dinner. Tickets will not be issued later than twelve o'clock on the day of the dinner. (There will be two kinds of dinner ticket: one for those who take wine, and the other for abstainers, 21s. and 14s. each.)

FRIDAY, AUGUST 11TH.

9.30 to 11.30 A.M.—Sectional Meetings.
11.30 P.M.—Concluding General Meeting. Reports of Committees.
3 P.M.—Garden Party, at Madresfield Court, Great Malvern, given by the Lord-Lieutenant and the Countess Beauchamp.
9 P.M.—Soiree of the President and G. W. Hastings, Esq., M.P.

Excursions.

On Saturday, August 12th, there will be—1. An excursion to Malvern Hills, including the ancient British Camp, the chief interesting features of which will be explained to the visitors on the spot. 2. An excursion to Stratford-on-Avon to visit Shakespeare's house, the church and tomb, Shakesperian Museum, etc. The party will then proceed to Warwick and Kenilworth Castle, returning by way of Leamington. 3. An excursion to the Wye, by which the beautiful scenery on the banks of that river may be viewed either from the railway or by boats from Ross to Monmouth. Particulars of this excursion will be published in an early number. 4. There are steamers and pleasure-boats on the river Severn at Worcester, which will afford very enjoyable short trips up or down the river.

Annual Museum.

The sixteenth annual exhibition of objects of interest in connection with medicine, surgery, and their allied sciences will take place in the Music Hall, Worcester, during the second week of August, 1882. The floor-space of this building amounts to 4,000 square feet. The Committee appointed to take charge of the arrangements for this Museum will be glad to receive—1. Pathological specimens (wet or dry); 2. Drawings or diagrams illustrating disease; 3. Casts or models; 4. Surgical instruments and appliances; 5. Microscopic preparations; 6. Microscopes, thermometers, and other instruments of investigation; 7. Preparations, diagrams, etc., relating to investigations in anatomy and physiology; 8. New drugs, chemicals, pharmaceutical preparations, and dietetics; 9. Sanitary appliances, including drawings or models illustrating the ventilation of hospitals or private dwellings; 10. New medical books. It is intended that the surgical instruments, sanitary appliances, etc., shall be *bonâ fide* novelties, or improvements on those in common use. The pathological specimens will be arranged in departments.

Exhibition of Instruments and Apparatus.—It is intended to arrange for the exhibition of complete series of instruments, electro-therapeutic apparatus, instruments for physical diagnosis, and appliances relating to sanitary science and public health. Facilities will also be afforded, when requested, for the display of instruments in action, or for special explanation by the exhibitors of apparatus, etc.

The Catalogue.—It is intended to print a catalogue, which will be as complete as circumstances may permit. The Committee earnestly request those who intend to exhibit to bear in mind that it is impossible that descriptions, etc., can be included in the catalogue unless sent in early. They should be received at least a month before the meeting, that is, not later than July 8th.

Communications, objects intended for exhibition, etc., to be addressed to the Secretary of the Museum Committee, Mr. J. Randle Buck, 26, Sidbury, Worcester. During the week preceding the meeting all articles should be sent direct to the Music Hall, Worcester, and addressed to the care of the Curator of the Museum of the British Medical Association.

Francis Fowke, *General Secretary.*

London, April 13th, 1882.

BRANCH MEETINGS TO BE HELD.

Metropolitan Counties Branch: East London and South Essex District.—The next meeting of the above District will be held at the Royal Forest Hotel, Chingford, on Thursday afternoon, June 15th, at 4.30; Edwin Saunders, Esq., President of the Metropolitan Counties Branch, in the chair. Dr. John Williams will read a paper on Antiseptics in Midwifery. After the meeting, the members and their friends will dine together at 6 o'clock; tickets, exclusive of wine, 7s. 6d. Gentlemen intending to dine are requested to make early application for tickets, so that comfortable arrangements may be made.—Frederick Wallace, 96, Cazenove Road, Upper Clapton, Honorary Secretary.—May 31st, 1882.

Worcestershire and Herefordshire Branch.—The annual meeting of this Branch will be held on Tuesday, the 27th of June instant, at the Medical Library, Peirpoint Street, Worcester, at 3 o'clock. The dinner at 5 P.M. Dinner tickets, exclusive of wine, 5s. Members intending to dine, or to read papers, cases, etc., will please communicate with Dr. Crowe, Honorary Secretary, Shaw Street, Worcester, with as little delay as possible.

North of Ireland Branch.—The annual meeting of this Branch will be held in the Belfast Royal Hospital on Tuesday, June 13th, at 4 o'clock P.M. The members will dine in the evening at the Imperial Hotel at 7 o'clock.—John Moore, M.D., Honorary Secretary.

Southern Branch.—The ninth annual meeting of this Branch will be held at the Masonic Hall, Southampton, on Thursday, June 22nd, 1882. (The President-elect has kindly undertaken to provide refreshments at the hall.) The general meeting will commence at 12 o'clock. Members desirous of reading papers or other communications at this meeting are requested to forward the titles to the Honorary Secretary before the 15th of June. No communication must exceed seven minutes in length, and no subsequent speech must exceed five minutes. The address will be delivered by the President-elect at 2 P.M. Excursions will be made to the Royal Victoria Hospital, Netley, and Netley Abbey. Carriages will be provided (free of charge), leaving the Masonic Hall in time to cross the Itchen by the 3 P.M. floating bridge. By permission of Colonel Cooke, R.E., C.B., the Ordnance Survey Office will be open for the inspection of the members. The dinner will take place at the Masonic Hall, at 6 P.M. precisely, to allow time for those members who are desirous of leaving Southampton by the evening trains. Tickets, 12s. 6d. each, including light wine. The committee request that those gentlemen who intend to be present at the dinner will send in their names to Dr. Trend, on or before Tuesday, the 20th instant.—J. Ward Cousins, M.D., Honorary Secretary and Treasurer.

Midland Branch.—The annual meeting will be held at Lincoln on Thursday, July 13th. Notices of papers to be read should be sent early to the undersigned.—Lewis W. Marshall, M.D., Honorary Secretary and Treasurer.

Cambridgeshire and Huntingdonshire Branch.—The annual meeting of the above Branch will be held at Wisbech, on Friday, June 23rd, at 2.15 P.M.; W. Groom, Esq., President. The Great Eastern Railway Company have signified their willingness to facilitate the travelling of members by running a special train from Cambridge to Ely at 12.20 P.M., to catch the 12.58 P.M. train from there to Wisbech due at 1.42; and a special train from Wisbech to March at about 11 P.M. to join the up mail, for a payment of £5 in addition to the ordinary fares. If twenty members will make themselves responsible for 5s. each, the above arrangements may be easily accomplished.—Bushell Anningson, Honorary Secretary, Walthamsal, Barton Road, Cambridge.—May 31st, 1882.

Glasgow and West of Scotland Branch.—The annual meeting of this Branch will be held in the Western Infirmary, Glasgow, on Friday, June 30th, at 3 P.M. The President-elect, Professor George Buchanan, after taking the chair, will give a clinical demonstration on the Operation for the Radical Cure of Hernia; will show cases in which the operation has proved successful; and will perform the operation. Thereafter the President will conduct the members to the University, where they will inspect the Bute Hall, the Randolph Hall, and other new buildings which are approaching completion. The members will afterwards be conveyed into the city, and the annual dinner will take place at 5.30. N.B.—Members of the Association who have not joined the Branch are invited to do so by communicating with the secretary before the meeting.—Joseph Coats, Honorary Secretary.

South-Western Branch.—The annual meeting of this Branch will be held in the Board Room of the North Devon Infirmary, Barnstaple, on Thursday, June 22nd, at 2 P.M., under the Presidency of Mr. Joseph Harper. Opportunity will be given after the meeting, if time permits, to visit places of interest in and near Barnstaple. The annual dinner will take place at the Lion Hotel at 6 P.M.; dinner tickets, exclusive of wine, 7s. 6d. each. Members intending to dine, or to read papers, or make communications, are requested to give notice to S. Rees Philipps, M.D., Honorary Secretary, Wonford House, Exeter. P.S.—The President invites the members to take luncheon at his house in Bear Street between the hours of 12 and 2 o'clock.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following Members of the College, having passed the necessary examinations for the Fellowship at the half-yearly meetings terminating on the 27th ultimo, were reported to have acquitted themselves to the satisfaction of the Court of Examiners, and at a meeting of the Council on the 8th instant were admitted Fellows of the College.

Messrs. James Taylor, L.R.C.P.Lond., Chester; John Hopkins, L.S.A., Cleveland Street; William Arbuthnot Lane, M.B.Lond., Chelsea; Arthur Quarry Silcock, M.D.Lond., Dalston; William Charles Storer Bennett, L.R.C.P.Lond., L.D.S., George Street, Hanover Square; Arthur Jackson, L.S.A., Grays, Essex; John Poland, L.R.C.P.Lond., Blackheath; Frederick Dale, B.A. and M.B.Cantab., L.R.C.P.Lond., Scarborough; Morgan Davies, L.R.C.P.Lond., Llangwyrfon, Cardiganshire; Charles Alfred Ballance, M.B.Lond., Lower Clapton; and Charles John Bond, L.R.C.P.Lond., Lutterworth, Leicestershire.

Mr. Mark Purcell Mayo Collier, of Turnham Green, who passed the examination in May 1881, having now attained the legal age of 25 years, was also admitted a Fellow.

Two diplomas of two candidates are retained: until of age in one case, and on passing in Obstetrics in the other. Only four candidates out of the seventeen were rejected.

Apothecaries' Hall.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, June 1st, 1882.

Atkins, Ernest, Burrage Road, Plumstead.
Beverley, John Metcalfe, Bury, Lancashire.
Collier, Joseph, Manchester.
Cree, Herbert Eustace, St. John's Park, Highgate Hill.
Crowther, George Dobson, Luddenden, Manchester.
Meharry, William John, Southill Road, Belfast.
Parakh, Nasaswauji N., Hereford Road, Bayswater.
Roberts, Henry, Shaftesbury.
Tate, Alan Edmondson, Trent, Somerset.
Williams, Montague William, Tunbridge Wells.

The following gentlemen also on the same day passed their Primary Professional Examination.

Bentliff, Philip Barnett, Middlesex Hospital.
Maddison, Thomas Sherwood, Middlesex Hospital.
Muddle, Edward John, Guy's Hospital.

MEDICAL VACANCIES.

The following vacancies are announced :—

BIRKENHEAD BOROUGH HOSPITAL.—Junior House-Surgeon. Salary, £60 per annum. Applications by the 19th instant.

CHILDREN'S HOSPITAL, Birmingham.—Assistant Resident Medical Officer. Salary, £40 per annum. Applications by June 20th.

CHILDREN'S HOSPITAL, Birmingham.—Resident Medical Officer. Salary, £80 per annum. Applications by June 20th.

CUMBERLAND INFIRMARY, Carlisle.—House-Surgeon. Salary, £100 per annum. Applications by June 27th.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Resident Clinical Assistant. Applications by June 22nd.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge Road, S.E.—House-Surgeon. Salary, £70 per annum.

FRENCH HOSPITAL AND DISPENSARY, 10, Leicester Place.—Resident Medical Officer. Salary, £60 per annum.

GLAMORGANSHIRE AND MONMOUTHSHIRE INFIRMARY AND DISPENSARY, Cardiff.—House-Surgeon. Salary, £100 per annum. Applications by June 12th.

GREAT NORTHERN HOSPITAL, Caledonian Road, N.—House-Surgeon. Salary, 60 guineas per annum. Applications by June 30th.

GUISBOROUGH UNION, Yorks.—Medical Officer of Health. Salary, £370 per annum. Applications by the 12th instant.

HOSPITAL FOR SICK CHILDREN, 49, Great Ormond Street, W.C.—Assistant Physician. Applications by the 21st instant.

HULL GENERAL INFIRMARY.—Junior Assistant House-Surgeon. Salary, £35 per annum. Applications by the 13th instant.

IRVINESTOWN UNION.—Medical Officer for Irvinestown No. 2 Dispensary District. Salary, £100 per annum, with £15 per annum as Medical Officer of Health, registration and vaccination fees. Election on the 21st instant.

KILBURN, MAIDA VALE, AND ST. JOHN'S WOOD GENERAL DISPENSARY.—Resident Medical Officer. Salary, £120 per annum. Applications by the 15th instant.

LEEDS UNION.—Assistant Medical Officer. Salary, £100 per annum. Applications by the 12th instant.

METROPOLITAN FREE HOSPITAL, 81, Commercial Street, Spitalfields, E.—Assistant House-Surgeon.

NEW ZEALAND.—Inspector of Lunatic Asylums. Salary, £800 per annum. Applications by June 20th.

ROYAL HANTS COUNTY HOSPITAL, Winchester.—House-Surgeon. Salary, £100 per annum. Applications by June 10th.

ROYAL UNITED HOSPITAL, Bath.—Resident Medical Officer. Salary, £80 per annum. Applications by June 22nd.

SEAMEN'S HOSPITAL (late Dreadnought), Greenwich, S.E.—Surgeon for the Dispensary. Salary, £63 per annum. Applications by June 20th.

ST. PETER'S HOSPITAL FOR STONE AND URINARY DISEASES, 54, Berners Street, W.—House-Surgeon. Applications by July 1st.

THE INFIRMARY, Halifax.—Assistant House-Surgeon. Salary, £50 per annum. Applications to the Senior Physician of the Medical Staff by June 20th.

WESTERN OPHTHALMIC HOSPITAL, 155, Marylebone Road.—Clinical Assistant. Applications to the Hospital any afternoon from 1 to 3 o'clock.

YORK COUNTY HOSPITAL.—Honorary Physician. Applications by June 24th.

MEDICAL APPOINTMENTS.

AINSLEY, T. G., M.R.C.S., appointed Medical Officer for the District and Workhouse to the Hartlepool Union.

BATTERHAM, J. W., M.R.C.S., L.S.A., appointed House-Physician and Chloroformist to the Westminster Hospital.

BROWN, W. H. J., M.B., appointed House-Surgeon to the Alnwick Infirmary, *vice* F. A. McEwen, M.B., resigned.

CAVAFY, J., M.D., appointed Physician to St. George's Hospital.

COX, L., M.R.C.S.E., appointed Superintendent to the Denbigh Asylum.

DAVIS, A. N., L.R.C.P., appointed Assistant Medical Officer to the Portsmouth Lunatic Asylum, *vice* J. F. Woods, M.R.C.S., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., *which should be forwarded in stamps with the announcements.*

BIRTH.

BOWES.—On June 2nd, the wife of J. Ireland Bowes, Medical Superintendent of the Wilts County Asylum, of a son.

MARRIAGES.

DAVY—FIELD.—May 11th, at Hull, by the Rev. Thomas M'Cullagh, D. Henry Davy, M.R.C.S., L.R.C.P., to Minnie, eldest daughter of Richard Field, Esq.

LUSH—INGRAM.—On the 7th inst., at St. John's, Weymouth, by the Revd. Canon Stephenson, William George Vawdrey Lush, M.D., M.R.C.P., to Sarah, youngest daughter of the late Revd. Rowland Ingram, formerly Vicar of Giggleswick, Yorkshire, and late Rector of Little Ellingham, Norfolk. No cards.

NORMAN—KENNY.—On the 6th inst., at Killeshandra, Co. Cavan, Conolly Norman, F.R.C.S.I., Mayo County Asylum, Castlebar, to Mary Emily, daughter of the late Randal Y. Kenny, M.D., of Killeshandra, Co. Cavan.

DEATH.

SPENCE.—At 21A, Ainslie Place, Edinburgh, on the 6th inst., James Spence, F.R.S., F.R.C.S.E., Surgeon in Ordinary to the Queen in Scotland, Professor of Surgery in the University of Edinburgh. Friends will please accept of this the only intimation.

OPERATION DAYS AT THE HOSPITALS.

MONDAY..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p. Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., Tu. F., 2; Eye, Tu. F., 9.15; Ear, M. Th., 2; Skin, Tu. Th., 1.30; Throat, M. Th., 1.45; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. T., F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15. Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical daily, 1.30; Obstetric, Tu. F., 3; Eye, M Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Royal College of Surgeons of England, 4 P.M. Mr. Jonathan Hutchinson: On Temperament, Idiosyncracy, and Diathesis in Relation to Surgical Disease.

TUESDAY.—Royal Medical and Chirurgical Society, 8 P.M., Ballot. 8.30 P.M., Dr. Sidney Ringer and Dr. H. Sainsbury: Concerning the Action of Salts of Potash, Soda, and Ammonia on the Frog's Heart. Sir James Paget: Additional cases of Osteitis Deformans. Mr. Davies-Colley: On cases of Malignant Pustule, with Report on the Microscopic Examination of Sections from the Skin by Dr. Charlewood Turner.

WEDNESDAY.—Royal College of Surgeons of England, 4 P.M. Mr. Jonathan Hutchinson: On Temperament, Idiosyncracy, and Diathesis in Relation to Surgical Disease.—Royal Microscopical Society, 8 P.M. Ordinary Meeting.

FRIDAY.—Royal College of Surgeons of England, 4 P.M Mr. Jonathan Hutchinson: On Temperament, Idiosyncracy and Diathesis in relation to Surgical Disease.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

A MEDICAL HERO.

TWENTY-SIX subscriptions were acknowledged in the BRITISH MEDICAL JOURNAL of October 29th, 1881, to the memorial brass to be placed in the church of St. Bartholomew-the-Less, to Surgeon Landon, Army Medical Department. The following subscriptions have been received since; H. B. Boulter, Esq., Richmond; F. B. Brodribb, Esq., Colne; S. S. Burn, M.B., Richmond; F. W. Evans, M.D., Cardiff; V. D. Harris, M.D., London; W. L. Heath, Esq., London; G. R. Howat, Esq., London; Captain Lovegrove, Blackheath; S. Lovegrove, Esq., Blackheath; J. F. C. Macready, Esq., London; G. S. A. Ranking, M.B., India; T. B. Scott, Esq., Bournemouth; W. H. P. Sheehy, Esq., London; J. Shuter, M.B., London; F. W. Strugnell, Esq., London; A. Venn, M.D., London; each 10s. 6d. T. G. Alderton, Esq., Hammersmith, 10s.; H. J. Ilott, M.D., Bromley; W. Outhwaite, Esq., London; W. A. Syker, Esq.; each 5s. Subscriptions are received by the honorary secretary, Mr. W. E. Steavenson, Hospital for Sick Children, Great Ormond Street.

QUERY (Midhurst).—The publication by a medical man of his name and address as a "card" among advertisements in public papers, is certainly not likely to uphold the dignity of the profession; and we regret to see the advertisement to which our attention has been called, and hope it will be discontinued.

TRICYCLES.

MR. STEPHENS (Jedburgh) has ridden a "Salvo" for three years, and would dispose of his horse at once but for the fact that some of the roads near Jedburgh are so rough, that it is impossible to get over them with the Salvo or any other machine. He can go on any road with pleasure, except where rough stones are lying loose. The country is very hilly. From his experience, he would advise any medical man to get a Salvo. In many places, all the work of a large practice can be done by it without horse and groom, and all attendant troubles; and, even if one horse must be kept, the Salvo saves a second, and is very handy for night-work, and an agreeable change.

TYPHOID BACTERIA IN ALBUMINOUS URINE.

SIR,—Can you inform me how to proceed in order to detect the above? 1. Will such minute particles admit of collection from the lower stratum of a sometime stagnant urine, like ordinary urinary deposits; or how else are they to be got at and transferred to the microscope? 2. What power may be expected to show them? and, lastly, How may they be known, if seen?

Your leading article on this subject in the JOURNAL of the 4th of last March leads me to make this inquiry, as I have now under treatment a typhoid fever patient whose urine is albuminous.—Yours truly, ENQUIRER.

*** 1. A small portion of the urine ought to be dried on cover-glasses as soon as it has been passed. The glass is then stained with methylen blue or methyl violet (*see* article on Recent Researches on Bacteria). 2. One-twelfth oil or water immersion will show the bacteria well, if a good condenser be employed. 3. They appear as short thick rods, stained blue.

THE COLLECTIVE INVESTIGATION COMMITTEE.

SIR,—A few weeks ago, I ventured to point out to the members of the above that they must labour to procure an alteration in the existing law as to *post mortem* examinations, or be satisfied to fail utterly to utilise the magnificent provincial resources now running to utter waste. Even the limited power which union hospital physicians have of procuring *post mortem* examinations by the consent of the relatives, has in some quarters had doubts cast on its existence, since my threatened dismissal years ago. The Medical Commissioner ought to have transferred to him the power now possessed by lay union officials.—I am, etc.,

T. LAFFAN.

S. Y. can apply for himself the principles which we have already laid down on the subject. It appears to us, supposing all the circumstances to be correctly stated, that there is no reason why a fair charge should not be made.

VESICO-VAGINAL FISTULA.

SIR,—I beg to ask you what statistics, if any, exist, which contraindicate connection during the existence of the above affection? Are there any cases to prove (1) that parturition is attended with any increased risk? (2) that impregnation does really occur at all? I am disposed to think the latter improbable.—I am, etc.,

A PHYSICIAN.

CONSULTANTS AND FEES.

SIR,—I shall feel greatly obliged if you will kindly inform me if it is the practice of "consulting" physicians to charge medical men a fee of two guineas for every visit, when the medical man attends at the physician's own house? Apologising for troubling you, and thanking you in anticipation, I am, sir, yours truly,

4, Vernon Terrace, New Southgate, N., May 27th, 1882. W. J. READ.

*** As stated, the question almost is one which answers itself, since the opposite practice is universal. On the question of the modifications by circumstances of this general rule, we may refer our correspondent to a recent letter in the BRITISH MEDICAL JOURNAL on the circumstances which may justify a medical man in receiving a fee from a professional brother.

LUMBAR PAIN OF DOUBTFUL ORIGIN.

SIR,—I have a patient, a gardener, aged about 45, who has suffered for some years at different times from a violent pain in the lumbar region. This pain, which agrees in all its symptoms with lumbago, when it is bad, totally prevents him from doing any work. His urine has been examined by myself and other practitioners, and found free from albumen. Liniments, plasters, etc., have been tried externally, and many remedies given internally, without any benefit. I would feel much obliged if some of your readers could suggest some remedy that might do good, as the man appears to be worse every time he has a fresh attack.—Yours faithfully, LUMBAGO.

A TRIPLE BIRTH.

SIR,—On Friday night last, I attended Eliza Watkinson, the wife of an agricultural labourer, resident in this parish. She was safely delivered of three children, two girls and a boy, all living; and, at the date on which I write, apparently likely to do well. The points of interest are, that the presentation in each case was cranial, that each child had a separate placenta, and that, after the birth of the first child and the expulsion of the placenta, the head of the second presented; and, on rupturing the membranes, a pain immediately followed, which was sufficient for the completion of labour in that case. The same process was repeated with the third.

The infants are small, but healthy, and already growing rapidly; and the mother has, up to the present, made uninterrupted progress towards recovery. Thinking that such a comparatively rare occurrence is worthy of a passing notice in your influential JOURNAL, I have ventured to trouble you with this letter, and beg to remain, sir, your obedient servant,

ARTHUR W. ALDRICH, L.R.C.P.ED., etc.

Mildenhall, Suffolk, June 1st, 1882.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. Murphy, Sunderland; Dr. Thin, London; Mr. D. H. Cullimore, London; Dr. E. T. Thompson, Coventry; Messrs. Dorn and Co., Hamburgh; Mr. A. L. Duncan, Oldham; Mr. Donald A. Fraser, Burnham; Dr. Althaus, London; Mr. J. Whitehouse, Sunderland; Dr. Joseph Coats, Glasgow; Mr. Thomas Boyle, New Quay; Miss S. M. Bartlett, Brixham; Mr. Frank Stephens, London; Mr. Simeon Snell, Sheffield; Messrs. G. Street and Co., London; Mr. W. Soltan Eccles, Upper Norwood; Dr. MacCombie, London; Dr. Stevenson, London; Mr. Joseph Drew, Beckenham; Workhouse Officer; Mr. C. H. Wise, London; Mr. R. W. Greenish, Vienna; An Unqualified Assistant; Mr. F. Wallace, London; Dr. Creswell Rich, Liverpool; Mr. R. B. Sellers, Rochdale; Dr. Vere Webb, Coleshill; Mr. R. Benthall, Derby; Mr. Watson Cheyne, London; Mr. H. R. Swanzy, Dublin; Our Dublin Correspondent; Mr. F. D. Grayson, Ragleigh; Mr. A. D. Macdonald, Liverpool; Mr. D. McNeill, Kirkwall; Dr. Gairdner, Glasgow; Dr. Farquharson, London; Dr. T. Churton, Leeds; Mr. H. A. Reeves, London; Dr. L. W. Marshall, Nottingham; Mr. E. Adams, Ramsgate; Mr. W. W. Reeves, London; Mr. T. Spencer Wells, London; Our Glasgow Correspondent; Our Manchester Correspondent; Mr. Albert Croly, Rathfarnham; Mr. Charles Holmes, London; Dr. Strange, Worcester; Dr. T. J. Barnardo, London; Dr. Comyns Leach, Sturminster Newton; Dr. James Hudson, Nelson, New Zealand; Dr. Norman Kerr, London; Mr. R. Davy, London; Dr. H. L. Donovan, Malta; Mr. Thomas B. Fitch, Market Bosworth; Dr. Orlebar, London; Dr. J. Ward Cousins, Southsea; The Registrar of the General Medical Council; Mr. H. C. Stewart, London; Mr. A W. Aldrich, Mildenhall; Mr. C. Stephens, Jedburgh; Dr. C. E. Glascott, Manchester, Mr. P. Swain, Plymouth; Mr. M. D. Makuna, London; Dr. Gillespie, London; etc.

BOOKS, ETC., RECEIVED.

Foods: their Composition and Analysis. By Alexander Wynter Blyth, M.R.C.S. London: Charles Griffin and Co. 1882.

Transactions of the Obstetrical Society of London. London: Longmans, Green, and Co. 1882.

The Human Brain; Histological and Coarse Methods of Research. A Manual for Students and Asylum Medical Officers. By W. Bevan Lewis, L.R.C.P. London: J. and A. Churchill. 1882.

Clinical Lectures on Diseases of the Urinary Organs, delivered at University College Hospital. By Sir Henry Thompson. Sixth Edition. London: J. and A. Churchill. 1882.

Hospitals: their History, Construction, and Hygiene. By J. F. Sutherland, M.D. Edinburgh: E. and S. Livingstone.

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CLINICAL LECTURE
ON THE
CONTAGIOUSNESS OF PULMONARY CONSUMPTION,

Delivered in King's College Hospital,

BY I. BURNEY YEO, M.D., F.R.C.P.,
Physician to the Hospital.

GENTLEMEN,—Within the last few weeks, you have had an opportunity of seeing, in the Physiological Laboratory of King's College, specimens of certain micro-organisms, prepared by Koch of Berlin, and described by him as the bacillus of tubercle.* This organism is believed by him to be the active agent in the origin and spread of tuberculous diseases. You have also had an opportunity of seeing that this micro-organism can be artificially cultivated and successive generations produced, each retaining with undiminished virulence the power of producing tubercle when introduced into the bodies of certain animals.

Now, this demonstration, which you have seen with your own eyes, introduces you to problems in pathology and in practical medicine, the importance of which it is impossible to exaggerate. Never, in the whole of the past history of medical science and of medical discovery, have propositions been advanced of greater import than those which have been advanced and maintained in connection with this discovery.

Let me state to you, in language as clear and simple as I can, what these propositions are.

1. Tubercle is an infective malady, originating in a specific virus, and propagated by the conveyance of that virus from body to body, and originating in no other way.

2. The specific virus of tubercle consists of a particular micro-organism, found only in tubercle; this organism can be seen in the cells of tubercle, can be obtained in a separate form, and cultivated in successive generations, without losing its original properties.

3. Certain forms of disease, termed "scrofulous", are essentially tuberculous; and their characteristic anatomical morbid products contain the infective organism peculiar to tubercle.

4. The disease known as pulmonary consumption is, in the main, a tuberculous disease, and is dependent on the presence and propagation in the body of the infective organism characteristic of tubercle.

5. Pulmonary consumption is a contagious malady.

Of these five propositions, it is claimed for the three first that they rest on demonstration, as I propose to show you; the last two are, more or less, of the nature of inferences from the three preceding; and, in connection with these, we may expect to find there will exist some differences of opinion.

The idea, that consumption is a contagious disease, is not a new one. It is a doctrine which has always been maintained in the south of Europe—in Italy, Spain, and Portugal. Galen believed it, Morgagni believed it, and great names in the history of medicine, from their time to ours, may be found both for and against it.

Pidoux, in France, who had unusual opportunities of becoming acquainted with the histories of a large number of consumptives, declared that his own experience was directly opposed to this doctrine; and that he had never seen a single case of consumption that he could refer to contagion.

One of the most distinguished physicians of our own times, formerly Professor of Medicine in this College, Sir Thomas Watson, in a course of lectures delivered in that very College where you have recently seen demonstrated the existence of a tubercle-bacillus, thus expresses himself on this subject.

"Is phthisis contagious? No; I verily believe not. A diathesis is not communicable from person to person. Neither can the disease be easily (if at all) generated in a sound constitution. Nor is it ever imparted, in my opinion, even by one scrofulous individual to another."

From my own experience of consumption—and, as I shall show you presently, it has been a very large one—I cannot doubt that this was the judgment of sound common sense at the time it was uttered, and with such evidence as was then, and has been until quite recently, attainable. But it would be unscientific now to tie oneself to this opinion, in the face of such facts as recent researches in experimental pathology have established.

* Exhibited by Mr. Watson Cheyne and Mr. E. M. Nelson.

On the other hand, another very eminent physician, a brother of another former Professor of Medicine in this College, Dr. William Budd of Bristol, long ago promulgated the view that pulmonary consumption was a disease "strictly analogous to the ordinary eruptive fevers in everything but the slowness of its progress; that, among European populations, tuberculous disease had undergone mitigation of its original severity by long prevalence; but he entertained no doubt of its eminently contagious character."

We must not be surprised that Dr. Budd's views met with little acceptance at the time. Insight, however penetrating, is not demonstration, and scientific belief rests wholly on demonstration. Then (and even now), the evidence, derived from practical experience, against the contagiousness of consumption, in at all the same sense as small-pox and scarlet fever are contagious, seemed overwhelming; and, if we yield now to the teaching that phthisis is a contagious disease, we shall yield solely to demonstration and experiment. For such evidence as we obtain from the experience of physicians in their practice amongst consumptive patients affords, at most, but a weak presumption; and the facts I shall bring before you certainly show that consumption is by no means contagious in the sense which is ordinarily and popularly attached to that word. But the modern methods of experimental research are, doubtless, destined to widen our conception of "contagion", as they have widened and corrected our conceptions in respect of many other pathological doctrines; and it is quite possible that, under certain given conditions, consumption may be a contagious disease.

During ten years of service in an institution devoted to the treatment of consumption, I saw over 27,000 persons who came to that institution for treatment, and a large proportion of that number were actually suffering from phthisis. Throughout this period, many problems naturally came into my mind as to the nature, the causes, and the treatment of this terrible malady; and, a few years ago, I endeavoured to obtain some data, from this extensive field of observation, as to the contagiousness or non-contagiousness of consumption. I followed the following train of reasoning: if consumption be a contagious or infectious malady, in the same sense and at all in the same degree as other maladies which are known to be contagious, the conveyance of the disease from husband to wife and from wife to husband especially among the poorer classes in this country, ought to be a common and not a rare occurrence; for, amongst these classes, the husband and wife almost invariably occupy the same bed, and live a life of close personal intimacy. The rooms they occupy are, more frequently than not, overcrowded, close, and badly ventilated. In short, the external conditions amongst which consumption commonly appears amongst the working classes are precisely those which would favour the dissemination of a contagious malady. If consumption in this country were, under ordinary conditions, a contagious malady, it would follow, so fatal as its course usually is, that, in dealing with large numbers of consumptive patients taken from the poorer classes, we should often find, amongst the males, the survivors of wives who had died of phthisis; and, amongst the females, the widows of men who had succumbed to this malady. That fact must, I think, be clear to everyone. So also we should expect to find husband and wife frequently the victims, together, of this disease. But this is comparatively rare.

For the purpose, then, of throwing some light on this question, I collected, a few years ago, the particulars of 1,055 cases of consumption that had come under my care, consecutively, in the institution to which I have referred. Of this number, 621 were males and 434 females. Of the 621 males, 306 were married, 297 were single, and only 18 were widowers; about 3 per cent. of the whole, and about 6 per cent. of those who had been married. Of the 18 widowers, two only could state positively that they had lost their wives by consumption, and one of these wives had been dead thirteen years; six of them had lost near relatives by consumption (father, mother, brother, or sister), giving a presumption in favour of hereditary predisposition, and in ten no precise information could be obtained. Of the 434 females, 199 were married, 206 were single, and 29 were widows; the widows being about 7 per cent. of the whole, and about 15 per cent. of those who had been married. Of the 29 widows, 5 only were able to state positively that their husbands had died of consumption, one lost her husband "in a fit," 6 had lost near relatives (father, mother, brother, or sister) by phthisis, pointing to hereditary predisposition, and 17 could give no precise information.

At the same time that I was collecting these particulars from my out-patients, Mr. J. P. Bartlett, at that time acting resident medical officer, was good enough to obtain the following particulars from those who were then in-patients. Of the 94 males in the hospital with phthisis, 53 were married, 37 were single, and 4 were widowers; of these 4, 2 had lost their wives by consumption. Of the 53 whose

wives were alive, all the wives except two were quite healthy. Of the 83 females who were then in the hospital with consumption, 62 were single, 15 married, and 6 widows; of the 6 widows, 3 had lost their husbands by consumption; in 2 of the 3 there was marked hereditary predisposition; and in 1 there was none; in the remaining cases the husbands were healthy.

Taking these figures for what they are worth, it seems certain that the communication of consumption from wife to husband, even among the class in which the conditions of life favour to the utmost the communication of contagious disease, is very rare; while it would seem that communication (assuming, for the sake of argument, the disease really was communicated) from husband to wife is more frequent.

About the same time that I was making these observations, Dr. Hermann Weber brought the subject of the communicability of consumption from husband to wife before the Clinical Society, and in his paper he states that he possesses the history of "68 persons, male and female, who, with a more or less pronounced consumptive taint, have married healthy partners. One or several of the partners of 10 out of these 68 cases became consumptive. The question, however," he says, "takes a different aspect if the originally tainted husbands and wives are considered separately. Of the 68 persons, 39 were husbands, 29 wives. Only one of the husbands of the 29 wives became diseased, while the wives of 9 out of the 39 husbands became affected. These 9 husbands lost 18 wives, viz., 1 lost 4 wives, 1 lost 3, 4 others lost 2 each, and 3 only 1 each."

One of Dr. H. Weber's cases is certainly very remarkable. A young man, who had lost his mother, two brothers, and a sister of phthisis, and who himself had twice had hæmorrhage from the lungs, had quite recovered, and married at twenty-seven years of age, being then perfectly well. His first wife was in good health, and came of a healthy family. She died of consumption after her third confinement. The man shortly married again, an "apparently healthy woman," and this second wife, after a year of married life, died of "galloping consumption." He again married a third wife, a healthy young woman of 25, belonging to "an exceptionally healthy family". During her second pregnancy, she developed symptoms of phthisis, which ran a rapid course, and ended fatally in about eight months. Undaunted by his previous experience, this man, who seems to have had a mania for matrimony, married a fourth wife, a perfectly healthy young woman, twenty-three years of age, of healthy family antecedents. Three months after her first confinement, she too began to show symptoms of phthisis, and, notwithstanding two sea-voyages, died after an illness of nine months, with tubercle in liver, spleen, and intestines, as well as in the lungs. Though the husband of these four wives, who was a sailor, remained in apparently good health, physical examination revealed the existence of morbid changes about the apex of the left lung. It is possible that the life at sea kept his disease in abeyance; for, when he had to lie by on account of a severe fracture, the disease became active, and he died of consumption within two years.

I have called your attention to this case, because it is perhaps one of the most remarkable on record bearing on the communicability of consumption from husband to wife.

In Dr. Weber's second case, three wives in succession of a consumptive husband died of phthisis, the husband ultimately dying of that disease himself. The disease in the wives appeared during pregnancy, or soon after delivery. The same story is repeated, with but little variation, except as to the number of wives, in Dr. Weber's seven other cases quoted in his paper. Altogether, he had observed thirty-nine diseased husbands, and the wives of nine of them became consumptive after marriage; but, as several of the diseased husbands married repeatedly, it would appear that, out of fifty-one such marriages, eighteen wives became consumptive after marriage. As a set-off against this, out of twenty-nine marriages between consumptive wives and healthy husbands, only one husband became consumptive.

Another noteworthy observation of Dr. Weber's was, that in the infected wives the disease manifested itself in an unusually active florid form, and ran an unusually rapid course; while in the husbands it was chronic, stationary, and apyretic. The fact of the onset of the disease following or occurring in connection with impregnation and utero-gestation, as well as the fact of the immensely greater proportion of wives infected by husbands compared with that of husbands infected by wives, naturally provoked the suggestion that the latter became infected through impregnation and from the fœtus *in utero*, just as constitutional syphilis is conveyed from husband to wife. But there is another hypothesis equally tenable, and perhaps more in accordance with modern research; which is, that, during the puerperal state, the female constitution is peculiarly prone to the reception and cultivation of the germs of infective disease; and, assuming for the sake of argument that tubercle is propagated through the agency of an infective organism, the puerperal state may supply one of the conditions (such, for example, as we could conceive an increased body-temperature to supply) necessary for its cultivation and spread.

These valuable and striking observations of Dr. Hermann Weber, while they give weighty support to the belief that consumption is, under certain circumstances, communicable from husband to wife, corroborate also the suggestions I have already made that, if phthisis be a contagious malady, it is so under very peculiar conditions and laws; that it is not contagious in precisely the same sense as is ordinarily and popularly attached to that word.

I have said enough to show you that it would be extremely difficult to prove from clinical observations alone, or from experience, however extensive, of cases of consumption encountered in this country, that phthisis is an infective and contagious malady. Many, who have had the largest opportunities of judging, have formed an opinion altogether opposed to this view, and would regard Dr. H. Weber's experience as quite exceptional. And yet it seems very probable that consumption is in a sense contagious—contagious under certain conditions; and the practical question, at this moment especially urgent, is, "Under what conditions is consumption contagious?" But, before attempting to answer this question, it will be necessary to go back to the consideration of the remaining propositions which I formulated at the commencement of my lecture, and see on what kind of evidence they rest, and what is the exact relation of that evidence to the final proposition which forms the special subject of my lecture.

The first of these propositions was, that "tubercle is an infective malady, originating in a specific virus, and propagated by the conveyance of that virus from body to body, and originating in no other way." It has taken many years to obtain for this proposition anything like general acceptance amongst pathologists and physicians, and even now there are not a few who hesitate to accept this doctrine. It is some years ago (1865) since Villemin published the results of a series of methodical experiments, which he had undertaken for the purpose of showing that tubercle was an infective malady. His method was to take a small portion of tuberculous matter, as big as a pin's head, from the body of a man, a dog, cow, or a rabbit, and introduce it under the skin of the ear, the groin, or the axilla, in rabbits and dogs. He found that the wound at first healed over; but, after four or five days, the seat of the inoculation began to be red and swollen, and a tuberculous mass became developed there, causing an ulcerated wound. If these animals were killed after the fifteenth day from the inoculation, tubercles were always found in the viscera; in the lungs, they were usually abundant; grey granulations, as well as extensive infiltrated masses of tubercle, more advanced according to the length of time that had elapsed since the inoculation and cavities, were sometimes found; while at the seat of inoculation a caseous mass was usually found, surrounded by small yellowish granulations. The corresponding lymphatic glands were enlarged, and often contained scattered nodules of tubercle, some having undergone caseous degeneration. Cats and guinea-pigs were readily inoculated; but sheep, goats, and birds escaped infection. He obtained the same results from injecting hypodermically the sputa of phthisical patients in very small quantities, mixed with water. Blood taken during the life of animals with phthisis gave negative results; but, taken after death from phthisical men, it readily produced general tuberculosis in rabbits.

Chauveau of Lyons corroborated Villemin's results, by means of experiments on oxen, animals disposed to tuberculosis. He gave to oxen, by the stomach, tuberculous matter obtained from the human subject, or from other oxen, and they all became tuberculous, the lesions varying from trivial ones to the gravest possible. Typical tubercle-granulations were found in the lungs, as well as caseous masses in all stages. The same results followed inoculation into the connective tissue, and injection into the veins of water holding in suspension tuberculous matter after filtration.

Other experimenters (including Drs. Burdon Sanderson and Wilson Fox, in this country) soon opposed other views to those of Villemin and Chauveau. They stated that, in order to produce tuberculosis in rabbits and guinea-pigs, it was not at all necessary to inoculate these animals with tuberculous matter; that they might be rendered tuberculous by other means. They stated that, in the guinea-pig and some other animals, tuberculosis might be produced by inoculations with pus, or with caseous matter of inflammatory origin, or with sarcoma, just as well as with tubercle; that, in the guinea-pig, tuberculosis had been produced by the application of a simple seton; and that, in the rabbit, deep wounds, without inoculations of any sort, would produce pulmonary tuberculosis. Wilson Fox, in his experiments on guinea-pigs, introduced under the skin various substances—portions of putrefied muscle, fatty liver, and even vaccine virus, with the same result; and it was

maintained by others, that such substances as aniline blue, cinnabar, caoutchouc, cotton, etc., caused similar effects; and that carnivorous animals might be fed long on tuberculous lungs without the production of tuberculosis.

Then, it was said by others that the lesions produced by Villemin were not tubercle at all, but simply inflammatory lesions, or embolic infarcts; and some went so far as to say, it was impossible to produce tuberculosis experimentally. At the same time, Chauveau, Klebs, and Böllinger, maintained the correctness of the experiments and views of Villemin.

Two physicians, mentioned in the *Nouveau Dictionaire de Médecine et de Chirurgie* (Art. "Phthisis"), went so far as to inoculate themselves with the serum of a blister applied to a phthisical patient, and, we are not surprised to hear, without effect: for, if the peculiar micro-organism which we have recently seen be the active agent in the production of tubercle, we should scarcely expect to find it in the serum extracted from the blood by the action of a blister. Another remarkable case of human inoculation is mentioned in the work I have just cited. Three medical men of Syra (in Greece), in 1874, inoculated a man, fifty-five years of age, with tubercle. He was suffering from gangrene of the left great toe, due to obliteration of the femoral artery, and was in a moribund state. They inoculated some of the sputa of a phthisical patient into the upper part of the right leg. The lungs were previously examined with great care, and found to be perfectly sound. Three weeks later, there were signs of commencing induration at the right apex. On the thirty-eighth day after the inoculation, the patient died of gangrene. At the necropsy, there were found, at the apex of the right lung, seventeen small tubercles, varying in size from that of a mustard-seed to that of a lentil. Two similar tubercles were found at the left apex—two others on the convex surface of the liver. The authors of the experiment considered the embryonic state of the tubercles, and their limited number, to correspond with the short space of time that had elapsed from the inoculation.

It is not likely that an experiment of this kind will be often repeated; but though it stands alone, it is, none the less, an important observation.

Tappeiner and others have shown that animals could be rendered tuberculous, if tuberculous matter (such as the sputa of phthisical patients) were diffused in spray in the air which they breathe.

It has also been stated by Professor Gerlach that, in the variety of tubercular disease which affects oxen, the infection can be introduced by the stomach, if portions of the tubercular organs be mixed with the food, or if the healthy animal be fed with milk from the animal which has tubercle (Simon: *Proceedings of International Congress*). Now, as tubercle is a malady which is very common among cows, this observation is one which may have a vast importance in connection with the feeding of young children.

Cohnheim has also made numerous observations on the infective nature of tubercle. He introduces the tuberculous matters either into the subcutaneous tissue, or into the pleural or peritoneal cavity, or into the anterior chamber of the eye. After introduction in the latter situation, the primary irritation soon passes away, the small piece of tuberculous matter becomes smaller and smaller, and may even wholly disappear; for a time, the eye appears quite clear and intact, when suddenly in the iris a number of delicate grey nodules appear, grow to a certain size, and then caseate. In rabbits and guinea-pigs, fourteen days after the introduction of the virus, disseminated tuberculosis will appear in the various organs; in other animals, twenty-one days is the usual period of incubation. He has succeeded with pieces of lung affected with caseating pneumonia, or with pieces of caseating testicle, or with freshly excised scrofulous gland from the neck; but he has never found any result from introducing caseated sarcoma or myoma, or simple lymphoma.

But some of the most instructive and conclusive observations and experiments on this head are those of Dr. Hippolyte Martin of Paris. They are related in an article on the "Relations between Tuberculosis and Scrofula", in the *Revue de Médecine* for April of this year; and also in the *Archives de Physiologie* for 1881, on the "Infective Properties of Tubercle". The object of his original experiments was to show that inoculation with true tuberculous matter was alone capable of producing true, general tuberculosis, and that all the lesions produced by the introduction of foreign bodies of non-tuberculous nature were not true tubercle, but what he terms false or "pseudo-tubercle". But he insists that it is of prime importance that all these inoculations should be performed with strict antiseptic precautions; and that if, perchance, the inoculation of non-tuberculous foreign substances have been followed by an eruption of true tubercle, it is because these precautions have been disregarded. He also points out that the anatomical structure of the true and false tubercle, as revealed by microscopical examination, is identical, and that the only means of distinguishing between them is by inoculation *in series*—by a series of successive inoculations. True, infective tubercle is reproduced in an indefinite series, producing always a general tuberculosis as a consequence of local infection; the infectious properties becoming, if anything, more energetic as the series is prolonged. The same method proves the absolute innocuousness of false (pseudo) tubercle.

Some of his experiments are so important, that I make no apology for citing them to you. First, Dr. Martin tested the effects of injecting irritating animal and vegetable powders, such as cantharides, lycopodium, and pepper, into the peritoneal cavity of guinea-pigs. In one instance, he injected sixty centigrammes of lycopodium diffused in water into the peritoneal cavity of a guinea-pig; the animal died four months afterwards of general adhesive peritonitis, but all the viscera were healthy. Into the peritoneum of another guinea-pig he injected a large quantity of powdered cantharides mixed with water; nine months after the injection, the animal was quite well.

His next experiments were with fragments of morbid growths, non-tuberculous. Four pieces, of a cubic centimètre each, were cut from an epithelial tumour freshly removed from the neck of the uterus; two pieces were placed in alcohol, and two pieces in bichromate of ammonia. After a week, the two preserved in alcohol were introduced into the peritoneum of an adult rabbit, and rather more than three months afterwards the animal was killed; both fragments were found encysted in different parts of the peritoneal cavity; all the viscera were healthy. The two other fragments were introduced into the peritoneum of another rabbit, and about a month later the animal was killed, and the fragments were found enveloped in a fold of omentum, their angles rounded, and absorption evidently commenced. All the viscera were healthy.

In another experiment, two pieces of a sarcoma of the testicle, freshly removed, were immediately introduced into the peritoneal cavity of a guinea-pig; about a month later, the animal was killed, and no trace of the foreign bodies was to be found, and all the viscera were perfectly healthy. The same experiment was repeated with portions of mammary carcinoma, on a large and strong female guinea-pig in a state of advanced utero-gestation. She was confined with two healthy little ones a few days after, and, when killed two months afterwards, two free masses were found in a cyst in the abdomen, wholly caseous, and dry like crude tubercle. All the viscera were healthy.

The same kind of results followed the introduction in the same manner of a piece of the femur of a rabbit, with periosteum and some fragments of muscle adherent; half the tibia of a new-born infant that died of erysipelas; three squares of a hard pear; two squares cut out of a ripe apple. In one of these cases, about six weeks after the operation, the two pieces were found surrounded by yellow pus in a large vascular cyst. There was no peritonitis; the viscera were healthy.

The next experiment is very significant. In the centre of a large sarcoma removed from the thigh of an infant, there was a large completely caseous nodule; a portion of this caseous matter, weighing 50 centigrammes, was introduced into the peritoneal cavity of a rabbit, with careful antiseptic precautions. A year afterwards, the animal was in perfect health.

These experiments prove conclusively that those observers were certainly in error who asserted that almost any kind of foreign body—animal or vegetable—would produce tuberculosis in guinea-pigs.

In other experiments, Dr. Martin has shown that foreign bodies having irritant properties, non-specific, may set up inflammation, the pathological products of which may have a complete anatomical resemblance to true tubercle, no distinction being possible by microscopical examination; and he has obtained by means of cayenne pepper, lycopodium, and cantharides, the finest specimens of pseudo-tubercle; but these lesions, in spite of their special anatomical structure, have no specific virulence. He had repeatedly injected, with antiseptic precautions, the caseated inflammatory products of such experiments, and always failed to produce an eruption of tubercle. He insists strongly on the necessity, especially in a pathological laboratory, of these antiseptic precautions. All the instruments should be washed in alcohol and heated in a flame; and before each operation all parts of the syringe should be taken to pieces and treated in the same way.

On the other hand, pus from a scrofulous gland in the neck, as well as scrofulous products not yet degenerated, not caseous, inoculated immediately after surgical removal, produced a series of cases of generalised tuberculosis.

Dr. Martin's experiments completely establish the following conclusions: 1. Tubercle, inoculated locally, determines, after incubation, the formation of a local tubercle, and, after a variable time, general tuberculosis; and the virus seems to acquire increased activity by inoculation in series of animals of the same or allied species. 2. But, if we

inoculate matter obtained from those tubercles secondary to the injection of non-tubercular foreign bodies, they never give rise to general tuberculosis; and, after two, or, at most, three terms of the series, they even lose the power of producing a local inflammation, and become absolutely inoffensive.

Here, then, he remarks, we have two inflammations: one specific, infective, and truly tuberculous; the other non-specific, non-infective, and not true tubercle; but both having the same anatomical structure, and the former differing from the latter by the presence of the propertie of a morbid agent at the present time unknown. It is this "unknown morbid agent" which Koch believes he has made known to us and shown us—an agent which the microscope had failed to discover until those special methods of preparation were employed which Koch has had the honour of discovering.

So, then, the proof of our first proposition seems complete: that "tubercle is an infective malady, originating in a specific virus, and propagated by the conveyance of that virus from body to body, and originating in no other way." And Koch's experiments appear to have proved the truth of the second proposition: that this "virus" is the property of a micro-organism peculiar to tubercle, and which may be called the tubercle-bacillus.

I need not repeat what has already been published as to Koch's methods of investigation. I may, however, say that the tubercle-bacilli appear as "delicate rods from a quarter to half the diameter of a blood-corpuscle in length"; that they have been found "in large numbers in all places where the tubercles are of recent formation and spreading rapidly, more especially at the border of the cheesy masses." They possess a special relation to the giant-cells, being found in their interior sometimes to the number of twenty in each cell. They do not appear to possess any power of movement. In some of the rods, oval spores have been seen. They have been seen in the human subject in cases of miliary tuberculosis, in cases of caseous broncho-pneumonia, in tubercle of the brain, in intestinal tuberculosis, in freshly extirpated scrofulous glands, and in certain cases of synovial degeneration of joints. Nor need I repeat the account (already published in this JOURNAL) of the beautiful series of experiments by which Koch has shown that it is to the presence of this organism, and to this alone, that tubercle owes its infective property. One fact, however, let me mark, *en passant*, for future comment. "It was found that these bacilli required a temperature approaching that of the human body for their growth." The minimum temperature of 86° Fahr., and the maximum of 104°, are the limits between which they can develop and multiply. This disposes of the first and second propositions, and brings us to the third; viz., "that certain forms of disease termed scrofulous are essentially tuberculous."

Both the experiments of Koch, as well as those of Dr. Hippolyte Martin, go to establish this proposition. I have just said that Koch has found the infective bacillus of tubercle in freshly extirpated scrofulous glands, and in certain cases of (scrofulous) degeneration of the synovial membrane of joints. And Dr. Martin has obtained a series of cases of generalised tuberculosis, by successive inoculations in guinea-pigs; the original inoculations being in one instance from a small collection of pus found, after death, in a firmly encased submaxillary gland of a child, who had died of measles and broncho-pneumonia without any trace of tubercular disease, but with well marked clinical characters of scrofula; and in another, from non-degenerated (non-caseous) scrofulous products, a few instants after surgical removal.

Dr. Martin suggests, however—and the suggestion seems to me a sound and practical one—that scrofula is, perhaps, not a distinct morbid type, and that some of its manifestations must be included under the class of tuberculous diseases, and that others belong simply to the "lymphatic constitution;" that the possession or non-possession of the property of infection, capable of being transmitted through a series of inoculations, affords the only elements of a certain diagnosis, or, as Koch would probably say, the presence, in their characteristic anatomical elements of the tubercle bacillus.

The fourth proposition, that pulmonary consumption is, in the main, a tuberculous disease, will no doubt be stoutly opposed by many in this country, who have adopted those views of the origin of pulmonary consumption in ordinary inflammatory processes which have been so ably advocated by Niemeyer; and much additional experimental research will be necessary in order to set this question at rest.

At present, this proposition rests on the observation that fresh caseous matter, as well as the grey granulations found in the lungs of phthisical patients, are infective, and contain in their anatomical elements the tubercle-bacillus, and that the sputa of phthisical patients are infective; whereas the caseous degenerated products of ordinary inflammation are not infective (in series), and do not contain the characteristic micro-organism.

But it is not denied that chronic inflammatory changes may be produced in the lungs by the entrance of various irritating foreign particles, and that these changes may in time produce fatal injury to the organs of respiration; it is, however, suggested that these cases should not be spoken of as phthisis, but as forms of chronic pneumonia.

In conclusion, we again come to the fifth and last proposition, the proposition with which we started, that pulmonary consumption is a contagious malady. I must again say that it is impossible to over-estimate the importance of establishing the truth or error of this proposition.

It is precisely one of those questions upon which the Collective Investigation Committee of the British Medical Association may be expected to gather up valuable information. And it is one also which can scarcely be cleared up without prolonged and repeated investigations by means of experiments on animals; not painful experiments, happily; there is no need to give pain in carrying out the kind of investigations which this subject demands, and which are calculated to promote the welfare both of man and animals. There are, moreover, many matters of daily concern connected with this investigation; the way, for instance, in which consumptive patients should be tended and nursed; the propriety of massing together a great number of consumptive patients in the same building; the propriety of allowing healthy persons to breathe air contaminated by the breath of such patients; the mode of dealing with their expectorations; the kind of medical, climatic, or other treatment best suited to the arrest and cure of the disease, regarded as an infective malady; the marriage of consumptive patients. Supposing consumption to be, under certain conditions, a contagious malady, there seems to be, *primâ facie*, some ground for believing that one of those conditions may be that of temperature—the temperature of the body, or the temperature of the external air.

I have already mentioned that in the South of Europe consumption has always been looked upon as a contagious disease. May this not be owing to the relatively higher temperature of these regions? And we naturally associate with this reflection Koch's statement that the tubercle-bacillus requires a temperature above 86° Fahr. for its propagation.

I must content myself at present with simply pointing to this question of the influence of temperature upon the origin and propagation of consumption, as one which requires careful investigation. I shall have something to say in a future lecture on the antiseptic treatment of consumption. Finally, there is the pressing question of the possibility of conveying tuberculous disease to children by feeding them with the milk of consumptive cows; but I have said enough I hope to convince you of the truth of the statement I made at the commencement of this lecture, that it is impossible to exaggerate the importance of the subject to which I have now called your attention.

ABSTRACT OF AN ADDRESS

ON THE

MATERIALS OF BLOOD-POISONING: IS MALIGNANT DISEASE PARASITIC?*

Delivered at a Meeting of the Lancashire and Cheshire Branch at Blackpool,

BY RUSHTON PARKER, B.S., F.R.C.S.,
Professor of Surgery in Liverpool.

I HAVE to show you micrococci from acute abscess, gonorrhœa, and pyæmia, and bacilli from a wound in a case of septicæmia. They are prepared by Koch's method of aniline-staining, and rendered distinct under microscopes bearing high powers, illuminated, in two instances, by Abbé's condenser; and are additionally represented in the diagrams which hang before you.

The germ-theory of disease is so far a reality, that spirillum is the demonstrated organic cause of relapsing fever, bacillus anthracis that of splenic fever; while the local and constitutional changes in septicæmia, pyæmia, and acute suppuration, are equally proved to be due to the presence, propagation, and influence of bacilli and micrococci of various sizes and differing degrees of irritative or toxic virulence.

In reviewing the germ-theory of infective disease in general, and of traumatic infection in particular, it may be convenient to allude to two distinctive types severally represented by septicæmia and pyæmia. Many of the infective diseases having been proved, most of them are provisionally supposed, to be due to organisms imported in some way

* This Report was kindly prepared by Dr. Barr, from the extempore address; and has been revised, with slight verbal alterations and additions, by the author.

from without. The organisms present in decomposing animal fluids are both numerous and various, yet they are, fortunately, "pathogenic" only in an extremely small minority. Some of them are always present in decomposing, and under certain conditions in suppurating, wounds; while, even in health, the cutaneous and mucous surfaces may be peopled with organisms of several distinct kinds. Under the type represented by septicæmia may be classed anthrax (and possibly also measles, typhus, and their associates), where the blood is simply polluted with an organism or with its products. Septicæmia proper seems to be of two kinds: (1) septic intoxication or toxæmia due to sepsin evolved by the septic bacteria (themselves confined to a putrid part of the patient or victim); and (2) septic infection or toxæmia in which the septic bacteria themselves enter the blood. In the septicæmia of mice, bacilli are the form of organisms concerned, and found in the blood, or in the infected wound, or in both. But they are often not to be found in casual specimens of the blood, owing to their more numerous accumulation in the capillary vessels rather than in the main blood-stream.

In pyæmia, as investigated in rabbits, the organisms concerned are micrococci. There have been changes of opinion as to the appropriateness of the word pyæmia, as a descriptive term, especially in the old sense implying a suppuration of the blood, seeing that the introduction of pus into the blood had chiefly a negative value in the attempted experimental production of pyæmia. But, since Mr. Lister showed, in his observation of the breaking down of the infected blood-clot in a donkey's vein, that a genuine suppuration of the blood can indeed take place, the rational value of this necessary traditional expression is once more established. Pyæmia is characterised by a clotting of the blood, and the distributed infection of an organic ferment. The micrococci crowd together, increase the adhesiveness of the corpuscles, and promote the clotting of the blood, even in capillary vessels. The thrombi, whether large or small, are foci for the further development of the micrococci; and hence all the secondary phenomena, which, like the primary, may be suppurative or not.

In septicæmia, the bacilli kill by poisoning the blood, without giving rise to secondary inflammations or primary local manifestations; whereas in pyæmia, the micrococci cause clotting of the blood, and set up embolic pneumonia, nephritic infarcts, and perhaps also suppuration of the joints. The micrococci do not seem to be in themselves always so extremely poisonous; but, by giving rise to suppurative or other organic changes, indirectly lead to death by perversion of visceral functions.

What is the immediate cause of death in perforation of the bowel? The general answer is, "Collapse", which is indeed true enough when collapse actually takes place. But how are we to explain the cases where neither collapse nor death occurs? Perforation or rupture of intestine, with diffusion of contents throughout the peritoneum, is followed by peritoneal absorption, and the collapse is septicæmic; but a similar occurrence into the tissues, and not into the peritoneum (or only gradually and slowly into that serous sac), is a sure cause of acute (because putrid) abscess, but is often followed by recovery. A similar explanation attends the fatality of intestinal gangrene—as a complication, for instance, of strangulated hernia. It is a modern canon of surgical pathology that, in gangrene of any superficial part, putrefaction will occur unless circumstances specially prevent it. Dry gangrene may spontaneously fail to putrefy, except at the moist line of demarcation; but moist gangrene will infallibly putrefy, unless the timely disinfection of the superficial surface be artificially undertaken. But, if this be successfully done, the disease may be arrested, its spread prevented, and its disappearance accomplished, without loss of substance.

In the case of the intestine, no such prevention can be practised, so putrefaction inevitably attends the establishment of gangrene, demanding the prompt and free excision of this (as of any equally advanced) gangrenous organ.

A case of hernia, three days strangulated, recently came under my care at the Liverpool Royal Infirmary. At the necessary herniotomy, I removed twelve inches of bowel, with some omentum, and the patient for a time did perfectly well, in fact nearly recovered, but eventually died collapsed. After the *post mortem* examination, it was found that fresh patches of gangrene had appeared in other parts of the intestine, and thus the temporary relief and the ultimate death were both explained. Cases have been already reported in which this operation has been perfectly successful.

Although bacilli are the characteristic organic poison in the septicæmia of mice, and micrococci in the pyæmia of rabbits, it is to be noted that Koch found rabbits liable to a true septicæmia produced by micrococci differing in shape, size, and distribution from those producing pyæmia in the same animal.

Tubercle is an infective disease, now known to be due to an organism which gives rise to the characteristic manifestations. These are both anatomically and physiologically allied to pyæmia. Opinions have, in the past, been apparently divergent as to the supposed real nature of tubercle; for instance, one school of able observers held that it was a purely inflammatory process, while another equally able, and its allies, have always regarded it as a specific disease due to an infective virus. No doubt the histological phenomena of tubercle are consistently explained as inflammatory, and so are those of pyæmia. But what causes the inflammatory changes? The very specific virus once thought to be an explanation antagonistic to the former, but now woven inseparably into it in the form of the tubercular bacillus so admirably discovered by Dr. Robert Koch.

Syphilis again presents many features analogous to those of pyæmia, and some have even alleged that they have seen a special syphilitic germ. But though this is not yet sufficiently proved, it is probable that such a germ exists. As for gonorrhœal rheumatism, its clinical features have long been interpreted as those of an aseptic pyæmia, which, fortunately for the patients, lacks the anatomical proofs that might be afforded if it terminated fatally; while ulcerative embolic endocarditis is a true aseptic pyæmia on the best anatomical evidence.

There is another infective disease which I venture to compare with pyæmia, and that is malignant disease, more especially its so-called carcinomatous varieties. Like tubercle, the inflammatory character of which is admitted on all hands, so far as the histological changes are concerned, the cutaneous, mucous, and glandular cancers have very close affinities to inflammation. The primary growths are essentially a plastic catarrh; and the round-celled infiltration, by which they are additionally indurated, shares, with the similar indurations of undisputed inflammation, a histological identity. Simple inflammations, however, are resolvable, their infiltrated products disappearing on the subsidence of the irritant cause, be it chemical or mechanical; whereas the cancerous induration is unresolvable, be it a malignant stomatitis, glossitis, enteritis, or dermatitis, as in epitheliomas, or be it a malignant adenitis, as in mammary or other glandular cancers. Round-celled sarcoma, again, is a true infiltration of the plainest possible kind, whether it constitute a malignant cellulitis, periostitis, or ostitis, or even an interstitial orchitis or any other adenitis; and differs only from undisputed inflammation of regions and organs in its "unresolvability". But the very unresolvability of carcinomatous tumours, whether primary indurations, lymphatic infections, or disseminated visceral growths, has a distinct parallel in the similar unresolvability of pyæmic, tubercular, and neglected syphilitic phenomena.

The cachexia of acute cancer, and of acute sarcoma, when now and then it kills as a poison, without prominent local symptoms, is not unlike that of pyæmia, of tuberculosis, and even of syphilis; the lymphatic glandular infection, and all its attendant and consequent phenomena, is conspicuously similar to various forms of infective inflammation; while the malignant thrombi that form in veins, in cases of carcinoma and sarcoma alike, with the still more frequent embolic disseminations of these truly infective appearances, have a resemblance to the thrombosis and embolism of pyæmia too obvious to need defence.

More than six years ago, I was led to the assumption that malignant disease had inflammation for its anatomical type, by the histological examination and comparison of inflammation, tubercle, and cancer; and I have taught it, during the greater part of that period, as an idea justified on anatomical grounds, though not entitled to acceptance as a truth. As a mere hypothesis, I venture to suggest it here, with the intimation that many things will surprise me more than the discovery of a parasitic germ originating malignant growths.

The bacillus of tubercle, though discovered, separately cultivated, and successfully inoculated by Koch, is still most difficult to find, and then chiefly in the freshest growths. The microphytes of disease, how terrible soever be their vigour, or the initial reality of their presence, are sometimes exhausted, and even effaced, in the transformations of tissue which they themselves educe—exhausted, as noticed in tubercle by Koch; effaced, as observed by Lister in the ass's jugular. The parallel, once established, recurs even in prevention, in treatment, and in cure. Against pyæmia, the only certain safeguard lies in preventing the primary infection; in tubercle, we already extirpate the earliest manifestations when we can get at them; while, in cancer, timely excision does sometimes amount to effectual eradication. The purpose is, in all, to avoid the dreaded physiological "infection".

THE Darlington Guardians, at a special meeting, have decided to rearrange the medical districts throughout the Union, and to appoint seven medical officers instead of five.

ABSTRACT OF A CLINICAL LECTURE
ON
THE "COAT SLEEVE" METHOD OF PERFORMING THE CIRCULAR AMPUTATION.

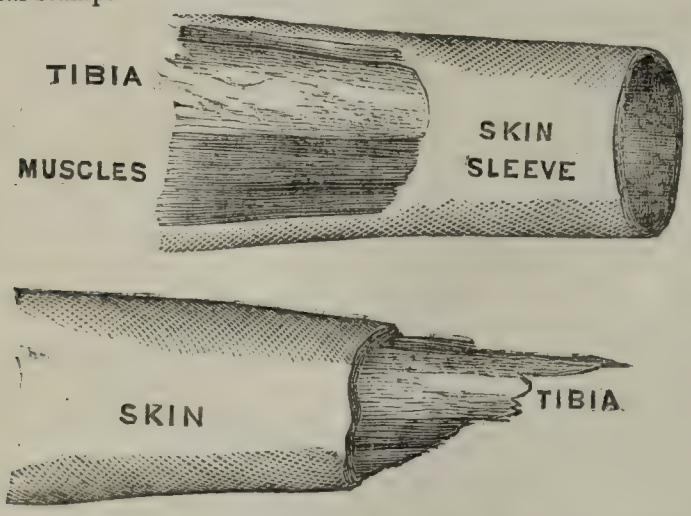
Delivered at the Westminster Hospital.

BY RICHARD DAVY, M.B., F.R.C.S.,
Surgeon to the Hospital.

GENTLEMEN,—In practice, there are accidents and diseases which yet call for the necessity of amputations; and I wish to-day to bring before your notice a method of performing these operations which I have already carried out on three occasions—viz., one amputation of the thigh and two of the leg. For brevity's sake, I will style this method *the coat-sleeve;* and this name has been chosen because my left coat-sleeve has illustrated this procedure to my class, and gives a good idea of the operation. Cheselden (1720), of the Westminster Hospital, originally advocated the circular plan of amputation, which, according to Syme, was modified by Mr. Mynors of Birmingham; and this circular method has held its ground as a standard procedure; but I think good reason may be given for advocating still further modifications in this amputation.

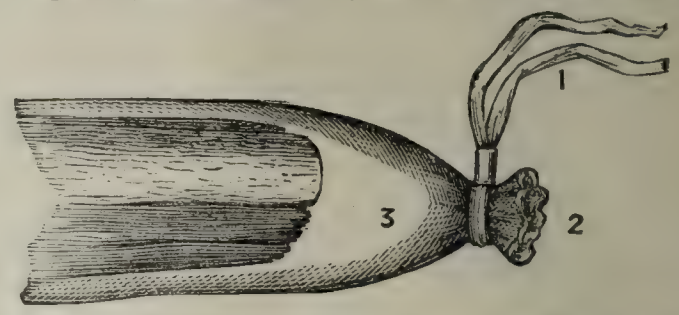
Let me first describe the details of this *coat-sleeve* operation, and next point out the advantages that, in my opinion, result from it.

Carry in your minds the essentials of a circular amputation (a very good account of this circular method is given in William Hey's *Surgery* (1814), page 526); and you will see that the coat-sleeve method is but a modification of a very old operation. Let me insist on the formation of a long integumentary sleeve, from three or four to six inches; and that your dissection should be directed so as to separate the superficial from the deep fascia; and very much of this dissection is accomplished by firm traction of the skin towards the trunk of the patient, assisted by slight drawings of the knife on attachments. I have frequently, on the dead body, invaginated skin on skin, as the cut end of the finger of a glove may be turned over the kid on the finger; and on the living patient this is necessary, so as to gain sufficient length of skin-cylinder from its end to the point at which division of the bone takes place. Compare these diagrams, illustrating, to my mind, the perfection and imperfection of a properly planned amputation: the upper one of which shows the coat-sleeve method; the lower, a conical stump.



I would impress on you not only the importance of making a far greater allowance for retraction of skin in planning an amputation, but also the comparative uselessness of any other structure than skin for making an efficient and lasting pad for the end of the bone. It is the skin, fat, and hypertrophied substructure that give a good cushion; and with stumps, as well as ordinary seats, when once the leather has given way, the so-called stuffing soon wears, and bare boards and bare bone shortly show themselves. The tuber ischii, knee, elbow, and heel are good illustrations of these points.

Having dissected your skin-sleeve accurately, and divided all the structures down to the periosteum, carefully peel this membrane upwards to the point at which the saw is to be applied, and shelter the soft structures from the stroke of the saw by means of a slit bandage, retracted by an assistant; and, within reasonable limits, the smaller the saw is, the easier is the division of bone effected. Next, trim your stump (*i.e.*, cut off with scissors any projecting tendon or nerve), and tie or twist the bleeding vessels. Then tie up the skin-sleeve (3) with a piece of tape (1) passed through a cylinder, as shown in the diagram;



allowing the ligatures (if any) to hang through the crucial slit at the face of the stump. Treat your wound either with or without dressings—I much prefer none; and carefully watch that no undue strangulation of the "off-end" (2) of the skin sleeve occurs. Should the stump become œdematous, or any necessity for drainage arise, insert a drainage-tube into the centre of the face of the stump, of sufficient firmness to prevent a too ready collapse of its walls (*e.g.*, a piece of gum-elastic catheter), and allow the excretion to flow into a pledget of marine tow or some absorbent material. As yet, I have not had occasion to resort to any artificial drainage. The wound cicatrises up to one-half or one-fourth of an inch; and a central button of depressed scar-tissue results, surrounded by soft, fatty skin-cushions, plaited in a radiating manner from the centre to the circumference of the face of the stump. This method of amputation is applicable to any part of the extremities, in those cases where the surgeon has the opportunity of selecting the precise point of removal, and where the adjoining skin is sound. In my own experience, the middle of the leg, where the muscles of the calf swell, is about as difficult a situation as any for carrying out the dissection of a long sleeve.

CASE I.—J. C., aged 6, was admitted on many occasions into Mark Ward, suffering from recurrent acute attacks of synovitis of the right knee-joint. He was admitted on the last occasion on December 2nd, 1880. On March 8th, 1881, finding the boy was steadily becoming worse, and sinuses multiplying, I amputated his right thigh (junction of middle and lower third) by the plan now under discussion. His convalescence was excellent. The stump was good; a circular small cicatrix formed in the centre of its face; and linear creases of skin and fat radiated from the centre to the circumference, suggesting the button sewn into an ordinary sofa-cushion. He has been rusticating for the last few months at Hurst near Twyford, or he would have been shown to-day.

CASE II.—T. D., aged 13, was admitted into Mark Ward on June 1st, 1881, for strumous disease of the left ankle-joint and periostitis of the lower end of the tibia, with much skin-ulceration. He was operated upon on August 16th, 1881, by the coat-sleeve method (middle of leg); was discharged on September 28th, 1881; and has walked well with a bucket-leg since.

CASE III.—J. S., aged 42, was admitted into Henry Hoare Ward in August 1880, drunk, and with a compound comminuted fracture of the right tibia and fibula, which resulted, after six months' treatment, in an ununited fracture. Many fragments of bone were removed on and subsequently to his admission. On October 8th, 1881, he was re-admitted; and on October 11th, 1881, the coat-sleeve method of amputating was resorted to, through the ununited fracture. He was discharged well on January 13th, 1882; and has been walking about with an artificial foot until within the last ten days, when he fell and broke his opposite femur (left). He promised, otherwise, to have shown himself to-day. The instruments used at this amputation were few—Esmarch's bandage, scalpel, artery and torsion forceps. His stump (when I last saw it, in March 1882) was the perfection of what a stump should be: central depressed cicatrix, and good fatty skin-creases around, making, by involution of the scar, a soft circular cushion, on which his weight (and he is a very heavy man) was carried painlessly.

Lastly, let me point out what are the probable advantages of this method of amputating.

1. The conservation of an abundance of skin, subcutaneous fat, and areolar tissue, which, by mechanical arrangements, are utilised, so that the scar is reduced to a minimum, and the cushions to a maximum.

2. The total abolition of sutures, which, however necessary, are invariably painful on removal; and the sutures, as previously employed, necessitated a linear cicatrix on the face of the stump.

3. The facility granted to the house-surgeon for restraining, and to the patient for escaping, secondary hæmorrhage.
4. Freedom from pain, exclusion of air, and adaptability for perfect drainage.
5. The symmetrical appearance and utility of the stump.

ABSTRACT OF LECTURES
ON THE
ANATOMY, PHYSIOLOGY, AND ZOOLOGY OF THE EDENTATA.

Delivered at the Royal College of Surgeons of England.

By W. H. FLOWER, LL.D., F.R.S.,
Hunterian Professor of Comparative Anatomy.

Lecture V.—Family Myrmecophagidæ.

The animals constituting this family are externally clothed with hair. They have no teeth. The mouth is tubular, with a small terminal aperture, through which the long vermiform tongue, covered with the viscid secretion of the enormous submaxillary glands, is rapidly protruded in feeding, and withdrawn again with the adhering particles of aliment, which are then sucked into the pharynx. In the manus, the third toe is greatly developed, and has a long falcate claw; the others are reduced or suppressed. The pes has four or five subequal digits with claws. The posterior dorsal and lumbar vertebræ have additional interlocking zygapophyses. The tail is long, and sometimes prehensile. The placenta is subdiscoidal or dome-like, and apparently deciduate as in the sloths; and the penis is rudimentary. The mammæ are two, pectoral.

The animals of this family are the Anteaters *par excellence*. They feed exclusively on animal substances, mostly insects. One species is terrestrial, others arboreal. None burrow in the ground. They are all inhabitants of the forest regions of South and Central America. There are only three species of the family known with certainty, which differ so much from each other in structure and habits, that each is placed in a separate genus.

Genus *Myrmecophaga* (*M. jubata*, the Great Anteater or Ant Bear).—The skull is greatly elongated and narrow, its upper surface smooth and cylindriform. Anteriorly, the face is produced into a long tubular rostrum, rounded above and flattened below, with terminal nares, and composed of the mesethmoid ossified for more than half its length, the vomer, the maxillæ, and the long and narrow nasal bones; the premaxillæ being extremely short, and confined to the margin of the anterior nares. The zygomatic arch is incomplete, the styliform malar only articulating with the maxilla in front, and not reaching to the very short zygomatic process of the squamosal. The lacrymal foramen is in front of the margin of the orbit, as in the sloths. There are no post-orbital processes to the frontals, or any other demarcation between the orbits and the temporal fossæ. All the parts to which the muscles of mastication are attached are most feebly developed. The palate is extremely elongated, and produced backwards as far as the level of the external auditory meatus by the meeting in the middle line of the largely developed pterygoids. The glenoid fossa is a shallow facet, with its longitudinal diameter from before backwards. The mandible is very long and slender, with an exceedingly short symphysis, no distinct coronoid process, and a slightly elevated, elongated, flattened condylar articular surface. The vertebræ are seven cervical, fifteen or sixteen dorsal, two or three lumbar, six sacral, and thirty-one caudal. It was till lately always stated that the clavicles were absent, but they have been found in a rudimentary state in two examples lately dissected by Mr. Forbes at the Zoological Gardens. The scapula has the suprascapular notch converted into a foramen, as in the sloths; but the acromion is not united to the end of the coracoid. The humerus has a large supracondylar foramen. The radius and ulna are distinct. The hand is of remarkable formation: its first digit is very slender, the second also slender, with compressed phalanges of nearly equal length; the third digit is immensely developed. Though its proximal phalanx is extremely short, its ungual phalanx is so long, that the entire length of the third digit exceeds that of the second. The fourth has a long and rather slender metacarpal bone, and three phalanges diminishing in size, the ungual phalanx being very small. The fifth has the metacarpal nearly as long, but not so stout as the fourth, and is followed by two small phalanges, the last of which is rudimentary and conical. Claws are developed upon all but the fifth. In walking, the toes are kept strongly flexed, and have their joints turned upwards and inwards, the weight being supported upon a callous pad over the end of the fifth digit, and by the dorsal surfaces of the third and fourth digits. The hind feet are short and rather broad, with five subequal claws, the fourth rather longest, and the first shortest; the whole sole is placed on the ground in walking. The tail is about as long as the body, and covered with very long hair, disposed chiefly in a ridge above and a larger one below, making the whole organ something like a large feather. It is not prehensile, and in sleeping is turned over the body, which it covers as with a warm blanket. The ears are small, oval, and erect. The eyes are very small. The cavity of the mouth is remarkably long, not only occupying the under surface of the skull, but extending for nearly the greater part of the neck, the hyoid bone and larynx being placed at a distance of nearly six inches behind the cranium. This is to give room for the very long, cylindrical, tapering, vermiform tongue, which ends posteriorly in a pair of retractor muscles, attached to the inner surface of the sternum. Its surface is covered with very minute, backward-directed horny papillæ, and there are two small circumvallate papillæ on the dorsal surface near the base. The parotid gland is rather small in proportion to the size of the animal, placed in the usual situation, and of flattened triangular form. The duct, which is eleven inches in length, terminates near the anterior angle of the mouth. The submaxillary glands, on the other hand, are enormously developed, and unite below in the middle line for a considerable distance. Posteriorly, they lie over the front part of the sternum, and are notched on each side for the prominence of the shoulders. The length of each gland from before backwards is sixteen inches. There are three ducts on each side, commencing in distinct portions of the gland, and running forwards to very near the anterior part of the floor of the mouth, where they pour out their viscid secretion in such a way that the tongue must be lubricated by it as it passes out. Ants adhering to it as it is withdrawn into the mouth are swept off by two projecting ridges from the upper edge of the rami of the lower jaw, and then swallowed. The want of teeth is compensated for by the structure of the stomach, which consists of a subglobular sac of moderate capacity, lined by soft vascular secreting membrane, into which the œsophagus enters, and of a smaller pyloric portion, with a dense epithelial lining and thick muscular walls, not unlike the gizzard of a bird. The intestinal canal is slung on a simple continuous mesentery (as in reptiles), without the usual mammalian constriction at the duodenum. The colon is short, and there is no ileo-colic valve; and the cæcum is represented by an ill-defined dilatation of the commencement of the colon. A conspicuous ridge of mucous membrane runs along the greater length of the small intestine, projecting into the cavity, opposite to the mesenteric attachment. There is a gall-bladder. The great arteries of the limbs and of the tail are surrounded with *retia mirabilia*, as in the sloths. The external orifice of the genital, urinary, and intestinal organs is not quite a cloaca, as in the sloths, as the anterior and posterior outlets are separated by a slight perinæum of true skin. The penis is quite rudimentary, consisting of a pair of small corpora cavernosa, no larger than the clitoris of most mammals of corresponding size. The testes are abdominal, and there are distinct vesiculæ seminales and Cowper's glands. The uterus is simple, and pyriform; but the vagina has, at all events in the virgin state, a median septum. The gravid uterus and fœtal membranes have not yet been examined.

THE TREATMENT OF CHRONIC RINGWORM OF THE SCALP: A NEW METHOD OF EPILATING THE DISEASED HAIRS.*

By MALCOLM MORRIS, F.R.C.S.Ed.,
Joint-Lecturer on Skin-Diseases at St. Mary's Hospital Medical School.

That chronic ringworm of the scalp is a difficult disease to cure, every practitioner will admit. There are two propositions, as regards treatment, which I desire to bring under the notice of the profession. But, first, I must briefly refer to the factor in the problem we are called upon to consider—a fungus growing on and in the hairs, extending deeply into the follicles as far as the roots.

In a paper published in the early part of last year, I pointed out that two things were essential in the treatment of this disease: first, some drug which is capable of destroying the fungus, and so preventing its further development; and, secondly, some vehicle to carry this drug to the part of the follicle where the fungus exists and grows. Arguing, from analogy, that certain chemical substances, called antiseptics, had the power of destroying certain low forms of vegetable life, such as bacilli, micrococci, and bacteria, I suggested

* Read at a meeting of the East and West Surrey Districts of the South-Eastern Branch.

that thymol or menthol should be used as the parasiticide, and that chloroform would answer the purpose as the absorbent. But, as the latter was volatile, I added oil to the compound to prevent evaporation. While trying this liniment, of thymol, chloroform, and oil, in a large number of cases, I was struck with the fact that in some of them, in spite of the constant application of the remedy, the disease appeared on other parts of the body, and also on other parts of the head previously free. It seemed difficult to understand that, in a strictly antiseptic medium, spores could be carried from part to part and live; but such seemed to be the case, for in some instances, when the liniment had been used too freely, and had run down the neck, fresh spots of the disease showed themselves in that region. During the time I was considering this difficulty, I found that Koch, in Berlin, had been making experiments on bacillus spores with various antiseptics, and found that these spores lived and developed even after being placed in carbolic oil (one part in twenty) for one hundred and ten days. This, I think, is a very strong argument that neither oil nor fat of any kind should be used when the full action of an antiseptic is required.

Of course I am fully aware that all the best authorities recommend strong ointments, mercurial or otherwise, though for a very different reason from that I have been describing. They care little or nothing about the antiseptic action, so long as inflammation of the follicle, more or less severe, be produced. The spores are said not to live in inflammatory products (Thin). But surely cases are not uncommon in which the disease is transplanted to healthy parts by means of the discharge. I have seen a case in which croton-oil was used to a single patch, and in a short time the head was covered with small centres of infection. In this case, the spores were carried in the discharge.

And, again, have not all the old chronic cases we see in practice—some of them of four or five years' duration—been cases treated by constant attacks of inflammation, and yet with the result that spores have been found with ease? My view is that to produce inflammation of a slight kind is useless; and that a severe kind is unjustifiable, on account of the risk of destroying the follicles altogether, and producing baldness.

To return to the question of fats: if fat of any kind from without protects the spores, as Koch asserts, the natural fat or sebaceous matter must have a similar effect. For this reason, I have tried to remove the fat by means of ether, and have abstained from using ointments or oil in the treatment. I wash, or more strictly dab, the patch each morning with ether, rectified spirits of wine, and thymol, in the following proportions: ether, five drachms; rectified spirits of wine, two drachms and a half; and thymol, half a drachm—applying during the day glycerine with a very small trace of perchloride of mercury. Petroleum may be used in the place of the ether and spirit. One drachm and a half of petroleum-oil takes up five grains of thymol. The ether or petroleum is of greater value than would at first sight appear, and for the following reason. There is a disease of the scalp known as seborrhœa sicca, the chief characteristic of which is the falling out of the hair. This is caused by the absence of the natural fat in the sebaceous matter. It is cured by stimulating the glands to action, and by adding fat artificially. In the ringworm patch, we want the diseased hairs to fall out; and, by producing a condition similar to seborrhœa sicca—that is, by making the part very dry—we can actually produce this effect. Instead, therefore, of epilating by means of forceps—which is useless, as the hair breaks at the neck of the follicle, leaving the diseased part behind—we can epilate by dissolving the fat, and thus loosening the hair. In this way, we can in a few days remove all the broken and diseased hairs.

LEFT INGUINAL COLOTOMY IN RECTAL STRICTURE.

By H. A. REEVES, F.R.C.S.Ed.,
Assistant-Surgeon to the London Hospital.

This preliminary note is published with the view of drawing professional attention to a method of treating rectal stricture which appears, as far as present experience goes, to offer certain advantages. I have already operated on three cases, the last two of which were done non-antiseptically, and all of them have resulted very well. Up to date, I have had occasion to perform forty-six colotomies for rectal or colon obstruction. Most of these have been left lumbar, and the large majority have been in women. Only once have I done the right lumbar operation, and in this case the stricture was high up in the colon. Until lately, my inguinal colotomies were performed on infants for one or other of the forms of improperly developed rectum, and, like the recent ones, were in the left inguinal region. I may add that many other cases suitable for colotomy have come under my care; but, either through the patients declining operation when the object and result were explained to them, or through their getting tired of waiting for a bed, I lost sight of many of them.

The inguinal operation avoids the risk of unintentionally opening the peritoneal cavity, which has often fatally occurred in the lumbar operation. In fact, the operator deliberately prefers to go through two layers of that membrane, the parietal and that covering the bowel; and the probability of the occurrence of prolapse is, I think, much diminished; but the days are yet early to speak definitely on this point. If the operation be undertaken for innocent stricture, this method of operating offers the advantage that a bougie may be carefully passed through the stricture from above, when it may be impossible or dangerous and difficult to do so from below.

As regards æsthetic considerations, I find that, when the objects and the resulting conditions of the inguinal and lumbar methods are put clearly to the patients, they are usually indifferent, leaving the matter to me; so that it would seem that even married women think more of present relief to pain than of future consequences. I think that the situation of the opening matters little from a sexual point of view, because it is protected by a suitable apparatus, which is not more unsightly than a truss; and because, wherever the incision be, the odour is much the same. This annoyance may be to a great extent kept under by suitably scented compresses.

I make the incision a little higher than that advised in the books—*i. e.*, rather more than an inch above Poupart's ligament, and extending from just external to the internal inguinal ring to a little external to the anterior superior spine of the crest of the ilium. I found that, by doing this, the intestine (sigmoid flexure) was more easily reached at the lower part of its course, and that its tendency to drag away from the stitches to the abdominal wall after operation was diminished. An appendix epiploic will usually be seen; and, if this be steadily drawn out, the bowel will follow.

In my first case, I did not open the bowel at the time of operation, but stitched it to the parietal peritoneum, and not to the skin. The wound was kept open by oiled lint; and, as the patient was a very stout multiparous woman, and had a fat pendulous abdominal wall, this was not a very easy matter. On the third day, it was difficult to recognise the bowel, which was coated over with a thick layer of lymph, and deeply placed at the bottom of the wound. The patient, who was suffering from malignant disease of the rectum, was much relieved by the operation.

In the second case, to avoid difficulty in finding the bowel, I stitched it to the parietal peritoneum and to the skin; but on the fourth or fifth day I found that the stitches had ulcerated through the intestinal coats, and that the bowel was covered with lymph, and deeply placed at the bottom of the wound. At one spot, it seemed as if the serous coats of the abdominal wall and bowel had not united; but the case has done beautifully. This patient is only twenty-five, and has malignant disease of the rectum.

The third patient was a woman aged 50, with extensive disease of the rectum involving the vagina; and in her case I stitched the bowel to the abdominal wall, and opened it at once. She has progressed most favourably.

It is important that the opening in the parietal peritoneum should be sufficiently free, so that, when the bowel is pulled through it, there should be no strangulation on account of its passing along a too small opening. Although the abdominal incision was a little higher up than usual, small intestine did not present, and was not even seen, in any of these cases. I mention this, not so much on account of a possible difficulty in distinguishing a thickened piece of small intestine, but because of the inconvenience which would arise if it bulged at the small opening; as to return it and keep it in place while the operation is being completed is not always an easy matter. All bleeding must be stopped before the peritoneum is opened. I give morphia after, and also a night or two before, the operation, to lessen peristaltic action, and to make the fæces solid, so that no fluid matter may escape along the track of the sutures and set up peritonitis. Should some solid fæcal matter be taken up by the needle as it transfixes the bowel (and this may generally be avoided by making sure that the fold of intestine between the fingers does not contain any solid motion), its point will be cleansed by the mucous and muscular coats of the opposite wall before it penetrates the serous coat; but the operator should look to this, and, if necessary, cleanse the needle's point before passing it through the parietal serous membrane. It is advisable to let the patient lie half over on the abdomen, either on the left or the right side, to prevent the dragging on the stitches which occurs in the dorsal position. This tendency to fall back is partly due to the weight of the bowel, and partly to a rather short sigmoid meso-colon. I may here state that the bowel may be reached on its posterior surface, and without opening the peritoneal cavity, by proceeding very nearly as if for tying the external

iliac high up; but, as this involves a larger wound, a longer operation, and as, moreover, we now-a-days know that the peritoneum is no longer to be dreaded, this plan is at a great disadvantage.

The cases mentioned have all recovered, and were operated on during the last three months at the Hospital for Women; and, since writing the above, I have operated on a fourth case at the London Hospital. In this case, omentum presented when the peritoneum was opened. In this last case I had, two years ago, excised four inches of her rectum, giving her eighteen months of comfort; but the return of the disease, and the pain caused by the growth, induced me to offer her the few months' comfort which this operation, if successful, will give her.

CLINICAL MEMORANDA.

MEASLES WITH MARKED THROAT COMPLICATION.

E.T., aged 6, who was stated to have been more or less ailing for ten days, was first seen on April 10th. He then had a very distressing cough, croup-like in character, and unaccompanied by any expectoration. Slight aphonia was also present. The larynx was tender on pressure, and the fauces acutely inflamed; there was no enlargement of the tonsils. Inspiration was whistling, the origin of the sound being referable to the larynx. He had occasional sickness, and was extremely prostrated. Temperature 102°; respirations 36; very small pulse. There had been several cases of acutely inflamed and ulcerated throats in the house quite recently, their cause having been traced to imperfection in drainage. On April 12th, the patient being still without any coryza, and with the cough retaining the same character as before, a slight rash appeared on the forehead, which on the next day presented the characteristic aspect of measles, and spread rapidly over the back, arms, and legs. There was also busy delirium at night, and the temperature reached in the evening 104°. The glands of the neck became much enlarged, and cough continued, still dry and barking. On April 15th, the rash was fading on the legs, but very deeply pigmented on the arms and hands. There still was delirium. Temperature 104°; respirations 60; pulse 130. The patient continued in the same state until April 18th, when there were physical signs of pneumonia at the base of the left lung. The cough was more loose. The sputum was swallowed by the child, and therefore could not be be noticed. He had diarrhœa, with yellow foul-smelling stools. The rash was very deeply pigmented, and almost everywhere on the body and extremities. Delirium was not constant. Temperature in the evening 104.4°; respirations 62; pulse 130. Brandy was freely ordered, and the diarrhœa checked by astringents. The patient gradually improved under treatment, but it was not until the 1st of May that the rash entirely disappeared. This was the boy's first attack of measles. The mother of the patient, who had had measles when young, and who had been constant in attendance on her boy, began to show symptoms of illness on May 10th. No previous feeling of illness could be elicited. On May 10th, she complained much of her throat. The fauces were very acutely inflamed, the tonsils not enlarged, the larynx tender; there was slight aphonia; the cough was dry and barking. The glands of the neck were swollen. On May 13th, she had slight coryza. Temperature 100°. On May 14th, a very well-marked morbillous rash appeared on the face, and spread the succeding day over the body. With the exception of slight prostration, she progressed favourably, and on May 18th had lost all appearance of rash.

H. G. ORLEBAR, M.D.

THERAPEUTIC MEMORANDA.

ON THE TREATMENT OF ECZEMA BY DIET.

MR. B. SQUIRE entirely fails to comprehend my remarks on the above subject, and his criticisms show a complete misconception of my meaning. A few words, however, will make this clear.

As to the use of cod-liver oil, I did not say that the efficacy of the Banting diet was "very much enhanced by the addition of a little cod-liver oil." On the contrary, I agree with Mr. Squire that the oil is inconsistent with Bantingism. What I did say was this—and here is the exception to the rule—that in some children the use of oil is indicated, and may be given after the diet has been used for some weeks. There is no inconsistency here; if there be, then modern therapeutics is full of such inconsistencies. Sudden change of treatment, medicinal or dietetic, or both, is of every-day occurrence, as, for example, in pneumonia. May not the same principles be applied to the treatment of cutaneous disorders? I may add, that I usually prescribe the oil in small doses, and in the etherised form, five minims of ether to one drachm of oil.

With regard to the case I mentioned, I am perfectly well aware of the good results of the pitch treatment in chronic eczema. But here is a little patient, who, for more than eight years, has been under active treatment with ointments of all kinds, including pitch, and no improvement is noted. He is put on the Banting diet, the pitch being continued because it appeared to relieve the intense irritation; and he recovers. Surely the logical inference is, that the dieting has been productive of this happy result.

In conclusion, let me add that in my article I did not explain the Banting diet, or attempt any definition of it; that I strictly follow the diet laid down by Mr. Banting in his pamplet on *Corpulence*; and that the patient, whose case I quoted, was under my personal observation during the whole course of his hospital treatment.

A. CRESWELL RICH, Liverpool.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

UNIVERSITY COLLEGE HOSPITAL.

FOUR CASES IN WHICH IODOFORM, USED AS A LOCAL APPLICATION, APPEARED TO EXERT A POISONOUS INFLUENCE ON THE ECONOMY.

(For the notes of these cases, we are indebted to Mr. STANLEY BOYD, Surgical Registrar.)

CASE I. *Strangulated Femoral Hernia: Iodoform Dressings: Drowsiness, Hebetude: Recovery when the Iodoform was removed.* (Under the care of Mr. MARCUS BECK.)—G. F., aged 61, a barber, was admitted on August 13th, 1881. During the previous eleven years, he had occasionally noticed a swelling in the right groin; it gave him no inconvenience. He was subject to sudden attacks of acute pain in the epigastrium, which were accompanied by vomiting of "black stuff", but had always ceased spontaneously. On August 10th, at 9 P.M., he was suddenly seized with an acute pain in the hypogastrium, and he passed a small motion. Two hours later, he began to vomit dark green, bitter-tasting material. On the morning of August 13th, the vomiting became stercoraceous. When admitted, a strangulated femoral hernia about the size of a turkey's egg was found on the right side. Mr. Beck performed herniotomy. The gut was returned, and the sac was found to be lined by uniformly adherent omentum. The carbolic spray was used; and the wound was dressed with carbolised gauze, etc. For four days, all went well; but on August 18th the wound was found to be suppurating, and there was some cellulitis extending from the iliac crest to the last rib on the right side. The carbolic dressings were persevered in; but on August 20th the discharge was offensive. Fomentations and boracic acid dressings were now used, and the cellulitis began to diminish. On August 23rd, a counteropening was made above the crista ilii, and a drainage-tube was passed through to the groin.

On September 3rd, iodoform was used for the first time. A piece of lint, sprinkled with the drug, was passed through the whole length of the sinus above described. On September 7th, it was noted that the iodoform was then being puffed into the sinus through a bougie, and that the patient was emaciating somewhat rapidly. On September 20th, he complained that he felt "generally low", and could eat no solid food. The structures over the sinus were a good deal inflamed. His general condition continued to be very unsatisfactory; he was dull heavy, and exceedingly drowsy; he was disinclined for food or to make any exertion, wandered a little at night, and was losing flesh. On September 26th and 27th, the temperature reached 101.6°; and on the following day it was thought that pericardial friction could be heard at the inner end of the sixth rib. The tongue was dry and brown. The pain was relieved by poultices; but the appetite remained bad, and the pulse high (130). He continued to waste, and was apparently passing into a hopeless condition of hebetude and exhaustion. The sinus had not contracted much, and still discharged freely.

He left the hospital on October 1st. On October 20th, Mr. Beck saw him at his own home, and the following note was made. The patient was very much better. The improvement was said to have begun about three days after he was discharged from the hospital; that is, when all the iodoform had been washed out of the wound by the red wash which had been ordered him on discharge. The great drowsiness and slight wandering at night then disappeared, and he had been getting better ever since.

Soon after he got about again, the hernia again became strangulated. He again waited two or three days before seeking advice. Mr. Beck

then saw him, and operated through the old scar. On this occasion, the patient made an uninterrupted recovery.

CASE II. *Extensive Burn in an Adult: Death preceded by Delirium and Coma, while the Local Lesion was Doing Well.*—(Under the care of Mr. BERKELEY HILL.)—J. H., aged 38, a railway porter, was admitted on December 6th, 1881. He was a strong healthy-looking man, and said that the only illness he had ever experienced had been inflammation of the brain, nine years before, as the result of an accident. At 2.30 A.M. on the morning of admission, his clothes caught fire by the overturning of a benzoline lamp, and he was severely burnt about the left side of the trunk and the left upper limb; one severe burn extended from the axilla to the iliac crest. He was able to come to the hospital in a cab, and to walk upstairs to the ward. The shock was very slight; the urine contained albumen; the burns were dressed with carron-oil, and two minims of the hypodermic injection of morphia were administered. On the following day, vomiting had become troublesome, and it was found necessary to give one ounce of brandy every two hours. The urine contained albumen, which, as well as hyaline and granular casts, and abundance of triple phosphates, was also noticed on December 8th. The temperature was 99.4° in the morning, and 100.4° in the evening. On December 9th, the temperature was 101.4° in the morning, and 101.6° in the evening. On the following morning the burn on the trunk had begun to slough, and the temperature was 102.2°, and remained at about that, until the morning of the 12th, when it was 101.6°; the dressings of carron-oil failed now to correct the fœtor of the sloughs, and iodo-vaseline was substituted. Iodo-vaseline is an ointment made by dissolving one drachm of iodoform in one ounce of oil of eucalyptus (by means of heat), and adding five ounces of vaseline. The temperature remained elevated, and on the 14th it was 101.2° in the morning, and 102.4° in the evening; the pulse, which had been 100 on December 10th, and 108 on December 12th, was now 120, but full and strong; there was some bronchitis.

On December 16th, the patient's condition changed decidedly for the worse: he became delirious; the pulse rose to 130, though the temperature was only 101.6°, and the condition of the burns was satisfactory. On the following day he was very weak; the temperature rose at night to 104°, but the pulse was slower, and he was thought to be slightly better. The delirium, however, continued. On the night of December 20th, he was very restless, constantly trying to pull off the bandages and bedclothes. The urine was acid, of specific gravity 1022; it was free from albumen or deposit; the quantity passed was sixty-two fluid ounces in the twenty-four hours. In the previous and in the succeeding period of twenty-four hours, fifty-six fluid ounces were passed each day.

On December 31st it was noted that the patient was still rather delirious at intervals, that his cough was bad, the pulse 128, weak and compressible, and that the temperature varied from 98.8° to about 101°; the urine was still free from albumen, but contained an excess of phosphates. The wound continued to do well, and was now clean and covered with granulations; the patient, however, grew more emaciated, and though the range of temperature had become limited, the pulse was very high. About the middle of January, the delirium again became a very prominent symptom, and on January 20th he was on this account transferred to a private ward. The granulating surface left by the burn was "healing rapidly"; the iodo-vaseline ointment was still used as a dressing in large quantities. After this date the patient's condition rapidly deteriorated, the temperature-curve showed a wider range, the pulse became more rapid and weaker; finally, he became comatose and died on January 31st.

		Pulse.	Temp.
Jan. 25th	11 A.M.	100.2°	150
,,	3 P.M.	101°	145
,,	7 P.M.	102°	152
,, 26th	11 A.M.	101°	145
,,	3 P.M.	99°	
,,	7 P.M.	99.6°	150
,,	11 P.M.	102.4°	150
,, 27th	11 A.M.	101.6°	150
,,	3 P.M.	100.2°	146
,,	7 P.M.	100.2°	150
Jan. 28th	11 A.M.	101°	152
,,	3 P.M.	101°	155
,, 29th	11 A.M.	99.6°	
,,	3 P.M.	103.8°	140
,,	7 P.M.	102.6°	
,,	11 P.M.	100.2°	
,, 30th	3 A.M.	100.2°	
,,	7 P.M.	100.2°	
,, 31st	11 A.M.	Death.	

The necropsy was made by Mr. Stanley Boyd, twenty-seven hours after death. Rigor mortis was well marked; the burn was healing at the margins; islets of skin were pretty frequent over the lower ribs, but in the axilla a large surface (6 × 12 inches) would have had to heal by granulation. A few petechiæ were to be seen on the left costal pleura, and there were a few recent adhesions over the lower lobe; in the right pleura were a few old adhesions. The lower lobes of both lungs were deeply congested; there was some broncho-pneumonia, and the consistence was much diminished; there were many petechiæ over both lower lobes, but no part of the lungs sank in water. The pericardium contained about a drachm of fluid; on the posterior surface of the heart were a few small petechiæ, the cardiac tissue was pale and perhaps a little soft; there was no staining of the endocardium, and the valves were healthy. All the abdominal viscera were healthy. The brain was carefully examined, but presented nothing abnormal.

CASE III. *Extensive Burn: Symptoms resembling those of Cerebral Meningitis coming on after the application of Iodoform, and ceasing on its withdrawal.* (Under the care of Mr. BECK.)—Frederick W., aged 4 years, was admitted on January 1st, 1882. He had set fire to his nightshirt and had been severely burnt. The burnt surface occupied the whole of the front of the chest, parts of both axillæ, and extended downwards over the abdomen to within an inch of the umbilicus; the parts of the arms contiguous to the axilla, the hands, both cheeks, and the skin around the lower lip were also slightly burnt; the burn over the chest was for the greater part to the third degree, in other parts it was chiefly of the second degree. The child appeared drowsy. The temperature, which was 99.6° at 3 P.M., rose to 103.2° at 11 P.M. The burnt surface was at first dressed with boracic ointment; this was replaced by iodo-vaseline on the following day. On January 2nd the temperature was 102.4° in the morning and evening, and the pulse was 150. On January 4th the temperature had fallen to 101°, but the pulse was 156, and there was some cough. On the following day it is noted that "the patient slept very little last night, and screamed as if suffering from meningitis; he draws his legs up in bed a good deal, suffering from intense headache." The temperature, which was 104·6° at 3 A.M., gradually fell during the day, and was 101° at 11 P.M.; the pulse at 11 A.M. was 160. During the next few days the patient remained in much the same condition; the temperature was high, ranging daily from about 100° to 103°. The burnt surfaces, when dressed on January 9th, were seen to be going on favourably; the child did not scream so much, seemed to be more conscious, and readily took milk, mixed with a little brandy. The pulse remained very rapid; on the 10th it was 144 while the temperature was only 100.4°; he ground his teeth and still screamed in a peculiar way. On January 12th, a decided decline in the pyrexia was established; the patient seemed rather more unconscious but was excessively restless. On January 14th it was noted that he had been sleeping better, having had three minims of tincture of opium nightly until the previous night, when he was very restless; he still cried in a peculiar manner, and the eyes "twitched" and "rolled" occasionally; the burn was progressing favourably. No very notable change in his condition occurred until after January 25th; on that day Mr. Beck, suspecting that the symptoms might be due to iodoform poisoning, replaced the iodo-vaseline as a dressing by boracic ointment. On the following day it was noted that the patient was rather more restless, and looked paler, but had ceased to cry in the peculiar way before noticed, and seemed slightly more conscious. On February 2nd the child was conscious of what was going on, and took notice of people around; the screaming had almost ceased. On February 17th, he was rational and quite restored to health; the granulating surface still remaining on the chest was rapidly cicatrising. He was discharged on February 28th.

CASE IV. *Lumbar Abscess: Incision: Iodoform Dressings: Irregular Pyrexia, Rapid Pulse, Stupor: Recovery.* (Under the care of Mr. BECK.)—Charles M., aged 11, was admitted on January 19th, 1882. The patient had been the subject of caries of the dorso-lumbar spine for about five years; he was admitted for a large lumbar abscess, which seemed likely soon to give way. On January 21st, Mr. Beck made two openings, evacuated about half a pint of thin pus, removed much caseous matter, and scraped the wall of the abscess; the cavity was then well wiped out with a sponge filled with iodoform; drainage tubes were introduced, and the wounds dressed with the so-called iodised wool, which is merely cotton-wool through which iodoform has been evenly distributed. The operation was conducted under the spray. The temperature for the next two days did not rise above 99.2°. On January 24th, the temperature was 100°, and the urine (specific gravity 1037) was loaded with urates; but the tongue was clean, appetite good, and the patient made no complaint. The temperature fell .4° during the day, but he passed a restless night; and the temperature rose during the two following days, reaching 104.6° at 11 A.M. on January 26th; the pulse was 138, and rather weak; the skin was hot and moist; the patient complained of vertical headache, of drowsiness, and of nausea; the bowels were regular, he took his food well, and there had been no vomiting; it was thought that the breath smelt of iodoform. The wounds were examined in the afternoon; the discharge, of which there was very little, was quite sweet, and contained no micro-organisms; the wounds were thoroughly syringed out with carbolic acid lotion, and a good deal of iodoform thus washed away; carbolic gauze dressings were then applied. On the following morning (Jan. 27th), the patient seemed much better; he had slept well, headache was now very slight, the pulse was slower and fuller, and the nausea had ceased; the urine was still dark-coloured and full of urates, but contained no albumen. He went

on well until February 1st, when he experienced some pain in the occipital and left lumbar regions; and the temperature rose to 103.8°, and the pulse to 120. On the following day, the temperature and pulse were still above the normal, and the patient was drowsy, and refused food. During the next few days, he gradually improved; the pulse and temperature being little removed from the normal on February 10th. After that date, he appeared to be in pretty good health for about a week; then he again became sleepy, the pulse became more frequent, but full and compressible, and the temperature rose to over 103°; he complained of headache, nausea, and loss of appetite. After experiencing these symptoms for about thirty-six hours, he improved so much as to be able to eat well, the temperature fell to 101.2°, and he "seemed himself again"; this was on February 19th. On the evening of that day, the temperature rose to 105.6°, and a punctiform rash was found on the arms, knees, and dorsal surface of the feet; the tongue was furred in the centre, and the throat was a little sore. On February 20th, the rash was still to be seen in the same situations, but was very faint; the temperature had fallen to 99.4°; and the boy seemed quite well.

REMARKS.—Iodoform has been so extensively used during the last year or two in this country, that the subject raised by the above cases has grown to have some importance. The drug itself is, chemically, closely analogous to chloroform: its formula is CHI_3, and differs, therefore, from that of chloroform merely by the substitution of three atoms of iodine for three atoms of chlorine. In their physical properties, however, the two bodies differ widely; for iodoform is obtained as a yellow-coloured powder, which consists of small flattish crystals. When first introduced, the powder was rather coarse, the individual crystals being of considerable size. This was a disadvantage, inasmuch as these large crystals were very liable to irritate delicate parts; it can, however, be obtained in a fine powder either by pulverisation of the coarse powder, or by a slight alteration in the mode of manufacture. This so-called "precipitated iodoform" is a very fine smooth powder, and so unirritating that it can be dusted on to an inflamed conjunctiva with benefit (*vide* K. Grossman, in *Ophthalmic Review*, April 1882). When the drug was first introduced, about three or four years ago, to general notice, it was chiefly recommended as a local application in soft chancre, and for this purpose it was found highly efficacious. Its use gradually extended, until finally it came to be used in Germany as a substitute for the carbolic dressings of Lister, in all the major operations, in amputations, in excisions, and other operations on joints, and bones, in ovariotomy, in chronic abscess, and in many pharyngeal and uterine diseases. It was especially recommended in the treatment of strumous joint-disease. Gussenbauer maintained that the drug had some specific action on the tubercular process, and that the disease was less likely to recur under this mode of treatment. König, accepting the fact of less frequent recurrence, attributed it to rapid healing. It is difficult to understand how any opinion on this point can have yet been formed on sufficient grounds. In using iodoform in major operations, the method, though varied within certain limits, was in the main as follows. If a limb were the part operated on, it was first rendered anæmic by Esmarch's bandage; the necessary operation was performed usually under the carbolic spray, and the wound was then filled up with iodoform, or the drug was thickly powdered into or over it from a dredger; the external dressing was either of carbolic gauze, or of cotton-wool treated with iodoform in the manner described at page 550 of our present volume. In either case, the dressing was left undisturbed for a long time—a week, a fortnight, or, in some cases of joint-disease, a month. Leoschin has used this method in ovariotomy, sprinkling the drug over the exposed peritoneum, the pedicle, and the wound in the abdominal walls. It has also been made the basis of lotions, but it has not many solvents: ether dissolves about 10 per cent., alcohol about 4 per cent. As to its physiological properties, but little seems to have been known until recently. It has been lauded as a powerful antiseptic, but this has latterly been disputed by Kocher and others; it was generally supposed to produce no constitutional effects beyond, occasionally, a little drowsiness. This latter point has, during the last few months, excited much attention in Germany. Schede, Kocher, and others have published cases where severe and even fatal symptoms have been attributed to its use; and the cases which we here publish illustrate fairly well the complexus of symptoms which it is supposed to produce. As may be seen, it is not always quite clear what proportion of the symptoms is due to the drug, and what to the disease. Case I was, we believe, the first in which Mr. Beck, who has used the drug rather extensively, was led to suspect its toxic action; the most prominent symptoms in that case were slight nocturnal delirium, an unaccountable drowsiness, and progressive emaciation; the patient's life was despaired of when the substitution for the iodoform dressings of ordinary red lotion was followed, after a few days, by the disappearance of all the symptoms. In Case II, there is considerable doubt as to the correctness of the diagnosis, which was only arrived at after death, still the nocturnal delirium, the rapid pulse, and high temperature continuing in spite of the steady improvement in the local condition, together with the absence of any morbid state likely to cause death, as shown by the necropsy, no doubt make it extremely probable. Case III is of great interest as an instance of a type of iodoform poisoning upon which Schede was, we believe, the first to insist. He said that the symptoms might closely simulate those of meningitis, and in this case it was at first supposed that that disease was actually present; withdrawal of the drug was almost immediately followed by the disappearance of the symptoms, and the patient was discharged a month later quite free from any disease, beyond the local results of the burn. It ought to be observed that Schede believes that the withdrawal of the drug is not always followed by this happy result, and that the cases sometimes terminate fatally; and that, further, iodoform administered by the mouth has recently been praised as a specific in tubercular meningitis. Case IV is extremely obscure, in parts it agrees fairly well with one of the classes under which the cases have been grouped. Four days after the first use of the drug, drowsiness, headache, and nausea came on coincidently with a somewhat rapid rise in the pulse and temperature, and unaccompanied by any condition of the wound which could have produced pyrexia; after the removal of the drug the symptoms somewhat slowly disappeared. Owing to the fact that iodoform is a powder and is little soluble, considerable difficulty is experienced in removing it entirely from an abscess cavity, or a winding sinus; and, in spite of careful washing, enough of the drug to produce toxic symptoms may remain in contact with the tissues, in spite of all efforts to remove it.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

FRIDAY, MAY 26TH, 1882.

J. LISTER, D.C.L., F.R.C.S., F.R.S., President, in the Chair.

Hyperpyrexia in Acute Rheumatism.—The report upon this subject by a Committee of the Society, appointed in October 1880, was presented; and an abstract report was read by the Secretary, Dr. Coupland. This abstract was published at page 807 of the BRITISH MEDICAL JOURNAL for June 3rd.

Cases of Rheumatic Fever treated with Iodide of Potassium and Sulphate of Quinine.—Dr. E. H. GREENHOW presented a paper on this subject. It comprised notes of forty-three cases of rheumatic fever which were under the author's care in Middlesex Hospital between the beginning of 1875 and the summer of 1876. Like the groups of cases treated with salicine and salicylate of soda communicated by him to the Society in 1880, they were all treated as nearly as possible in an identical manner, the medicines being administered in the same form in each of the cases. The iodide of potassium was prescribed in a simple solution containing five grains each of iodide of potassium and carbonate of ammonia, and the sulphate of quinine in that of pill consisting of two grains of sulphate of quinine and three of extract of henbane. In the reports of the cases they will be referred to as the treatment with "iodide of potassium and quinine." Further, all the patients were kept in bed and restricted to milk-diet and beef-tea until the pains and fever had entirely abated; the painful joints were closely enveloped in cotton-wool; and whenever any cardiac complication was present, a mixture of equal parts of extract of belladonna and ointment of iodide of potassium was applied over the præcordia. Sedatives, aperients, and stimulants were only administered when they appeared indispensable, and always as sparingly as possible. The cases varied greatly in character and intensity. Some of them were so mild that they would probably have recovered quite as quickly under confinement to bed and fever-diet, without any therapeutic treatment. On the other hand, other cases were really very acute. A comparison of the present series of cases with those previously communicated to the Society, demonstrated the fact well-known to hospital physicians, that rheumatic fever varied much in intensity and character at different periods, a fact which had probably sometimes led to an overestimate of the value of certain remedies in its treatment. In confirmation of this was the fact that not only did none of the cases included in this paper pass into a state of hyperpyrexia, or manifest any other symptom of cerebral rheumatism, but also that no case of rheumatic fever with hyperpyrexia came under the author's care during the eighteen months over which this series of cases extended. Again, pneumonia or pleuro-pneumonia only supervened in three cases whilst under treatment, and, including the one fatal case, existed on admission in only two cases. Twenty-six of the patients presented unequivocal evidence of the existence of either pericarditis or endo-

carditis—in some instances of both—when received into the wards; whilst similar affections were developed after admission in only six cases. Due allowance being made for the probability that some of the patients who had suffered from previous attacks of rheumatic fever might have been the subjects of cardiac disease before the accession of their recent attacks, it would appear that cardiac complications occurred in at least one-half the cases. Relapses only occurred in nine cases. The relapses were of short duration, and in no case was there more than a single relapse. Albuminuria existed on admission in eight cases, and became developed in two subsequently to admission. In all these cases it might be looked upon as having been a complication of the rheumatic fever, and not as an independent condition, for, the single fatal case alone excluded, the urine became perfectly normal in them all as recovery took place. Albuminuria and pneumonia were both present in three cases, and were simultaneously developed under observation in one case. Delirium was observed in five cases; epistaxis in five cases. In one of these cases it occurred before the commencement of the special treatment. In another case it recurred several times, and in a third was so profuse as to necessitate plugging of the nostrils. Marked depression of the heart's action only happened in three cases. In the last of these cases the patient had been already under treatment, by which the symptoms of rheumatic fever had been suspended at the time of her admission into the hospital in a state of alarming collapse. As this subsided about the seventh day after admission into the wards, the rheumatic fever relapsed. The medicines were prescribed in moderate quantities, none of the patients having more than eight grains of sulphate of quinine and twenty of iodide of potassium in the twenty-four hours; in a few cases, even less was given. In two cases, the treatment was discontinued at an early period; in the one, because of the occurrence of an aphthous condition of the mouth and fauces; in the other, on the development of an attack of acute pleuro-pneumonia, over which the treatment appeared to exercise no control. In three cases, there was a delay of from three to seven days in commencing the special treatment. The pains and fever usually subsided together in the uncomplicated cases. In twenty cases, the pains ceased, and the temperature became normal within five days from the commencement of the special treatment. In three other cases, the pains continued for some days after the temperature had fallen to the normal standard; but in none of the uncomplicated cases did the temperature remain febrile after the pains had ceased. In two very acute cases, the pains and febrile temperature ran on for eighteen and twenty-one days respectively; in one case, also, a very acute case, and attended by profuse epistaxis, the pains and high temperature continued for fifteen days; and, in another case, attended by purpura, for twelve days. Twelve cases were in the hospital from six to eight weeks. Excluding the two cases already referred to, in which the treatment was soon discontinued, and also seven very mild cases, which were each less than twenty days in the hospital; the remaining thirty-four cases were, on the average, each thirty-six days in the hospital.—Dr. GLOVER regretted that Dr. Greenhow had combined two such important remedies. Quinine he (Dr. Glover) considered a remedy of so great value in rheumatism, that it might be called second only to the salicine compounds, even if second to them; and it was very often useful where salicine had failed. He considered the salicine treatment of rheumatism most satisfactory at the present time.

Prurigo of Hebra.—Dr. CROCKER read the account of a case of this disease, which he had shown at a former meeting. He also showed another case of this disease, a girl eight years old, to demonstrate the great improvement, and, indeed, apparent cure, produced by appropriate treatment, but which, judging by previous experience, would prove to be merely a temporary amelioration, the disease returning nearly as bad as ever when treatment was left off in cold weather, though through the summer she might keep fairly well. The other patient was a girl aged 9, with good general health. The disease began when she was six months old with wheals and vesicles, which became sores. The characteristic papules began when she was between two and three years old; but the disease did not attain to its worst until she was seven years old, since which there had been no morbid change in her condition, though temporary ameliorations had occurred in the summer. The itching was at times most intense, and she presented in a marked degree the other symptoms described by Hebra; viz.: 1. Pale red, slightly raised papules, with scabbed tops, on the extensor surfaces especially of the forearm and leg; the skin being thickened and slightly pigmented; 2. Eczema varying in extent at different periods, but always absent from the flexures of the limbs; 3. Wheals developed in proportion to the scratching; 4. Occasional ecthymatous sores; and 5. Enlargement of the lymphatic glands in various parts. The treatmen that gave most relief was alkaline baths, tar-ointment well rubbed in good food, iron, and cod-liver oil; and last, but not least, tincture of cannabis Indica gave material relief to the itching, and most of the lesions of this disease were consequent upon the insatiable desire for scratching. Dr. Crocker was of opinion that, if the distinctive symptoms, taken collectively, were borne in mind, and cases looked for, the disease would be found to be not very uncommon in this country.—Dr. SOUTHEY inquired if Dr. Crocker had made any observations on the urine in these cases. Hebra laid stress on the indican found in the urine, and on the wasting of the patient. Constipation also existed, and with the scybalous evacuations there were brought away parts ot the mucous coat of the bowel in shreds. He thought Dr. Crocker's case had much improved under treatment, and considered it as certainly one of Hebra's cases.—Dr. THIN said that German papers had contained accounts of such cases cured by pilocarpine. About six years ago, the subject was brought forward by Mr. Hutchinson, who had thought the disease did not occur in London; but he (Dr. Thin) had brought forward the case of a boy born in Australia, whom he had treated and cured after the manner recommended by Hebra. In two or three years, the patient had returned to him, the disease having recurred, was treated again, and improvement had ensued; but, another relapse having now occurred, the patient was undergoing treatment by sulphur baths in Switzerland, where the physician had promised "a cure", if the patient would remain under treatment for three years. Dr. Thin thought the disease curable, if attacked methodically early in life.—Dr. CROCKER had not tested the urine for the presence of indican. The cases he had seen had been those of children, in whom the constipation had not been much marked. In constipation, indican was often present in the urine. In a case of chromidrosis accompanied by constipation, which he had seen, indican was found when the bowels were constipated, but not when the bowels were opened. He had not tried pilocarpine, but had found cannabis Indica allay the itching wonderfully. The only objection to it was, that the dose of the drug had to be increased after a time.

Ichthyosis involving the Entire Surface of the Body.—Dr. BERNARD O'CONNOR read a paper on this subject, and illustrated his remarks by exhibiting two sisters, aged respectively twenty-nine and twenty-seven years, presenting universal and congenital ichthyosis. The elder one had been under his treatment during the preceding three months. She was brought before the Society early in March last, when the characteristic scales covered the entire surface of the body, including the palms of the hands, the soles of the feet, and, though to a less extent, the eyelids and the forehead. The family history, as far as it could be obtained, was good. No cutaneous affection had ever been known in either the father's family or the mother's family. The patient was the second born of a family of seven. The eldest was a son; the remaining five children were daughters. The patient and the second daughter were born with the affection. The fifth also had it, but whether born with it or not was uncertain; she died at the age of nine months. The three remaining girls were unaffected. No particular odour was observable on the surface of the body. The unaffected portions of the face, the palms and the backs of the hands (especially the latter), perspired freely. No perspiration was ever discoverable in any other situation. During the few days preceding the catamenia, scales always fell off in abundance, particularly when the patient was in bed, but other scales immediately appeared in their place. Her general health was found to be excellent, though a scrofulous aspect was noticeable. Prior to coming under recent treatment, she had never been more susceptible of the influence of cold than were the majority of individuals; but lately, since the scaliness had diminished, she had frequently complained of the changes of temperature. She regarded this last fact as quite a new feature in her case. These two sisters had been, especially during their earlier years, the subjects of medical treatment in various quarters. She herself had given up all idea of any improvement in her condition. There was now a marked diminution of the scaliness all over the surface. The face was perfectly free. The affection on the neck was reduced to a mere roughness. The forearms, wrists, and hands were clear, and the front of the chest, though leathery to the touch, no longer presented the imbricated appearance noticed three months ago. Dr. O'Connor then referred to the treatment. Jaborandi had, on a few occasions, caused a profuse shedding of the scales; warm baths and emollient applications, lotions containing borax, glycerine, etc., rendered the surface softer; blistering acted as on a normal skin, but the ichthyotic condition was quickly renewed. On the whole, he placed no reliance on external treatment. Arsenic (combined with iron) and cod-liver oil internally were the means which he had found most serviceable. As to the pathology of ichthyosis, Dr. O'Connor inclined to the belief that a hypertrophied condition of the papillary layer, and a thickening of the true skin, were probably the essential elements in the affection. Respecting the distribution of the disease, out of thirteen well-marked

cases that had come under his notice, only three had occurred in females. This, he believed, was in accordance with general observation. Ichthyosis resembled some other disorders (such as pseudo-hypertrophic muscular paralysis, colour-blindness, the hæmorrhagic diathesis, etc.), in that, while it generally appeared in the sons, it descended through the daughters, of an affected family.

A Case of Lupus-Psoriasis.—Dr. STEPHEN MACKENZIE read notes of this case. The subject of the eruption was a lad, aged 18. There was no history elicited of struma, or of skin-diseases in his family. The disease began in his face three years ago, and was confined to this position until nine months before he came under observation. It then spread to the forearms, and gradually involved the upper arms, the trunk, and lower extremities. The patient was well nourished, free from any sign of glandular enlargement, or of disease of the viscera or bones. When he came under observation, his face presented the characteristic appearances of lupus vulgaris. In addition to this, however, on the upper part of the chest in front, between the shoulders, over the lower part of the back, and symmetrically distributed on the outer aspects of the arms and forearms, on both buttocks, thighs, and legs, were discs having depressed centres, and a few fine scales intermixed with dull red scars. The skin of the extremities of the fingers was red, rough, and cracked, and there were a few papules on the dorsa of the feet. The patient, under one-drachm doses of citrate of potash, and later, iodide of iron with arsenic, improved somewhat; but perionychitis became troublesome, and led to erysipelas of the right arm. The attack was severe, but the patient made a satisfactory recovery, and the eruption continued to improve. Later, when the treatment of the case concluded, a good deal of the active eruption had subsided from the trunk and extremities, leaving scars in the positions in which it had occurred. His general health was good. The points to which attention was directed were: that the eruption on the face was characteristically lupus; that the eruption on the trunk and extremities resembled psoriasis in its scaly appearance and symmetrical distribution, but, unlike psoriasis, and like lupus, it left scars. Hence the name "lupus-psoriasis" given to the conditions by Mr. Hutchinson, seemed appropriate in characterising its nature and distribution. The condition was a rare one, and, as far as the author was aware, was only described by Mr. Hutchinson. A sister of the patient, who had slight but well marked psoriasis, had since been seen. This brought the lupus element of the case into closer alliance with psoriasis as regarded its essential nature, as well as in its appearance.—Dr. CROCKER thought this form of lupus most rare, this being the only case which had come under his notice. He thought the name lupus-psoriasis not very happy; it would be well to characterise it as a form of psoriasis resembling lupus.—Dr. THIN asked if the case resembled lupus erythematosus, and how the two affections might be distinguished from one another.—Dr. MACKENZIE replied that the term lupus-psoriasis or psoriasis-lupus was immaterial, the alliance between the two diseases being often much more intimate than Dr. Crocker seemed to think. He had, since writing his paper, ascertained that a sister of the patient had suffered from lupus; and he believed the disease was a hybrid between lupus and psoriasis. It left scars. The case in many particulars resembled lupus erythematosus.

A Case of Double Hæmorrhagic Pleurisy with Formation of Cholesterine.—Dr. CHURTON (Leeds) communicated the sequel to this case, particulars of which were read to the Society in November. The patient was then recovering from an empyema on the right side, and the left pleura seemed free from fluid, although dulness and absence of breath-sounds persisted in the lower axilla. Fluid now collected, the temperature remained high, and he lost flesh. A few days after his return from Scarborough (November 25th), aspiration of the left chest evacuated some pus, and on December 8th a free incision was made, the right empyema having healed. Much pus containing cholesterine was evacuated, but the subsequent discharge was scanty and offensive. Signs of septicæmia set in, and he died rather suddenly on the sixth day after the operation. At the necropsy, a thick layer of old degenerated cells and lymph containing cholesterine was found in the floor of the left pleura, but there was no fluid pus. A few small nodules occurred at the apex of the lung, which was considerably compressed. The origin of the cholesterine was explained by the fatty degeneration of those cells accumulated in former attacks of pleurisy. No such deposit of cells was found on the right side, where the lung was universally adherent. A few small nodules also occurred in the apex of this lung, but no miliary tubercle—the case thus disproving Fraentzel's assertion that double hæmorrhagic pleurisy was almost certainly of tubercular origin. In the anterior margin of the liver was a caseous mass, of the size of a marble; otherwise the organs were quite healthy. —The PRESIDENT regretted that Dr. Churton was absent; he would have been glad to know whether the absence of the spray was the only point in which the antiseptic treatment was defective. Was the skin purified before the operation? Were the sponges clean? and had the dressing of the wound the proper antiseptic characters?

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

THURSDAY, JUNE 8TH, 1882.

W. BOWMAN, F.R.C.S., F.R.S., President, in the Chair.

DISCUSSION ON SCLEROTOMY.

THE discussion was opened by the reading of several papers. The first of these was by Mr. CHARLES HIGGENS, who had commenced to perform sclerotomy some years before the cases forming the subject of the paper were operated on. At that time, he was compelled to abandon the operation, owing to the frequency with which it was followed by sympathetic ophthalmia. He had recently resumed the practice of the operation, but had adopted a different method of operating, and now had fairly satisfactory results. The paper contained notes of eighteen cases, in three of which both eyes were operated on, making a total of twenty-one eyes. A printed table, showing the result of the several cases as far as they were known, accompanied the paper. In conclusion, he suggested that the operation should be done in all cases of simple glaucoma, in cases where the pupil was widely dilated, or the iris had undergone changes rendering iridectomy difficult or impossible. Since writing his paper, two of the cases had returned; and in one it had been necessary to perform iridectomy, and in the other the eye had to be excised.

Mr. SPENCER WATSON also contributed a paper. In performing the operation, he made use of the first incision for iridectomy, as modified by Mr. Bowman; the section being made by puncture and counterpuncture. Eserine was used before and after the operation. A cystoid cicatrix formed in the scar, and appeared to be essential as a means of permanent drainage. Sclerotomy was preferable to iridectomy in all cases of eyeball-tension, in which the pupil responded to myotics. It was useful in subacute, acute, and perhaps in chronic cases. Whenever there was a tendency to intra-ocular hæmorrhage, as evidenced by ophthalmoscopic examination, sclerotomy was to be preferred; nor whenever the iris was much atrophied. It was not suitable for cases of "glaucoma fulminans", nor for any cases of eyeball-tension in which there was reason to suspect iritic adhesions, or adhesion of the periphery of the iris to the cornea. Several cases were adduced, in which the results of sclerotomy three, four, and five years after the operation had been noted as satisfactory; and a case of hydrophthalmus in a child of a year old was related, in which sclerotomy and Argyll Robertson's operation had been attended with success in reducing tension. Some cases of failure were also related; the failures being attributed rather to the severity of the cases, and to previous neglect, than to any inherent defect in sclerotomy as a remedy.

Mr. J. B. STORY (Dublin) read a paper, in which he stated that he had examined the notes of thirty-four cases which had been operated on at St. Mark's Hospital. Of the cases where, before the operation, sight was entirely destroyed, in one pain was relieved, while in one the result was unfavourable. In eighteen cases the sight still remained to a varying degree when the operation was performed; in eleven eyes, where the power of counting fingers remained, there was in all an immediate improvement, but in only one was it known to have been permanent. Of four cases where mere perception of light remained, one was benefited permanently, and the other two remained in the same state as before the operation. In six cases of chronic inflammatory glaucoma, one was, two years and a half later, greatly improved; in the other five, there was temporary improvement only. The second eye of the patient who was, as above said, greatly benefited was also operated on, but without any benefit. Three eyes suffering from traumatic glaucoma were operated on. In one, the case was believed to be permanent, in one no benefit was received, and in the third case the result was unknown. Sclerotomy had also been performed on both eyes of a child, aged five months, suffering from hydropathalmus; the result was believed to have been unfavourable. He was anxious to obtain an explanation of a phenomenon he had observed; namely, that in cases where the pupil was under eserine when the aqueous humour escaped, the pupil dilated; ordinarily, when the aqueous humour escaped, the pupil contracted. He was inclined to attribute it to the elasticity of the iris-tissue. He performed sclerotomy by making a puncture and counterpuncture, and leaving a bridge of sclerotic undivided.

Mr. BADER contended that the object of the operation was to establish a permanent communication between the aqueous chambers and the subconjunctival space. In his operation, the scleral incision included not less than one-fifth of the corneo-scleral circumference, and no scleral bridge was left. The aqueous humour and iris prolapsed

through the wound, and gave rise to staphyloma. The after-treatment should tend to encourage the persistence of the staphyloma. In reply to the President, Mr. Bader said that, for the last seven years, he had entirely abandoned iridectomy in glaucoma, in favour of sclerotomy. In reply to Mr. Power, he added that he had never met with a case of sympathetic ophthalmia as a consequence of the operation.

A paper by Mr. SWANZY (Dublin) was read by the Secretary. The author had performed sclerotomy for glaucoma ten times. Of these, two were unsuccessful, one being a case of hæmorrhagic glaucoma; the other a case of chronic simple glaucoma, where the operation was followed by iritis, owing, he believed, to the use of too much eserine. One case of subacute glaucoma was cured by sclerotomy. Three eyes, in which Mr. Swanzy performed sclerotomy for chronic simple glaucoma, early in October 1879, were examined by him on June 6th, and the tension in all three was found to be still normal, and the vision such as to enable the patients to engage, the one in the practice of his profession as a medical man, the other in his business as a market gardener. The other cases were also instances of chronic simple glaucoma, and, so long as the patients remained under observation, the results of the operations were maintained. Mr. Swanzy had met with prolapse of the iris in two cases only, and in each of these the pupil had not been brought to a maximum of myosis by means of eserine. Extreme myosis Mr. Swanzy believed to be the only certain safeguard against prolapse, and would not perform sclerotomy on an eye in which the pupil was not fully contracted. The operation was performed in the way described by De Wecker.

Mr. NETTLESHIP had performed sclerotomy twenty-three times, using eserine before and after the operation. In several cases, iridectomy had been done once or more before sclerotomy. In all, the disease was advanced, and either quite chronic or subacute. The last eight operations had been performed within three or four months from the present date; and the final result had, therefore, not been reached. In the fifteen earlier cases, normal tension was permanently restored and the disease arrested in six, and in all of these the scar was distinctly bulging and dusky ("cystoid"); in the remaining nine, the result was indefinite in some, and decidedly unfavourable in others. (The details of these cases were appended to the paper, but not read.) In all cases, whether successful or not, the degree of bulging of the wound and prolapse of iris were in direct proportion to the increase of tension. The author considered sclerotomy indicated (1) instead of a second iridectomy when a first iridectomy had failed, (2) in all advanced cases where the angle of the anterior chamber was probably permanently closed, (3) in simple chronic glaucoma with good anterior chamber and healthy iris; and contraindicated when the anterior chamber was very shallow, even though the iris were healthy and pupil active. He thought it very important to make the incision as far back as possible.

THE PRESIDENT observed that the subject which these papers raised was extremely important. Iridectomy was, he believed, the most valuable means which the surgeon possessed of dealing with most cases of glaucoma; it was not, however, applicable to all cases, and this discussion would render great service if it could bring out clearly the cases in which sclerotomy could supply its place. The use of eserine was an important advance in our knowledge, and would, he believed, never be discarded, whatever might be the fate of iridectomy or sclerotomy. One point to be discussed was, the form of sclerotomy to be advocated in the various cases, where iridectomy could not be hopefully performed; and another point was as to the forms and stages of glaucoma in which sclerotomy was the better operation. The subject was one of great difficulty, not only from the complexity of the anatomical structures involved, but also from our ignorance, in spite of all that had been done, of the causation of glaucoma, and of the causes of the relapses which so frequently occurred. For himself, he confessed that he still, in many cases which came under his notice, felt great difficulty in understanding their origin, and still kept his mind open, hoping for clearer knowledge.

Mr. CRITCHETT said that, speaking from his own experience, and after listening with attention to all that had been advanced, he still felt his confidence in iridectomy unshaken; he entirely opposed those who would replace it by sclerotomy. In most cases of glaucoma, iridectomy did all that sclerotomy could do; it was more reliable, and its results more lasting. But there were certain classes of cases where iridectomy was contraindicated. 1. In cases where the disease was excessively acute, rapid disorganisation of the iris and other intra-ocular structures occurring, the difficulty and dangers of iridectomy were such, that it might be judicious to perform sclerotomy, at any rate as a preliminary operation. 2. In hæmorrhagic glaucoma, sclerotomy might perhaps be indicated, though the operation would not be very hopeful. 3. In certain rare cases, which the speaker called "acute simple glaucoma", in which the disease commenced with sudden attacks of dimness, or even loss of vision, lasting for about ten minutes, and recurring once or twice in the twenty-four hours, tension being very great, and the pupil fixed, but there being no pain, and no "inflammatory" symptoms, iridectomy gave very bad results, and it might be wise to try sclerotomy. 4. In glaucoma following cataract-extraction, he thought, from personal experience, that sclerotomy was of more value than iridectomy; in none of these cases in which he had yet tried it had it failed him. In operating, he followed the method of De Wecker. He protested against a complete section, which inevitably led to bulging of the ciliary body, and must result in keeping up a protracted irritation, and so conduce to the occurrence of sympathetic ophthalmia.—In response to a call from the President, Mr. TEALE (Leeds) said that he had never performed sclerotomy. The remarks made by Mr. Critchett seemed to him to put the bearings of the subject in a tangible form. In traumatic glaucoma, after extraction of cataract, he had for many years done an operation suggested by the President. With a small knife, he punctured the cornea, and pushed on through the posterior capsule into the vitreous body; in two cases, this had been most successful. He could remember the time when iridectomy was a new operation, and was fiercely opposed; but it seemed to him that the general success of iridectomy, at that time, was far greater than was now the case with sclerotomy.—Mr. GEORGE LAWSON thought that sclerotomy was distinctly contraindicated in certain cases—in hydrophthalmus, for instance (where he had had subsequently to excise the eye), and in acute glaucoma. But, after cataract operations, sclerotomy gave excellent results; and did good also in hæmorrhagic glaucoma, and in cases of increased tension in the later stages of sympathetic ophthalmia. In these it relieved the tension and pain, even if it did not improve the sight, whereas iridectomy did no good. In operating, he was careful to avoid prolapse, and regarded entanglement of the iris as a dangerous event.—Mr. PRICHARD (Clifton) said that, in the cases where iridectomy could not be done, he had been in the habit of making a vertical section through the corneo-sclerotic junction with a fine knife. If a prolapse of the iris occurred, he regarded it as rather a good thing, since the cicatrix was then less firm and regular. He had watched cases where, at each subsequent rise of tension, leakage had occurred through this scar.

Card Specimens:

Mr. Vose Solomon: 1. Myoma of Ciliary Muscle; 2. Melano-Sarcoma of Iris: with microscopical sections of both specimens.

Dr. Brailey and Mr. Hartridge: Microscopical Sections of Sclerotomy Scars.

Mr. Nettleship: Microscopical Sections of Sclerotomy Scars.

Patients who had been subjected to sclerotomy were shown by Mr. J. E. Adams and Mr. Bader.

MEDICAL SOCIETY OF THE COLLEGE OF PHYSICIANS IN IRELAND.

WEDNESDAY, MAY 3RD, 1882.

J. W. MOORE, M.D., Vice-President, in the Chair.

Case of Enteric Fever.—Brigade-Surgeon JACKSON, C.B., reported the details of the case of Private D. S., 2nd Battalion Royal West Kent Regiment, who was admitted on March 10th, 1882, to the Royal Infirmary, Phœnix Park, Dublin, direct from the transport which brought the regiment from South Africa. He was admitted for abscesses about the toes. There had been a good deal of enteric fever among the troops in Natal, from which station the regiment returned home. On April 6th, while in hospital, Private D. S. had a shivering fit, followed by hot and sweating stages. On the evening of the 21st, he became comatose, and died at 5.20 P.M. From the state of the ulcers in the ileum, there was every reason to believe the disease existed for some weeks before his admission to hospital for another affection. The chief reason for diagnosing the disease as enteric fever was the range of temperature, which was less modified by the malarial influence than in most cases of fever in men subjected to the taint. In place of the diarrhœa frequently met with, there was constant constipation, although, in the *post mortem* examination, the small intestine contained fluid fæces of the appearance usual in enteric fever. Extreme nervous depression was another marked symptom. From the first, the man insisted that he would die. The absence of abdominal tenderness and of tympanites was also a source of difficulty in defining the fever; in fact, there was more reason to expect notable lesion in the nervous centres than in the intestines. The tongue for some days of his illness had the whitish thick fur often found in remittent fever.—Dr. J. W. MOORE said the lesions in the case were certainly those of

typhoid fever. It was interesting to observe that the glands of the colon were affected, as well as those of the ileum. Cases of typhoid fever, which were characterised by constipation from the beginning to the end, were not at all unlikely to terminate, as this did, with destructive ulceration of the intestine and perforation leading to peritonitis.—Dr. CHARLES F. MOORE asked whether there was any information as to the sanitary condition of the troop-ship.—Brigade-Surgeon JACKSON said the deceased came in one of Donald Currie's vessels, the *Balmoral Castle*. He unquestionably brought the disease from Africa with him.

Two Cases of Eczema, both Fatal.—Dr. HENRY KENNEDY detailed the case of an infant, who was born at full term, was one of a large family of brothers and sisters, all of whom were healthy. He was described as being a plump fat child, but with a shade of paleness in his face, which was out of keeping with the rest of his appearance. He was nursed by his mother, a healthy woman, and seemed in every way healthy till the seventh month, when signs of irritation began about both ears. In a fortnight, this had developed into a rash, which was pronounced by the late Dr. Jacob of Maryborough to be eczema. From the very outset, the irritation was a very marked symptom. Even now, when the disease was local, the itching was very troublesome. By degrees, the rash spread over the head, and then the face was involved; here it assumed the form of "crusta lactea". Then the neck, body, and extremities exhibited the disease; so that finally no part of the body was free from it. After seven months' suffering, the child died. The second patient was a female, 67 years of age—one of two sisters who had seen better days, but were now in very reduced circumstances; they occupied one room. The patient, when Dr. Kennedy first saw her, had been about two years ill, and presented an unusually well-marked example of eczema. She was affected from the crown of her head to the sole of her foot, and the entire surface was of a reddish colour; but some parts were redder than others. Her great suffering was from the itching, which broke her rest much; and it was about the elbows and knees she suffered most, more particularly the latter. Dysphagia gradually came on, and the patient sank from exhaustion in about two months. Dr. Kennedy held with those who looked on eczema as being essentially a constitutional affection, and not merely a local disease. In many cases, the disease must be treated cautiously, lest serious consequences might ensue, were the skin-affection cured too quickly. The puckering of the skin observed in many cases was probably caused by prolonged inflammatory action. Of the close connection between the gouty poison and eczema, there could be no doubt. Two sequelæ of the disease, which Dr. Kennedy had particularly noticed, were pemphigus and hæmorrhage, most generally from the nose. Itching, which was often a most troublesome symptom, was frequently relieved by wet heat—warm water applied as a fomentation, or used as a bath.—Dr. QUINLAN said that eczema was a distinctly constitutional disease. Within the last few months, he saw a patient who was threatened with apoplexy, and at the same time suffered from eczema; the moment the eczema got better he was attacked with aphasia. He had recently seen a severe case of this disease, in which itching was a most troublesome symptom. He (Dr. Quinlan) tried every remedy, including hydrocyanic acid, calomel powder, and hypodermic injections; but the only thing that relieved the patient was the warm bath.—Dr. BEATTY asked, could the disease in any of the cases have been pityriasis rubra?—Dr. CAMERON said a preparation which in a great many instances had mitigated, and in some had removed the itching, was sweet milk combined with liquor plumbi subacetatis—one ounce of the solution to four ounces of milk. Milk thus combined with sugar of lead would keep perfectly sweet for two or three years. He agreed with what Drs. Kennedy and Quinlan had stated as to the comfort given by warm water.—Dr. C. F. MOORE remarked that, in cases of derangement of the liver, which occurred in India, eczema was not uncommon; and mercurial applications had been found to relieve the itching. He had known itching to be produced by worms in the alimentary canal; in such cases, the itching ceased when the worms were removed.—Mr. DOYLE had seen cases of eczema which were local, the disease having been caused by friction of the saddle in riding. Cavalry soldiers were liable to it. He had also known local eczema to result from varicose veins. First, there was congestion; and that was followed by an eczematous condition, and afterwards ulceration. As a constitutional disease, he had met it in both the scrofulous and the gouty diathesis. — Dr. J. W. MOORE said one of the most important points in connection with the cases brought forward by Dr. Kennedy was, that both the patients died. In England, in 1879, 308 deaths were attributed to eczema, the total deaths registered in that country during the year having been 271,496. In the cases reported by Dr. Kennedy, he thought the causes of death were pretty evident. In the cases of the infant, the loss of rest at night alone would have been sufficient to cause death. In the other patient, loss of rest would also have been an important factor in bringing about a fatal result; besides, there was the asthenia caused by the dysphagia. As to the swelling in the case of the infant, it was probably due to inflammatory thickening of the tissues. Eczema was a constitutional disease in many cases, but he agreed with Dr. Doyle that local eczema might occur as the result of irritation, and this was more amenable to treatment than the constitutional affection. The symptom of wetness was not always present in eczema. Salicylic acid prepared as an ointment with vaseline, in the proportion of 20 to 30 grains in the ounce, and applied locally, had been found of great use. The occurrence of eczema in individuals of a gouty tendency might be explained by the irritation of the skin by uric acid and its salts escaping in the perspiration.—Dr. KENNEDY replied.

The Therapeutic Properties of Quinine Iodate and Bromate.—Dr. CHARLES A. CAMERON read a paper on the therapeutical and physiological properties of these new salts, which he had recently had prepared and introduced to the notice of the medical profession. He pointed out that the researches of Arthur Gamgee, Priestley, and Larmuth had shown that the three forms of phosphoric acid and of vanadic acid had very different degrees of physiological activity. The salts of orthophosphoric acid were almost inert when their bases were inactive, whilst the pyrophosphates and metaphosphates were poisonous. The orthovanadic acid was poisonous, but pyrovanadic acid and metavanadic acid were still more poisonous. The high physiological activity of the pyrophosphates and metaphosphates had been attributed to the unsaturated condition of their nuclei; these salts were not statical, for they could take up additional basic material. Further, when superoxygenated compounds were introduced into the system, it might be expected that their oxygen, being loosely combined, would unite readily with elements of the blood. Dr. Cameron believed that the chlorates, bromates, and iodates were more active physiological agents than the corresponding chlorides, bromides, and iodides. Chlorate of sodium was more powerful than chloride of sodium or common salt. It might be inferred from analogy that iodate of potassium was a more active physiological agent than iodide of potassium. Some years ago Dr. Cameron suggested the use of ferric iodate as a substitute for the unstable ferrous iodide, and more than a year ago he had prepared an iodate of quinine in combination with an effervescing mixture. Each drachm of the effervescing iodate of quinine contained two grains, or one dose, of the iodate. It had been found very useful in the treatment of neuralgia, severe articular pains which had resisted the employment of the usual remedies, sluggish forms of pulmonary congestion, secondary syphilitic disease, and malarial enlargement of the spleen. Bromate of quinine might be prepared by precipitating barium iodate by sulphate of quinine, or by neutralising quinine with bromic acid. It occured when air-dried in small asbestos-like masses, which under the microscope were seen to consist of very long needles. — Dr. H. COLPOYS TWEEDY had seen good results from iodate of quinine in pulmonary congestion. — Brigade-Surgeon JACKSON asked what was the relative expense of these new preparatives compared with sulphate of quinine, with the action of which in intermittent fever he was much disappointed.—Dr. QUINLAN considered that the useful feature of the iodate of quinine consisted in the fact that its acid easily separated from it, thus leaving it circulating in the blood in a basic form.—Mr. KNOTT had no doubt that the large proportion of easily dissociated oxygen present in both the iodate and the bromate of quinine would add materially to the physiological activity of these drugs. He should not be surprised to hear of the bromate of quinine proving a specific in some forms of neuralgia, as the sedative effects of the bromine would be added to the usual action of quinine. The forms of neuralgia in which the latter drug had given best results were those in which evidence existed of malarious or rheumatic influence. In both these cases there was a marked determination of blood to the part, and the periodic dilatation of the blood-vessels which occurred in the former variety—every pulsation of which was conveyed to the over-sensitive nerves which accompanied them—was well known. He believed that there was sufficient evidence in favour of the idea that the more prominent physiological effects of quinine were essentially due to diminution of the systemic oxidation, which took place under the influence of this drug. It had also been observed to diminish the metamorphosis and elimination of nitrogenous compounds, especially uric acid. The excess of oxygen in the newly described salts would probably act as a beneficial corrective. The capillary contraction which followed the ingestion of quinine promoted the same result as that now described.—Dr. CAMERON, in reply, said the great point he had endeavoured to establish was that the addition of oxygen to the iodine compounds, instead of diminishing, increased their activity.

The Society then adjourned till next session.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

FRIDAY, MAY 19TH, 1882.

J. W. TRIPE, M.D., President, in the Chair.

Letters were read from Dr. Farquharson, M.P., and Mr. Hastings, M.P. The latter stated that it was his intention, on the Bill for the Notification of Infectious Diseases going into Committee, to strike out the clause which makes it doubtful whether the metropolis is included in the measure. A letter was received from Mr. Noel A. Humphreys, enclosing a copy of the tables of causes of death in England and Wales, about to appear in the Registrar-General's annual reports.

On the Administration of the Public Health Acts in Rural Districts.—Dr. ARMISTEAD read a paper on this subject. He stated that the present administrative bodies and their officers were created by the Act of 1872, and no change was made in the 1875 Act, notwithstanding the wise counsels of those experienced in the working of the 1872 Act, and the strong recommendations from the Joint Committee of the British Medical and Social Science Associations. He mentioned the difficulties against which medical officers of health had to contend in the performance of their duties, and insecurity in the tenure of their office, which had been pointed out to the Local Government Board in August last by a deputation from this Society and the British Medical Association jointly, which, so far as he was concerned, had already resulted in the fixity of tenure of office in five out of six of his districts; but the appointments were now separated, and the combination had now been broken up. He produced a map showing the haphazard way in which the appointments of medical officers of health had been made throughout England, and the salaries paid in each case. About one-half of the rural districts had appointed a resident medical practitioner as medical officer of health; one-fourth had formed combinations of various sizes; and the other fourth had appointed an average of three officers each, some of whom were paid wages at a less rate than common scavengers, and were expected to perform the whole of the duties for two or three shillings a week, and make a report to the Local Government Board once a year. For nearly ten years, the working of the different systems had been carefully watched; and the only conclusion possible was, that medical officers of health could seldom perform their duties satisfactorily, unless they were compelled to devote the whole of their time to them. In order to do this, the Local Government Board might with advantage exercise more frequently than they had done their powers, and compel contiguous authorities in the same county to combine, and appoint the same medical officer of health. The improvement of cottage accommodation in rural districts had never yet been fairly undertaken; and it was doubtful whether sanitary authorities, without State aid, could do more than temporise with the matter; but perhaps, if county Government Boards were ever formed, they might exercise control over these larger sanitary questions in their respective counties. He then referred to the failure of the Public Health (Water) Act, in consequence of the decision of the Local Government Board's legal advisers, which practically limits the powers of the Act to those places where a sufficient supply could be obtained at a cost not exceeding £8 13s. 4d. Notwithstanding defects in administration, an enormous number of filth nuisances had been abated, and there had been a proportionate reduction in the mortality from filth-diseases, especially from fevers, the death-rate from which had been reduced from .9 per 1,000 to .5 in the last decade, and about .3 in the last two years. What had been done was not a tithe of what might be done. Improved cottages for the labouring poor, and the abatement of overcrowding, would do much to prevent some of the 50,000 deaths which occurred every year from consumption. A more complete system of registration of cases of infectious disease, and the provision of hospital accommodation for the isolation of the cases in every district, would be followed by a reduction in the mortality from infectious diseases, especially scarlet fever, which alone has killed about 20,000 of its victims annually. Up to the present time, we cannot boast of much progress in these matters. There is no reason why these diseases should not be abolished altogether by strict isolation of every case. In conclusion, he gave it as his opinion that the tenure of office should be more secure; that county or other large areas of administration should be adopted; and that the officers should be entirely special, and without the distractions of private practice.—In the discussion which followed, Dr. Parsons, Dr. Child, Dr. Corner, and Dr. Tripe took part.

A Fever Hospital at Nice.—Dr. CHARLES WEST read a paper on the establishment of a hospital at Nice for the reception of cases of contagious fever occurring among visitors staying at the hotels. He said that there was a great want of nurses and of opportunity for the isolation of cases of infectious disease occurring in hotels. The hotel-keepers endeavour to compel any fever-patient to quit the hotel, and great difficulty is felt in finding accommodation elsewhere. At his instigation, the Medical Society of Nice and the syndicate of hotel-proprietors adopted the proposal to erect a hospital. The cost would be borne by private subscriptions, and it was determined to ask each visitor to contribute one franc to the institution, and thus the sum of £2,000 annually would be realised. It is proposed that each patient shall have a separate room, and shall be attended by his own medical attendant and a separate nurse, and he may also have one member of his family with him. The management would be vested in a committee formed of two members of the municipality, in addition to the mayor and prefect. The hospital should consist of a basement, a ground-floor, and a first floor; it should have two wings and a central block for administration, from which the wings are to be separated by a court or garden, and with which they communicate by a corridor. All the rooms should face south, and each room would have a cubical capacity of 2,200 feet. The kitchen and cellars should occupy the basement. Dr. West, in conclusion, pointed out that if the Society would express its approval of the scheme, it would have an useful effect in urging on the authorities in Nice the better provision for infectious cases.—In the discussion which followed, Dr. Tripe, Mr. Shirley Murphy, Dr. Corner, and Dr. Thomas took part.

MANCHESTER MEDICAL SOCIETY.

WEDNESDAY, MAY 3rd, 1882.

EDWARD LUND, F.R.C.S., President, in the Chair.

Facial Palsy from a Fall.—Dr. WAHLTUCH showed a patient, aged 19, who, when five years old, fell down a flight of stairs and had been ill since. The face became distorted; it was drawn to the right, and the nostrils became obstructed; the patient heard well. The treatment consisted of oxide of silver in pills, and the continuous current applied locally, and he had considerably improved.

Paralysis of Left Ulnar Nerve caused by Cold.—Dr. WAHLTUCH also described the case of S. M., aged 52, married, a charwoman, who, twelve months ago, whilst cleaning wet flags, suddenly noticed that the last two fingers of the left hand, which rested flat on the flags, lost power of contraction. This condition was stationary; there were trophic changes in the interossei and lumbricales muscles, also in the nails of the affected fingers; she felt a sensation of heat along the whole left upper extremity. Faradisation had no effect; the continuous current a very slight one. The patient was exhibited.

Labio-glosso-pharyngeal Paralysis caused by Mental Shock.—Dr. WAHLTUCH also showed to the meeting M. W., aged 60, a bootmaker, who received, three years ago, the news of the sudden death of a son in India, and immediately was affected by the mental shock. He began to stammer; the tongue seemed heavy and thick; he gradually lost the power of speech, and deglutition became difficult. The tongue lay at the floor of the mouth; he could neither raise it to the palate nor put it out. A year ago the right hand became affected, and there was now a permanent contraction of the flexor digitorum communis, and a swelling of the right wrist. There was a general waste of muscular tissue. Digestion was fair; intelligence perfect.

Arterio-venous Aneurysm.—Mr. WRIGHT showed a girl four years and a half old. At three months old she was noticed to have enlarged veins on the right side of the face. This gradually increased and the eyeball became prominent. She was now the subject of great enlargement of blood-vessels in the temporal and orbital regions of the right side. The vessels were dilated, tortuous, pulsating, and apparently filled with venous blood. There was exophthalmos, with a downward projection of the right eyeball. A systolic *bruit*, together with a continuous venous hum, was audible over the dilated vessels, over the whole of the vault of the skull, and on both sides of the neck. Pressure on the right carotid had no effect upon the pulsation, etc. The child's mental powers were failing, and the sight of the right eye was thought to be deficient, though the ophthalmoscope showed no change. The condition appeared to be one of that form of aneurysm by anastomosis, where there is a continuous dilatation of the capillaries and veins by extension from the arteries.

Stokes's Amputation.—Mr. WRIGHT showed two cases of Stokes's amputation, in patients who had useless limbs from old infantile paralysis. The cases illustrated the advantages of the operation as regards capacity of the stump to bear pressure, protection of the cicatrix, convenient length and mobility, etc.

Excision of the Pylorus.—Mr. F. A. SOUTHAM mentioned a case of cancer of the stomach in which excision of the pylorus had been performed, and showed the specimen. Particulars of the case will be published.

By the kindness of the President, who acted as demonstrator, a special meeting was held on the 16th of May at which Mr. Warren, the American contortionist, exhibited his extraordinary muscular developments and voluntary dislocations.

MANCHESTER MEDICAL SOCIETY: MICROSCOPICAL SECTION.

J. DRESCHFELD, M.D., President, in the Chair.

Phlegmonous Gastritis.—The PRESIDENT showed sections of the stomach taken from the subject of this condition, a lady aged 28. She was apparently in good health up to a week before her death; she then suffered from abdominal pain, anorexia, and general *malaise;* her temperature went up to 102 Fahr. Physical examination revealed great dilatation of the stomach, with slight abdominal tenderness and some distension. These symptoms continued for three days, and were then succeeded by distinct amelioration. Acute peritonitis, however, suddenly supervened, to which the patient succumbed. *Post mortem* examination showed evidences of recent peritonitis, most marked in the region of the stomach, which was considerably dilated, and united to the liver by fresh adhesions. There was also a quantity of lymph in the pelvis, and recent adhesions were observed round both ovaries. The uterus contained recent blood-clot—"menstruation had just ceased when the illness commenced." The walls of the stomach, at the pyloric extremity, were uniformly thickened; the increase, which at one part reached half an inch in thickness, gradually diminished towards the cardiac extremity of the viscus. On section, the thickening was seen to be due to an infiltration of pus, which indeed exuded freely from the cut surface when pressure was used. Microscopic examination showed the serous and mucous surfaces to be intact, whilst the submucous and muscular tissues were separated by, and infiltrated with, masses of leucocytes.

Porencephalus.—Dr. ROSS showed the brain and sections of the spinal cord from a child, aged 3 years, who during life suffered from partial paralysis, with contractures of all the extremities, the muscles of the neck being also implicated. The child had likewise an affection of speech, but it was difficult to ascertain whether it was aphasia or anarthria. The symptoms dated from birth. A defect was found in each cerebral hemisphere, occupying the position of the sulcus of Rolando, and communicating with the lateral ventricle. The central convolutions appeared to be absent in both hemispheres. The anterior pyramids of the medulla oblongata and the lateral columns of the cord (pyramidal tracts) were relatively small, but there was no sclerosis of them.

Epithelioma of Conjunctiva.—Dr. A. H. GRIFFITH showed sections a tumour from a man aged 45 years. The new growth, which was attached to the lower third of the cornea and adjoining part of the ocular conjunctiva and sclera, was of three years' duration. Enucleation was performed by Dr. Little. Microscopically, the tumour showed all the characters of an epithelioma.

Sections of Eyeballs.—Dr. GRIFFITH showed, also, sections of the eyeballs from two cases of glioma of the retina, and from a case of tubercle of the choroid.

Epithelioma of Pharynx.—Mr. JONES showed sections, and preparation, of a case of epithelioma of the pharynx.

Micro-organisms in Osteomyelitis.—Mr. E. H. HOWLETT showed specimens of micro-organisms in the liver, spleen, and kidneys, from a case of osteomyelitis.

Melanotic Alveolar Sarcoma.—Mr. A. H. YOUNG showed sections of a sarcomatous tumour recently removed from the back of a man, which presented a well defined alveolar structure, and was deeply pigmented. Sections of an enlarged axillary gland, which was removed at a subsequent period, showed similar characters, but pigmentation was much less marked.

Lupus of Vagina.—Mr. YOUNG also showed sections of a growth removed by Mr. Southam from the vagina of a woman aged about 35 years. Microscopically, it showed the ordinary appearances of lupoid new formation and ulceration.

REVIEWS AND NOTICES.

CHRONIC BRONCHITIS; ITS FORMS AND TREATMENT. By J. MILNER FOTHERGILL, M.D.Edin., M.R.C.P., Senior Assistant Physician to the City of London Hospital for Diseases of the Chest. London: Baillière, Tindall and Cox. 1882.

WRITTEN for the benefit of "practitioners, and especially those who are commencing practice," this book deals, in good plain English, with those features of chronic bronchitis which have a direct bearing upon the practical recognition and treatment of the disease, rather than with the more purely scientific features which might tend to increase our knowledge of its etiology and pathology, and of its relations with other forms of disease.

In dealing with the practical side of his subject, Dr. Fothergill speaks clearly and confidently, and much of his work bears the stamp of originality of observation; but, in approaching the theoretical and scientific aspects, he prefers to speak through the writings of others. This method of teaching, though presenting many advantages to the writer, can never be of the same value or interest to the reader as would be a careful summary of the numerous extracts from text-books and treatises, which, in the book before us, serve rather to confuse than to assist the average reader.

In the introductory chapter is given an excellent description of the ordinary life and habits of the sufferer from chronic bronchitis, as he may be seen in the northern counties of England. Almost every point characteristic of the disease here finds illustration, and the chapter will repay perusal with more than ordinary attention.

In the discussion of the signs and symptoms produced by chronic bronchitis, special attention is directed to the ratio between pulse and respiration. When the normal proportion of four to one is disturbed, the fact is regarded as significant of mischief, either cardiac or pulmonary. "If the pulse mount over the respiration, dilatation of the heart-walls, or mitral disease, or not uncommonly both, are present." The relation of the character of the pulse to that of the heart's impulse and the heart's sounds is considered at some length, and the importance of the indications afforded by it is insisted on.

The concurrence of a strong impulse, or of vigorous sounds, with a small and compressible pulse, signifies an enlarged right ventricle, and thus forms an indication for treatment.

The effects upon the various organs of the impaired pulmonary circulation, and consequent venous congestion, are duly considered, special attention being drawn to the disturbance of intellectual vigour induced thereby.

The chapter on the pathology of the disease consists, for the most part, of extracts from various well known pathological text-books, and from it the reader may extract, if he please, all that is well ascertained with respect to the subject.

The clinical aspects of various forms of chronic bronchitis are next discussed; and the dry, asthmatic, catarrhal, gouty, and other varieties are successively passed in review, and the relation between the clinical indications and the pathological conditions carefully noted. The course of catarrhal bronchitis will be modified according to the degree in which the structures lying outside the bronchial tubes themselves are affected; and, of these modifications, he classes the cirrhotic, emphysematous, degenerative, and mitral as the most important. The titles given to these varieties thus speak for themselves; and, in the chapter devoted to them, will be found a collection of the chief clinical and pathological facts which distinguish them, many of which will be familiar to the readers of the works which Dr. Fothergill quotes, and serve to illustrate his conclusion that "the precise relations of morbid changes within the bronchial tube to other morbid changes outside in the lung-parenchyma, are not yet fully worked out by pathologists".

Some stress is laid upon the importance of recognising the gouty factor in cases of bronchitis, complicated with lithæmia. Acidity of sputa, intercurrent skin-affections, nocturnal dyspnœa, and other indications, are discussed in turn; they are chiefly met with in the catarrhal and emphysematous types.

A long chapter on the treatment of the disease and its complications concludes the book, and to many readers will prove the most interesting of the whole.

Entering fully into the details of the various methods of relief which he commends, the author shows clearly the importance of duly estimating the clinical and pathological indications, before applying the means which "common sense" would suggest for the relief of present symptoms. Whether in medicinal or in general treatment, the pathological condition must never be lost sight of; and, in this spirit, the various stages and varieties of the disease are dealt with, fully and faithfully—a clear distinction being marked between well-ascertained facts, and those which are still *sub judice*, or the results of personal experience only. This is notably the case in his remarks upon the value of strychnia as a direct stimulant of the respiratory centre, and also in the passages in which he condemns the use of opium as a narcotic; and his deliberate and clear expression of opinions on these points, though possibly they will not find universal acceptance, are worthy of more than passing consideration.

With the exception of the compiled portions, referred to above, the book is written throughout in an easy and popular style; it bristles with valuable hints for treatment, and is interspersed with clinical reminiscences both entertaining and instructive.

The few illustrations (repeated unnecessarily often), which are scattered through the text, are diagrammatic, and of secondary importance; but the work, as a whole, deserves cordial recognition at the hands of those to whom it is addressed.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1882.

SUBSCRIPTIONS to the Association for 1882 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JUNE 17TH, 1882.

THE REPORT OF THE SELECT COMMITTEE ON POLICE AND SANITARY REGULATIONS.

ON Tuesday last was published the report of the Select Committee of the House of Commons to whom were referred all private Bills promoted this session by municipal and other local authorities, proposing to create powers relating to police or sanitary regulations which deviate from, or are in extension of or repugnant to, the general law. The Bills that came under the purview of the Committee were those promoted by the local authorities of Accrington, Blackburn, Bolton, Chadderton, Dundee, Macclesfield, Manchester, and Newcastle-upon-Tyne, the subject matter of which the Committee report as greatly more extensive than the subjects of special reference. All of them contained abundant illustration of the rapid growth and development which have marked private or local legislation of late years. Parliament has given encouragement to the practice of seeking for variations from, or amendment of, the general law for the convenience of particular localities; and the experience thus gained has served, and may serve again, to lay the foundation of useful public Acts of general application. On the other hand, anomalies and irregularities have, undoubtedly, received the sanction without the full knowledge of Parliament; and the Committee think that such provisions, whether justifiable or otherwise, should not, as is too often the case, by the mere fact of being unopposed, escape the publicity which their importance demands. The Committee have dealt freely with the provisions of these Bills, whether opposed or unopposed, by way of amendment, and they recommend that some step should be taken by the House to secure more uniform and stringent supervision of the unopposed clauses in Private Bills. They have, at the same time, struck out a large number of clauses proposing to give powers which may already be obtained by means of by-laws under general Acts.

As to the notification of infectious disease, the Committee report themselves as having had "little difficulty in forming the opinion that the time has arrived when provisions of law on this subject may be sanctioned, at least, in the more important urban sanitary districts." The parliamentary paper recently prepared by the Local Government Board at the instance of the Committee, shows that in no fewer than twenty-three urban districts legislation on this subject has been embodied in private or local Acts, and that the experience thus gained, though in some cases only recent, is stated to have been uniformly satisfactory. Moreover, the Local Government Board, who are charged with the execution and supervision of the Public Health Act, have been parties to similar enactments in Provisional Order Bills passed by their authority through Parliament; notably in the case of the Manchester Provisional Order Act, 1878. The terms of this order have been followed in the clauses which the Committee have sanctioned for insertion in several of the Bills under notice; and they recommend that, in any future amendment of the Public Health Act, similar powers should be extended to all urban sanitary authorities, or, at least, that means should be devised for clothing them with such powers on application.

The clauses submitted to the Committee for the prevention of, or otherwise dealing with, infectious diseases, were to a less extent supported by precedent, were viewed with disfavour or with hesitating approval by the Local Government Board in their report on the several Bills, and were obviously, in many cases, premature, as the powers for providing hospital accommodation, and for the compilation of by-laws open to the promoting authorities under various Acts, had been inadequately used. Some of the powers sought appeared excessive and objectionable, others in conflict with the general law. The Committee seem on this ground to have been free in expunging clauses proposed by the several authorities, though they do not state to what extent their excisions have gone. The clauses which they have allowed to remain comprise (1) one requiring cowkeepers and milk-purveyors to furnish the local authority with lists of all their customers when it is certified by the medical officer of health, or another medical practitioner, that the spread of infectious disease is attributable to the milk supplied by such dealer; (2) giving further powers in relation to the disinfection of premises [see Clause O, referred to in the report of the Chairman of the Parliamentary Bills Committee of the Association, dated March 1st (vol. i, 1881, p. 377)]; (3) imposing a penalty on persons ceasing to occupy houses where infectious disease has occurred without previous disinfection or without giving notice to the owner, or making false answers as to the existence of such disease; (4) prohibiting the retention of the bodies of persons dead of infectious disease for more than forty-eight hours, except in a mortuary; (5) requiring that the body of a person dying of infectious disease in a hospital shall not be removed therefrom except for the purpose of being forthwith buried (Clause K of the report referred to, vol. i, 1881, p. 376); (6) empowering justices in certain cases to order dead bodies to be removed from houses to the public mortuary, and to be buried within a time limited in the order; (7) prohibiting the carriage of corpses in public conveyances other than a hearse, without informing the owner or driver (Clause L); (8) empowering the corporation to provide temporary shelter or house-accommodation for the members of any family in which infectious disease has appeared, and to provide nurses for attendance on persons suffering from such disease (Clauses B and C of the report of the Chairman of the Parliamentary Bills Committee).

As regards the proposed powers to local authorities to close schools, and to exclude scholars from schools during the prevalence of infectious disease, the Committee think that these, though plausibly urged, are objectionable and unnecessary: first, because the managers of public elementary schools (which form the vast majority of day schools within urban districts) ought to be held exclusively responsible for the exercise of a proper discretion on so important a matter; and, secondly, because the managers have been, recently, under the 18th Article of the new Code, expressly required by the Education Department (presumably as a condition of participation in the grant) to conform to any intimation they may receive from the sanitary authority in regard to the necessity of such closing or exclusion.

It will be obvious, from the above summary of their report, that the Committee have by no means exhausted the subject that was referred to them for consideration. They seem, indeed, to have been capricious and irrational in the clauses that they have accepted or rejected; and it is obvious that the question of the extension of our public health laws cannot be allowed to remain where they have left it. The best, and certainly the only satisfactory course, would seem to be for a Departmental Committee, or small Royal Commission, to inquire steadily and patiently into the reforms of these laws, which recent experience, or the expressed desires of local authorities, have shown to be desirable.

On the whole, the report is a disappointing one, touching only the fringes of a vast and important question, affecting most vitally the conservation of the public health. The local authorities concerned are not likely to be in the least satisfied with it; and assuredly it will not content those who looked, in the appointment of the Committee, for an augury of better appreciation and regulation of the hap-hazard legislation which is now springing up in every direction.

THE DANGER OF IODOFORM DRESSINGS.

THE search for an antiseptic body which shall be a powerful germicide, and yet not injurious when absorbed by the human organism, still continues. Not long ago, Mikulicz, and many other surgeons in Germany, enthusiastically extolled the merits of iodoform; and it has been widely used both in that country and, though to a less degree, in this. For a time, all seemed to promise well with the new drug, but gradually we began to learn its demerits; and recent experience seems to show that its use, under certain conditions, as yet not fully explained, may give rise to most serious, perhaps even to fatal results. Iodoform was introduced into England some years ago, as a local application which was of great use in the treatment of spreading ulceration, and especially of the local contagious ulcer. Gradually its use extended; it gained much favour with gynæcologists, especially for the purpose of correcting the fœtor of ulcerating cancer of the womb; it was blown into the nose and into the ear, and, made up into a bougie, introduced into the male urethra. About two years ago, Mikulicz recommended it as a dressing after operations, major and minor, on the ground that it was a powerful antiseptic, and yet did not irritate the parts. Its employment was said to be especially advantageous in the treatment of scrofulous joints; and those who adopted this line of treatment did not hesitate to open freely a knee-joint affected with tumor albus, and introduce iodoform in large quantities into the cavity of the joint; in such a case, an outside dressing of cotton-wool, treated with iodoform, was applied, and left undisturbed for a month or more. No great care seems to have been taken to estimate the quantity of the drug used in such a dressing; it was ladled out of a bottle into the joint, and no ill effects appeared to follow. Now, Dr. Ringer pointed out last summer that iodoform was a heart-poison; he found that one-fifth of a grain would almost arrest the frog's heart. Such an experiment as this prepared us for the clinical observations detailed by Dr. Max Schede of Hamburg, who, in an important paper, published recently in the *Centralblatt für Chirurgie*, drew attention to the toxic action of the drug. He found that, in certain cases, its use is followed by an enormous increase in the frequency of the pulse, which runs up to 180, even in the adult, without any marked rise of temperature, or any general symptoms beyond some disquietude, *malaise*, and loss of appetite; in other cases, in addition to the rapid and feeble pulse, there are some fever and headache; in both of these classes of cases, the withdrawal of the drug is immediately followed by a disappearance of the symptoms. In other cases, where the rapidity of the pulse is very great, and the temperature very high (104° Fahr., or more), the danger to the patient, in spite of the absence of marked general symptoms, is also greater—inasmuch as the withdrawal of the drug is not always followed by an immediate cessation of the symptoms. By far the most serious form that iodoform poisoning takes, however, is that in which the sensorium is deeply involved; in children, the symptoms closely resemble those of meningitis, and have been frequently rapidly fatal, in spite of the immediate withdrawal of the drug. The child, who may have been in excellent health for some weeks under the use of iodoform dressings, suddenly becomes very ill, the pulse grows rapid, with irregular or perhaps very slight pyrexia, vomiting is severe, consciousness is disturbed or lost, and there are localised paralyses. It has been urged that probably, in Schede's cases, these symptoms did in reality depend upon a rapid meningitis—perhaps of a tubercular nature, for the patients have generally been strumous children; but this we do not believe to be a complete explanation, because, among other reasons, we are acquainted with a case of this kind which recently occurred in a London hospital, where symptoms pointing, as it was thought, most unmistakably to meningitis, entirely disappeared when the affected joint was freed from iodoform. In Mr. Stanley Boyd's report of four cases, in the wards of University College Hospital, to be found at page 903 of our present number, drowsiness and stupor were observed in two patients, symptoms of meningitis in one, and delirium in a fourth, which ended fatally. Both Schede and Küster say that the drug can cause sudden collapse and death; but of this there does not appear at present to be sufficient proof.

Iodoform is an iodine-compound, chemically analogous to chloroform; its composition is represented by the formula $C H I_3$; it contains therefore 96.7 per cent. of iodine. From this fact, it has been argued by some, wise after the event, that its use in large quantities must be injurious; but, what do we know of the toxic properties of iodine itself? Very little, in fact. Iodine has been injected into the cavity of the pleura without ill effect, and, combined with potassium, enormous doses can be tolerated. Rather does the above account of the symptoms it can produce tend to approximate it somewhat to chloroform in its therapeutics; and he would be a bold man who would maintain that the symptoms of chloroform poisoning were due to the chlorine in its composition. A writer in the May number of the *London Medical Record*, to whom we are much indebted, adopts the view of Dr. Mundy of Vienna, who contends that the toxic or fatal symptoms have been due to the reckless manner in which large quantities of the drug have been used. No doubt, this is perfectly true; but it does not seem to explain all the phenomena. In the first place, it is comparatively rare to get any symptoms of poisoning at all. There are surgeons in this country, who have used the drug in large quantities at a time, and have never met with a single case of poisoning; and, in a great proportion of the cases reported, the symptoms did not appear until after the continuous use of the drug for two or three weeks. We are loth to fall back on Dr. Max Schede's theory of a peculiar idiosyncrasy; and, before doing so, we would certainly desire more complete observations, especially with regard to the urine. The supposed cumulative action of other drugs—of digitalis, for instance—has been distinctly traced to renal disturbances. So long as the kidneys discharge their functions vigorously, so long is the poisonous substance rapidly eliminated from the blood, and gives rise to no symptoms; but if, from some cause, the urinary excretion is checked, then the poisonous body accumulates in the blood, and gives rise to its characteristic symptoms. For this reason, we think that a careful examination of the urine, where iodoform is being used, may not only throw light on the way in which it produces toxic symptoms, but may also furnish a timely warning of their approach.

Lastly, we are informed that Professor Kocher of Berne has been struck by the resemblance between the symptoms of iodoform and of chloroform poisoning, and that he has encountered one case where the onset of the symptoms was marked by signs of acute nephritis.

M. MATHIAS DUVAL has been elected a member of the Paris Academy of Medicine.

THE Italian residents of New York have started a movement for the erection of a hospital on the site of Garibaldi's old residence in Staten Island.

WE are informed that between seventeen and eighteen thousand pounds have been received by the Secretary of the Hospital Sunday Fund. This amount is more than fifteen hundred pounds higher than that in hand at the corresponding date last year.

IN the reference in last week's JOURNAL (page 877, column 1) to the prize founded by Mr. Middlemore of Birmingham, the sum which he generously placed at the disposal of the Association was stated, by an accidental error, to be £300. The real amount was £500.

ACCORDING to the statistics communicated by M. Vergneaud, the First Secretary of the Prefecture of the Seine, at a recent meeting of the Paris Municipal Society, insanity increases in that city. In 1881, 2,836 patients were placed in asylums by the Government authorities; 902 were voluntarily placed by their families in private asylums. Thus the number of insane registered in Paris for the past year amounts to 3.738.

AMONG the fifteen newly elected Fellows of the Royal Society are Dr. George S. Brady, F.L.S., of Sunderland; Dr. George Buchanan, of London; Dr. Walter H. Gaskell: and Mr. Jonathan Hutchinson.

SMALL-POX has now nearly been stamped out in Bolton. In a recent report on the subject, Mr. Sergeant, the medical officer of the borough, mentions the case of a child who caught the infection by reading a letter sent through the post by a patient in the workhouse hospital.

WE understand that H.R.H. the Duke of Connaught has been obliged to seek relief from one of the attacks of spasmodic asthma, to which he is subject, in a sea-voyage. His Royal Highness will therefore be unable to distribute the prizes to the students of St. Thomas's Hospital, on Saturday next.

DR. RIEMBAULT, in a communication made to the Paris Academy of Medicine, states that he has made a series of researches with reference to "miners' anæmia", and he believes that this affection is due to the presence of a worm of the filaria species, and not to that of the *ankylostomum duodenale*, as asserted by M. Perroncito of Turin.

WE have to acknowledge the receipt of the following contributions to the fund which is being raised on behalf of the family of the late Sir John Rose Cormack: Dr. C. J. B. Williams, F.R.S., £10 10s.; Dr. W. Jelly (Madrid), £5; and Dr. G. T. B. Watters (Stonehouse, Gloucestershire), £1.

TYPHOID fever is reported to be very prevalent in Napier, New Zealand. A man and three of his family died, and, upon examination being made of the house, a pool of stagnant water was found beneath it. Several other deaths have occurred in the town; and, within one week, three travellers, one after the other, caught the infection and died.

SMALL-POX still prevails at Wednesbury. At the last meeting of the sanitary authority, it was reported that, during the past fortnight, there had been thirty-three cases of the disease, four of which had proved fatal. It was resolved to urge revaccination, and to extensively carry out disinfection. Small-pox has also broken out in some of the adjoining parishes, where special efforts are being made to prevent the spread of the infection.

A MEETING of medical students from the various hospitals was held at Anderton's Hotel, Fleet Street, on Saturday, June 3rd, when it was decided to form a medical students' club. It was also resolved to hold meetings at each hospital during the ensuing week, and the names of gentlemen who kindly undertook to conduct these meetings were taken. After an animated discussion, the meeting closed with votes of thanks to the president and officers.

AT a recent meeting of the Norwich Medico-Chirurgical Society held at the Norfolk and Norwich Hospital, Mr. Watson Cheyne gave a demonstration on the recent discoveries of bacilli in tubercle and of other new forms of allied micro-organisms, by means of the microscope and the magic lantern. There was a very large attendance of members of the profession from Norwich, Norfolk, and the adjacent counties.

ON the 23rd of last April, the King of Spain, accompanied by several Ministers of State, inaugurated the new Society of Hygiene in Madrid. Simultaneously the first number of the Society's Journal, the *Boletin de Higiene*, appeared. The object of the journal, as its name imports, is to keep its readers well abreast of all that is newest and most valuable in Sanitary Science. The first number is well printed on good paper, and contains interesting articles on the best methods of dealing with epidemics, and of checking adulteration of food.

ATTENTION has been called in the House of Commons to the unsanitary condition of certain dwellings adjacent to the casual wards of the City of London Union, in Robin Hood Court, Shoe Lane. Dr. Saunders, the medical officer, in a recent report, stated that there had been an outbreak of diphtheria and fever, both among the inhabitants and the casuals, and many instances of overcrowding and filth; while children had died from blood-poisoning. In the seven houses situated in the court, there were sixty rooms, which were occupied by 200 persons. It is, we think, high time that the following recommendations of the medical officer should be carried out; that steps be taken either to improve the premises, or to have them demolished; that the board of guardians provide other shelter for their casuals; and that, in view of the coming summer, all the courts and alleys of the city should be cleansed and lime-washed, and flushed regularly from time to time.

THE BROCA SUBSCRIPTION.

THE sum subscribed to defray the expenses of a monument in honour of the late Paul Broca amounts to 22,449 francs (upwards of £897 sterling).

THE MEDICAL DEFENCE ASSOCIATION.

WE are requested to state that, at the meeting of the Medical Defence Association, to be held on Wednesday afternoon next, at the rooms of the Medical Society of London, a resolution will be proposed, calling upon the General Medical Council to take some action, with a view to put a stop to the discreditable practices in connection with the management of so-called "provident dispensaries", to which the attention of the House of Commons was called on Monday evening last.

OMNIVOROUS ECCENTRICITIES.

WE were last week favoured by Mr. Benthall of Derby, with the report of a case treated at the Derby Infirmary. It was that of a man who swallowed some coins in an attempt to secrete them in his pharynx. We were then unable to state the result of the case. It may now interest some of our readers to know that the patient went to the infirmary on the morning of the 6th of June, and produced four pennies and a half-penny, which he stated he had passed in one motion the day before. The coins were much blackened by their sojourn of three weeks in the alimentary canal.

THE HAMPSTEAD SMALL-POX HOSPITAL.

AT the last ordinary meeting of the managers of the Metropolitan Asylums district, Mr. E. H. Galsworthy, the chairman, officially communicated to them the result of the judgment of the House of Lords with respect to the Hampstead Small-pox Hospital. He said that while they would take no steps for a new trial, if another action was brought against them, most certainly they would defend themselves; and the promoters of any new proceedings would find the managers determined to fight upon very different lines and in a totally different manner from that with which they met the original action against them.

MIDWIFERY AT THE PARIS HOSPITALS.

THE reform so long needed, of placing the lying-in wards of the Paris general hospitals under the charge of obstetric physicians, is now fairly started. At the *concours* for appointments of obstetric physicians to four of the general hospitals, the successful candidates were 1. M. Budin, 2. M. Porak, 3. M. Pinard, 4. M. Ribemont. All four are well known, personally and by their writings, to obstetricians in this country. There will shortly be a fresh *concours* to fill the appointments to be made at the other hospitals. At each of the Paris hospitals, the out-door patients are attended by midwives, who will now be under the supervision of the obstetric physician. The municipality of Paris is to be congratulated on having achieved so useful and necessary a reform.

THE ROYAL COLLEGE OF PHYSICIANS.

THE President and Council gave a brilliant and successful *conversazione* at the College in Pall Mall, on Wednesday last. His Royal Highness the Prince of Wales, who had, in the earlier part of the evening, been presiding at a dinner in favour of the funds of the London Fever Hospital, arrived soon after eleven o'clock, and was received and conducted through the various rooms of the College by the President and Censors. Later in the evening, H.R.H. the Duke of Albany arrived, and was received by the President and Censors. Among the more interesting works of art lent for the occasion by Fellows of the College, were a fine bronze group of pheasants by Cain, lent by Dr. Quain; some fine wedgwood, lent by Dr. Braxton Hicks; and portraits of Professor Donders and Mr. Bowman, lent by Mr. Bowman, F.R.S. Dr. Heron showed some bacilli of tubercle, and Professor Tyndall demonstrated some experiments on acoustical interference and reflection and on some phenomena of colour.

COMPULSORY NOTIFICATION OF INFECTIOUS DISEASE.

A PETITION has been signed by 248 of the medical practitioners of Liverpool and its neighbourhood, and presented to the House of Commons by Mr. Whitley, M.P. The petitioners regard the proposal to compel medical men without discretion to report cases of infectious disease to the sanitary authorities, as an unwise interference with their relations to their patients. They believe that the dread of notification by them is likely often to lead to such an amount of concealment as may cause disease to spread, owing to the absence of precautions which they always adopt. They are convinced that concealment does exist in towns where the compulsory notification of infectious diseases by medical men is the law, and that such towns show no greater sanitary progress than those not under such law.—The Birmingham Town Council have resolved to petition Parliament in favour of the Compulsory Notification of Infectious Diseases Bill.

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS.

THERE are no fresh candidates for the coming election of members of the Council, and it appears to be the general impression that the three retiring members will be re-elected. The claims of Mr. Marshall and Mr. Power are universally recognised; Mr. Alfred Baker, the second of the candidates in seniority, will, we believe, be strongly supported by provincial Fellows, and he has well deserved their support, through his high reputation as a surgeon, and the interest which he has taken in the welfare of the profession. Our associates will remember that Mr. Baker, in 1872, filled the office of President of the British Medical Association, and, since that time, has taken an active part in the management of its affairs.

THE ASSAULT ON DR. ORANGE.

THE following is a brief account of the recent assault on Dr. Orange, at the Broadmoor Asylum, by the Rev. H. J. Dodwell. It appears that Mr. Dodwell preferred a request to consult Dr. Orange, with reference to a letter which he stated that he wished to write to a brother who is resident abroad; and whilst Dr. Orange, in compliance with this request, was seated in a chair, and was engaged in looking over the papers which Mr. Dodwell had asked him to read, Mr. Dodwell, who was standing by his side, suddenly, and without a word of warning, dealt him a heavy blow on the crown of the head with a stone weighing more than a pound, slung in a handkerchief. Happily, Dr. Orange, although somewhat stunned, was able to hold his assailant, and prevent him from inflicting any further injury, until he was secured by the attendants. The motive which prompted this act appears to have been of precisely the same character as that which instigated the assault upon the Master of the Rolls. Mr. Dodwell states that, more than a year ago, he had made up his mind that, as the firing of a pistol, not loaded with ball, at the Master of the Rolls, had not proved to be sufficient to obtain for him what he imagined was justice, he should be forced to commit some still more serious act; and he came to the conclusion that nothing less than the taking of life would be sufficient to call attention to the conspiracy of which he insanely imagines himself the victim. Dr. Orange, we are pleased to hear, is going on favourably, although he is still confined to his bed. He is under the care of Dr. Bastian of University College Hospital (a former colleague), and Dr. Nicolson and Dr. Isaac (his present colleagues), who insist upon absolute quietude for the present. Although the blow was a heavy one, happily no complications have arisen, and the effects of the shock are steadily subsiding.

MR. CECIL LAWSON.

WE have to record with great regret the death of that promising artist, Mr. Cecil Lawson. The following are a few authentic particulars of the circumstances which led to that unhappy event. Mr. Cecil Lawson, who had previously been much out of health, was attacked about a month ago with intense suppurative catarrh of the nares, fauces, larynx, and bronchi. Lobular pneumonia speedily appeared, affecting chiefly the left lung. The whole illness presenting strong indications of a septic origin, and the sanitary condition of the house he was then occupying being more than doubtful, Mr. Lawson was removed to another house, where for a time his general condition seemed more favourable; but the consolidation increased in the upper part of the left lung, and presently the signs of cavity were recognised on the anterior aspect of the lower part of the upper lobe. The cavity appeared to increase rapidly day by day till, on the day before his death, it was evident that pneumothorax had occurred, no doubt through giving way of the wall of the cavity. After this, he sank rapidly. He was under the care of Dr. Daniell of South Kensington. In the earlier part of the illness, Dr. Ord saw him several times in consultation with Dr. Daniell; and, on the day before his death, when the signs of pneumothorax were first noted, Dr. Andrew Clark met Dr. Ord, Mr. Reeves, Dr. Baines, and Dr. Daniell in consultation.

PRESCRIBING BY DRUGGISTS.

A FATAL case, resulting from this too common practice, has recently been under the investigation of Mr. Vaughan, Coroner for Devonport. An infant about a fortnight old, named Sydney James Percy, son of a dockyard-labourer, having a cough, was taken to a druggist, and had some medicine which he prescribed, from Friday until the following Monday, when the child died. After death, the body was seen by Mr. De La Rue, surgeon; but no necropsy appears to have been made. At the inquest, Mr. De La Rue gave it as his opinion that death had resulted from natural causes; but what these were he did not state. He had examined the residue of the medicine (and also questioned the druggist), and he believed it consisted of ipecacuanha wine and syrup of squills. There was no opium nor any preparation of opium in it. The coroner very properly pointed out that it was not a question altogether as to whether the medicine given had killed the child, but whether or not giving it the proper thing at the proper time might not have saved the child's life; and the jury, in returning a verdict in accordance with the medical evidence, entirely endorsed this view of the case. We think it is very desirable that such cases should be fully investigated by means of *post mortem* examinations, as it is only in this way that the public can ever be brought to understand the risks attendant on their so-called treatment by prescribing druggists.

THE LONDON FEVER HOSPITAL.

ON Wednesday last, H.R.H. the Prince of Wales presided, at Willis's Rooms, at a festival dinner in aid of the funds of this hospital. In proposing the toast of the evening, His Royal Highness dwelt upon the great and especial value of the hospital. He stated that last year 667 cases of scarlet fever, 120 of typhoid, 5 of typhus, 56 of measles, and 10 of diphtheria, were treated in the hospital. He said it is the only hospital in the metropolis where persons who were not paupers, suffering from infectious fevers, were admitted. Since the hospital began its work, 492 doctors and nurses had contracted fever, and 83 of them died. There had been 33 resident medical officers, of whom 22

caught the fever, and of whom 8 had died. This proved how steadily they had kept to their work. He regretted that the invested capital of the hospital was rapidly diminishing. The amount sold out in 1881 to meet the expenses was £4,600, leaving a balance of only £6,000. In asking the numerous visitors to drink "Success to the London Fever Hospital", he hoped they would do their utmost to contribute to one of the most excellent and most necessary hospitals that exist. The toast was coupled with the name of Dr. Cayley, senior physician to the hospital. Dr. Cayley, in replying, expressed a most earnest hope that ere long the committee of the hospital would be enabled so to enlarge and build, that they would be able to receive and treat cases of fever in all classes of society. This was a pressing want, which, he trusted, would shortly be supplied. Among the guests were the Earl of Devon, the Bishop of London, Cardinal Manning, Mr. Mitchell Henry, M.P., Dr. Broadbent (consulting physician to the hospital), Dr. Mahomed (physician to the hospital), and a numerous company. Before adjourning, a list of donations and subscriptions was read, amounting to £4,278, including 100 guineas from H.R.H. the Prince of Wales and 50 guineas from Her Majesty the Queen.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE last meeting of this Society for the session was held on Tuesday evening, when three interesting papers were read. The first contained the results of a series of experiments, made last winter, by Dr. Sydney Ringer and Dr. Harrington Sainsbury, with the object of comparing the action of salts of soda, ammonia, and potash. The experiments were made on the ventricle of the frog's heart, which was supplied with a solution of dried bullock's blood, mixed with a solution of the salt whose action was to be tested. The drugs were tested as to their influence on the spontaneous working of the heart (contractility), and as to the influence in modifying the effect of continuous faradisation (excitability). Briefly stated, the results were that potassium salts exercised the greatest influence, reducing powerfully both excitability and contractility; ammonium salts came next, affecting contractility to a great extent, while having but little influence on excitability; and, lastly, at a wide interval, came sodium-salts, which affected excitability slightly, while contractility chiefly escaped. The next paper was one by Sir James Paget, in which he recorded seven cases of that peculiar morbid condition described by him, some years ago, as osteitis deformans. Lastly, Mr. Davies-Colley described two cases of malignant pustule, which had been successfully treated, at Guy's Hospital, by free incision of the eschar, and cauterisation. Appended was a tabular statement of seventen cases admitted into Guy's Hospital, during the last nine years, in fifteen of which excision was performed with a large amount of success.

THE DEBATE AT THE OPHTHALMOLOGICAL SOCIETY.

ON Thursday and Friday, June 9th and 10th, the members of the Ophthalmological Society met to discuss the subject of sclerotomy. The attendance on the first evening was very numerous, and the discussion has resulted in bringing together a larger body of statistics and experience than has ever before been attempted. That it has contributed much towards settling the many vexed questions propounded may be doubted, but it has put them in a better way to be solved, and has brought the whole subject more prominently before the profession. There were not wanting speakers to advocate the operation in every form of glaucoma, though each speaker made certain more or less large, and generally different, limitations. Several members argued from anatomical and physiological grounds t hat sclerotomy and iridectomy were in their essential nature the same; that the latter operation was, in fact, sclerotomy *plus* the excision of a portion of iris. Glaucoma, they contended, and the opinion seems now to be generally accepted, was due to the increase of intra-ocular tension, caused by closure of the angle of the anterior chamber; this led to blocking of the channels by which fluid was normally drained away; an incision of the corneo-scleral tissue in the region of the angle gave relief, partly by removing the existing excess of fluid, and partly by opening up the angle. Sclerotomy undoubtedly fulfils the first of these conditions, but many seemed to doubt whether it could accomplish the latter; if it cannot, then it must not be trusted to work a permanent cure, for the theory that the scar itself left after a sclerotomy, done as recommended by M. de Wecker, is to any special extent permeable, seems extremely doubtful.

EHRLICH'S METHOD OF STAINING TUBERCLE-BACILLI.

THIS method is a great improvement over Koch's original method, in that the bacilli are much more brilliantly stained and easily found; and it also takes a much shorter time, the whole process requiring only from half an hour to an hour. Ehrlich has employed it chiefly in the examination of sputa; and it has now been adopted by Dr. Koch, in preference to his own method. The sputum is spread in a thin layer on a cover glass, and dried. In order to fix the albumen, the cover glasses are kept at a temperature of 100° to 110° Cent. (212° to 230° Fahr.) for an hour; or, in practice, it is sufficient to pass them three or four times through a gas flame. The staining solution is prepared as follows. About 5 cubic centimètres of pure aniline are added to 100 cubic centimètres of distilled water, well shaken, and then filtered through a moistened filter. To this mixture, a saturated alcoholic solution of fuchsine, methyl-violet, or gentian-violet, is added till precipitation commences. The cover-glass is allowed to float on this, with the side on which the sputum has been spread directed downwards, for a quarter to half an hour. It is then washed for a few seconds in a strong solution of nitric acid (one part of commercial nitric acid to two parts of distilled water), and afterwards in distilled water. In this way, the stain is extracted from everything but the tubercle-bacilli. The ground substance may be stained brown (if the bacilli have been stained violet), or blue (if the bacilli have been stained red), by way of contrast to the bacilli. It is interesting to hear that, in Berlin, the examination of sputum for these bacilli is now generally employed, as a means of diagnosing tuberculous affections of the lung from others: for the bacilli are constantly present in the sputa in cases of tubercle.

GARIBALDI.

THE death of Garibaldi, the funeral ceremonies at Caprera, and the honours which await his memory, continue to be the all-absorbing topics of conversation, not only in Rome but throughout Italy. The impression caused by the unexpected news of his death fully equalled that which the nation manifested for the loss of Victor Emmanuel. The Italians are true hero-worshippers and never try to hide the emotions, which might possibly be felt as deeply, but would certainly not be shown as openly, by us at great national bereavements. For the last ten years nearly, the hero of the Italian nation has been a helpless cripple from rheumatism and rheumatoid arthritis, caused by the innumerable hardships and great exposure attendant on his adventurous and glorious campaigns. As long ago as 1875 it was almost impossible for him to walk, and the succeeding years only aggravated his state. When he crossed to Genoa and Milan, rather more than a year ago, he was always carried about recumbent, and was scarcely able even to raise a hand to salute the applauding crowds. His island home could not improve such a condition, and it is known that he suffered much pain. During the last winter, he had been greatly troubled with bronchitis; and, though the trip to Naples and residence at Pozzuoli were of service to him, and enabled him to go to Palermo to the celebration of the Sicilian Vespers, it was noticed that his strength had greatly failed. Not long after his return to Caprera, the bronchitis became worse again; his appetite entirely failed; and it was said that he was unable to swallow fluids even for three days before his death. Indeed, the medical certificate signed by Dr. Albanese stated that the cause of death was paralysis of the pharynx! No necropsy seems to have been made. The family, yielding to the desire of many friends, reluctantly gave up the idea of cremating the body, as directed by himself; they had it embalmed, and have buried it in the meantime at Caprera, until the representatives of the nation settle where its final resting-place shall

be. Owing to the very natural hesitation of the family before finally deciding not to obey the expressed wish of Garibaldi, the embalming was too long deferred, and did not prove a success. Nothing, however, can justify the nauseating details as to the appearance of the body when lying in state, which several Italian newspapers have published.

DARENTH SCHOOLS AND ASYLUM FOR IMBECILES.

ON Saturday, June 3rd, the fourth annual inspection of this institution was conducted by the managers of the Metropolitan District Asylums, accompanied by Dr. R. Thorne Thorne, medical inspector of the Local Government Board, and a number of visitors interested in psychology and in Poor-law administration. The company were received early in the afternoon by Sir Edmund Hay Currie, chairman of the Darenth Committee of Management and vice-chairman of the Asylums Board; by Dr. T. B. Dyer, medical superintendent of the asylum; Dr. Fletcher Beach, medical superintendent of the schools; Mr. Gower, steward to the asylum; Mrs. Gower, matron to the asylum; and Miss Wright, matron to the schools. The asylum, first inspected by the company, consists of a new row of buildings on the block system, erected, as Sir E. Currie explained, for the reception of imbeciles brought up, when children, in the schools, but found, on reaching puberty, to exhibit no signs of improvement. The separation of such cases from younger and more hopeful patients is obviously imperative. Eighty boys had already been transferred to this new building. One block of the Adult Asylum is already tenanted; in this block, the day-room and the two dormitories in the first and second floor above it are 78 feet in length by 36 in width. The lower dormitory is 12 feet 2 inches high, the upper being 2 inches lower; each contains 60 beds; the day-room is 13½ feet in height, and constructed to accommodate comfortably all the patients from both dormitories. There were 480 children in the schools, and the new asylum buildings contained room for 900, in accordance with recently increased necessities for accommodating imbeciles in this institution. Although this would give a total of 1,380 patients, the further extension of the schools and asylum is contemplated. The children in the schools went through various scholastic exercises before the managers. The sanitary arrangements were found to be in the highest degree satisfactory, and the medical visitors were shown special cases of interest by Drs. Dyer and Beach. Amongst these were two patients subject to sporadic cretinism—one male and one female, not related. In both, the physiognomy was highly characteristic, and the thyroid gland appeared to be absent, whilst the characteristic fatty swelling of the neck could be observed. Before leaving the institution, the farm was inspected by the visitors.

INOCULATION OF LEPROSY.

A RECENT number of Virchow's *Archiv* (vol. lxxxviii, 1882) contains an account, by Professor Köbner of Berlin, of attempts to inoculate leprosy on animals. Although the results were negative, the experiments are of considerable interest. Professor Köbner confirms fully the observations of Hansen, Neisser, and others, in reference to the bacillus of leprosy. He not only found the organism in fresh juice from the tubercles, but found it in preparations which had been many years in alcohol, and still more easily in dried portions of leprosy-tissue which had been kept folded in paper for an equally long time; so much so, that he recommends travellers in countries in which leprosy is common to preserve the tissues in a dried state, in so far as they wish to keep them for subsequent examination in reference to the bacillus. A tubercle was excised from the thigh of a patient, a German, of healthy family, who had contracted the disease during an eleven years' residence in Pernambuco. Inoculations with the juice and with small portions of the excised tissue were made on a monkey, two guinea-pigs, two young rats, a white mouse, two rabbits, a pigeon, three eels, a mud fish, and a frog. The monkey died 126 days afterwards of tuberculosis, but no leprosy-tissue was found, any more than in any other of the inoculated animals. One of the rabbits died on the fifty-sixth day, the other was killed after five months and a half. The inoculations in the case of those animals had been made by inserting small pieces of leprosy-tissue into the anterior chamber of the eye. Those portions of tissue remained visible, and gave rise to no inflammatory symptoms. After being 56 days immersed in aqueous humour the leprosy bacilli were well preserved and easily demonstrated, but they had not grown into the tissues of the iris or cornea. In preparations of dried blood, prepared by Ehrlich's method, Professor Köbner demonstrated that the bacilli are present in the circulating fluid. So far from considering the results of his negative experiments as conclusive, Professor Köbner refers to the time that elapsed before tuberculosis, recurrent fever, and septicæmia were successfully inoculated on animals. Further experiments of the kind are certainly desirable, and the attention of medical men practising in countries in which leprosy is common may be advantageously directed to this question.

THE MEDICAL CONGRESS AT SEVILLE.

A MEDICAL Congress was held in April at Seville. The foreign representatives in medicine were confined to French and Italian, Englishmen and Germans being absent. The general arrangements of the Congress very much resembled those of the annual meetings of the British Medical Association. Work was judiciously mingled with pleasure, and, whilst the mornings were devoted to science, the afternoons were consecrated to drives and excursions in the neighbourhood or in the town itself. The first day's proceedings were chiefly routine, and consisted in the reading by the Secretary, Dr. Madera, of various letters and communications from foreign societies. One of the papers read in the first sitting was from Dr. Arthur, of Edinburgh, who laid before the Congress the description of an antiseptic naso-oral respirator. Señor Ariza, of Madrid, however, took exception to this, holding that the paper and the instrument were not purely scientific, but rather of the nature of advertisements. Messrs. Colin, of Paris, exhibited some very beautiful and novel surgical instruments, on the merits of some of which a special commission was appointed to report. The Congress met, as a rule, at 8.30 every morning, and separated about midday for the various excursions that had been placed on the programme. One of these was to the Provincial Hospital of San Lazaro. This Hospital contains 200 beds, and from an English point of view, at any rate, leaves much to be desired in the way of cleanliness and ventilation. One of the most interesting discussions was that on the treatment of tonsillitis. Dr. Moresco advocated in hypertrophy of the tonsils the injection of acetic acid with a Pravaz's syringe. He exhibited a syringe constructed especially for the purpose, and so arranged that the needle could only penetrate a certain distance. Dr. Sota considered that no treatment could be much more satisfactory than that by the tonsillotome, except, perhaps, in cases where a calculus existed. He exhibited such a calculus, measuring five millimètres in diameter, removed from a patient. A discussion took place on the curative effects of the nitrogenous spas of Spain in cases of phthisis, in which there was a wide divergence of opinion among many of the members. The Congress terminated by a banquet to 150 of the visitors and members. The proceedings, which throughout were well managed, were brought to a close amid general expressions of satisfaction, and a vote of thanks to the authorities of Seville who had helped so much to make the Congress a success.

THE MEDICAL SERVICE OF BRITISH GUIANA.

ON a former occasion, we felt it our duty to take notice of the unsatisfactory relations existing between the Government of British Guiana and its medical servants, and to advise young medical men to think more than once before committing themselves to a career in that country. From information that has reached us, matters do not appear to have mended much since we wrote on the subject. We are far from asserting that the executive authorities of the colony are entirely to blame for this unhappy want of harmony; it is quite possible that there are faults on both sides, as in most cases of the kind: acts, it may be, of indiscretion on the part of a few, visited on the many by

acts of unjust and harsh repressions. This at least is the impression left on our minds, by careful consideration of such facts as have come to our knowledge. The Lieutenant-Governor is said to be engaged in the preparation of a new scheme, intended to restore peace and confidence; this in itself is an acknowledgment that the old system, so fruitful in disputes, heartburnings and discontent, stood in need of revision; and we can only join in the hope expressed by the local press, "that the position and emoluments of the medical service will be so amended as to attract young members of the profession of good status," and that the Government of the Colony, taught wisdom by past experience, will learn to treat them in a more liberal and becoming spirit. A return moved for by a member of the Court of Policy has reached us, which it would appear the executive kept back as long as possible, and did their utmost to keep within the narrowest official limits. This document points neither to the popularity nor the longevity of the Government Medical Service of British Guiana. In 1873 there were 25 medical officers, of whom only 9 remain, one of whom is from illness incapable of serving. Nine out of the 25 died, a heavy mortality; 3 resigned, 2 were dismissed, and 1 retired. Another tabular statement shows that out of fifteen medical men "appointed to districts" between 1873 and 1881 only 9 remain, 3 having died and 3 resigned. The table of supernumeraries from the summer period, shows that out of a strength of 21 only 8 remain. This is not a cheerful or encouraging record, and we agree with the writer in the *Colonist*, who publishes it, "that considerable attractions must be offered before the service can become popular with good men."

POST MORTEM EXAMINATIONS IN HOSPITALS.

MR. FLOWERS, the magistrate at Bow Street Police Court, gave his decision on June 2nd in a case in which a summons had been granted against Dr. Angel Money, Medical Registrar of the Hospital for Sick Children, Great Ormond Street, who had performed a *post mortem* examination on the body of a young child, who died two or three hours after admission into the hospital. The mother, who was a laundress in the Temple, was aware of her child's death in a few hours, that is, on the day before the necropsy was held; she was not asked to permit an examination, and had expressed no desire that it should not be made, but felt herself aggrieved that it should have been performed. The case was taken up by the Vigilance Committee, who thought fit to proceed against Dr. Money, who merely acted in the discharge of his ordinary duties to the hospital, by indictment, and asked Mr. Flowers to commit Dr. Money for trial on the charge of offering an indignity to a human body. The question for decision was, in a few words, whether making a *post mortem* examination could be considered to be offering an indignity to a human body. Mr. Flowers, in his decision, said that he did not consider that the Anatomy Act applied to this case at all. In the case of Regina *v.* Feist, Lord Chief Baron Pollock had held that there was nothing wrong, or against good feeling, in making a properly conducted *post mortem* examination on a human body: in the paragraph in the draft of the proposed Criminal Code, declaratory of the Common Law in offences connected with the human body, the offence aimed at seemed to be the withdrawing the body from the rites of Christian burial. In this case, the examination had been conducted in a proper manner, and the operator was not liable to indictment. The summons was therefore dismissed. This decision seems to us to be the only one at which the magistrate could possibly have arrived, and we are not surprised that Mr. Flowers should have felt some doubt whether he had acted wisely in ever granting the summons. Mr. Flowers added a rider to his decision, in which he expressed regret that the complainant had not been consulted before the examination was made, as he thought that the prejudice against such examinations would be lessened by acting in that manner. No doubt it is most desirable that this prejudice should be diminished, but we doubt whether such an utterance from the judicial bench will tend towards its diminution. The intention of the drafters of the Criminal Code seems distinctly to us to be to endeavour to prevent any increase of this prejudice, and the penalties suggested are directed, not against persons who perform a proper scientific *post mortem* examination, but against those who would offer wanton indignities to a dead body, or interfere with the right of Christian burial. It is manifestly to the advantage of the community that, in the interests of Medical Science, *post mortem* examinations should be made; and we sincerely trust that the hysterical ignorance which at present animates certain persons to seek by all the arts of the agitator the total abolition and entire suppression of vivisection, so-called, may not lead to an attempt to stir up among the poorer classes a stronger feeling against the proper performance of *post mortem* examinations. Such an agitation would be in every way most unfortunate, and would almost make us despair for the future of medicine as a science in England. We have confidence, however, in the common sense of the people in this country to perceive that the present excellence and the future progress of medical practice and teaching, and, therefore, to no inconsiderable extent, the happiness and welfare of the nation, are involved in this question.

OPENING OF THE NEW WING OF THE HOSPITAL FOR CONSUMPTION, BROMPTON.

THE new wing of the Hospital for Consumption, Brompton, is now out of the builders' hands, and so nearly in complete working order, that it is hoped that one half of the patients in the old hospital may be moved into it in the course of a very short time; the wards and galleries thus left empty will be submitted to a thorough cleansing and reparation. On Tuesday, June 13th, the Earl of Derby, who is President of the Hospital, formally opened the new building. In the course of his speech on this occasion, he referred to the financial position of the charity, which can hardly be regarded as satisfactory; the whole of the large legacy received some years ago "has been," according to the speaker, "spent on this extension, and more," so that the hospital, with a diminished capital, and an annual expenditure increased by about £10,000, now appeals with greater vehemence to the charity of the general public. Lord Derby confessed that one of the weakest points in the present status of the London hospitals was, that they did not provide for that large class which, while it could not afford to pay for the highest professional skill, nevertheless rejected and repudiated the notion of merely eleemosynary aid. That was a question to which public attention was being increasingly turned; and he did not doubt that in a few years the result would be visible. The problem was a hard one to solve; for what was required was that the help given should at the same time be systematic and sympathetic; that there should be, on the one hand, no waste of funds from want of union and co-operation between institutions engaged in doing similar work, and that, on the other hand, in endeavouring to establish order and method, that general and direct interest in each institution, which is the source of its support, should not be destroyed. More than this, there was the difficulty to meet which confronted nearly all charitable undertakings—how to relieve suffering promptly and efficaciously without putting a premium on improvidence, and without encouraging those who could help themselves to look for help to their neighbours. It was no easy problem to solve—probably an entirely satisfactory solution of it was not within our reach; and we must be contented, as in many other human affairs, with a more or less imperfect makeshift. Lord Derby impressed upon his hearers that the benefits conferred by a hospital were not to be measured only by the number of cures, or alleviations of sufferings which it brought about; the accumulation of scientific knowledge by observations made within its walls, gave ground for hope of a progress which should be practically unbounded, each step gained being secured to mankind for ever. A religious ceremony was conducted by the Bishop of London, and at its close, after singing the National Anthem to the accompaniment of Mr. Dan Godfrey's band, the visitors proceeded to inspect the new building. The ground-floor is devoted, in about equal parts, to the requirements of the out-patient department, and of the administrative staff, but contains a long room, provided with gallery and stage, for holding the "entertainments"

which are given to the patients, at short intervals, during the winter and spring. The mazarin floor contains accommodation for the nursing staff. The first and second floors contain the wards, which open off a long gallery running along the front of the building. At the centre of each gallery, there is a short transept, which makes a handsome dining-hall. The general arrangement of the wards and galleries, which was found to work well in the old building, is thus reproduced in the new. The third and highest story is occupied by the kitchens, which communicate with the gallery by two small lifts. There is also a large lift for patients and heavy goods, which runs from the basement upward to each floor. Hot and cold water are laid on throughout the building, and each gallery is also provided with taps of filtered water from a special cistern-filter. On Wednesday evening, the lady-superintendent and resident medical staff entertained a party of friends at a *soirée dansante* in the "entertainment-room", which is well adapted for such a purpose.

SCOTLAND.

PROPOSED CONSUMPTIVE HOSPITAL FOR ABERDEEN.

THE trustees of Mrs. Allan have offered a sum of £2,000 for the establishment of a hospital for consumptive cases in Aberdeen. The managers of the infirmary remitted the matter to a committee, who obtained the opinions of the members of the medical and surgical staff regarding the proposal. The balance of opinion seemed to be in favour of instituting such a hospital. Ultimately it was agreed to consider as to the expediency of altering the older portions of the infirmary buildings, with the aim of forming them into wards, or a hospital for "chest disease."

ADULTERATION OF MILK IN GLASGOW.

FOR some time the authorities in Glasgow and elsewhere have experienced considerable difficulty in obtaining a conviction in cases of milk adulteration. This has been due in a great measure to the interpretation put upon the words of the Adulteration Act by the local magistrates. With a view of remedying this uncertain state of the law, the Glasgow sanitary authorities recently carried a case to the higher courts for their opinion in the matter, when a decision was given in favour of the view which has been held all along by the authorities as the only reasonable interpretation of the Act, namely that the putting of water into milk meant adulteration. The effect of this decision will probably be that convictions will now be got in this important class of cases, where they could not be got before, and our sanitary authorities are to be congratulated on the action they have taken in the matter.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending June 3rd, it appears that the death-rate in the eight principal towns during the week was 22.9 per 1,000 of estimated population. This rate is 2.3 above that for the corresponding week of last year, and 0.3 above that for the previous week of the present year. The lowest mortality was recorded in Dundee, viz., 15.0 per 1,000; and the highest in Greenock, viz., 30.4 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 3.6 per 1,000, or 0.3 above the rate for the previous week. Whooping-cough continues to be the most fatal epidemic in Glasgow. Of the 11 deaths from fever in Edinburgh, 10 were attributed to typhoid. Acute diseases of the chest caused 125 deaths, or 7 more than the number registered during the previous week. The mean temperature was 55.4°, being 2.3° above that of the week immediately preceding, but 4.7° below that of the corresponding week of last year.

THE TEACHING OF DEAF-MUTES.

AN interesting lecture was recently delivered at Greenock by Professor Graham Bell, the inventor of the telephone, on the teaching of deaf-mutes, when he gave an exposition of the "lip system" of teaching, with suggestions as to how it should be carried out. He considered that the day school established in the Greenock academy was to his mind the ideal school for the deaf and dumb, the deaf children being together in small numbers among large numbers of children, with full power of hearing. Professor Bell also pointed out that he thought it was the duty of school boards to assist parents who might be in poor circumstances to educate their deaf children. At the close of the lecture, which was listened to with much attention, four girls who had been taught in the academy were brought forward and examined, the results being of a most gratifying and successful character.

HEALTH OF GLASGOW.

THE report of the medical officer of health for the fortnight ending May 27th, states there were 533 deaths registered, representing a death-rate of 27 per 1,000 living. In the corresponding fortnight of last year the weather was warmer, more equable in temperature and wetter. The death-rate was 23, or 4 per 1,000 less, a difference almost wholly arising from the greater fatality of pulmonary diseases this year. There were 138 such deaths in the corresponding period last year, against 201 this year—an increase of 46 per cent. There were six deaths from fever, all being enteric. The number of deaths from infectious diseases of children was 38, viz., 27 from whooping-cough, 9 from measles, and 2 from scarlet fever. It would appear, therefore, that while infectious diseases are remarkably in abeyance as causes of death, pulmonary diseases have not been so fatal since April of last year. The number of deaths so classified during the last fortnight considerably exceeds those of any fortnightly period this year. The number of cases of fever registered was 32, viz., 27 of enteric fever, 1 of typhus, and 4 undefined. There were also 78 cases of whooping-cough, 68 of measles, 25 of scarlet fever, and 7 of diphtheria registered, of which 12 were removed to hospital, and the remainder kept under supervision at home.

THE NEW GLASGOW DISTRICT ASYLUM.

THE proposal of the Glasgow District Board of Lunacy to establish their new asylum near to Carnwath, about thirty-six miles from Glasgow, is meeting with a good deal of opposition. The City Parochial Board, at their recent meeting, passed resolutions condemning the proposed site, on the grounds that the distance from Glasgow added to the difficulties, discomfort, and even danger connected with the conveyance of insane patients, and that there will be incurred a continual loss of time, and expense in reaching the patients, both on the part of the authorities and the friends of the patients resident in the asylum. Matters are not either rendered any smoother by a feeling that has arisen that there was a tacit understanding that any new asylum would not be fixed at a greater distance from Glasgow than about twelve miles. The whole subject has yet to come under the official cognisance of the General Board of Lunacy, and no doubt they will weigh carefully all sides of the question before coming to a decision.

CONTRAVENTION OF THE PUBLIC HEALTH ACT.

AT Glasgow, on June 7th, a conviction was obtained, at the instance of the local authority, against a manufacturer or cleaner of gut, the business being certified by the medical officer to be injurious to the public health. Dr. Russell stated that the locality was a poor and crowded back court, and that the business was carried on at night in a shed, without precaution, and was extremely offensive. As the defender had paid no attention to requests from the authorities to discontinue the work, a severe fine was inflicted.

THE CHAIR OF SURGERY IN EDINBURGH UNIVERSITY.

FOR this chair, vacant by the death of Professor Spence, rumour is already busy with the names of various candidates. One of these, Mr. Chiene, has already issued his application. The others mentioned are Dr. P. Heron Watson, Dr. Joseph Bell, and Dr. John Duncan—all of

whom are at present lecturers on surgery or on clinical surgery in Edinburgh; so that local men show a good number from which to elect. The names of Mr. Lister, and of Professor Macleod of Glasgow, have also been mentioned in Edinburgh; but perhaps with as little ground as there often is for such rumour. This chair, apart from its position and the beds it confers in the infirmary, is of considerable pecuniary value, as it is attended by fourth as well as second years' students. The appointment is in the hands of the Court of Curators of the University, in which the representatives of the Town Council are in a majority. No time has been fixed as yet for the election.

THE DUNDEE ROYAL INFIRMARY.

AT the annual meeting of the directors and supporters of the Dundee Royal Infirmary, held there on Monday, a report was read by the chairman on the question, whether a children's hospital or a separate children's ward should be erected in connection with the infirmary. It was resolved not to proceed further with the matter at present, until it has matured by being before the public for some time. During the past year, 1,652 cases had been admitted, showing a slight decrease on the admissions of the previous year; 1,670 cases had been treated to a termination in the last year, as compared with 1,677 in the year before. The total number of cases of fever had risen to about the average of the previous six years; but the deaths from typhoid only numbered 19, as compared with 45 in the previous year. The mortality all over the hospital was seven per cent., as compared with eight the preceding year. In the different divisions of the hospital, the respective mortalities were: medical, 9 per cent.; surgical, 4 per cent.; and fevers, 11.9 per cent. Financially, the Dundee Infirmary is to be congratulated, as the revenue amounted to £6,487, and the expenditure to £6,083; while the debt of former years has been reduced to £1,289. It is, however, to be noted that £1,500 will have to be expended in renewing dilapidated portions of the stonework of the building, owing to decay, and also on chimneys. The sum of £4,911 was received as legacies during the year.

IRELAND.

DR. PETIT, Medical Superintendent of Donegal District Lunatic Asylum, has been appointed, by His Excellency the Lord-Lieutenant, to a similar position in the Sligo Lunatic Asylum.

THE vacancy on the medical staff of the Mater Misericordiæ Hospital, caused by the death of Dr. John Hughes, physician to the hospital, has been filled by the appointment thereto of Mr. Michael Boyd, late surgeon to St. Michael's Hospital and Dispensary, Kingstown.

THE outbreak of fever at Lurgan, which was checked for a time, has again begun to assume alarming dimensions, and it is feared that the epidemic, which is of a virulent type, will be attended with a high rate of mortality.

LIGATURE OF THE INNOMINATE ARTERY.

MR. THOMSON, of the House of Industry Hospitals, ligatured this vessel for subclavian aneurysm in the Richmond Surgical Hospital on Friday, the 9th instant. The patient is aged about 50 years, and up to the present no unfavourable symptom has appeared. The vessel was tied with the kind of ligature suggested by Mr. Barwell.

THE ROYAL UNIVERSITY OF IRELAND.

FOR the first medical examination, which begins on Monday, June 19th, there are 130 candidates; for the second examination, 110; and for the different medical degrees, between 70 and 80. The examinations will be continued till July 3rd. By permission of the Board of Trinity College the practical portion of the examinations will take place in the School of Physic of the University of Dublin. The other portions of the examinations will be held in the Earlsfort Terrace Building and in several of the city hospitals.

CORK FEVER HOSPITAL.

AT a recent meeting of the Committee, Dr. W. Beamish, senior physician of the hospital, sent in his resignation. Dr. Beamish has been one of the visiting staff for the past forty-six years, having succeeded his father, who held a similar post for upwards of fifty years, in 1836. He was attached to the hospital in the famine years, when typhus fever was prevalent, and was attacked by that disorder in the discharge of his duties. The Committee expressed their regret at his resignation, which they understood was final, otherwise they would have requested him to reconsider his determination, and have appointed him consulting physician, and intend to present him with an address in recognition of his long and valuable services to the hospital. Dr. Macnaughton Jones succeeds Dr. Beamish as Senior Physician, while Dr. Moriarty fills the post vacated by Dr. Jones.

LISMORE UNION.

WE recently referred to the decision of the guardians in reference to their treatment of Dr. O'Reilly, medical officer of the workhouse, whom they requested to resign, in consequence of some disputes between him and the master and fever hospital nurse. The Local Government Board, last week, wrote in reference to the recent resolution of the guardians, censuring the master and nurse, and calling upon the medical officer to resign; and pointed out that, having regard to the facts elicited at the sworn inquiry, the course pursued with regard to the medical officer was scarcely fair to that gentleman. They requested the guardians to reconsider the matter, with a view to adopting a similar course with the master and nurse, as that which they had felt it necessary to pursue in the case of Dr. O'Reilly. We may add, that Dr. O'Reilly has been fifteen years connected with the workhouse, during which he attended several outbreaks of small-pox and typhus fever; that he contracted two attacks of fever while in the discharge of his professional duties; and that there never has been a single complaint brought against him. After some discussion, it was decided to convene a special meeting of the guardians to consider the matter.

ROYAL MEDICAL BENEVOLENT FUND.

THE fortieth annual meeting of this Society was held on Monday, June 5th, at the King and Queen's College of Physicians. There was a numerous attendance of members. The chair was taken by Dr. George Johnston, President of the College. Dr. Arthur Benson, honorary secretary, read the report, which stated that during the year *ad interim* grants had been made in ten cases. In five of these, assistance to the amount of from £30 to £5 was granted. Of the applications for consideration at the annual distribution five were from medical men, eighty-seven from widows of medical men, and twelve from orphans. The amount at present available for distribution was £1,210, of which £1,024 had been adjudicated, viz, £155 to medical men, £741 to widows, and £128 to orphans, leaving a balance of £186. The total of applications in the year had been 104, as against 113 last year. The donations and bequests during the financial year had amounted to £46, and £100 had also been received from the representatives of the late Dr. Hans Irvine. Eighty-five pounds had been added to the funded property of the society. Reports had been received from the branch societies throughout Ireland, and also from Bombay and Madras. Dr. William Thomson, honorary treasurer, read a statement of accounts, which showed a balance in bank to the credit of the society of £1,254. A cheque for £20 had been received from Dr. Chaplin, outgoing President of the College of Surgeons.

SOCIETY FOR PROVIDING NURSES FOR THE SICK POOR, BELFAST.

BELFAST is a large manufacturing town, employing many thousands of people, and its chief trade being carried on to a considerable extent in heated rooms, very often not sufficiently ventilated, and injurious to

the inmates, it necessarily follows that there must arise a corresponding amount of disease. Consumption prevails to a considerable extent among the factory hands, and as these cases, more especially in the advanced stages of the disease, are not admitted to the only general hospital in the town, the nurses provided by this society are of great benefit, visiting as they do the sick poor in their homes. They also supply the sick with nourishment and medical comforts, and also with articles of clothing, and are further of use by instructing the families of the poor in the preparing of food and in the management of the sick. Only eight years established, the benefits of the Society have been incalculable, and the good accomplished by its means has surpassed the most sanguine expectations of its founders. The work is now being carried on in six districts, but funds are urgently required that the work may be extended over the entire of Belfast. The cases attended have been more numerous last year than usual, and the financial condition of the Society appears satisfactory, as there was a balance in hand of £310 12s. 9d.

ROYAL COMMISSION ON THE MEDICAL ACTS.

THE report of the Royal Commission on the Medical Acts is completed and signed. It will shortly be published, and will, we understand, be found to include a concession of the two capital points for which the British Medical Association have from the first contended, viz., the direct representation of the medical profession in the General Medical Council by elected members, and the formation of conjoint boards for examination. It will be recommended that four direct representatives be included in the remodelled Council; that the number of representatives allotted to universities and corporations be reduced to eight; and that the Crown, as at present, have the right of nominating six representatives. In a minority report, opinions will be found expressed, representing the well known objections and arguments urged against direct representation of the profession in the Medical Council.

On the question of Conjoint Medical Boards to provide an adequate minimum examination and qualification to practise, the Commission are, we understand, agreed in favour of such Conjoint Boards; and they recommend a machinery by which such Conjoint Boards can be formed without injury to higher qualifications.

ROYAL COLLEGE OF PHYSICIANS.

AT an extraordinary meeting of the College, on May 30th, the PRESIDENT drew the attention of the College to advertisements of medical works which had recently appeared in newspapers. He added that, feeling it to be part of his duty to watch over the honour even more than the interests of the College, he could not but express his strong disapproval of the practice of advertising medical works in non-medical journals, and the custom, now too prevalent, of giving certificates commendatory of preparations either medicinal or alimentary—certificates which were generally used for trade purposes, often contrary to the wish or intention of those who gave them. The opinion he had expressed was entirely in accord with that formerly entertained by the Fellows, who had passed a resolution in June 1873 as follows, and which was sent to every Fellow and Member of the College: "That the practice of medical authors frequently advertising their own works in the non-medical journals, and especially with the addition of laudatory extracts from reviews, is not only derogatory to the authors themselves, but is also injurious to the high interests of the profession."

The SENIOR CENSOR then gave notice of his intention to propose the following resolution at the next meeting of the College: "That the system of extensively advertising medical works in non-medical journals, and the custom of giving laudatory certificates of medicinal and other preparations, whether for publication or not, is misleading to the public, derogatory to the dignity of the profession, and contrary to the traditions and resolutions of the Royal College of Physicians."

The following were elected Fellows: James Alexander Grant, M.D., and Henry Blane, M.D.

Thanks were voted to Sir William Mac Cormac for a number of photographs of the statue of Harvey.

The Murchison Scholarship was formally presented to Mr. Charles F. Coxwell.

The report presented to the College by the Committee appointed to consider the report of the visitors of the examinations was discussed, and the following resolution adopted: "The College acknowledges t he receipt of the visitors' report, and desires to say that it will continue, as it has hitherto, to use every means at its command, for securing the completeness and efficiency of its examinations, in both their scientific and practical aspects."

The report of the Committee was referred to the Council.

Dr. QUAIN gave notice of his intention to propose the following regulation at the next meeting: "That the Council, on presenting the list of members nominated for election by the College to the Fellowship, shall briefly state the grounds on which in each case the member is proposed for election as a Fellow."

[The publication of this and other matter has been unavoidably delayed in consequence of unusual pressure on our space.]

THE CONVICT DEPARTMENT.

WE understand that the Home Secretary, besides inviting prisoners to complain of the medical officers on every possible occasion, for real or imaginary grievances, has directed that all such complaints are to be brought to his personal notice. We are also informed that he has taken the appointment of surgeons to jails and prisons out of the hands of the chairman of convict prisons, who has hitherto been entrusted with that patronage. The medical profession has, however, been always true to itself; and we trust that it will now again show that it has power to exercise some voice in the treatment of its members. We have often wondered how good men could enter such a service, with its enormous responsibility, inadequate pay, and no prospects. Now, however, with the sword of Damocles, in the shape of coroners' inquests and instant dismissal on the *ipse dixit* of a criminal, hanging over the heads of the medical department, it is not likely that many will aspire to the honour of an appointment as assistant-surgeon in Her Majesty's convict service. We certainly cannot recommend it, until it undergoes material improvement in many ways.

HISTORY OF THE JOINT COMMITTEE ON STATE MEDICINE

OF THE BRITISH MEDICAL AND SOCIAL SCIENCE ASSOCIATIONS.

AT the annual meeting held at Dublin in 1867, Dr. H. W. Rumsey read an elaborate and comprehensive paper on State Medicine in Great Britain. In the discussion which followed, Mr. G. W. Hastings, referring to a notice, which had been given by Dr. Stewart, of a motion for the appointment of a Committee on Legislation in State Medicine, suggested that it should be an instruction to the Committee to co-operate with the Health Committee of the Association for the Promotion of Social Science. As Secretary of the latter Association, he promised that any co-operation on the part of the British Medical Association would be cordially received.

On the proposal of Dr. Stewart, the following resolutions, embodying the valuable suggestion made by Mr. Hastings, were adopted.

"That the Committee of Council be instructed to direct their early and special attention to the amendment of the sanitary laws; to invite the co-operation, for this end, of the Council of the National Association for the Promotion of Social Science; and to urge the Branches of the Association to promote the same important object by local efforts, by representations to individual members of Parliament, and, if need be, by deputations to Her Majesty's Government."

"That a Committee be appointed, consisting of Dr. Acland, Dr. Symonds, Dr. Falconer, Dr. Lankester, Dr. Rumsey, Dr. Burke, Dr. Mapother, Dr. A. T. H. Waters, Dr. Tindal Robertson, Dr. Gairdner, Dr. Ransome, Dr. J. E. Morgan, Dr. Philipson, and Dr. Stewart, to collect information, in such manner as they may think best, on the subjects brought before the Association by Dr. Rumsey; and that the Committee of Council be empowered to make such pecuniary grant as the Committee of the Association will permit towards the expenses of this inquiry."

The Committee thus appointed met twice before the meeting of the Association broke up, and appointed Dr. Acland chairman and Dr. A. P. Stewart secretary. They resolved that every endeavour should be made to induce the Government to undertake the inquiry referred to in the resolution; and, in the event of this responsibility being declined, they thought it advisable that it should be undertaken by the Committee, either singly or in connection with the Social Science Association. They determined to limit the inquiry for the present to the subjects of registration, medico-legal investigations, and sanitary administration; and schedules of queries on these subjects were drawn up, at the request of the Committee, by Dr. Rumsey and Dr. Stewart. They were, however, left for the consideration of the Joint Committee, the appointment of which was contemplated.

In April, the Committee adopted a series of resolutions in reference to the Artisans' and Labourers' Dwellings Bill then before Parliament, and also a memorial to the General Medical Council, praying them to take steps for defining the special training and qualifications required for medical officers of health. The request met with prompt and gratifying attention from the Committee of Council, who appointed a committee on the subject.

The Council of the Social Science Association having appointed a Committee, with Sir J. P. Kay-Shuttleworth as chairman and Mr. William Clode as secretary, the Joint Committee of the two Associations met on May 1st. Two questions came under consideration; viz.: 1. "What should be the mode, nature, and extent of the inquiry"; 2. "What steps should be taken to prevent the introduction of further complications by fresh legislation".

With regard to the first question, the Committee was unanimously of opinion in favour of the inquiry being conducted by a Royal Commission. The nature and extent of the inquiry, in their opinion, involved the questions of areas of administration, the appointment and removal of the officers required, or proposed to be required, for the administration of the law, the subordination or independence of those officers, their remuneration and duties, and the appointment of specially trained officers for large districts. The desiderata were, in the opinion of the Committee, an amendment of the system of Registration of the causes of death; the institution of returns of still-birth and of cases of sickness not proving fatal; the appointment of skilled Medical Assessors as advisers in all medico-legal inquiries; and the compulsory appointment in large districts of highly trained and well paid Officers of Health. On May 22nd, the Committee had an interview, to explain these views, with the Lord President of the Council, the Secretary of State for the Home Department, and the President of the Poor-law Board. A large number of the members of the Joint Committee attended this deputation, which was accompanied by Sir Thomas Watson, Dr. Burrows (President of the General Medical Council), Dr. Sibson (President of the Council of the Association), and several members of Parliament. In November 1868, the appointment of a Royal Commission was announced; but, to the disappointment of the Committee, it was found that its investigations were restricted to England and Wales, excluding the metropolis, Scotland, and Ireland. They therefore readily acceded to a request conveyed to them by the Metropolitan Counties Branch of the British Medical Association, that they should solicit an interview with the Home Secretary and the Chancellor of the Exchequer in reference to the extension of the inquiry to the metropolis, to Scotland, and to Ireland. A memorial to the same effect was also prepared, and was adopted at the annual meeting of the Association held in 1869. In the following year, the Committee again applied to the Home Secretary to reconsider his decision as to the area to be included in the inquiry, but without success. Dr. Rumsey was appointed chairman of the Committee.

At the annual meeting at Plymouth in 1871, the Joint Committee presented an elaborate report, containing the results of their examination of the report of the Royal Sanitary Committee, which had been published. The Committee, while recognising the general value of the report, pointed out certain defects in the method and scope of the inquiry, and errors of conclusion which had resulted from these defects. They expressed regret at the limitation of the inquiry to England and Wales, and the absence of personal local inquiry for the purpose of supplementing written answers to schedules of questions; as well as at the absence of provision for uniformity in constitution, mode of elections, and duties of local boards. Reasons were given for preparing the formation of wider administrative areas than the urban and rural districts; one of them being that the large areas would supply a superior machinery for the appointment of scientific officers, whether medical or engineering. With regard to the duties of medical officers of health, the Committee, while concurring with many of the statements and recommendations of the Report, pointed out that some of the principles asserted and suggestions made were open to objection. They deprecated the tendency of the Report of the Commissioners to assume that the duties of health-officers were to be performed by the medical practitioner as a subordinate part of his work, notwithstanding the recommendations contained in two important Minutes issued, several years previously, by the General Board of Health. The Committee observed that—

"The very position and duties of the Poor-law Medical Officers at once point to the valuable assistance they would render the chief officer of health of a district, as reporters of sickness and its causes; and as deputies and assistants in subdistricts their services would be indispensable. Our estimate of the functions to be discharged by the medical officer of health, of the special qualifications requisite, and of the time to be devoted to the discharge of these duties, contemplates a class of officers entirely special, and without the distractions and difficulties which ordinary practice would necessarily entail."

They also pointed out that the report of the Commission contained no complete statement of the special duties of the medical officers of health; that there was no suggestion as to a definite arrangement for co-operation between urban and rural sanitary authorities; and that, while the Commissioners suggested that assistance and encouragement should be given to medical officers of health to study sanitary questions, they did not state how this suggestion was to be carried into effect. The Committee also protested against the idea that the duties of medical officers of health could be discharged by "young men entering on practice". They also pointed out that the Report of the Commission omitted to recommend the enactment of special regulations for the suppression of infectious diseases. They expressed the opinion that the right of separate appointment of chief health-officers by municipalities should be limited to large towns, and that, for other places, the health-officers should be appointed by a county or other intermediate authority. They recommended that, in the absence of officers specially appointed, the Poor-law medical officers might be authorised to act, with suitable remuneration, as assistant or deputy health-officers. In conclusion, with reference to a central authority, they expressed their appreciation of the importance of providing that every existing department relating to the public health, "including several under the Home Office, the Privy Council, the Board of Trade, and the Poor-law Board, besides the General Register Office, the Lunacy Commissioners, and the General Medical Council," should be represented in a supreme Council of Health, to be presided over by one minister. The report was adopted by the meeting, and the Committee was re-appointed.

In February 1872, a Public Health Bill was introduced in the House of Commons by Mr. Stansfeld, President of the Local Government Board. Soon afterwards, a deputation of the Joint Committee waited on him, and brought under his notice the following resolutions which had been adopted by the Committee.

1. That we support the principle of consolidation of divers authorities, as adopted in the Local Government Board Act with regard to the central authority; and we ask that this principle may be more fully carried into effect in the constitution and jurisdiction of the Central Board itself, by including the sanitary work of other departments of central administration (if any) not yet included in that consolidation. 2. That we urge the extension of the same principle to local authorities; and that, in any improved organisation of local authorities, all the objects of local government may be included, as far as practicable, under one authority in each district. 3. That there should be one uniform and high class of intermediate authorities, except in certain cases (such as those of the largest towns) hereafter to be defined, but all subject to the control of the central authority. 4. That in every county, or part of a county, having a separate commission of the peace, there should be constituted an administrative and financial board or court, composed of an equal number of justices of the peace and of members elected by the several local authorities, respectively governing the districts, or any parts thereof, situate within such county, with power to exercise, by joint committees, jurisdiction over watershed areas extending beyond a county. 5. That such county boards or courts be empowered to adjust the boundaries of the subordinate and represented districts, subject to the approval of the central authority; to make good any defects of local sanitary administration; to compel the execution of sanitary measures; to superintend the construction and care of the roads and drains; to control the provision of medical poor relief, workhouses, hospitals, and other institutions, maintained by the rates; and to appoint one or more highly qualified medical officers of health, whose whole time should be given to the performance of their official duties; as well as surveyors with civil engineering qualifications. 6. That the medical officers of districts for medical relief in dispensary districts, in all places where officers of health are not specially appointed, may be required to act, with proper remuneration, as deputies to the chief officers of health. 7. That, with regard to the registration of sickness, the compilation of reports of sickness and its causes, from the returns of medical officers and medical relief institutions, and the revision of the returns of deaths and causes of deaths, be committed to the chief officers of health, within their respective districts, and be by them forthwith transmitted to the central authority. 8. That, following the precedent which has been wisely established of charging a moiety of the expenses of medical relief upon the Consolidated Fund, and bearing in mind that the objects of a medical sanitary organisation are, to a great extent, imperial, and that the machinery should be subject in a degree to central control, it is important that a moiety of the whole expense of medical

officers of health and other scientific officers, and of the registration of sickness, should be borne by the National Exchequer.

On March 14th, the Joint Committee met, and passed the following resolutions with regard to the Bill:—

"That no legislation can be satisfactory which does not consolidate the existing sanitary laws." "That no legislation can be satisfactory which does not constitute one local authority under one law in each sanitary district." "That there can be no efficient compulsory action without the constitution of an intermediate authority of a high order acting over an independent district."

Resolutions were also passed in favour of the appointment of chief medical officer of health in districts, and of the charging a moiety of the expenses on the Consolidated Fund. The committee afterwards had an interview with several Members of Parliament for the purpose of explaining their views.

At the annual meeting of the Association in the same year, the Joint Committee presented a report, in which regret was expressed that the principles laid down by the Committee as essential to reform of the laws relating to public health, had been ignored in the Public Health Bill which had passed through Parliament. In the expectation that the amendment of the sanitary laws would have, in accordance with the promise of Her Majesty's Government, to be considered in the next session of Parliament, they suggested to their successors the importance of collecting particulars of information relating to medical appointments under the new Act.

In 1874, the Committee issued a large number of circulars asking for information as to the working of the Public Health Act of 1872.

In 1875, another Public Health Bill was introduced into Parliament, but the Committee took no part in the proceedings with regard to it, as it was almost entirely a measure for consolidating existing statutes, and was a step in the right direction, inasmuch as it would enable the subject to be studied in a single Act. They observed with satisfaction that, during the discussion on the Bill, there had been a steady approximation to the views constantly maintained and the principles persistently brought forward by the Committee; and that several important principles, such as the adoption of larger areas, and the readjustment of boundaries, seemed likely to be adopted.

In the early part of 1876, the Joint Committee determined on summoning a Sanitary Conference to discuss the necessity for further sanitary legislation. To it were invited the Mayors of Boroughs in England and Wales, of 25,000 inhabitants and upwards, Chairmen of Local Boards, Chairmen of Improvement and Rural Districts, Medical Officers of Health, Engineers, Surveyors, Solicitors, and Sanitary Authorities, and others interested in sanitary matters. The Conference was held on May 11th, 1872, and was attended by about 150 gentlemen from all parts of England and Wales. Lord Aberdare occupied the chair, and Lord Alfred Spencer Churchill, Dr. Lyon Playfair, and Dr. Wm. Farr, acted as Vice-Presidents. After discussion, a series of resolutions were adopted, which agreed in the main with those passed in 1872.*

In June, 1877, the Committee drew up a memorial carrying out the spirit of the resolutions adopted at the meeting held in May 1876, and concluding with suggesting the following changes in the existing law as being calculated to materially aid those charged with its administration:

"That the present existing distinctions between urban and sanitary authorities should be removed; and that all sanitary authorities should be clothed with similar powers; and that these powers should be extended in order to enable them to carry out all purposes of local administration within their districts.

"That, in each county, or division of a county, a representative authority of a high order should be constituted for the execution of joint works, to aid, and, in case of default, to exercise control over sanitary authorities."

This memorial was presented to Lord Beaconsfield, the Prime Minister, with a request that he would receive a deputation on the subject. His engagements, however, prevented him from complying therewith.

At the annual meeting in 1877, the Joint Committee, in their report, expressed satisfaction that a Bill had been introduced into Parliament, in which it was proposed to place the metropolis, as well as the provinces, under the control of the Local Government Board in regard to sanitary matters.

In June 1878, at a meeting of the Committee, it was resolved, that an inquiry should be addressed to the extra-metropolitan medical officers of health, asking (1) whether they report periodically as to the sanitary condition of their districts; (2) if so, how often and in what form; (3) whether such reports are printed, and, if so, whether circulated, and the number published. Dr. Stewart, Mr. Michael, Mr. Clode, Mr. Ernest Hart, and Mr. Liddle, were appointed a subcommittee to report on the answers received.

At the same meeting, the Committee agreed on a memorial to the Duke of Richmond and Gordon, Lord President of the Council, recommending that clauses should be inserted in the Bill for the Amendment of the Medical Act, providing that the conjoint boards should examine candidates in the subject of State Medicine, and grant certificates of competency, to be registrable as qualifications in State Medicine for medical appointments in the public health service. Copies of the memorial were ordered to be forwarded to the Duke of Richmond, Mr. Secretary Cross, Mr. Sclater-Booth, and Dr. Acland, President of the General Medical Council; and Dr. Stewart, Dr. Tyacke, Dr. Corfield, and Mr. Ernest Hart, were appointed a subcommittee to confer with Ministers and others as to the best means of carrying out the wishes of the Committee in respect to the memorial.

In July 1878, the Committee presented a memorial to the Right Hon. G. Sclater-Booth, President of the Local Government Board, with reference to the Bill which had been introduced into Parliament to amend the law relating to the administration of county business, and to make further provision for county government. They submitted: "1. That, until all powers of local government are intrusted to one body within improved areas of jurisdiction, registration districts offer the most suitable areas of representation in any scheme for improved county government and administration; 2. That the county board, to be constituted under the Bill, should be a representative body, having full powers to administer joint institutions, to execute joint work for all or some districts within the county, as the case might be; and to exercise control over all local authorities, when in default; and, when necessary, to join with adjacent counties for purposes affecting their mutual interests."

It does not appear that, for the last three years, any reports have been presented by the Committee to the Association. It is still, however, ready for active duty. At the last annual meeting of the Association, the following members were appointed: Mr. L. Angell, Dr. J. T. Arlidge, Dr. E. Ballard, Dr. C. O. Baylis, Dr. Beddoe, F.R.S., Dr. F. T. Bond, Dr. W. E. Buck, Mr. E. Chadwick, C.E., Dr. A. Carpenter, Dr. G. W. Child, Mr. W. Clode, Mr. R. R. Collins, Dr. W. H. Corfield, Dr. T. O. Dudfield, Dr. G. F. Duffey, Dr. R. Farquharson, M.P., Dr. Farr, C.B., F.R.S., Dr. Cornelius Fox, Dr. W. T. Gairdner, Capt. D. Galton, C.B., F.R.S., Dr. Grimshaw, Mr. Ernest Hart, Mr. G. W. Hastings, M.P., Mr. A. Haviland, Mr. B. Latham, C.E., Mr. J. Liddle, Dr. H. D. Littlejohn, Dr. R. D. Lyons, M.P., Mr. W. H. Michael, Q.C., Mr. F. G. P. Neison, Colonel Oldfield, Dr. H. F. Parsons, Dr. Phené, Dr. G. H. Philipson, Mr. F. S. Powell, Dr. A. Ransome, Dr. B. W. Richardson, Dr. Joseph Rogers, Dr. A. P. Stewart, Mr. G. J. Symonds, F.R.S., Dr. J. W. Tripe, Dr. N. Tyacke.

* The resolutions were as follows. "1. That the existing division of the country into urban and rural districts does not enable local authorities to fulfil their obligations in the most effective manner. 2. That the same sanitary laws be applied to the whole area of the country without distinction. 3. That, in any reconstruction of local areas, it is desirable to keep in view the advisability of securing one subdivision of the country for sanitary and other purposes of local government; such subdivision to be, as far as possible, on the lines of the existing municipalities, unions, and counties. 4. That, in the opinion of this Conference, it is desirable that a Commission be appointed to consider and readjust, with the concurrence of the Local Government Board, the boundaries of the existing districts, or any new districts to be hereafter formed. 5. That the appointment of a County Board, consisting partly of elected members and partly of others nominated by the Court of Quarter Sessions, is desirable. 6. That the duty of such county boards, as far as they relate to sanitary matters, should be to exercise a control over the salaries and dismissals of the officers of local boards, not being municipal boroughs; to hear appeals from one portion of a district against the decision of their board as to the incidence of expenditure for works of only partial advantage, and to undertake the conduct and supervision of such works as, from their nature and expense, cannot be undertaken by separate local boards. 7. That the powers and machinery at present possessed by local sanitary authorities are inadequate to the purposes for which they are intended; especially, but not solely, in respect of means for preventing the spread of disease, from the want both of early information of its existence, and also of the means of checking its progress; from want of power to prevent the erection of houses on unhealthy and improper sites, and to secure in certain cases due provision of water; and from want of means to acquire, with sufficient facility and economy, land for public purposes. 8. That the incidence of taxation for sanitary and other purposes of local government should, as nearly as possible, be proportional to the direct benefit accruing to the several parts of the districts. 9. That the officers of sanitary authorities should, as far as is practicable, be restricted from other than the official duties for which they are specially engaged; and that, in order to promote this object, it is essential that the area of supervision should be made as large as can be efficiently worked. 10. That a health-officer or assistant should, where it is practicable, be appointed (*a*) to every local government district, or combination of districts, such districts to be constituted, as to area and population, as already suggested; and (*b*) to every county. 11. That the several officers should be in communication with each other, and with the health officer especially attached to the County Board. 12. That the salaries be such as to insure the services of first-class members of the medical profession, devoting themselves entirely to the health-service of the country. 13. That it is desirable in future to appoint, at least to the higher offices, men who have passed an examination in State Medicine. 14. That the above regulations are equally desirable in the cases of surveyors and inspectors of nuisances, so far as they are applicable. 15. That, in the opinion of this meeting, the powers of the public health and other sanitary Acts which are of a permissive character should, as far as practicable, be made compulsory."

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL.

NOTICE OF MEETING.

A MEETING of the Committee of Council will be held in the Council Room of Exeter Hall on Wednesday, the 12th day of July next, at two o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, London, June 15th, 1882.

BRITISH MEDICAL ASSOCIATION:

FIFTIETH ANNUAL MEETING.

THE Fiftieth Annual Meeting of the British Medical Association will be held at Worcester, on Tuesday, Wednesday, Thursday, and Friday, August 8th, 9th, 10th, and 11th, 1882.

President: BENJAMIN BARROW, F.R.C.S., Consulting-Surgeon to the Royal Isle of Wight Infirmary.

President-elect: WILLIAM STRANGE, M.D., Senior Physician to the General Infirmary, Worcester.

An Address in Medicine will be delivered by W. F. WADE, F.R.C.P., Physician to the Birmingham General Hospital.

An Address in Surgery will be delivered by WILLIAM STOKES, M.D., F.R.C.S.I., Professor of Surgery in the Royal College of Surgeons, Ireland.

The business of the Association will be transacted in Eight Sections, viz.:

SECTION A. MEDICINE. (Council Room, Guildhall.)—*President:* Thos. Clifford Allbutt, M.D., F.R.S. *Vice-Presidents:* George W. Balfour, M.D.; William Henry Broadbent, M.D.; G. H. Philipson, M.D.; *Secretaries:* Edwin Rickards, M.B., 14, Newhall Street, Birmingham; H. Ashby, M.D., 13, St. John Street, Manchester.

SECTION B. SURGERY. (Recorder's Court, Guildhall.)—*President:* Augustin Prichard, F.R.C.S. *Vice-Presidents:* T. W. Walsh, F.R.C.S.; Reginald Harrison, F.R.C.S.; T. H. Bartleet, M.B., F.R.C.S. *Secretaries:* F. E. Manby, F.R.C.S., 10, King Street, Wolverhampton; Richard Clement Lucas, M.B., F.R.C.S., 18, Finsbury Square, E.C.

SECTION C. OBSTETRIC MEDICINE. (Committee Room Assembly Room, Guildhall.)—*President:* William Leishman, M.D. *Vice-Presidents:* Henry Vevers, M.R.C.S.; J. G. Sinclair Coghill, M.D.; Arthur W. Edis, M.D. *Secretaries:* C. J. Cullingworth, M.D., 25, St. John Street, Manchester; Tom Bates, L.R.C.P., Worcester.

SECTION D. PUBLIC MEDICINE. (Civil Court, Shire Hall.)—*President:* Alfred Carpenter, M.D. *Vice-Presidents:* Alfred Hill, M.D.; Horace Swete, M.D.; E. T. Wilson, M.B. *Secretaries:* Geo. Haynes Fosbroke, jun., M.R.C.S., Bidford, Redditch; Francis Edward Atkinson, L.R.C.P., Settle, Yorkshire.

SECTION E. ANATOMY AND PHYSIOLOGY. (North Wing Committee Room, Guildhall.)—*President:* George M. Humphry, M.D., F.R.S. *Vice-Presidents:* S. S. Roden, M.D.; Frank Payne, M.D.; Gerald Yeo, M.D. *Secretaries:* J. B. Haycraft, M.D., Mason's College, Birmingham; James Shuter, M.B., F.R.C.S., 58, New Broad Street, London.

SECTION F. PATHOLOGY. (South Wing Committee Room, Guildhall.)—*President:* J. Hughlings Jackson, M.D., F.R.S. *Vice-Presidents:* W. R. Gowers, M.D.; H. T. Butlin, F.R.C.S.; Wm. Smith Greenfield, M.D. *Secretaries:* Sidney Coupland, M.D., 14, Weymouth Street, London; F. Treves, F.R.C.S., 18, Gordon Square, London.

SECTION G. OPHTHALMOLOGY. (City Grand Jury Room, Shire Hall.)—*President*: James Vose Solomon, F.R.C.S. *Vice-Presidents:* David Everett, F.R.C.S.; F. Mason, M.R.C.S.; Edwyn Andrew, M.D. *Secretaries:* Geo. Edwin Hyde, L.R.C.P., Worcester; J. A. Nunneley, M.B., 22, Park Place, Leeds.

SECTION H. OTOLOGY. (County Grand Jury Room, Shire Hall.)—*President:* W. Laidlaw Purves, M.D. *Vice-Presidents:* Geo. P. Field, M.R.C.S.; A. H. Jacob, M.D.; E. Cresswell Baber, M.B. *Secretaries:* J. J. Kirk Duncanson, M.D., 22, Drumsheugh Gardens, Edinburgh; Peter McBride, M.D., 20, Alva Street, Edinburgh.

Honorary Local Secretaries: George W. Crowe, M.D., Shaw Street, Worcester; H. C. Moore, M.R.C.S., 7, King Street, Hereford; Thelwell Pike, M.D., 2, Montpellier, Great Malvern.

Honorary Treasurer: G. A. Sheppard, M.R.C.S., Worcester.

TUESDAY, AUGUST 8TH.

2.15 P.M.—Meeting of Committee of Council. (Committee Room off Assembly Room, Guildhall.)
3 P.M.—Meeting of the Council of 1881-82. (Council Room, Guildhall.)
4.15 P.M.—Service in the Cathedral, with sermon by the Dean of Worcester.
8 P.M.—General Meeting. President's Address; Annual Report of Council, and other business. (Assembly Room, Guildhall.)
Tea and Coffee after the Meeting.

WEDNESDAY, AUGUST 9TH. (Jubilee day).

9.30 A.M.—Meeting of Council of 1882-83. (Council Room, Guildhall.)
11 A.M.—Second General Meeting. Address in Medicine.
1.30 P.M.—Luncheon given by the Worcester and Hereford Branch to Members of the Association (limited to 500), and afterwards presentation of bust of Sir Charles Hastings to the Mayor and Corporation of Worcester. (Great Hall, Shire Hall.)
3 to 5.30 P.M.—Sectional Meetings.
7.45 P.M.—Special Service in the Cathedral, at which, by permission of the Dean, Haydn's Sacred Oratorio, "The Creation", will be performed by the Philharmonic Society, assisted by members of the Gloucester and Hereford Choirs, and conducted by W. Done, Esq., Organist to the Cathedral.

THURSDAY, AUGUST 10TH.

9 A.M.—Meeting of the Committee of Council. (Committee Room off Assembly Room, Guildhall.)
10 A.M.—Third General Meeting. Reports of Committees. (Assembly Room, Guildhall.)
11 A.M.—Address in Surgery. (Assembly Room, Guildhall.)
2 to 5.30 P.M.—Sectional Meetings.
6.30 P.M.—Public Dinner. Tickets will not be issued later than twelve o'clock on the day of the dinner. (There will be two kinds of dinner ticket: one for those who take wine, and the other for abstainers, 21s. and 14s. each.) (Assembly Room, Guildhall.)

FRIDAY, AUGUST 11TH.

9.30 to 11.30 A.M.—Sectional Meetings.
11.30 P.M.—Concluding General Meeting. Reports of Committees. (Assembly Room, Guildhall.
3 P.M.—Garden Party, at Madresfield Court, Great Malvern, given by the Lord-Lieutenant and the Countess Beauchamp.
9 P.M.—Soireé of the President and G. W. Hastings, Esq., M.P.

EXCURSIONS.

On Saturday, August 12th, there will be—1. An excursion to Malvern Hills, including the ancient British Camp, the chief interesting features of which will be explained to the visitors on the spot. 2. An excursion to Stratford-on-Avon to visit Shakespeare's house, the church and tomb, Shakesperian Museum, etc. The party will then proceed to Warwick and Kenilworth Castles, returning by way of Leamington. 3. An excursion to the Wye, by which the beautiful scenery on the banks of that river may be viewed either from the railway or by boats from Ross to Monmouth. Particulars of this excursion will be published in an early number. 4. There are steamers and pleasure-boats on the river Severn at Worcester, which will afford very enjoyable short trips up or down the river.

ANNUAL MUSEUM.

The sixteenth annual exhibition of objects of interest in connection with medicine, surgery, and their allied sciences will take place in the Music Hall, Worcester, during the second week of August, 1882. The floor-space of this building amounts to 4,000 square feet. The Committee appointed to take charge of the arrangements for this Museum will be glad to receive—1. Pathological specimens (wet or dry); 2. Drawings or diagrams illustrating disease; 3. Casts or models; 4. Surgical instruments and appliances; 5. Microscopic preparations; 6. Microscopes, thermometers, and other instruments of investigation; 7. Preparations, diagrams, etc., relating to investigations in anatomy and physiology; 8. New drugs, chemicals, pharmaceutical preparations, and dietetics; 9. Sanitary appliances, including drawings or models illustrating the ventilation of hospitals or private dwellings; 10. New medical books. It is intended that the surgical instruments, sanitary appliances, etc., shall be *bonâ fide* novelties, or improvements on those in common use. The pathological specimens will be arranged in departments.

Exhibition of Instruments and Apparatus.—It is intended to arrange for the exhibition of complete series of instruments, electro-therapeutic apparatus, instruments for physical diagnosis, and appliances relating to sanitary science and public health. Facilities will also be afforded, when requested, for the display of instruments in action, or for special explanation by the exhibitors of apparatus, etc.

The Catalogue.—It is intended to print a catalogue, which will be as complete as circumstances may permit. The Committee earnestly request those who intend to exhibit to bear in mind that it is impossible that descriptions, etc., can be included in the catalogue unless sent in early. They should be received at least a month before the meeting, that is, not later than July 8th.

Communications, objects intended for exhibition, etc., to be addressed to the Secretary of the Museum Committee, Mr. J. RANDLE BUCK, 26, Sidbury, Worcester. During the week preceding the meeting all

articles should be sent direct to the Music Hall, Worcester, and addressed to the care of the Curator of the Museum of the British Medical Association.

FRANCIS FOWKE, *General Secretary.*

London, April 13th, 1882.

BRANCH MEETINGS TO BE HELD.

SOUTHERN BRANCH.—The ninth annual meeting of this Branch will be held at the Masonic Hall, Southampton, on Thursday, June 22nd, 1882. (The President-elect has kindly undertaken to provide refreshments at the hall.) The general meeting will commence at 12 o'clock. Members desirous of reading papers or other communications at this meeting are requested to forward the titles to the Honorary Secretary before the 15th of June. No communication must exceed seven minutes in length, and no subsequent speech must exceed five minutes. The address will be delivered by the President-elect at 2 P.M. Excursions will be made to the Royal Victoria Hospital, Netley, and Netley Abbey. Carriages will be provided (free of charge), leaving the Masonic Hall in time to cross the Itchen by the 3 P.M. floating bridge. By permission of Colonel Cooke, R.E., C.B., the Ordnance Survey Office will be open for the inspection of the members. The dinner will take place at the Masonic Hall, at 6 P.M. precisely, to allow time for those members who are desirous of leaving Southampton by the evening trains. Tickets, 12s. 6d. each, including light wine. The committee request that those gentlemen who intend to be present at the dinner will send in their names to Dr. Trend, on or before Tuesday, the 20th instant.—J. WARD COUSINS, M.D., Honorary Secretary and Treasurer.

CAMBRIDGESHIRE AND HUNTINGDONSHIRE BRANCH.—The annual meeting of the above Branch will be held at Wisbech, on Friday, June 23rd, at 2.15 P.M.; W. Groom, Esq., President. The Great Eastern Railway Company have signified their willingness to facilitate the travelling of members by running a special train from Cambridge to Ely at 12.20 P.M., to catch the 12.58 P.M. train from there to Wisbech due at 1.42; and a special train from Wisbech to March at about 11 P.M. to join the up mail, for a payment of £5 in addition to the ordinary fares. If twenty members will make themselves responsible for 5s. each, the above arrangements may be easily accomplished. —BUSHELL ANNINGSON, Honorary Secretary, Walthamsal, Barton Road, Cambridge.—May 31st, 1882.

GLASGOW AND WEST OF SCOTLAND BRANCH.—The annual meeting of this Branch will be held in the Western Infirmary, Glasgow, on Friday, June 30th, at 3 P.M. The President-elect, Professor George Buchanan, after taking the chair, will give a clinical demonstration on the Operation for the Radical Cure of Hernia; will show cases in which the operation has proved successful; and will perform the operation. Thereafter the President will conduct the members to the University, where they will inspect the Bute Hall, the Randolph Hall, and other new buildings which are approaching completion. The members will afterwards be conveyed into the city, and the annual dinner will take place at 5.30. N.B.—Members of the Association who have not joined the Branch are invited to do so by communicating with the secretary before the meeting.—JOSEPH COATS, Honorary Secretary.

SOUTH-WESTERN BRANCH.—The annual meeting of this Branch will be held in the Board Room of the North Devon Infirmary, Barnstaple, on Thursday, June 22nd, at 2 P.M., under the Presidency of Mr. Joseph Harper. Opportunity will be given after the meeting, if time permits, to visit places of interest in and near Barnstaple. The annual dinner will take place at the Lion Hotel at 6 P.M.; dinner tickets, exclusive of wine, 7s. 6d. each. Members intending to dine, or to read papers, or make communications, are requested to give notice to S. REES PHILIPPS, M.D., Honorary Secretary, Wonford House, Exeter. P.S.—The President invites the members to take luncheon at his house in Bear Street between the hours of 12 and 2 o'clock.

METROPOLITAN COUNTIES BRANCH.—President, EDWIN SAUNDERS, F.R.C.S.; President-elect, THOMAS BRIDGWATER, M.B. The thirtieth annual meeting of this Branch will be held at the Crystal Palace, Sydenham, on Wednesday, July 19th, at 4 P.M. Dinner at 6 P.M ; tickets 12s. 6d. each, exclusive of wine.—ALEXANDER HENRY, M.D., W. CHAPMAN GRIGG, M.D., Honorary Secretaries.

BATH AND BRISTOL BRANCH.—The annual meeting will be held on Thursday, June 29th, at the Mineral Water Hospital, Bath, at 4.30 P.M.; when the President-elect, Dr. J. K. Spender will deliver his address, and the general business of the Branch will be transacted.—R. S. FOWLER, E. MARKHAM SKERRITT, Honorary Secretaries.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH.—The annual meeting of this Branch will be held at the Medical Library, Peirpoint Street, Worcester, on Tuesday, June 27th at 3 o'clock. Business: To elect Officers and Council for the ensuing year. To elect Representatives of the Branch in the General Council. The following new rules will be proposed: 1. That any gentleman wishing to become a member of this Branch shall pledge himself that he is not practising, and will not in future practise, homœopathy or any kind of irregular practice. 2. The name of any member may be removed from the roll of this Branch by a resolution carried by a two-thirds majority at a meeting of the Branch specially convened for this purpose, of which meeting fourteen days' notice shall be given. 3. That any member of this Branch whose subscription shall have remained in arrear for two years shall receive a written notice of the same from the Honorary Secretary, and should he not pay the same by the next quarterly meeting of the Branch, he shall cease to be a member of the Branch. Members wishing to read papers, or to exhibit specimens, etc., are requested to communicate with Dr. Crowe. The annual dinner will be held at the Star Hotel, at 5 o'clock. Dinner ticket, exclusive of wine, 5s. 6d. Any member who desires to be present is requested to communicate with Dr. Crowe, not later than Saturday, the 24th instant.—GEORGE W. CROWE, Honorary Secretary, Shaw Street, Worcester.—June 12th, 1882.

SOUTH-EASTERN BRANCH.—The thirty-eighth annual meeting of this Branch will be held at the Royal Kentish Hotel, Tunbridge Wells, on Thursday, June 22nd, at two o'clock precisely. The President-elect, Mr. Blackall Marsack, kindly provides luncheon at his own house, Mount Sion, from 12.30 to 2 P.M. After the meeting, members will be afforded the opportunity of visiting the following places: 1. Eridge Castle and Grounds, by the kind permission of the Marquess of Abergavenny; 2. Broomhill (where there is a fine collection of pictures), by the kind permission of Sir David Salomons; 3. Sherwood, by the kind permission of Dr. Siemens. Carriages to convey the visitors will be provided by the local committee. Dinner will be served at the Kentish Hotel at 5.30 P.M. Tickets (not including wine) 7s. 6d. each. —CHARLES PARSONS, M.D., Honorary Secretary, 2, St. James's Street, Dover.—June 7th, 1882.

SOUTH-EASTERN BRANCH.—A meeting of the Executive Council of this Branch will be held at the Royal Kentish Hotel, Tunbridge Wells, on Thursday, June 22nd, at 1 o'clock.—CHARLES PARSONS, M.D., Honorary Secretary.—Dover, June 14th, 1882.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.—The annual general meeting of this Branch will be held on Tuesday, June 20th, at the Grand Hotel, Colmore Row, Birmingham, at 4 P.M. An address will be delivered by the new President, Dr. E. Dewes. A ballot will be taken for members of the Branch. A resolution will be submitted that a committee be appointed in connection with the Association called "The Local Collective Investigation Committee". The annual dinner will take place at the Grand Hotel after the termination of the annual meeting, at 6 P.M.; dinner tickets, exclusive of wine, 5s. each. Members have the privilege of introducing one friend each to the dinner, whether a member of the medical profession or not.—E. MALINS, M.B., E. RICKARDS, M.B., Honorary Secretaries.

EDINBURGH BRANCH.—The annual general meeting of this Branch will be held at 5, St. Andrew Square, Edinburgh, on Tuesday, June 27th, at 4 o'clock.—CHAS. E. UNDERHILL, Honorary Secretary.

NORTHERN COUNTIES (SCOTLAND) BRANCH.—The annual meeting of this Branch will be held at Nairn on Wednesday, July 12th. Members desirous of reading papers or other communications are requested to forward the titles to the Honorary Secretary by the 30th of June.—J. W. NORRIS MACKAY, M.D., Honorary Secretary and Treasurer, Elgin.

LANCASHIRE AND CHESHIRE BRANCH.—The annual meeting of this Branch will be held at the Town Hall, Chester, on Wednesday, June 28th, at 2 P.M. The Council meets at 1 P.M. The medical practitioners of Chester will entertain the members at lunch at the place of meeting. Dinner at the Grosvenor Hotel at 5 P.M.; tickets 7s. 6d. The gardens and part of the house at Eaton Hall will be open to visitors during the day.—A. DAVIDSON, Honorary Secretary, 2, Gambier Terrace, Liverpool.—June 12th, 1882.

SPECIAL CORRESPONDENCE.

GLASGOW.

Medical Classes—Antiseptic Surgery—Glasgow Science Lectures—Food Supply—Ambulance Work.

THE medical classes of the summer session are in full working order at our different medical schools. At the University, all the practical classes are very largely attended, and the fresh entries of students are quite up to former years. The final examinations are to commence shortly, and I understand that no fewer than one hundred and six students purpose presenting themselves, which is the largest number that have ever come forward at one time. All this seems to show that our Universities are still highly valued for their medical degrees. The prospect of having a Scotch University Commission causes no anxiety in the medical department of our Glasgow University. In fact it would be rather welcomed, for it might benefit several of the chairs by pointing out how much they are in need of pecuniary grants. Without mentioning any special department, it is well known that the expenses incurred in working them are a heavy tax on the professorial incomes.

The question that has been so much of late agitating the professional world, as to the advisability or non-advisability of employing Listerism in abdominal surgery, is watched with much interest by surgeons in Glasgow, which must be regarded as the birth-place of antiseptic surgery. So far, I think, our surgeons have not seen their way to relinquish the use of the spray, and of recent years the successes in ovariotomies at our infirmaries have been very gratifying. On the morning of Wednesday, May 31st, Professor Geo. Macleod operated at the Western Infirmary for a large fibroid tumour of the uterus, which was increasing considerably and causing a good deal of disturbance of the health. The operation was a tedious one, lasting over an hour, but the growth was removed, together with the greater portion of the uterus, which was cut through a short distance above the os externum. The amount of blood lost was small. The pedicle was treated with the ligature, and antiseptic precautions were adopted all through the operation, including the use of the spray. The progress of the case was most satisfactory until the eighth day, when sudden pain came on followed by collapse, from which the patient never rallied. This was found to be due to the bladder, which was accidentally injured during the operation, having suddenly given way, setting up general peritonitis.

I am sorry to see that our Glasgow Science Lectures have not been a success, financially, last winter. The report shows that there has been a marked falling off in the number of tickets sold, and also in the subscribers. No fault can be found with the scope of the lectures or the lecturers who delivered them, nor, as it was put by Dr. Fergus, the chairman of the Association, does there seem to be in Glasgow less cultivation of science, or less desire for scientific information.

Seeing how intimately connected with the health of a community is a sufficient and good food-supply, a recent occurrence possesses much interest. I refer to the arrival in Glasgow of a quantity of refrigerated New Zealand mutton, which was found to be in excellent order and condition, and none the worse for its conveyance over the ocean and through the tropics in a sailing-ship. The beautifully scientific mechanism by which the preservation of this meat has been accomplished—the Bell-Coleman refrigerating machine—cools and dries the air, so that the meat is maintained in a natural condition. Any one going into the atmosphere so cooled experiences a very chilling effect, and gets some idea of what is felt in the Arctic regions. Whether in time any suitable modification of the plan can be worked out for application to surgery it is hard to say.

Ambulance work in Glasgow cannot be said at present to be progressing very satisfactorily. It is true that the St. Andrew's Ambulance Association has been furnished with a constitution; but its working, so far, has given rise to a good deal of friction. It is to be hoped that progress will be made in what is undoubtedly an excellent work, and for which there is a large field in Glasgow. Attention has been drawn to the want in our city of a good ambulance transport service, such as exists in New York and other American cities, and which has been started recently in connection with the London Hospital in the metropolis, and also in Liverpool, in a great measure by the exertions of Mr. Harrison. Considering the size of Glasgow, the large number of works that it contains, the severity of the accidents occurring in them, and the distance separating our two chief hospitals, there is great need of a rapid and safe means of transit for persons who are badly injured. The St. Andrew's Ambulance Association cannot do better than direct its attention to this matter and have it fully worked out.

ABERDEEN.

THE history of this Medical School is one of continued prosperity, if one may judge from the attendance of students and the assiduity with which they apply themselves to their studies. The present students of Aberdeen amply justify the reputation of this School for being one where good honest work is done. The number of students attending the various classes is quite equal to last year, and in some cases considerably exceeds it. The number of men beginning medicine, as already mentioned in this JOURNAL, is larger than for many years. The facilities for teaching are now so complete—thanks to the new Anatomical Department, and to the generosity of Sir Erasmus Wilson—that little more is to be desired, or can be obtained, within the walls of Marischal College. The Professors of Botany, Anatomy, Zoology, and Physiology, have large classes; and in all of them practical work goes on daily. The newly appointed Professor of Zoology, Dr. Nicholson, is proving himself to be an able and popular teacher, and will be a source of strength to the scientific staff. Students in the Zoology class are encouraged to spend a considerable portion of their time in the Laboratory, where the class-assistants and the professor assist them in working practically at Zoology. By dint of rearrangement of one or two class-rooms, it has been found possible to secure to Dr. Hamilton, the professor of Pathological Anatomy, an excellent and well lighted suite of rooms, with ready access to his class-room and to the Pathological Museum. Dr. Hamilton will commence his lectures next winter, and we have no doubt that his well known success as a teacher will greatly extend the reputation and usefulness of this School. We are glad to be able to state that Dr. Pirrie, the veteran professor of Surgery, has now almost recovered from his recent severe illness, and that he is expected to be able to undertake his duties next winter with all his former zeal and enthusiasm. Not only has the Aberdeen School grown numerically since last year, but several medical bursaries have been founded; and above all, it has gained what it has most wanted, viz.: a Chair of Pathological Anatomy, through the timely and princely generosity of Sir Erasmus Wilson.

BEQUESTS.—The late Mr. J. A. Fitzpatrick of Cork has bequeathed £25,000 to charitable institutions. Of this sum, £2,500 has been divided among the Fever Hospital, North Infirmary, Mercy, and St. Patrick's Hospital for Incurables, in Cork.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.

PRIVATE BILL LEGISLATION.

COMPULSORY NOTIFICATION OF INFECTIOUS DISEASES.

A NUMBER of Bills have been introduced into Parliament this session by various corporations, containing provisions for police and sanitary regulations, and for the compulsory notification of infectious diseases. Representations were last year made to the Government by the Parliamentary Bills Committee of the British Medical Association, as to the desirability of further Parliamentary investigation of Local Bills containing such provisions: and a series of reports to that effect by Mr. Ernest Hart, Chairman of the Committee, were forwarded to leading Members of Parliament. This year, upon the motion of Mr. Hopwood, Q.C., M.P., to whom these reports had been forwarded, and of certain members of Parliament representing "The Vigilance Association," those Bills containing provisions interfering with the freedom of the subject were referred to a special Select Committee appointed by the House to consider and report on these provisions.

By the aid of the Local Government Board, the Committee obtained returns of the working of such regulations in all the towns in which they exist, namely, Barrow-in-Furness, Birkenhead, Blackburn, Blackpool, Bolton, Bradford (Yorks), Burton-on-Trent, Derby, Huddersfield, Jarrow, Lancaster, Leicester, Llandudno, Manchester, Norwich, Nottingham, Oldham, Preston, Reading, Rotherham, Stafford, Stalybridge, and Warrington. The return set forth the answers to various questions as to the mode of working these clauses and their success; in every case the report was in favour of the provision. Further, it appeared from the report that in all the towns the duty of notification was cast upon the medical man in attendance; and in seventeen the duty of notification was placed on the occupier whether there was a medical man or not. The fees paid for notification generally are 2s. 6d., and in some cases 1s., while the penalty for disobedience varied from £2 to £10.

At the suggestion of the Committee, the five corporations, namely, Accrington, Macclesfield, Chadderton, Bolton (which sought amendments of the clauses already in force), and Newcastle-on-Tyne seeking these powers agreed upon a uniform set of clauses, and on Thursday, June 25th, these clauses were proceeded with.

Mr. Michael, Q.C., appearing for all the Corporations, in opening the case said that, as far as the most important section of the community, namely, the medical authorities, were concerned, there was no opposition to the clauses before the Committee, and that the only petition against those clauses by the medical men of Bolton was withdrawn.

As sanitary measures had in the past so they must in the future very largely depend upon the co-operation of the medical profession, and that an adverse bearing on their part to anything suggested in the way of legislation, anything which even went against their prejudices, would expose the successful working of any such clauses as those suggested to very great difficulties.

Referring to the return obtained by the Local Government Board, Mr. Michael pointed to the unanimity of opinion in favour of these provisions, and that in no single case had they been otherwise than conducive to a very highly improved state of sanitation in every locality in which they had been enforced. In the case of Leicester, in which alone there had been any opposition by the medical men, the operation of these clauses had not only been of the greatest public benefit, but they had succeeded in entirely disarming opposition, and showing that the apprehensions of the medical authorities were not founded on fact.

Throughout the whole of the medical profession, saving a hard application of these clauses, that is to say, interfering with medical men in the exercise of their profession, there was one unanimous feeling in favour of these clauses; and if such hard application were guarded against, there was one unanimous opinion that they must act for the benefit of the community.

As far as Mr. Michael was aware, there were, he said, but two reasons urged on the part of the medical profession against an extension of these clauses, and those objections had been dealt with by the Local Government Board. The first was, that, in calling upon the medical man in attendance to send in to the local authority a certificate declaring the existence of infectious disease in any family, it was calling upon him to do an act which was in reality a breach of the confidence existing between the patient or the family of the patient and himself. To meet that, the Local Government Board had suggested that it might be entirely removed by placing a double onus to notify

—namely, an onus upon the occupier of the house, or person in charge of the sick man, in addition, to that upon the medical man, thus removing the allegation as to breach of confidence. This became of importance with regard to the second objection —namely, that, especially amongst less educated portions of the community, if there was an obligation on the medical man alone to send in a certificate of the presence of infectious disease, and if that were to bring about the whole of the consequences which almost logically followed from the presence of an infectious disease, such as isolation of the sick person from others, it would tend to make ignorant people chary of availing themselves of medical attendance. But that was entirely removed by the insertion of the duty to notify being cast upon the householder as well as upon the medical man; and, though this provision seemed cumbrous, it was rendered necessary, that it might ensure against any such possible disadvantage to the medical profession from the working of these provisions. The learned counsel cited Hastings, to show that where notification was obtained, even without legislation, prompt knowledge and careful isolation by the medical officer of the local authority had tended almost to banish from the borough the presence of small-pox and scarlatina.

In conclusion, Mr. Michael pointed out how previous experience had shown that public legislation on sanitary matters had been based on local experience, which had found its way into local Acts of Parliament. Waiting the good time when there should be a general Act embodying these provisions, he hoped that the Committee would assent to them, confident as he was that their passing into law could only conduce to the public advantage.

Mr. H. E. Armstrong, Medical Officer of Health for the Borough of Newcastle-on-Tyne, was then examined, and said he had had great experience on the question of infectious diseases, and was of opinion that disease such as small-pox, scarlet fever, typhus, enteric fever, measles, and cholera, ought to be notified as early as possible to the medical officer of health. He had found great difficulty in protecting the community from the spread of infectious disease, because of the absence of such notification; and that, without early information that a specific person is suffering from such disease, it is impossible to act properly in order to prevent the spread of epidemic disease. As an instance of the utility of compulsory notification, the witness stated that, in Newcastle, returns of typhus were obtained from the dispensary; and, since those returns had been obtained, there had been no typhus epidemics. Typhus being a disease almost limited to the poor, it was by means of the dispensaries that they had been enabled to get a direct hold upon it. Scarlet fever, on the other hand, affecting as it did all classes, they had no means of getting notification of cases occurring in better class families, and hence had not been able so successfully to resist it. In the case of Jarrow, with a population of 35,000, almost entirely of a working class—the only place in the North of England in which these provisions were in force—they had been found to work well. The witness further stated that he believed the general feeling of the medical profession in his borough was decidedly in favour of compulsory notification.

Dr. Nicholas Hardcastle, practising at Newcastle, was called to speak to the feeling of the profession in Newcastle as to the compulsory notification clauses. The witness said that, collectively, the medical men were not opposed to these provisions; and that, if allowed, independent medical gentlemen in large towns will be led to acquiesce in and work with the new provisions. The witness was medical officer of health for a small district outside the borough. He confirmed Mr. Armstrong as to the impossibility of dealing efficiently with any epidemic unless the provisions asked for were obtained; and, further, these provisions would be of advantage also in districts of a small population. They would not be difficult to work. As medical officer to such a small district, he had felt their want.

After hearing these gentlemen, the Committee intimated that they were satisfied. Several medical men were called to give evidence concerning other sanitary questions in relation to infectious diseases; *e.g.*, closing schools in which cases of infectious disease had occurred, etc. These gentlemen were, Dr. George Bland, Medical Officer of Health for Macclesfield; Mr. Edward Sargent, Medical Officer of Health for the Borough of Bolton; Dr. Richard Clayton, Alderman of the Borough of Accrington; Dr. John Livy, practising at Bolton; Dr. Thomas Patterson, practising at Chadderton.

On Friday, the 26th, the Committee formally gave their consent to the provisions for the compulsory notification of infectious diseases, casting a duty both on the medical man and the householder to notify; the fee payable to be 2s. 6d., and the penalty for wilful disobedience to be £2.

N.B. The members of the Committee were: The Right Hon. G. Sclater-Booth (Chairman), Mr. H. W. Fowler, Mr. Garnier, Sir Gabriel Goldney, Mr. Hastings, Mr. Tempest, Mr. Parker, and Mr. McLaren.

Monday, June 12th.

Unqualified Practitioners.—Mr. H. SAMUELSON asked the Secretary of State for the Home Department whether his attention had been called to recent cases of the treatment of the sick by unqualified medical practitioners at dispensaries at the East end of London, to the death of two children so treated, and to the observations of the coroner at the inquest upon them on June 5th; whether he could take any steps to prevent such illegalities; and whether he could obtain power, either by the appointment of Government inspectors, the issue of Government licences, or some other efficacious means to prevent the sick poor from being attended by unqualified medical practitioners at the metropolitan dispensaries.—Sir W. HARCOURT: There is no legal authority which could deal with the matters referred to by the hon. member. The proper course would be for him to call the attention of the Medical Council, which has power to act by the 21 and 22 Vict., to these cases, and ask them to put the Act in force against them.

Lard-Cheese.—Mr. CHAMBERLAIN, in reply to Mr. E. PAGET, said that his attention had been called to an article called cheese, imported from America, which was composed of skimmed milk, lard, and oleomargarine. The Custom House authorities could not give him any particulars as to the extent of this importation, because the present classification did not distinguish between this kind of cheese and other sorts. A small departmental committee had been appointed to consider the whole question of the classification of the export and import statistics, and he should refer this question to their consideration, to see if more distinctive classification could not be made.

The State of the Thames.—Sir WILLIAM HARCOURT, in answer to Mr. THOROLD ROGERS, stated that it had been determined to appoint a small Royal Commission to report on the state of the Thames between London Bridge and Gravesend.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

THE DONCASTER BOARD OF GUARDIANS AND MR. SYKES.

WE learn from the *Doncaster Chronicle* that at a recent meeting of the Doncaster Board of Guardians, the clerk, Mr. J. Falconer, informed the Board "that he had withheld a cheque which he had drawn for Mr. Sykes because it was not right. When he looked at the account he found it was for amputation of fingers, for which two guineas were charged. Before a medical man could amputate a finger he was bound to get another medical man to attend and certify that it was a case for amputation, or whether he could not preserve the finger, but Mr. Sykes had done nothing of the kind. This should have been done at Mr. Sykes's own expense. He had mentioned that it could not be allowed, and Mr. Sykes had sent a letter in reply."

On the letter being read by the chairman, it appeared that "in both cases the need was urgent. A poor fellow came with an order signed immediate. In each case the finger was shattered, and there was considerable hæmorrhage. It would have been inexcusable barbarity to send the man two miles to the nearest surgeon, with the probability of his being from home, to obtain his opinion, and he, Mr. Sykes, did not hesitate to say that, considering the amount of blood which he was losing, it might have been dangerous to the man's life to have done so. He thought the consolidated orders referred to operations done to relieve chronic diseases." Mr. Atkinson, a guardian, said, "Mr. Sykes might have stopped the bleeding without amputating the fingers." Possibly, and left the poor fellow in an agony of expectation and of pain. The clerk said there was a similar case at Askern. Mr. Hindle had charged £1 for a fracture and he had no power to do so. The clerk withheld the cheque there also. Ultimately it was decided to apply to the Local Government Board for permission to pay the bill to Mr. Sykes. The regulation under which the clerk acted is very properly described by our contemporary the *Globe* "as having been conceived by some very distinguished red tapeist;" and again the *Globe* writes, "the absurdity is that guardians should not be allowed to exercise their own discretion in such a little matter." We agree with the *Globe*, and have no hesitation in expressing our opinion that the action of the clerk in raising so petty a matter would have been "more honoured in the breach than in the observance."

THE LAW OF LUNACY.

SIR,—From Mr. H. Meymott's letter, the guardians of Ludlow appear to object to pay, when a medical man's opinion is asked in the usual way as to the state of mind of a pauper, unless the magistrate send the case to an asylum. This, I believe, is quite contrary to the law. When a case of supposed insanity is brought

before a magistrate, he is directed to call to his assistance a registered medical practitioner, and must do so previous to sending a person to an asylum. To maintain that only on the surgeon's proving the person insane to the satisfaction of the magistrate is he to get his fee, is evidently not the intention of the Act; as this would be making him interested in the result, not merely giving his professional advice to the magistrate. I have no doubt Mr. Meymott could recover his fee in the County Court; whether it would be wise to do so is another matter; but I think the case should have been put before the Local Government Board.

The evident object of the Act is to take everything with regard to lunatics (except payment of expenses) out of the guardians' power; and I would further state, that it is only by courtesy that the Poor-law medical officer is usually the one called in. The magistrates may, and every now and then do, call in another practitioner.—I am, sir, yours truly, JOHN WOODMAN, M.D., F.R.C.S.

2, Chichester Place, Southernhay, Exeter, May 27th, 1882.

FEES TO WORKHOUSE MEDICAL OFFICERS.

SIR,—Will you kindly reply to the two following questions in the next number of the JOURNAL? 1. Is the medical officer to a workhouse, at a distance from his residence, entitled to a fee for attending and giving evidence at a coroner's inquest held at the workhouse? 2. Is he entitled to a fee for giving evidence at the magistrates' bench concerning cases that have occurred at the workhouse?—Yours truly,

WORKHOUSE DOCTOR.

*** 1. Until the question was raised adversely to the interests of the workhouse medical officer by Dr. Danford Thomas, the coroner for Central Middlesex, there was never any hesitation on the part of coroners to pay the fees laid down in the Coroners' Witnesses Act. We are of opinion that Dr. Thomas is in error. We learn that he has submitted a case to the Lord Chancellor, but we have not heard that his lordship has given his decision. 2. Most assuredly. No stipendiary magistrates or justices of the peace can demand the attendance of a workhouse medical officer without giving him a fee for such attendance. The only persons who can by law require such attendance are: first, the board of guardians sitting as a board or as a committee of the same, and the Poor-law inspector when directed to make an official inquiry. No fee, in these latter instances, can be demanded, as it forms part of his duty.

CLUB-PATIENTS AND PARISH RELIEF.

SIR,—May I ask your opinion on the following case? A man breaks his leg in a public-house quarrel. His club refuse to allow him sick pay or pay his club doctor the extra fee. He then applies for and is granted relief from the parish. The club doctor attends. My (the district medical officer) attention has never been called to the case. Have I any ground for complaint against the guardians? Can the guardians legally pay the club doctor? If not, who should? What course should I pursue?—I am, sir, faithfully yours,

THE DISTRICT MEDICAL OFFICER.

*** Under the special circumstances named in our correspondent's letter, we do not see that he can establish any claim on the board of guardians, as his services have not been ordered nor rendered; but we doubt whether it be competent for the guardians to grant the customary fee to the club doctor should the latter apply for it; or, if granted, whether the auditor would allow it. The club was perfectly justified in refusing sick pay, and the guardians had no other course open to them but to maintain the man so soon as, his resources having failed him, he became dependent on them for assistance. The club doctor should have left the case in charge of the district medical officer; but as he has elected to do otherwise, we advise our correspondent to bear it, for he has sustained no real injury.

OBITUARY.

THOMAS BEVILL PEACOCK, M.D., F.R.C.P.

CONSULTING PHYSICIAN TO ST. THOMAS'S HOSPITAL.

THIS well-known and highly esteemed physician, who was born at York, December 21st, 1812, died on Thursday, June 1st, in the wards of St. Thomas's Hospital from paralysis. He had been showing some friends over the hospital on Wednesday afternoon, and while doing so was seized suddenly with a paralytic attack, from which he never rallied. Dr. Peacock was consulting physician to St. Thomas's Hospital, to which he was first attached in 1849, and to the City of London Hospital for Diseases of the Chest. In the earlier part of his career he had been attached to the Royal Free Hospital. Dr. Peacock's scientific contributions to medicine were of the first order, and were distinguished by a laborious conscientiousness which stamped all he wrote with the impress of trustworthiness. His work on the *Malformations of the Heart* has long been one of the medical classics. It has been quoted widely abroad, and in itself would have more than sufficed to build up the solid reputation of its author. Dr. Peacock, however, contributed in his Croonian lectures further valuable information to our store of knowledge in cardiac disease. He also published in 1865 a careful report on the diseases of metalliferous miners. He wrote, during a long, successful and honourable career, numerous other papers in various medical and scientific journals. He was in 1868 appointed the first examiner in medicine at the Royal College of Surgeons with Dr. Wilks, with whom he collaborated harmoniously in that capacity for some years. During the whole of his long professional career, Dr. Peacock resided in Finsbury Circus. One by one he saw his colleagues and friends of Guy's and St. Thomas's leave the city for the west end, but he was contented to remain where he was.

Dr. Peacock's great passion, outside his professional studies, was travelling. Nearly every year he took a long and interesting tour, returning refreshed in body and laden with an increased store of knowledge of the world. In 1855 and 1856 he went two voyages to Ceylon, for the benefit of his health. He made an unusually large and interesting collection of photographs of places visited in his annual peregrinations. In 1876, the College of Surgeons presented Dr. Peacock with its Honorary Gold Medal, in recognition of the valuable additions made by him to the pathological preparations in the Hunterian Museum. He graduated as a doctor of medicine in the University of Edinburgh in 1842, and in 1850 he was elected Fellow of the Royal College of Physicians, of which college he held the offices of councillor, censor, and Croonian lecturer. Dr. Peacock was a member of the Society of Friends. He was a student at University College and St. George's Hospital, and commenced his connection with the medical profession as an apprentice to Mr. John Fothergill of Darlington.

JAMES SPENCE, F.R.C.S.E., F.R.S.E.,

PROFESSOR OF SURGERY IN THE UNIVERSITY OF EDINBURGH.

IN the death of Mr. James Spence, which occurred on Tuesday, June 6th, the profession has lost one of its most distinguished and useful members, and the Edinburgh University one of its most respected Professors.

Born in 1812, and receiving his general education partly in Galashiels and partly in Edinburgh, he commenced his professional life in the latter place by (what at that time was not at all uncommon) an apprenticeship with a firm of chemists and druggists, while at the same time he studied in the University. His curriculum ended when he was eighteen years of age. He then studied in Paris, and in 1832 he received the diploma of Licentiate of the Royal College of Surgeons, Edinburgh. Immediately after this, having passed an Army Board examination, he entered one of the ships of the East India Company, and for three years was engaged in that service. He now directed his attention specially to anatomy, and became a prosector and demonstrator of anatomy in the University with Professor Monro (tertius). It was in this division of work that Mr. Spence made himself famous by his dissections; those of the arteries of the foot it would be impossible to excel, and they are retained with pride in the rooms of the University and College of Surgeons, Edinburgh. Leaving the University, he, conjointly with Drs. Handyside and Lonsdale (both of whom died before him), conducted a course of anatomy in the Extra Academical School, and in this joint enterprise the dissecting-room was the special territory of Mr. Spence. In 1849, he passed the examination for the Fellowship of his College, and about this time was appointed an assistant-surgeon in the Royal Infirmary. In 1854, he attained to the position of Surgeon to the Royal Infirmary, and devoted himself to the prosecution of surgery with such earnestness and success, that, on the Chair of Surgery in the Edinburgh University becoming vacant through the death of Prof. Miller, he was appointed to it by a majority of the Curators, his principal opponent being Mr. Lister. For 28 years, then, Mr. Spence was in unbroken control of surgical wards (for his professorship entitled him to beds in the infirmary after the expiry of his surgeonship); and it may be said, without fear of contradiction, that he made ample use of all the cases that came to his care, not only as regarded the treatment of the patients and the instruction of the students, but in the extension of the fame of the Edinburgh school on the surgical side. A professor for eighteen years, he did much to dignify his office; and the successive generations of students, who as graduates, have gone forth from the university, will this week remember, with much regret, at his death, the teacher who in his unsparing use of himself in the conscientious discharge of his duties, taught so much by example as well as by precept. That his merits were recognised and appreciated, is evident by the fact that he held so many positions of high responsibility. In 1865 he was appointed surgeon in ordinary to Her Majesty the Queen in Scotland, succeeding Dr. David Maclagan as such. In 1870, on the death of Professor Syme, he was appointed consulting surgeon to Leith Hospital; he was also consulting surgeon to the Sick Children's Hospital, the Royal Public Dispensary, and the Dental Dispensary, Edinburgh. He was a Fellow of the Royal Society, Edinburgh; was for two years President of the Royal College of Surgeons, Edinburgh; also President of the Medico-Chirurgical Society; and at the time of his death he was the representative of the College on the General Medical Council, having succeeded the late Dr. Andrew Wood last year. It is therefore obvious that his long honourable career was not without its rewards; and if it be asked on what his success depended, the answer undoubtedly is, on his unswerving integrity and honesty of purpose, added to the thoroughness with which he discharged every duty, professional and personal. No matter whether a dissection or an operation, it could not be too carefully per-

formed, and it is in respect of his care at operations, and subsequently in the treatment of the patient that he had such a wonderful run of success (not of luck, for it was all honestly worked for), that he remained unconverted to the tenets of Listerism at a time when that system became triumphant in Edinburgh. One cannot blame a man like Spence, so long wedded to his own methods, and withal so successful with them, for remaining, as he did, a believer in the simpler methods, although he never refused to operate with the spray and other precautions where it was considered desirable. Such a hold had Mr. Spence on the profession that, last year, he was presented by his admirers in it with his portrait, painted by Mr. James Irving, a replica of this being hung in the Royal College of Surgeons; and the President of the Royal College of Physicians (Dr. Rutherford Haldane), in presenting the testimonial, fittingly stated that "No man was more worthy of such an honour; from the very commencement of his medical career, he had set himself to the scientific study of his profession—working first at anatomy, at which he attained almost unsurpassed dexterity. Not only was it anatomy to which he devoted attention, but also to surgical pathology; and latterly, and more particularly, to practical surgery, until he had earned a position as surgeon second to that of no one in the kingdom. It was not, however, only for his professional qualities he was esteemed, but quite as much for the honourable feelings that had invariably characterised him, and for that kindness of heart which always marked him in putting his services at the disposal of his friends." These expressions of Dr. Haldane's will find an echo in many a heart, not only among his old pupils, but among all his former patients: for, although somewhat austere in manner, there never was a more thoroughly kind nature that that of James Spence—not the kindness that expresses itself gushingly, but the kindness that prompted him, on many an occasion, to visit at midnight his Infirmary wards, when one or other of his patients there was the subject of his anxiety. It is impossible, in this imperfect notice, to take the full view of the career of one who had such a busy and useful life; but those who desire to become more familiar with a man who, without wealth, name, or influence, rose by sheer hard honest work to the pinnacle of his profession, may know him professionally by his *Lectures on Surgery*, a new edition of which is now issuing. In that volume will be found recorded much valuable experience; and it is a fitting termination to the professional labours of him whose loss is now felt keenly by many a member of the profession who never knew him personally, and still more keenly by all who knew him, friend and opponent alike (there never could have been a man so firmly rooted in his own opinions who had not opponents); for, while he was loved by many, he was respected by all. He delivered the Address in Surgery at the meeting of the British Medical Association when it met in Edinburgh in 1875.

He had been overworked during the last winter session, and was particularly troubled towards the end of the session with his foot. In April, this became so painful that he had to take to bed, several small abscesses occurring, and being treated. Ultimately, the toes became seriously affected; and, on the Saturday but one previous to his death, three of them were amputated. This, however, did not arrest the disease; and he died early on Tuesday morning.

He was buried on Friday, June 9th, in the Grange Cemetery, Edinburgh. The funeral was a large one, and was attended by the Principal of the University, Sir Alexander Grant, many members of the Senatus Academicus, a large number of lecturers and members of the profession, and a considerable number of students, in addition to public and private friends.

A SINGULAR circumstance happened at Croydon last week. A man was charged at the Petty Sessions with riotous conduct, and in his reply to the charge, the prisoner startled the court by stating that when he was taken in custody, he was assisting in removing his landlord, who was suffering from small-pox, to the hospital. The magistrate was considerably puzzled how to dispose of the case. If he remanded him he would perhaps carry the infection into the prison; and if he were discharged he would probably carry it about him wherever he went. The prisoner was finally discharged, with strict injunctions to get away as quickly as he could, and the police were instructed to disinfect the cell in which he had been confined.

GLASGOW UNIVERSITY MEDICO-CHIRURGICAL SOCIETY.—The following gentlemen have been elected office-bearers for the ensuing year. *Honorary President-Elect:* M. Charteris, M.D.; *President:* Robert Beith; *Senior Vice-President:* R. Bruce Young, M.A.; *Junior Vice-President:* J. Innes Dunlop; *Corresponding Secretary:* C. O. Hawthorne, Esq.; *Minute Secretary:* H. Rutherford, M.A.; *Treasurer:* G. M. Hogg.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following members of the College, having been elected Fellows at previous meetings of the Council, were admitted as such on the 8th instant.

Messrs. Thomas Edwardes, L.S.A., Llansaintffraid, Oswestry, diploma of membership dated May 8th, 1835; and Alexander Harkin, J.P., M.D. King's College Aberdeen, College Square North, Belfast, June 26th, 1840.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, June 8th, 1882.

Faulkner, Henry William, Kennington.
Gettings, John Salter, Chase Lodge, near Walsall.
Littlewood, John Oscroft, Guy's Hospital.
Macphail, Archibald Lamont, Glasgow.
Waddell, William, Belfast.

The following gentlemen also on the same day passed their Primary Professional Examination.

Vinrace, Edward Dennis, Queen's College, Birmingham.
West, John Arthur, King's College, London.
Dowsing, Herbert Leopold, St. Bartholomew's Hospital.
Middelton-Gavey, Edward Herbert, St. Bartholomew's Hospital.
Smith, James Edward, Charing Cross Hospital.

MEDICAL VACANCIES.

The following vacancies are announced:—

BELFAST UNION—Medical Officer for No. 8 (Carnmoney) Dispensary District. Salary, £115 per annum, with £20 per annum as Medical Officer of Health, registration and vaccination fees. Election on the 19th instant, when candidates are expected to attend.

BIRKENHEAD BOROUGH HOSPITAL.—Junior House-Surgeon. Salary, £60 per annum. Applications by the 19th instant.

BOSTON UNION, Lincolnshire.—Medical Officers for the Sutterton and Chapel Hill Districts. Salary, £50 and £20 per annum respectively. Applications by June 17th.

CHILDREN'S HOSPITAL, Birmingham.—Assistant Resident Medical Officer. Salary, £40 per annum. Applications by June 20th.

CHILDREN'S HOSPITAL, Birmingham.—Resident Medical Officer. Salary, £80 per annum. Applications by June 20th.

CUMBERLAND INFIRMARY, Carlisle.—House-Surgeon. Salary, £100 per annum. Applications by June 27th.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Resident Clinical Assistant. Applications by June 22nd.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge Road, S.E.—House-Surgeon. Salary, £70 per annum.

FRENCH HOSPITAL AND DISPENSARY, 10, Leicester Place.—Resident Medical Officer. Salary, £60 per annum.

GREAT NORTHERN HOSPITAL, Caledonian Road, N.—House-Surgeon. Salary, 60 guineas per annum. Applications by June 30th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Mount Vernon, Hampstead.—Physician. Applications by July 6th.

HOSPITAL FOR SICK CHILDREN, 49, Great Ormond Street, W.C.—Assistant Physician. Applications by the 21st instant.

HOSPITAL FOR WOMEN, Soho Square.—House Physician. Applications by the 27th instant.

IRVINESTOWN UNION.—Medical Officer for Irvinestown No. 2 Dispensary District. Salary, £100 per annum, with £15 per annum as Medical Officer of Health, registration and vaccination fees. Election on the 21st instant.

LIVERPOOL DISPENSARY.—Assistant Resident House-Surgeon. Salary, £108 per annum. Applications by the 26th instant.

LONDON HOSPITAL, Whitechapel Road, E.—Fifth Surgeon. Applications by June 20th.

MARKET BOSWORTH UNION.—Medical Officer and Public Vaccinator. Salary, £35 per annum. Applications by June 27th.

METROPOLITAN FREE HOSPITAL, 81, Commercial Street, Spitalfields, E.—Assistant House-Surgeon.

NEW ZEALAND.—Inspector of Lunatic Asylums. Salary, £800 per annum. Applications by June 20th.

ROYAL FREE HOSPITAL.—Assistant Dispenser. Applications, between 11 and 1, to J. S. Blyth, Secretary.

ROYAL UNITED HOSPITAL, Bath.—Resident Medical Officer. Salary, £80 per annum. Applications by June 22nd.

SEAMEN'S HOSPITAL (late Dreadnought), Greenwich, S.E.—Surgeon for the Dispensary. Salary, £63 per annum. Applications by June 20th.

ST. PETER'S HOSPITAL FOR STONE AND URINARY DISEASES, 54, Berners Street, W.—House-Surgeon. Applications by July 1st.

STANLEY HOSPITAL, LIVERPOOL.—House Surgeon. Salary £100 per annum. Applications by the 23rd instant.

STANLEY HOSPITAL, LIVERPOOL.—Junior House Surgeon and Dispenser. Salary £70 per annum. Applications by the 23rd instant.

ST. MARY'S HOSPITAL.—Clinical Assistant. Applications by July 1st.

THE INFIRMARY, Halifax.—Assistant House-Surgeon. Salary, £50 per annum. Applications to the Senior Physician of the Medical Staff by June 20th.

UNIVERSITY COLLEGE.—Resident Medical Officer. Applications by July 1st.

WESTERN OPHTHALMIC HOSPITAL, 155, Marylebone Road.—Clinical Assistant. Applications to the Hospital any afternoon from 1 to 3 o'clock.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Resident Assistant. Applications by the 26th instant.

YORK COUNTY HOSPITAL.—Honorary Physician. Applications by June 24th.

MEDICAL APPOINTMENTS.

BLACK, W. G., M.R.C.S., appointed Junior House-Surgeon to the Newcastle-upon-Tyne Infirmary.

COGAN, Lee F., M.R.C.S., appointed Medical Officer to Her Majesty's Prison, Northampton, *vice* Henry Terry, resigned.

DONNELLY, T., M.B., appointed Medical Officer for Dunboyne Dispensary District to the Dunshaughlin Union.

EWART, W., M.D., appointed Assistant-Physician to St. George's Hospital, *vice* J. Cavafy, M.D., resigned.

FERGUS, A. F., M.B., appointed Assistant-Surgeon to the Glasgow Ophthalmic Institution.

FERGUSON, J. M., M.B., appointed Resident Medical Officer for the Workhouse for Sick Poor at Mill Road, Everton, to the West Derby Union, *vice* W. M. Prees, L.R.C.P., resigned.

FOX, G., M.R.C.S., appointed Junior House-Surgeon to the Ingham Infirmary and South Shields and Westoe Dispensary, *vice* W. G. Black, M.R.C.S., resigned.

FRASER, J. H., M.B., appointed House-Surgeon to the Lancaster Infirmary and Dispensary, *vice* H. C. Moore, M.B., resigned.

GROOM, H. T., M.R.C.S., appointed Resident Medical Officer for the Workhouse for Sick Poor at Mill Road, Everton, to the West Derby Union, *vice* W. M. Prees, L.R.C.P., resigned.

HARRIS, A. G. R., L.R.C.P., appointed Medical Officer to the Kington Union, Kington, *vice* W. Langston, M.R.C.S., resigned.

HYNES, W. H., M.D., appointed Second Medical Officer and Apothecary to the Ennis Union, *vice* M. Greene, M.D., deceased.

HYSLOP, James, M.B., C.M., Second Assistant Physician at the Royal Edinburgh Asylum, Morningside, appointed Medical Superintendent of the Lunatic Asylum, Pietermaritzburg, Natal.

LANE, E. S., M.D., appointed Medical Officer to the Clun District of the Clun Union, *vice* E. A. Burgess, M.D., resigned.

LOWES, S., L.R.C.S., appointed Senior House-Surgeon to the Ingham Infirmary and South Shields and Westoe Dispensary, *vice* M. Rajaonah, L.R.C.P., resigned.

MCGEAGH, J. P., M.D., appointed Medical Officer for the Workhouse, Walton-on-the-Hill to the West Derby Union, *vice* R. Worrall, M.D., resigned.

MCGREGER, A., L.F.P.S., appointed Medical Officer to the Poor of Eaglesham, *vice* G. Johnston, L.F.P.S., resigned.

MCMURRAY, W., M.D., appointed Medical Officer to the Templepatrick Dispensary District, *vice* J. Barron, M.D., resigned.

MERCIER, C. A., M.B., appointed Assistant Medical Officer to the City of London Lunatic Asylum, *vice* W. R. Gibson, M.B., resigned.

MOORE, W. D., M.D., appointed Assistant Medical Officer to the Wilts County Asylum, *vice* L. Cox, M.R.C.S.E., resigned.

NEWSHOLME, A., M.D., appointed Registrar and Chloroformist to the Evelina Hospital for Sick Children, *vice* H. F. Stokes, L.R.C.P., resigned.

PETIT, J., L.K.Q.C.P.I., appointed Medical Superintendent to the Sligo District Lunatic Asylum.

POPE, Percy, M.R.C.S.Eng., L.R.C.P.Ed., appointed Poor-law Medical Officer to the Pinner District, Hendon Union, *vice* J. R. Pope, M.R.C.S.Eng., deceased.

OAKLEY, A. R., L.R.C.P., appointed Assistant Resident Medical Officer to the Victoria Dock District Dispensary.

RENNALLS, H. Boyle, M.R.C.S., appointed Medical Officer to the Fifth District of the St. German's Union, and Visiting Medical Officer to the Mount Edgcumbe Training Ship.

ROBERTSON, E. W., M.B., appointed Superintendent of the Aberdeen Royal Infirmary, *vice* R. G. Rattray, M.D., resigned.

SANDERSON, R., M.R.C.S., appointed Junior House-Physician to the Westminster Hospital, Broad Sanctuary.

SCHACHT, F. F., M.R.C.S., appointed House-Surgeon to the West London Hospital, *vice* O. G. Bradshaw, M.R.C.S., resigned.

SHEPHERD, T. A. J., M.R.C.S., appointed Second Assistant Medical Officer to the Surrey County Asylum, Brookwood.

SMITH, Henry, M.B., appointed House-Surgeon to the Hospital for Sick Children, Great Ormond Street.

THURSFIELD, T. W., M.D., appointed Physician to the Warneford Hospital, Leamington, *vice* H. Horner, M.D., deceased.

WHITE, T. B., L.R.C.P., appointed Resident Assistant Medical Officer to the Bolton Union, *vice* J. Barr, L.R.C.P., resigned.

WILLIAMS, J. Alexander, M.B., C.M., appointed House-Surgeon to the Royal Portsmouth, Portsea, and Gosport Hospital, *vice* C. C. Claremont, M.B., M.R.C.S., resigned.

WISE, C. H., L.S.A., appointed Resident Obstetric Assistant to the Westminster Hospital.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., *which should be forwarded in stamps with the announcements.*

MARRIAGE.

EDWARDS—BROMLEY.—On the 7th instant, at Chester, by the Revd. Lewis Edwards, D.D., Bala, father of the bridegroom, assisted by the Revd. T. P. Davies, M.A., James Edwards, M.R.C.S., of Elm Bank, Anfield, Liverpool, to Ellen, second daughter of Urias Bromley, the Old Hall, Chester.

DEATH.

CROWE.—June 9th, at 9, Eliot Place, Blackheath, John Wainright Crowe, L.R.C.S.I., M.R.C.P.I., Ennis, Co. Clare, Ireland (late of Hartlepool).

MEDICAL MAGISTRATE.—Dr. Heron has been appointed a justice of the peace for County Down.

HEALTH OF FOREIGN CITIES.—Fairly trustworthy indications of the recent health and sanitary condition of various foreign and colonial cities are afforded by the following facts and figures, derived from a table in the Registrar-General's return for June 3rd. According to the most recently received official returns, the annual death-rate averaged 27.8 per 1,000 in the three principal Indian cities, and was equal to 25.5 in Calcutta, 26.6 in Bombay, and 32.1 in Madras; cholera caused 52 deaths in Calcutta, measles 32 in Bombay, and small-pox 15 in Madras. The usual return from Alexandria does not appear to have come to hand. In twenty-three European cities, the death-rate averaged no less than 30.7, and exceeded by 10.8 the average rate prevailing last week in the twenty-eight large English towns. The death-rate in St. Petersburg was equal to 55.4, and showed a slight increase upon the somewhat declining rates in recent weeks; the 711 deaths in this city included 40 from typhus and typhoid fevers, and 30 from scarlet fever. In three other northern cities—Copenhagen, Stockholm, and Christiania—the mean death-rate did not exceed 22.3; scarlet fever caused 8 deaths in Copenhagen, and whooping-cough 4 in Christiania. The death-rate in Paris was equal to 26.3, and scarcely differed from the rates in recent weeks; the deaths in the city included 49 from diphtheria and croup, 41 from typhoid fever, and 11 from small-pox. The rate in Brussels did not exceed 22.2, although 13 fatal cases of small-pox were recorded, showing a considerable increase upon the numbers in recent weeks. In Geneva, the death-rate was equal to 22.3, and one death from small-pox was recorded. In the three principal Dutch cities, the death-rate averaged 25.2, and ranged from 19.5 in Rotterdam, to 28.0 in Amsterdam; measles caused 7 deaths in Amsterdam, and small-pox 2 in Rotterdam. The Registrar-General's table includes returns from nine German and Austrian cities, in which the death-rate averaged 30.4; it ranged from 22.2 in Dresden to 38.8 in Buda-Pesth. Small-pox caused 30 deaths in Vienna, 10 in Buda-Pesth, and 6 in Prague; diphtheria showed fatal prevalence in Berlin and Dresden. The death-rate in four of the principal Italian cities averaged 36.1, and was equal to 34.3 in Rome, 31.0 in Turin, 37.1 in Venice, and 39.6 in Naples. Measles caused 21 deaths in Rome and 11 in Turin; while diphtheria was fatally prevalent in Naples. In four of the largest American cities, the average death-rate was 27.6, the highest rate being 34.6 in New York. Small-pox caused deaths in each of these American cities, and scarlet fever and diphtheria showed fatal prevalence in New York and Brooklyn; 11 deaths from typhoid fever were returned in Philadelphia.—According to the Registrar-General's last weekly return, the annual death-rate averaged 27.4 in the three principal Indian cities, and was equal to 23.5 in Bombay, 29.2 in Madras, and 32.4 in Calcutta; cholera caused 106 deaths in Calcutta, and 20 fatal cases of measles occurred in Bombay. The death-rate in Alexandria declined to 24.9, but 11 of the 159 deaths resulted from typhoid fever. In twenty-three European cities, the death-rate averaged 29.0, and exceeded by no less than 9.3 the mean rate prevailing last week in the twenty-eight large English towns. The death-rate in St. Petersburg showed a further decline from the high rates in recent weeks, but was equal to 52.9; the 679 deaths included 39 from typhus and typhoid fevers, and 30 from scarlet fever. In three other Northern cities—Copenhagen, Stockholm, and Christiania—the death-rate averaged 22.6; the rates ranged from 14.5 in Christiania to 26.7 in Copenhagen, where 5 fatal cases of measles were recorded. The death-rate in Paris was equal to 25.7, and the deaths included 51 from diphtheria and croup, and 36 from typhoid fever. In Brussels, the rate did not exceed 22.2, but 4 more fatal cases of small-pox were recorded. In the three principal Dutch cities, the death-rate averaged 22.2, the highest rate being 23.9 in Amsterdam, the deaths in which city included 8 from measles. The Registrar-General's table includes returns from nine German and Austrian cities, in which the death-rate averaged 29.2, and ranged from 22.4 and 22.6 in Dresden and Berlin, to 35.5 and 37.3 in Munich and Prague. Small-pox showed increasing fatality in Vienna, which resulted in 33 deaths, and 7 deaths from the same disease occurred in Buda-Pesth; diphtheria continues fatally prevalent in Berlin and Dresden. In four of the principal Italian cities, the average death-rate was 29.7, the several rates ranging from 29.8 in Naples to 33.2 in Venice. Measles caused 13 deaths in Rome, and scarlet fever 10 in Naples. The annual death-rate in four of the largest American cities averaged 27.1, and ranged from 20.7 in Philadelphia, to 33.5 in New York. Scarlet fever continues to show fatal prevalence in New York and Brooklyn; diphtheria also caused 42 deaths in New York, and 4 fatal cases of small-pox were recorded in Baltimore.

Mr. EDWARD WALFORD, Medical Officer of Health for Ramsgate, reports a death-rate of 5.5 per 1,000 for the fortnight ending June 3rd, and a total absence of zymotic diseases. This we believe to be the lowest death-rate in any town in the kingdom for that period.

OPERATION DAYS AT THE HOSPITALS.

MONDAY..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p. Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu.F., 9.30; o.p., Tu. F., 2; Eye, Tu.F., 9.15; Ear, M. Th., 2; Skin, Tu.Th., 1.30; Throat, M. Th., 1.45; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. T., F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15. Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Royal College of Surgeons of England, 4 P.M. Mr. Jonathan Hutchinson: On Temperament, Idiosyncracy, and Diathesis in Relation to Surgical Disease.

TUESDAY.—Statistical Society, 7.45 P.M. Dr. W. A. Guy: Two Hundred and Fifty Years of Small-pox in London.

WEDNESDAY.—Royal College of Surgeons of England, 4 P.M. Mr. Jonathan Hutchinson: On Temperament, Idiosyncracy, and Diathesis in Relation to Surgical Disease.

FRIDAY.—Royal College of Surgeons of England, 4 P.M. Mr. Frederick S. Eve: On Cystic Tumours of the Jaws.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE HISTORY OF THE ASSOCIATION.

WE intend to publish in next week's JOURNAL, as a complement to the historical sketch of the Association, the histories of the Branches, as supplied to us by the local Secretaries. An account of the proceedings of the Association in regard to Medical Reform and other matters, will also appear as soon as possible.

UNIVERSITY DEGREES.

SIR,—Seldom has such an amusing piece of Communism as that advocated by "M.R.C.S.E." been broached in England. He wishes to extend the creed of *sans-culottism* to medical men; the English universities, on the other hand, prefer to give their degrees to the aristocracy of the profession only. According to "M.R.C.S.E.", our universities exclude "applicants" for degrees; true, but they do not exclude men willing to work and wait from their degrees. If "M.R.C.S.E." so pines after an university "diploma" (*sic*), the elastic portals of Durham are ready to receive him. We must, however, disagree with "M.R.C.S.E.", and sincerely hope that neither Oxford nor Cambridge will ever give degrees without residence. An university is not a place the sole object of which is to give degrees, as "M.R.C.S.E." would probably learn if he were to reside at Oxford. There are men at both universities who are also M.R.C.S.E.; men who have held hospital appointments, then think it worth while to go to an university afterwards; and yet such men do not agree with "M.R.C.S.E." The universities, therefore, do not "disregard the wishes of all Englishmen".—Yours truly,

ANOTHER M.R.C.S.

SIR,—May I suggest to the general practitioners who are interested in the matter of medical degrees, that the matter lies very much in their own, or rather our own, hands? If we would only recognise our own strength, and use it, we might do what we thought best for ourselves. The general practitioner has an enormous amount of influence in politics; and a combination of the medical men in almost any constituency can seriously influence the result of an election. My advice, therefore, is that we should draw up a memorandum on the above question, and that a copy of it should be handed to every member of Parliament by a deputation of medical men from his constituency. Such action would soon bear fruit, and place the medical man in his true position. Should my suggestion meet with approval, I shall be happy to co-operate in forming a committee to carry it out. The first step would be to form a committee or association which, for a small subscription or donation from those interested, could commence operations. Awaiting observations on the subject, I am, sir, yours truly,

L.R.C.P.

CORONERS AND MEDICAL WITNESSES.

SIR,—Will you kindly inform me if it is not the usual custom for coroners to call in the house-surgeon, in the case of an accident brought in dead? The coroner here repeatedly ignores taking any medical evidence in accidental deaths.—I am, sir, yours truly,

J. W.

*** It is entirely within the discretion of the coroner to call in medical evidence. It is, however, the usual practice to call the medical officer of a hospital or infirmary as a witness; and we do not understand the motive for not doing so, as no fee is payable.

THE CLAIMS OF LAW AND OF MEDICINE.

SIR,—I had often asked myself whether, in case of being subpœnaed to a court of justice, a call to attend a midwifery case, for which I had been previously engaged, should receive prior consideration. It happend, a little time ago, that I was summoned to such a case on the morning of the holding of a county court to which I had been subpœnaed. Not knowing what to do, I procured for my patient the services of a neighbour; and, on the judge's appearance in court, I applied for his advice under the circumstances. His reply was that, had I shown my respect for the court by sending him notice of the cause of my absence, he would have relieved me of any penalty under my subpœna, and have adjourned the case, "as considerations of 'life or death' must come before everything else;" and he immediately took my evidence (though the case was not called for hours afterwards), and set me at liberty. This occurrence may be of interest and service to others.—I am, yours truly,

THOMAS M. WATT.

SOCIETIES FOR WIDOWS OF MEDICAL MEN.

SIR,—I should feel extremely obliged if either you, or any of the readers of the JOURNAL, would inform me if there is any Society for the Relief of Widows of Medical Men to which provincial practitioners can become subscribers. The one in Berners Street, London, is only applicable to those residing within a twenty mile radius.—I am, sir, faithfully yours,

ENQUIRER.

*** Our correspondent is, of course, aware of the existence of the Royal Medical Benevolent College at Epsom, and of the British Medical Benevolent Fund, the claims of which have been frequently advocated in this JOURNAL. In the country, there are the following societies—and perhaps others, of the names of which we are not at present aware: The Birmingham Medical Benevolent Society (Secretary, Dr. J. Sawyer, Temple Row, Birmingham); The Essex and Herts Medical Benevolent Society (Secretary, Mr. Stephen Austin, Hertford); the Kent Benevolent Medical Society (Treasurer, Mr. G. Rigden, Canterbury); the Lincolnshire Medical Benevolent Society (Secretary, Dr. C. Harrison, Lincoln); the Surrey Medical Benevolent Society (Secretary, Dr. J. Walters, Reigate); the Sussex Medical Friendly Society (Secretary, Mr. R. V. Skinner, Winchelsea); the West Riding of Yorkshire Medical Charitable Society (Secretary, Mr. C. G. Wheelhouse, Leeds).

MEDICAL ETIQUETTE.

SIR,—Ought I, or ought I not, to meet in consultation a neighbouring practitioner who advertises himself on his plate "advice gratis"? I am inclined to think that we ought to give such an one the cold shoulder, as he refuses to be bound by the etiquette of his profession.—I remain, yours truly,

A. T.

*** In accordance with the principle laid down in the *Code of Medical Ethics* (a copy of which we wish were in the hands of every practitioner), ch. ii, sect. i, rule 3, p. 27, we are of opinion that "A. T." is justified in declining to meet in consultation the practitioner above alluded to.

A MEMBER.—The course taken by the medical man to whom you refer was not in accordance with the usual etiquette. He ought to have communicated with you before calling to examine your patient.

M.B.M.A.—The world is wide, and there is room for all. To deserve goodwill of his colleagues, our correspondent has only to observe the accepted rules of conduct in professional life; and he is not likely to fail in this if he observes carefully the one rule: "Do unto others as you would have them do unto you."

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

THE DURATION OF HUMAN LIFE.

SIR,—In your issue of May 27th, Dr. Rabagliati seems to adopt a curious method of adding vulgar fractions. Taking his figures, I should deal with them thus:

$$\frac{70}{9} + \frac{190}{3} = \frac{70}{9} + \frac{570}{9} = \frac{640}{9} = 71\frac{1}{9}$$

$$\frac{61}{9} + \frac{311}{5} = \frac{305}{45} + \frac{2799}{45} = \frac{3104}{45} = 68\frac{44}{45}$$

I deal only with the arithmetical side of the question, and leave others to draw conclusions.—I am, etc., THOMAS M. WATT.

Hovingham, York, June 7th, 1882.

J. L. H.—The next meeting of the International Medical Congress will be held at Copenhagen in 1884.

CHEAP MEDICAL BOOKS.

SIR,—Will you allow us to say that the sixth edition of Sir Henry Thompson's lectures is published at an even cheaper price than appears from your note last week? We issued it at half-a-crown, not three shillings and sixpence. The price is given not only in the advertisements, but also on the cover of the book itself.—We are, sir, your obedient servants, J. AND A. CHURCHILL.

11, New Burlington Street, W., June 12th, 1882.

TRIPLETS.

SIR,—Noticing the letter of Mr. Aldrich in this week's JOURNAL concerning a triple birth, I may mention as a coincidence, or as a matter of interest, that I have lately attended, in this neighbourhood, two cases of triplets within about one hundred yards of each other, occurring in the space of a fortnight, viz., on April 26th and May 9th. The children were all male, and all born alive. In each case, the first two had a common placenta, which came away after their birth, followed in a few minutes by the third child, surrounded by the membranes and having a separate placenta. The first three died, being premature, in a few days, also one of the last ones; but the remaining two still live, and are doing well. I may add that the mother in each case made a good and rapid recovery.—Faithfully yours,

ROBERT E. CLITHEROW, M.R.C.S.

Lancaster House, Peckham Rye, S.E., June 10th, 1882.

SIR,—In reply to the query of "Old Subscriber", I beg to inform him that patients are admitted into the Central London Ophthalmic Hospital, Grays Inn Road, upon payment of 7s. a week.—Faithfully yours, GEO. ABBOTT.

23, Finsbury Circus, E.C.

PUERPERAL INSANITY VERSUS INDUCED ABORTION.

SIR,—In answer to Dr. Hess's letter in the JOURNAL of May 27th, I would beg to make the following remarks. It is, I think, certain that every attack of acute mania, whether puerperal or not, weakens the nervous centres, or rather accustoms them to an abnormal state, and so renders the patient, after each successive attack, more liable to like mental affections, and ultimately, if the unhealthy state be too often induced, to permanent deterioration of the mind. The repeated appearance of insanity during the puerperal state merely points to a predisposition to insanity, as does its onset in the course of any other diseased or reduced state of the general system where it is not attributable to hyperpyrexia. If these points be admitted, and it be recognised that insanity tends to shorten life and rob it of all pleasure, equally at least with bodily disease, it is, I presume, clearly justifiable to procure early abortion, in order to escape the almost certain consequences of labour at full term, viz., insanity, ending frequently in death from suicide or exhaustion, and at other times (though more rarely) reducing the miserable patient to that state, perhaps worse than death—hopeless dementia.

It may be argued that abortion does not entirely rid the patient of the risk of insanity; but we find mental aberration so seldom following miscarriage that, for practical purposes, we may regard abortion in the early months of pregnancy almost as a preventive of that form of insanity known as puerperal. The legacy of suffering and misery the offspring of such women too often inherit must also weigh in the scale in favour of the induction of labour at an early period.—I am, etc., S. A. K. STRAHAN, M.D.

DR. HARRIS.—The provincial members of the Council of the Royal College of Surgeons are just as constant in their attendance at Lincoln's Inn Fields as the metropolitan members. They are, taking them in seniority, Dr. G. M. Humphry of Cambridge, Mr. Alfred Baker of Birmingham, Mr. Edward Lund of Manchester, and Mr. William Cadge of Norwich.

DEATH CERTIFICATES AND CLUB CERTIFICATES.

SIR,—It has always appeared to me to be one of those legal injustices borne by medical men that, while they are bound by law to give a free certificate of death for the registrar, he, by simply giving a duplicate of that certificate, becomes entitled to a fee from the person so demanding his certificate if the dead person has been a member of a burial club or other life-assurance society. That is, the medical man gives that information gratuitously to the registrar, without which this latter could not act, he being entitled to a fee for so acting, besides, of course, his fee of registration from the Government, local or other. Would it not be well if some action be taken to remove this injustice in the Medical Act Amendment Bill about to be brought before Parliament? It betokened, in my opinion, some laxity somewhere, that, when the last Amendment Act was passed, this gratuitous injustice was allowed to pass unremoved or inserted. The remedy is easy—make it legal that a certificate from the medical man similar to the one he gives for the registrar should be recognised by all insurance offices and clubs.—I am, sir, your obedient servant, MEDICAL PRACTITIONER.

ARREST OF DEVELOPMENT.

SIR,—Last week a patient of mine, aged 40, was safely delivered by my assistant, Mr. Allen, of a female child, very strong and healthy, but on the right side there was not the least indication of a leg. The most careful examination could not detect an attempt at the formation of a thigh. On the same side, there was a stump of humerus about an inch long, and looking as if it had been amputated by the circular method. The mother stated that, three months before her confinement, she had fallen downstairs; and that, at the time she believed herself to be six weeks' pregnant, she unfortunately was in a train whose engine ran off the metals, and frightened her very much. Could this latter have been the cause of the arrest of development? or what was?—I am, etc.,

Wansford, June 10th, 1882 FERGUS M. BROWN, L.R.C.P.Ed.

THE JUNIOR EDITOR.

THE editor of an American medical journal announces the birth of a son in the following terms: "E. M. Bruce arrived at 4 o'clock A.M., May 2nd, 1882, and will in due time divide with his father the editorial duties of the *Medical Herald*."

COMMUNICATIONS, LETTERS, etc., have been received from:—

Mr. F. J. Allan, Newtown; Dr. F. P. Atkinson, Kingston-on-Thames; Mr. W. H. O. Jacobson, London; Dr. Aitken, Rome; Mr. St. Vincent Mercier, London; Mr. Edward Walford, Ramsgate; Mr. R. Middlemore, Birmingham; Dr. Murrell, London; Our Edinburgh Correspondent; Mr. A. D. Macdonald, Liverpool; Messrs. Thomas Nicholls and Son, London; Mr. F. W. Elsner, Taunus, Stillorgan; Mr. F. E. Orange, Crowthorne; Mr. Furneaux Jordan, Birmingham; Mr. H. W. McConnel, Edinburgh; Mr. W. Heane, Cinderford; Mr. W. Roche, R.N., London; Mr. G. R. Master, Norwich; Mr. A. D. R. Sweeting, Fulham; Mr. William Donovan, Whitwick; Dr. Fairlie Clarke, Southborough; Mr. John Gorham, Tunbridge; Mr. Whitehead, Manchester; Mr. C. D. Hawthorne, Glasgow; Dr. A. D. Grosvenor, London; Mr. Carteighe, London; Mr. E White Wallis, London; Dr. Thomson, Dublin; The Rev. E. Spencer, Tavistock; Our Aberdeen Correspondent; Dr. Carter, Liverpool; Mr. J. Lawrence Hamilton, London; Dr. J. Burney Yeo, London; Dr. Andrew Clark, London; Our Dublin Correspondent; Mr. George Brown, London; Dr. G. Shattuck, Boston; Mr. Charles Firth, Norwich; Mr. Wood, London; Dr. Owen Coleman, Surbiton; Mr. J. E. Bennett, Liverpool; Mr. Robert Lee, Hayward's Heath; Messrs. Arnold and Sons, London; Mr. H. Mulliner, Leamington; Dr. Arminson, Preston: The Caroche Tricycle Company; Dr. Markham Skerritt, Bristol; Dr. Quirk, Pontypool; Mr. Andrew Boutflower, Manchester; Sir Charles Trevelyan, London; Dr. William Jelly, Madrid; Mr. W. Watson Cheyne, London; Dr. A. H. Benson, Dublin; Mr. D. H. Cullimore, London; Mr. R. S. Fowler, Bath; Dr. George Scott, Southampton; Mr. Frederick Hitch, London; Dr. G. T. B. Watters, Stonehouse; Mr. John Ewens, Bristol; Dr. John Ringwood, Kells; Dr. J. F. Sutherland, Glasgow; Mr. F. E. Manby, Wolverhampton; Mr. F. H. Vertue, Southwold; Dr. Philipson, Newcastle-upon-Tyne; Dr. P. H. Pye-Smith, London; Mr. W. Sykes, Mexborough; Mr. R. Clitherow, Peckham Rye; Dr. G. de Gorrequer Griffith, London; Mr. Clement Palmer, Barton-under-Needwood; Mr. Fergus M. Brown, Wansford; Mr. C. Stephens, Jedburgh; Mr. Wm. Weston, London; Dr. E. Malins, Birmingham; Dr. E. Rickards, Birmingham; Mr. J. Berliner, London; Mr. James Lemont, Newcastle-on-Tyne; Mr. John Atkinson, London; Mr. F. Wallace, London; Dr. Henry Savage, London; Dr. A. H. Young, Manchester; Our Glasgow Correspondent; Mr. James Liddell, Glasgow; Messrs. J. and A. Churchill, London; A Provincial; Dr. Ord, London; Mr. George Stoker, London; Dr. Tripe, London; Dr. Strahan, Benywood; Mr. Percy Pope, Watford; Mr. W. Buchanan, Chatham; Mr. J. Hussy Williams, Bootle; Dr. Robert Cory, London; Dr. Geo. W. Crowe, Worcester; Dr. Pirie, Dundee; Mr. A. Ford, Harrowgate; Mr. John Martin, Alcester; Mr. E. W. Robathan, Risca; Mr. H. B. Runnalls, Saltash; Mr. D. R. Elliot, Carlisle; Messrs. Houghton, Meffler, and Co., Boston; Mr. G. H. Blackmore, London; Our Birmingham Correspondent; Mr. William Donovan, Lincoln; Mrs. Dance, London; Mr. William Martindale, London; Dr. Graham, Redhill; Mr. Charles E. Steele, Liverpool; Dr. Robinson, Medhurst; Dr. Crichton Browne, London; Dr. Strange, Worcester; Mr. W. Le Grand, Dublin; Dr. Saundby, Birmingham; Dr. T. Keith, Edinburgh; Mr. W. Eassie, London; Mr. Thomas Watt, Hovingham; Dr. R. Bruce Low, Helmsley; etc.

BOOKS, ETC., RECEIVED.

The Student's Guide to Materia Medica and Therapeutics in accordance with the British Pharmacopœia. By John C. Thorowgood, M.D., F.R.C.P. London: J. and A. Churchill. 1882.

Ovarian and Uterine Tumours: their Pathology and Treatment. By T. Spencer Wells, F.R.C.S. London: J. and A. Churchill. 1882.

The Arsenical Springs at La Bourboule, Auvergne. By G. H. Brandt, M.D. London: H. K. Lewis. 1882.

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REMARKS
ON
CODEIA IN THE TREATMENT OF DIABETES.

By R. SHINGLETON SMITH, M.D., B.Sc.Lond., M.R.C.P.,
Physician to the Bristol Royal Infirmary.

In alluding to the subject of diabetes, one cannot forget what has been done by experimental physiology to place the disease on a true scientific basis: the discovery of glycogen by Bernard, and the demonstration of the connection of glycosuria with vaso-motor paralysis of the liver and with irritation of the vaso-motor centre in the medulla oblongata, are the foundations for a scientific treatment of the disease. The nervous system having been shown to be the agent by which diabetes could be most readily induced, physicians had not long to observe before they found that nature's experiments gave exactly the same results as those on the medulla of the lower animals; and cases of glycosuria associated with disease in the cervical region of the spinal cord are now known to be far from uncommon.

Glycosuria having been shown to depend primarily on disease of the nerve-centres, it is not a little interesting to observe that the drug which most controls it is one which affects nerve-tissues more especially. Opium has, indeed, been used empirically in the treatment of diabetes ever since the time of Aetius. Lecorché observes that since the time of Willis opium has become, so to speak, the panacea of diabetes. Few will agree in the remark of Niemeyer (French edition, vol. ii, p. 761) that "up to the present time, we possess accurate observations on the alkaline carbonates alone which show a positively favourable influence on the course of the disease." The cure at Karlsbad is advocated by Niemeyer as the prescription which merits the greatest confidence in this disease; and he mentions no other treatment. He considers it useless to insist on prescriptions based on purely theoretical ideas; and he argues that opium has been given in this way on the theory that it would diminish the irritability of the kidneys. The experience of our ancestors, who administered opium in the form of Theriaca Mithridatis; the advice given by Willis, Prout, Darwin, Christison, Ormerod, and many other authors; and the more recent, and perhaps more accurate, observations given by Pavy and Thompson, show that the practice is the result of well established experience, and not the result of any temporary fashion or fancy.

Dr. Lauder Brunton says that under the influence of opium the thirst diminishes, the excretion of urine becomes correspondingly less, and the proportion of sugar present in it falls. He might have added that the weight of the patient ceases to diminish, and generally improves. Recent observers have not been content to rest with this knowledge, but have endeavoured to ascertain to which of the alkaloids contained in opium the beneficial effect is due. Morphia has been found to act in a way similar to that of opium; and there appears to be little or no difference of opinion that the one drug, morphia, is equally useful as the other, the watery extract or some other preparation of opium. Codeia was first recommended by Pavy, and was preferred by him, inasmuch as it might be given in large doses without producing drowsiness.

The narcotic action of codeia has been established by various observations on the lower animals; the minor poisonous effects, as noted in human beings, are semi-coma instead of sleep, nausea, vomiting, severe pain in the stomach, sometimes tinnitus aurium, slight salivation, feeling of pressure in the temples, weakness of sight, and a somewhat remarkable retardation of the pulse (Phillips's *Materia Medica*). The potency of codeia as a soporific would appear to have been much exaggerated; the highest dose employed by Krebel was about one grain, and he recommended only one-fifteenth or one-sixteenth of a grain for sensitive subjects. Of late, it has been much employed, as recommended by Dr. Saundby, in the treatment of the cough of phthisis, where one grain dissolved in a drachm of syrup gives very great relief to the cough, and has also an appreciable soporific effect. But it is more particularly in the treatment of diabetes that codeia has proved to be of the greatest service, as the cases to be detailed will tend to prove.

This question of dose is an important one, and is at the root of the use of codeia in diabetes. Some authors recommend small doses; but Dr. Brunton states that "diabetics bear large and sometimes enormous doses of opium and codeia; and, in administering these remedies, it is well to push the dose until the sugar either disappears from the urine, or until increasing drowsiness obliges us to discontinue it." Dr. Brunton (*Practitioner*, vol. xii) says: "The two remedies which are most serviceable in lessening the excitability of the nervous centres in diabetes are opium and its alkaloid, codeia. The latter may be given in doses of a quarter to half a grain three times a day at first."

Dr. Pavy (*Guy's Hospital Reports*, vol. xv) gives a remarkable series of cases, in which daily records of the composition of the urine were made, and in which careful analysis of the urine showed that the sugar disappeared entirely under the influence of opium, morphia, or codeia, with the aid of restriction in diet. The drugs were given in gradually increasing doses: opium in doses of one grain up to nine grains thrice daily, morphia up to three grains, and codeia up to ten grains three times a day. The great advantage of codeia over opium and morphia was found to be that, whilst equally efficacious in controlling the disease, it does not exert the same narcotic effect. When given in a small dose to begin with, and increased gradually, nothing may be perceived beyond its effect upon the disease.

Dr. Cavafy, in the *St. George's Hospital Reports*, has subsequently reported a case in which he gave fifteen grains thrice daily with a good result.

Dr. Ord has also reported the case of a woman aged 33, with diabetes of four months' standing, who gained seven pounds in one week with one grain of sulphate of codeia twice a day, after diet alone had failed to produce any good effect.

It is remarkable that so experienced a physician as Trousseau should not allude to the use of opium and its alkaloids in the treatment of diabetes. He says that alkalies are unquestionably beneficial; and that other medicines, tonic remedies, such as rhubarb, may be associated with them; and yet he does not mention the fact that opium has ever been given, and he does not discuss its utility. (*Clinical Medicine*, vol. iv.)

It is equally remarkable that Dr. Heineman of New York, in the American edition of Zeimssen's *Cyclopædia*, omits all mention of codeia and of opium in diabetes. He gives details as regards dietary, and states that preparations of ammonia are destined to take an important rank in the treatment of this disease.

On the other hand, Budde states that his observations show that alkalies have no special influence in diminishing the excretion of sugar.

Dr. Kratschmer gives results of a series of observations with a view of testing the value of carbonate and sulphate of soda, and of morphia, upon the excretion of sugar. He finds that neither the carbonate nor the sulphate appeared to exert any influence on the amount of sugar excreted, but he has satisfied himself that in morphia we possess an agent that is not only capable of materially reducing the excretion of sugar, but also of diminishing to a remarkable extent the general tissue-metamorphosis of the body (*Practitioner*, vol. xii).

Carbolic acid and the salicylates have also been much lauded, as also more recently boracic acid. Numerous observations have shown no good result from these drugs; and I submit that time should not be wasted in therapeutical experiments on patients, and that such drugs should only be given when codeia has been found to be either useless or injurious.

Although I cannot claim such satisfactory results as those given by Dr. Pavy, yet the cases to be reported show that the drug employed has a remarkable power of checking the elimination of sugar, and that a corresponding improvement in the health of the patient results. It would appear that alkalies, and all other methods of treatment, are far inferior to the treatment by codeia, which may be considered to have almost a specific action on the disease. The facts before us seem to justify decided language with regard to the use of codeia, which should not be permissive, but imperative, in all cases of advanced diabetes mellitus: whatever else may be given, codeia should first be given, and in fairly large doses, until some physiological effect is produced. Even dieting appears to sink into insignificance by the side of codeia; in one case given by Dr. Pavy, the codeia alone was sufficient, without any restriction of diet, the patient being on a mixed diet the whole time.

It has been supposed that codeia is a dangerous drug. Barnay (*London Medical Record*, October 1877) says: "The tendency of codeine to produce convulsions is so great, that it should be excluded from therapeutics." It has been stated, as a result of Bernard's experiments on the opium-alkaloids, that whilst narceine is the most soporific element, codeine is that which most tends to convulsions. The literature of codeia does not bear out this statement, and I have never observed anything to support it.

I have now endeavoured to show that the utility of codeia is by no means universally recognised, but that it is fully deserving of confidence

—nay, more, is imperatively demanded—in the treatment of diabetes where treatment other than dietetic is required.

CASE I.—Robert C., aged 27, clerk, had been feeling weak and losing weight for four months, as much as 14 lbs. in three weeks. He was admitted October 3rd, 1879, with symptoms of diabetes. The urine was 230 ounces daily, of specific gravity 1032, containing 2 per cent. of sugar, and a trace of albumen. His weight was 7 st. 13 lbs.

Date.	Ounces.	Spec. Grav.	Date.	Ounces.	Spec. Grav.
Oct. 5	Urine 360	1030	Nov. 8	Urine 134	1032 *g*
,, 6	,, 250	1031	,, 12	,, 116	1031
,, 7	,, 370	1030 *a*	,, 16	,, 116	1033 *h*
,, 8	,, 255	1031	,, 20	,, 100	1033 *i*
,, 9	,, 274	1030	,, 24	,, 94	1030
,, 10	,, 300	1031	,, 28	,, 86	1028
,, 11	,, 274	1031	Dec. 3	,, 78	1041 *k*
,, 12	,, 292	1029 *b*	,, 8	,, 120	1040 *l*
,, 13	,, 140	1030	,, 10	,, 86	1037
,, 14	,, 140	1026 *c*	,, 11	,, 70	1039
,, 15	,, 150	1027	,, 23	,, 78	1040 *m*
,, 16	,, 128	1031	1880.		
,, 17	,, 170	1031	Jan. 27	,, 180	1030
,, 18	,, 144	1029	,, 30	,, 180	1031 *n*
,, 19	,, 180	1031	Feb. 2	,, 120	1041 *o*
,, 20	,, 250	1033 *d*	,, 4	,, 90	1032
,, 21	,, 194	1030	,, 8	,, 80	1035 *p*
,, 22	,, 170	1030	,, 10	,, 90	1035
,, 23	,, 160	1033	,, 12	,, 84	1037
,, 24	,, 150	1036	,, 13	,, 110	1035 *q*
,, 28	,, 110	1030 *e*	,, 14	,, 80	1037
,, 30	,, 124	1031	,, 16	,, 60	1035
Nov. 1	,, 110	1030 *f*	,, 18	,, 52	1036 *r*
,, 4	,, 140	1033	,, 27	,, 68	— *s*

a Ordered gluten bread. *b* Codeia, one grain three times a day. *c* Weight, 7 st. 12 lbs. *d* Codeia, three grains three times a day. *e* Weight, 8 st. 3 lbs. *f* Morphia, one-sixth of a grain thrice daily. *g* Morphia, half a grain thrice daily. *h* Morphia, two-thirds of a grain three times a day. *i* Morphia, one grain three times a day. *k* Morphia was discontinued. *l* Codeia, two grains thrice daily. *m* Weight, 8 st. 4 lbs.; codeia was discontinued. *n* Codeia, two grains thrice daily. *o* Weight, 8 st. 5 lbs. *p* Codeia, three grains thrice daily. *q* Codeia, four grains thrice daily. *r* Weight, 8 st. 7 lbs. *s* Weight, 8 st. 11 lbs.

He was now made an out-patient.

CASE II.—Albert B., aged 23, clerk, had rheumatic fever four years ago. Before that he had a cough, and was supposed to have disease in the upper lobe of the left lung. His father died of phthisis.

Five months ago he began to notice that he was languid and thirsty; then he found he was losing flesh, and that he passed more urine than usual. Four weeks ago he was hit on the nose with a cricket-ball, and since then symptoms had been worse. He had always had a slight cough, especially in winter; had had a little expectoration and occasional hæmoptysis.

On admission, July 12th, 1880, he was a thin, delicate looking youth, weighing only 7 st. 6 lbs., although of average height. The evening temperature was 98°; pulse 108, small. The skin was dry, the tongue slightly furred. At the left apex some obscure *râles* were heard, but there was no dullness. The heart sounds were normal. The urine was abundant, clear, acid, of specific gravity 1035, containing no albumen, but six to seven per cent of sugar.

From the 12th to the 19th he was put on a diabetic diet with bran-bread, and he took codeia in doses of two grains thrice daily. The fall in the quantity of urine passed was considerable, from 206 ounces on the 12th to 150 on the 19th. Gluten-bread was then given instead of bran-bread, but milk to a pint was continued. On the 21st the codeia was increased to three grains per dose, and on the 24th the urine had fallen to 80 ounces. The milk was then discontinued, and the urine fell still further to 64 ounces on the 25th, and 66 on the 26th. On August 3rd, the patient had gained three pounds in weight; the urine amounted to 64 ounces, of specific gravity 1036. One pint of milk was re-ordered, and also cod-liver oil in drachm doses, three times a day. Four days later the patient had lost two pounds in weight, and the urine had risen to 85 ounces of specific gravity 1040; the milk was therefore left off on the 7th, and the codeia and cod-liver oil continued as before. Two days later the patient took some white bread surreptitiously, as was discovered by the fact that the urine amounted to 100 ounces; but, in spite of this drawback, the urine fell to 64 ounces on the 12th. On the 14th, the weight being now stationary, the codeia was increased to four grains in each dose, and in seven days the weight had increased by three pounds, and the urine on the 21st was 74 ounces, of specific gravity 1037. On the 27th the patient was very drowsy, could sleep at any time, and seemed apathetic from a state of semi-narcotism, the urine being 69 ounces at 1035, the weight being 7 st. 10 lbs. At this stage the codeia was discontinued, and twenty minims of liquor ferri perchloridi, three times a day, ordered instead. One week later, September 4th, the patient had lost two pounds, but passed not more than 68 ounces of specific gravity 1040. He then left the infirmary, and was lost sight of for two months. At first, after leaving, he spent two weeks at Weston-super-mare, and improved whilst there. On returning home he had an attack of vomiting, and began to be troubled with cough and expectoration. He grew rapidly weaker, and the vomiting recurred occasionally.

On November 6th he was re-admitted to the infirmary, having lost eleven pounds in weight during two months. He now passed 153 ounces of urine of specific gravity 1032, clear, acid, containing a trace of albumen. The tongue was furred; he complained of pain after food and constipation, but his appetite continued good. The sputum was purulent and nummular; there were clicking sounds to be heard at both apices, but no dulness. He was now put on a modified but not rigid diet, brown bread being allowed; and on November 9th, codeia was ordered, with the result that the urine fell from 181 ounces on the 8th to 96 on the 12th. On the 16th, cod-liver oil was ordered, and the codeia was gradually increased from one up to five grains three times a day. On December 14th, the weight had increased to 6st. 12lbs. (one pound), and the urine was 96 ounces, of specific gravity 1035; at this time, the albumen had disappeared. On December 28th, there was a loss of three pounds in weight, and the urine was generally about 100 ounces of average gravity 1035. A trace of albumen had re-appeared. The expectoration was now profuse, and there was abundant evidence of breaking down at the left apex; but the temperature was always subnormal, ranging from 96° to 97°; the lowest reading was 95.6° on January 1st. On the following day, the temperature rose to 98.8° in the evening; and on the 2nd, it was 100.2° at 8 P.M. This pyrexia was associated with evidences of consolidation at the base of the left lung of inflammatory character, and death took place on January 6th, about ten months after the commencement of his illness. A *post mortem* examination was not permitted.

REMARKS.—The lung-symptoms gave a special double indication for the use of codeia, inasmuch as it was of great benefit in checking the cough, as well as in diminishing the production of sugar.

CASE III.—Henry B., aged 29, married six years, with three children, a farm-labourer, of good family history, had never heard of diabetes in his family. His father, mother, three brothers, and one sister were all living. Two years ago, he fell with a sack of flour on his back, but was not laid up, and did not appear to have injured himself. For the last twelve months, he had passed a large quantity of urine, and complained of insatiable thirst. During this period, he had been unable to do any work in consequence of weakness. His weight was formerly twelve stone. There was no history of syphilis, of alcoholic habits, or of any previous disease.

On admission, March 21st, 1881, he was found to be rather thin; his weight was 10 stone; he was of average height, and fair complexion. The skin was dry and rough; the pulse 60, regular, and full; temperature 98.4°; tongue white. He had a tendency to constipation. There was no cough. The sounds of the heart and lungs were normal. His sight was good, but the edges of the optic discs were rather ill defined. His urine was abundant, 205 ounces, of specific gravity 1038, acid; it contained no albumen, but much sugar. He was ordered a mixed diet, including meat, eggs, milk, and brown bread, without potatoes or sugar; and treatment by codeia was at once commenced.

On April 11th, after nearly three weeks' treatment, the quantity of urine had come down from over 200 ounces in the twenty-four hours to 170 ounces; the specific gravity remained as before; and the quantity of sugar amounted to about ten ounces daily. Gluten-bread was then ordered, four ounces daily; and the bran-bread was discontinued. The milk was still allowed, two pints each day.

On April 18th, the milk was discontinued; and from this date all saccharine and starchy food was rigidly excluded.

The codeia, at first given in doses of a grain three times daily, had been increased to two grains on March 28th, to three grains on April 2nd, to four grains on April 7th, five grains on April 18th, and six grains on May 7th, when the urine had come down to 144 ounces, of specific gravity 1044. From May 9th to 17th, the pills were omitted, and a saline mixture substituted. The omission of the pills made no apparent difference in the patient's condition; there was no difference in his mental state, no difference in pupils or in pulse; and the quantity of urine ranged from 140 ounces on the 12th to 152 on the 17th. The codeia was then resumed, three grains being given three times in the day on the 17th, and six grains three times in the day on the 18th; on the 20th, six grains were taken four times; and on the 23rd the quantity was increased to nine grains three times daily. The quantity of urine then fell to 80 ounces, of specific gravity 1054, on the 27th; and 70 ounces, of specific gravity 1056, on the 29th. The highest gravity observed was on May 31st, when the quantity was 96 ounces, and the specific gravity 1063. On May 6th, the codeia was discontinued, as the patient complained of drowsiness, and his pulse was 66,

small and weak. This was immediately followed by a considerable increase in the quantity of urine, which rose to 130 ounces on the 13th and 20th. The codeia was resumed on the 21st, in doses of four grains and a half, and on the 30th was increased to nine grains daily, with the same result as before—an immediate fall in the urine from 130 to 90 ounces.

On July 5th, morphia (half a grain three times a day) was substituted for the codeia, and a few days later in grain doses, whereupon he was made an out-patient, and ordered to continue the morphia and cod-liver oil steadily for a month.

These three cases all exhibited marked improvement whilst taking codeia, which improvement ceased when the codeia was withheld, and was renewed on its repetition. Morphia had a good effect in two of the cases; but the improvement was much less marked with it than with the other alkaloids.

NOTE ON UTERINE HÆMOSTATICS.

By J. BRAXTON HICKS, M.D., F.R.S., etc.
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As a small contribution to the practical portion of the subject of uterine hæmostatics, I venture to make a few remarks on the mechanical kinds, which we know by the name of plugs or tents. In doing so I must be understood to refer only to those cases where the cavity of the uterus is not sufficiently large to contain blood in quantity, the loss of which from the circulation is likely to produce anything of serious detriment.

If we go back to former practice and to text-books, we find it recommended that, in case of threatened abortion with much hæmorrhage, a vaginal plug should be used.

The vaginal plugs recommended are the tampon, cotton or wool, silk or cambric handkerchief, rags, or sponges passed in till the vagina is filled up. An India-rubber ball also has been suggested, covered with felt or such like material. Now, even with the best management, there is much of distress to the patient in the use of the vaginal plug; and with regard to its hæmostatic effect very much of uncertainty, and generally partial failure; and in the hands of the unskilful and careless there is positively no restraint of bleeding worth the mention. If at any time any good results be produced, it is rather by the reflex irritation that it causes, whereby the uterus expels its contents. It is not so very rare an occurrence that one finds, on removal of the plug, the ovum on the uppermost part of it.

But besides its palpable inefficiency, a vaginal plug, being of a porous texture, absorbs a large quantity of blood and thus conceals it from our sight; it also favours decomposition, and this, as is well known, occurs within a few hours; and thus we have a new element of danger.

Again, in many cases, when called to such a case, we have no speculum at hand; and although we may extemporise one out of card-board, book-covers, or such like material, yet, before we have thoroughly and firmly filled the vagina, we must have given the patient considerable pain and distress, besides having occasion to put such pressure on the urethra as may necessitate subsequent catheterism. For these reasons, namely, the imperfection of action, pain in introduction, and danger if left in long—in other words, its general crudity, it seems to me that as a general rule the vaginal plug should, in the cases I have supposed, be discarded.

And as a substitute I would urge the employment of the cervical plug as being more precise in action, as well as being capable, if we use a dilating kind, of expanding the canal for the purpose of exploration, or for the expulsion or removal of its contents.

If, then, in any case of uterine hæmorrhage, where we have the conditions above alluded to, we desire, besides immediately checking the bleeding, to dilate, we can use the compressed sponge-tent; the best form of which I have found to be those made, after Sir James Simpson's plan, by Duncan, Flockhart, and Co., of Edinburgh. These can be introduced by a long pair of forceps, and retained *in situ* by placing a piece of sponge, with tape attached, in the upper vagina. Of course, even these materials retain some secretions, etc., and tend to facilitate decomposition; but their removal and cleansing can be effected much more readily than the vaginal plug, because it requires but a small portion. The sea-tangle tent, by reason of its slipperiness, is unreliable as a plug in hæmorrhage. If we desire, however, only to plug the cervix, we can very easily extemporise a plug from materials to be found in every house.

For instance: take a stick (say a flower stick) about a foot long, and taper it at one end to about the size of an uterine sound, or rather larger; wind round this end, for about three inches down, strips of cambric rag, lint, or sponge to the required thickness, judging from the size of the os. Strips of sponge can be readily obtained from cup-shaped sponges of compact texture, and they can be tied on by thread, layer after layer, till the requisite conical form is obtained. The strips of the other materials can be laid on similarly. After the covered end has been well greased, it is passed into the canal, and the stick retained *in situ*, after the manner in which we tie in a catheter; an elastic tape, if obtainable, is to be preferred.

A catheter or bougie, or the end of the long injection-tube, can be treated in the same way. If we require great precision of application, then it is best that the hand should hold the external end till the hæmorrhage has ceased. If the catheter and stilet be used, then I have found it convenient to bend the external portion backwards, between the buttocks, tying the tape round the ring of the stilet—the ends of the tape being carried, as usual, to back and front of the waistband.

These more homely adaptations I have recommended, rather than the especially made kinds, because they are often wanted at times when we cannot send home for a more showy sort. In any case, a cervical plug, expanding or not, is more precise, less crude and painful in application, than the vaginal, and, in my experience, nearly always successful. In all cases of abortion, where a plug is necessary, I would lay it down as a rule, that the expanding tent should be employed. In cases of flexion with abortion (and it is this complication which so frequently increases the hæmorrhage) it will be found that the covered stick or stemmed plug, above described, is very useful: for, if the fundus be elevated during its introduction, the uterine cavity is straightened, and evacuation of the contents thereby facilitated.

ON STERILITY.

By ARTHUR W. EDIS, M.D., F.R.C.P.,
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It is somewhat surprising that more notice has not been taken, in our modern works on gynæcology, of the frequency with which married women miscarry during the first few months of their matrimonial existence, or become mothers within the first twelve months, and yet never afterwards conceive.

The mere fact of conception occurring once, shows that the reproductive organs are in a normal physiological condition to start with. Some new factor must, therefore, have been introduced to explain this sudden cessation of fertility. Can it be that the effort is too great, and the capacity for further child-bearing exhausted? Is it not rather from some of the numerous complications likely to follow the act of parturition? That these latter will explain the occurrence of sterility in many cases, may be readily admitted; but there are a large number of cases where parturition is safely accomplished at full term, where there is no history of subsequent inflammatory mischief, and where, beyond a somewhat tedious convalescence, with possibly prolonged or profuse vaginal discharge, no active symptoms are present, such as to necessitate a local investigation.

A history by no means unfrequently met with is, that the patient was perfectly well up to the time of marriage, menstruation being normal, and unattended by pain or any serious discomfort. The first few periods may be somewhat painful and profuse, and followed by more or less mucous discharge. Cessation of the catamenia and other well recognised symptoms soon warn the patient that pregnancy has commenced. Increased leucorrhœal discharge, pain in the back, inability to stand or walk far, are naturally attributed to her condition, and no steps are taken to relieve them. Miscarriage occurs before the first half of pregnancy has been reached, due really to gradually extending inflammatory mischief of the cervix uteri, aggravated, it may be, by some imprudence in the way of over-fatigue or undue excitement, such as dancing, riding on horseback, travelling, etc. The miscarriage being attributed solely to some apparently preventable cause, no steps are taken to ascertain the exact condition of the uterus. After resting up for a longer or shorter interval, generally the latter, the patient begins again to take her place in society and attend to her domestic duties. Although warned by her own sensations in the form of backache, leucorrhœa, menorrhagia, and other distressing symptoms, that all is not as it should be, the patient imagines that these are but the sequelæ of her miscarriage; and, beyond resting up a little more than usual, simply because she cannot endure fatigue as heretofore, nothing is done to improve the state of the uterus, which meanwhile is in a very unhealthy condition.

Now, what is the interpretation of this? In many of these cases, the patient has become infected with latent gonorrhœa, as pointed out

by Dr. Emil Noeggerath; and the whole genito-urinary tract becomes involved in the specific inflammatory process—chronic endometritis and ovaritis of a very intractable form resulting.

The mischief begins so insidiously and extends so gradually, as not at first to interfere with impregnation. With the increased functional activity of the uterus, however, a fresh impulse is given to the development of the diseased action; and, the two conditions being incompatible the one with the other, the process of gestation is cut short, and the ovum expelled.

The presence of inflammatory disease of the cervix, as Dr. Henry Bennet long since pointed out, however slight, often appears to arrest, independently of any diseased state of the body of the uterus, the natural process of absorption which occurs after parturition, before the uterus has regained its natural size and weight. This morbid size and weight of the organ is generally attended with displacement, mostly retroversion, and often keeps up hæmorrhage. When the disease of the cervix is removed, nature will often renew the interrupted process of absorption, and slowly restore the uterus to its natural size and position without any special treatment. Inflammation of the cervix uteri has a remarkable tendency to perpetuate itself indefinitely, notwithstanding the removal of all acute and subacute inflammatory action. This tendency is no doubt increased by the periodical sanguineous congestion to which menstruation physiologically exposes the inflamed tissues.

In many other cases of acquired sterility, the uterus remains for many months following parturition in a state of subinvolution, due possibly to some strumous diathesis, or to some temporary cause of depressed vitality, the result of, or independent of, the performance of the act of parturition, complicated or not by ill health during pregnancy. In some instances, no doubt, it is due to patients getting about as usual too soon after their confinements. The uterus, more than double its normal size and weight, in place of being supported by the relaxed and distended vaginal walls and suspended in its proper place by ligaments now stretched and weakened, and unable to bear half the usual strain, sinks in the pelvis beyond its proper level; congestion is thus kept up, and the process of involution still further interfered with. The increased bulk and partial prolapse of the uterus generally cause symptoms of backache, bearing-down, and other pelvic distress. For this, the patient finds it requisite to lie up, and generally does so, in the dorsal position. The uterus being heavier than normal, often becomes markedly retroverted, and, being also softer in structure, becomes not unfrequently retroflexed; the tendency to this being often still further increased by the compression due to a tight binder or abdominal belt. Should peritonitis occur at the time, from the patient catching cold or other cause, the uterus may become bound down by adhesions whilst retroverted or flexed. Coupled with this subinvolution, we not unfrequently find an intensely granular degeneration of the mucous membrane lining the cervical canal, in many cases doubtless intensified, if not produced, by the cervix having been slit up on one side during labour. Where the perineum has also been ruptured to any extent, the vaginal walls lose a great part of their support. The uterus thus descends lower in the pelvis, even if it do not become otherwise displaced; the external atmosphere thus gains ready access to the vagina, and keeps up a constant irritation of the exposed cervical mucous membrane. Much acrid discharge results, and not unfrequently prolonged menorrhagia. The patient being obliged to rest a great deal, and not being able to take exercise in the open air, her general health often becomes much deteriorated, her appetite impaired, her bowels confined, she sleeps badly, feels very languid, is unable to attend to her domestic duties, becomes depressed in spirits, and too often drifts into confirmed invalidism.

The ovaries themselves may have become atrophied from having undergone a considerable amount of inflammatory mischief at the time, or from the subsequent contraction of the deposit by which they are surrounded, or from an abscess having formed in the ovary, leading to the destruction of the normal structure of the organ. Adhesions binding down the Fallopian tubes, or fixing the uterus in some abnormal position, may also interfere with impregnation.

Superinvolution of the uterus when the organ undergoes an excessive amount of involution, becoming inordinately diminished in size, as seen later on in life in senile atrophy, occasionally occurs, as if really the effort of reproduction had been too great, and the capacity for had become exhausted. We frequently meet with instances of patients who are fruitful once only in a series of years, more especially in ill-nourished women and in those who are inordinately stout, where presumably the ovarian activity is much below par, or there is a natural tendency to premature decay. Although superinvolution is by no means so frequent as the contrary condition of subinvolution, yet it is by no means so unfrequent as might be imagined. Some inflammatory mischief following parturition, involving one or both ovaries, may possibly have been the initiating cause. Although well authenticated cases of fertility are on record where, at the necropsy, only one ovary has been found to be developed, still it is a question whether, contrary to what obtains in other double organs of the body—such as the kidneys, for instance—when one ovary is destroyed or impaired in function, instead of the energy of the sound one being redoubled, the very reverse occurs, and the remaining ovary becomes atrophied, the uterus following suit in due course. This may explain some of the cases of premature menopause, with subsequent atrophy of the uterus.

Where there is any tendency to the development of fibroids in the uterine walls, the increased determination of blood to the uterus during pregnancy, and the unusual developmental activity, unquestionably encourage the growth of fibroids. These do not, as a rule, take part in the process of involution which follows parturition, but go on gradually increasing in size, and so offer an effectual barrier to conception.

The menorrhagia which usually accompanies intramural uterine fibroids, more especially when they tend towards the mucous surface, may cause extravasation into the decidual membrane, or produce such other disturbance in the uterus as to interfere materially with the fixation, maintenance, or development of the ovum; and thus practically the woman remains sterile.

It is curious to observe with what persistency the uterus will revert to any abnormal position, whether of flexion or version, that was present before the pregnancy occurred. Acute ante- or retro-flexion that for many years produced sterility, when overcome by the wearing of an intra-uterine stem, or by other appropriate treatment, so as to allow of impregnation taking place, and where the pregnancy advanced to the full term, has yet been found to recur to its original condition on completion of the process of involution following parturition. The cause of the sterility in the first instance becomes again the cause of acquired sterility, and needs treatment equally as in the former case.

Treatment.—It would be out of the question to attempt entering into the details of treatment in all cases. The mere enunciation of the probable cause is sufficient to suggest the appropriate line of treatment. What I am anxious to direct special attention to is the preventive treatment. It should be considered a part of every medical man's duty who attends a patient in labour, to examine her carefully at the end of a month or six weeks afterwards, in order to determine whether she has incurred more than the ordinary penalties of parturition, and whether she is in a fair way to recover her former physiological condition. Every surgeon, before discharging a patient who has undergone an operation, sees that the wound is properly healed; and we should equally satisfy ourselves that everything is as it should be. Where, however, precautionary measures have not been taken, and we are only consulted after some years' interval, our first care must be to ascertain the exact nature of the uterine disorder, and not to promise too speedy relief, or the patient may become discouraged, and neglect to follow up treatment. A very important element of success in these cases is, that treatment should be patiently and perseveringly pursued for many consecutive months. As soon as one difficulty is overcome, we frequently find some other associated condition, which has been thus far overlooked or obscured, and only now becomes evident.

We must remove, as far as practicable, every abnormal condition that can be discovered; and, even when we have done this, it may still be many months, and in some cases years, before nature restores the uterus to its normal physiological condition, such as allows impregnation to take place, and pregancy to advance in due order. Supposing, as frequently happens, we find the uterus excessively bulky and tender, retroverted, the cervix more or less slit, the os patulous, and this and the cervical canal intensely granular, giving exit to a thick glairy mucous discharge, what are we to do? The first thing probably will be to lessen the bulk and diminish the sensibility of the congested or inflamed organ, by means of puncturing or scarifying the cervix, the employment of hot water vaginal injections, the application of the tampon soaked in glycerine, and other well recognised expedients. Nitric acid may then be applied to the granular mucous lining of the cervix; or the operation of tracheloraphy, for the restoration the slit cervix to a normal condition, may be performed, as the nature of the case may seem to require.

When the uterus has become less bulky and less sensitive, gentle efforts may be made to rectify any displacement, noting carefully if the uterus be mobile or bound down by adhesions. In the latter case, we must proceed very cautiously, not attempting to tear down adhesions, but rather trusting to the wearing of a well adjusted pessary to exercise gradual yet constant pressure upon the fundus, and so keep the adhesions on the stretch; and then we may trust to their gradual removal by absorption.

Lying in the prone position, or resorting to the genu-pectoral position from time to time, will also assist in encouraging a return of the uterus to its normal position, where it is retroverted; though at first the patient will probably experience much inconvenience, and perhaps state that it is impossible for her to carry out the suggestion. The importance of so doing must be explained to her, and she must be encouraged to persevere in her attempts, gradually prolonging the time as she finds it practicable. The patient must avoid long standing or prolonged exertion of any kind, more especially just before, during, and after the menstrual period. The diet and bowels should be carefully regulated, and the general health improved in every way possible. Skirt-supporters and garment-suspenders, by taking off pressure round the lower abdomen, assist in relieving congestion of the pelvic organs, and may be recommended if thought desirable.

I will not here enter into further details of treatment; but, from much practical acquaintance with these cases of acquired sterility, I can confidently assert that the difficulty may be overcome (if only sufficient time be allowed to follow up the treatment) in a fair proportion of cases, and that without any unreasonable trouble on the part of the practitioner, or prolonged rest on the part of the patient.

THE SCIENTIFIC PRINCIPLES OF INHALATION.

By ROBERT J. LEE, M.D., F.R.C.P.,
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The important relation recently shown to exist between septic agents diffused in the atmosphere, and certain forms of pulmonary disease, is receiving so much attention, that it is well to consider the scientific principles on which it depends. Experiments show that it is possible to diffuse antiseptic agents in the atmosphere by evaporation, and that organic substances may be preserved in such atmosphere without decomposition; or, in other words, that the air may be treated as a fluid, and be charged with antiseptics which prevent bacterial development. Now, when we burn any of the hydrocarbons or gum-resins, we do not volatilise them, and the air is not rendered antiseptic, except to the extent that a certain amount escapes unburnt and is diffused. It follows from this, that destruction of the antiseptic agent must be avoided. After numerous experiments—and the general results of those made a few years ago were presented at the Cambridge meeting of our Association—it appears that carbolic acid is the only antiseptic, as far as I know, which can be volatilised in a definite and constant manner. This is a most important fact in treatment, and deserving attention. If a solution of 1 part of carbolic acid in 80 of water be distilled under slight pressure, the vapour will contain the same proportion of the acid as the solution during the process of boiling; so that we can obtain vapour of any strength, and diffuse it in the atmosphere. Other antiseptics are either more or less volatile: as, for example, thymol, which comes off very rapidly from the boiling water, as does also benzoic acid; so that they are not convenient for inhaling.

It is also necessary to observe that vapourising a solution in the form of spray does not volatilise the antiseptic to any great extent, since the dew settles quickly on the nearest surfaces, and does not rise and diffuse itself as the vapour of steam does.

Again, the sprinkling of solutions on clothes does not necessarily secure diffusion of the agent; for, at the ordinary temperature, the agent may not evaporate, but will remain in the texture of the cloth. There are other details which will occur to those who reflect on these matters, and will secure such success as may fairly be expected from the scientific use of atmospheric disinfectants. I trust that I shall be forgiven for egotism in saying that I think the small inhaler exhibited by Maw, Son, and Thompson for me at the International Sanitary Exhibition, at the present time affords the most convenient and scientific means of atmospheric disinfection; and that, until more perfect methods are offered to the profession, I believe it will be found deserving of more general attention than it has yet received.

SYMPTOMS SIMULATING THOSE OF ANGINA PECTORIS, ARISING UNDER THE LOCAL APPLICATION OF ERGOTIN.

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The Rev. J. C., aged 36, came under my care for a growth on the left vocal cord. After making trial of the usual remedies for diminishing such growths, it occurred to me to try the effect of applications of ergotin. To one ounce of glycerine one drachm of tincture of iodine and fifteen grains of ergotin (increased on March 24th to thirty grains) were added. This was freely applied (with a laryngeal brush dipped in the mixture four or five times) every morning. This treatment was begun on March 20th, and continued till March 26th, without any special developments. That day being Sunday, the patient did not visit me; but on the following morning he made complaint of having had an attack of pain in the cardiac region of the most alarming and agonising character. It had then almost or quite disappeared; but had been severe after the onset for three or four hours. He stated that the action of the heart was rapid "throbbing", and that there seemed to be interference with respiration. He also made special mention of a sensation of coldness around the heart. An examination of the chest revealed no disease that could explain these symptoms. No special complaint was made in the interval up to April 1st, of anything except a marked "oppression on the chest", which the patient attributed to a cold.

On the evening of April 1st, the patient called to state that he was suffering from peculiar symptoms. There was pain extending down the neck, along the inner border of the sterno-cleido-mastoid muscle, outwards beneath the clavicle, and down the arm to the finger-tips; there was numbness and partial loss of power in the arm and hand. These symptoms were confined entirely to the left side, and passed off gradually within twenty-four hours. The ergotin being now suspected to be the cause of these disturbances, it was discontinued; though its use may have been beneficial as far as the growth was concerned; for, on April 6th, a portion of it was coughed up. I could discover no pallor of the arm affected, and no difference in the pulse of that side. Unless certain of these symptoms are to be referred solely to the use of the ergotin, such as coldness in the cardiac region, and numbness, etc., of the arm and hand, it seems difficult to explain them.

These are symptoms almost peculiar to angina pectoris; and this case seems to confirm, in a most remarkable manner, Dr. Lauder Brunton's theory as to the causation of angina pectoris, at least one of its possible modes of causation. This man had had no such symptoms at any period of his life previously, and the most careful examination revealed no aneurysm or any form of cardiac disease. Moreover, there were no such symptoms while under my observation prior or subsequent to the use of ergotin. I resolved to use nitrite of amyl should such symptoms arise again; but had none at hand when the patient called upon me suffering with the second attack.

ABSTRACT OF LECTURES
ON THE
ANATOMY, PHYSIOLOGY, AND ZOOLOGY OF THE EDENTATA.

Delivered at the Royal College of Surgeons of England.

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Lecture VI.—Anatomy of the Anteaters (Myrmecophagidæ—*continued*).

The second genus of true Anteaters, *Tamandua*, has also one species, *T. tetradactyla*, generally admitted by naturalists; but, as different individuals vary much in their coloration, it is possible that there may be more. It is an inhabitant of the dense primeval forests of South and Central America, and differs from the Great Anteater, essentially in its habits, living mainly among the branches of trees. Its size is usually that of a large cat. It closely resembles *Myrmecophaga jubata*, but its head is much less elongated; the fur is short and bristly; the tail, tapering and prehensile, with the under side throughout, and the whole of the terminal portion, naked and scaly. The tongue, salivary glands, and buccal apparatus generally, resemble those of the Great Anteater; the stomach is also similar, but with the muscular pyloric gizzard not quite so strongly developed. There are a distinct ileo-colic valve, and a short globular cæcum. The fore foot has a very large claw on the third toe, moderate sized claws on the second and fourth, a very minute one on the first, and none on the fifth, which is entirely concealed within the skin. The hind foot has five subequal claws. The vertebræ are seven cervical, seventeen dorsal, two lumbar, five sacral, and thirty-seven caudal. There are rudimentary clavicles. The placenta has been described by A. Milne Edwards; it is dome-

shaped in form, like that of the sloths, though less distinctly divided with lobes. It appears also to be deciduate.

The third form of Anteater, *Cyclothurus didactylus*, is not larger than a rat, and entirely adapted for an arboreal life—its feet being modified only for hanging on to boughs, nearly as much as those of the Sloths, although in a different manner. It has also a long and very prehensile tail, which aids it in climbing. The skull is much shorter even than that of the Tamandua, and is arched considerably in the longitudinal direction. It differs from that of other members of the family mainly in the long canal for the posterior nares not being closed below, as the greater part of the palatines and the pterygoids do not meet in the middle line. The mandible has a prominent narrow recurved coronoid, and a well developed angular process; it is strongly decurved in front. The mouth has a wider gape relatively than in the other forms; but the tongue and salivary glands are developed much upon the same principle. Gervais states that, in a fœtal specimen, he has discovered depressions along the margin of the jaw; they appeared like alveoli of rudimentary teeth; but the observation has not yet been extended or confirmed. The vertebræ are seven cervical, fifteen dorsal, two lumbar, four sacral, and forty caudal. The ribs are remarkably broad and flat, overlapping each other in fact. The clavicles are well developed. The manus is remarkably modified, in the same direction as, but to a much greater degree than, that of the other two genera. The third digit is greatly developed at the expense of all the others; it has a short thick metacarpal and but two phalanges, of which the most distal is large, compressed, pointed, much curved, and bears a very strong hook-like claw. The second digit has the same number of phalanges, and bears a claw; but it is very much more slender than the third. The fourth is represented by a small metacarpal, and one clawless phalanx; and the first and fifth by rudiments of the metacarpals only. The hind foot is also completely modified into a climbing organ. The hallux is rudimentary, consisting of a metatarsal bone and one phalanx, concealed beneath the skin; but the four other toes are subequal and much curved, with long pointed compressed claws. The *tuber calcanei* is directed towards the plantar surface; and, parallel with it, and extending to about double its length, is a greatly elongated sesamoid ossicle, articulated to the internal cuneiform bone. These together support a prominent calcarine cushion, to which the claws are opposed in climbing. The stomach is pyriform, with muscular walls, but no distinct gizzard-like portion, as in the preceding genera. The commencement of the colon is provided with two small cæca, resembling those of many birds, narrow at the base, and rather dilated at their terminal blind ends, and communicating with the general cavity by very minute apertures. The female organs of reproduction resemble those of the Great Anteater on a small scale, and the placenta is rather more discoidal in form than that of the Tamandua; but its internal structure has not been fully investigated.

The next family is that of the *Dasypodidæ*, or Armadillos, the latter a word of Spanish origin, having reference to their armour-like covering. The existing species are all of small or moderate size. They are mostly, though not universally, nocturnal in their habits. They are omnivorous, feeding on roots, insects, worms, reptiles, and carrion. They are harmless and inoffensive creatures, offering no resistance when caught; their principal means of escape from their enemies being the extraordinary rapidity with which they can burrow in the ground, and the tenacity with which they retain their hold in their subterranean retreats. Notwithstanding the shortness of their limbs, they can run with great rapidity. Most of the species are esteemed good eating by the natives of the countries in which they live. They are all inhabitants of the open plains, or the forests of the tropical and temperate parts of South America, with the exception of one species of *Tatusia*, which ranges as far north as Texas.

The essential characters of the group are these. The greater part of the skin is strongly ossified. On the back and sides, the union of numerous quadrate or polygonal scutes form a hard shield, usually consisting of an anterior (scapular) and posterior (pelvic) solid portion (which overhang on each side the parts of the body they respectively cover, forming chambers into which the limbs are withdrawn), and a variable number of rings between, connected by soft flexible skin, so as to allow curvature of the body. The top of the head has also a similar shield (cephalic), and the tail is usually encased in bony rings or plates. The outer or exposed surfaces of the limbs are protected by irregular bony scutes, not united at their margins; but the skin at the inner surface of the limbs and under side of the body is soft, and more or less clothed with hair. Hairs also, in many species, project through apertures between the bony scutes of the back. The ossified dermal plates are everywhere covered by a layer of horny epidermis. The teeth are numerous, simple, of persistent growth, and usually monophyodont. The zygomatic arch of the skull is complete. The cervical vertebræ have extremely short, broad, and depressed bodies. The atlas is free; but the second and third vertebræ, and often several of the others, are ankylosed together both by bodies and arches. The lumbar vertebræ have accessory zygomatic processes, and very large metapophyses supporting the bony carapace. The clavicles are well developed. The femur has a third trochanter. The tibia and fibula are ankylosed at their distal extremities. The forefeet have strongly curved claws, adapted for digging and scratching, three, four, or five innumber. The hind feet are plantigrade, with five toes all provided with nails. The tongue is long, pointed, and extensile, though to a less degree than in the Anteaters. The submaxillary glands are largely developed. The stomach is simple. The penis is very large, with crura attached to the rami of the ischium. The placenta discoidal and deciduate.

CLINICAL MEMORANDA.

AN EXTRAORDINARY FASTING CASE.

In March 1878, I was sent for to visit a young girl, fourteen years of age, named Maggie Sutherland, who had lost her appetite for food, and was becoming thin and weak from want. On her returning from school the week before, I was called to see her. She was greatly frightened by young horses that happened to be racing and prancing past her on the road. On reaching home, she could not take any food, and slept badly all night. The next day she only tasted her breakfast, and continued, till I was sent for, merely tasting her meals. I found the pulse 160 per minute, with severe palpitation. There was no hectic, nor pyrexia of any consequence. The simplest diet was tried, but after a few days she could not be induced by threats or arguments to persevere. Tonics of all kinds were tried in vain. The agents for lowering the heart's action seemed to have no effect. Other medical gentlemen were brought to see her, and they also seriously cautioned the friends against neglect or indulgence. For twenty-one months up till Christmas 1880, she continued eating little or nothing except a little jelly, "sweeties", and sherry; and all this time she was not confined to bed.

She now became so weak, that her mother was not able to resist her entreaties to be allowed to remain in bed. I went frequently to see her, and daily expected to hear of her death. For nine weeks after she was confined to bed, there was nothing passed by the rectum, and micturition was unknown; and for six months all the nourishment she received was a little jelly and sherry laid on her teeth every hour or two. She then began to suck barley-sugar and "sweeties", and once more took a little milk with lime-water, but fell from it against all possible persuasion after a few weeks' trial.

One day last summer, she was advised to be carried out to the fresh air, and got cold; ever since, she has had a short dry cough. I observe an improvement for the last few months. The pulse is now 120, and the anorexia is a very little better. She takes one coarse ship-biscuit in five days, three-fourths of a pound of sweets every week, and half a pint of sherry in twenty-four days. The urination has been for some months half an ounce in twenty-fours, and the defæcation like two inches of the little finger every nine or ten days. She is able to read and knit a little; and, were it not for the persistent cough and cavernous *râles* in the right lung, there might be some hope of her ultimate recovery, even after more than four years' abstinence from ordinary food.

D. McNeill, Holm, Orkney.

OBSTETRIC MEMORANDA.

COMPLETE PROLAPSUS UTERI TWENTY WEEKS AFTER CONCEPTION: DELIVERY AT FULL TERM: CURE.

On November 15th, 1881, I was called to Mrs. M., who told me she was twenty weeks advanced in pregnancy, and, while carrying a bucket of water on the previous day, was suddenly attacked by bearing-down pain. On examination, I found the uterus prolapsed, and the vagina completely inverted, hot, dry, and swollen; the os uteri protruding between five and six inches beyond the vulva. After well oiling the parts, I reduced the prolapse, and ordered rest in bed, and the injection of glycerol of lead in cold water three times daily. On November 20th, the inflammatory symptoms had subsided; I therefore introduced a Greenhalgh's spring pessary, and allowed her to get up, prescribing the daily use of alum injections. On January 5th, I removed the pessary, and, as she had found no discomfort while wearing it, I washed and replaced it. On March 22nd, I finally removed it. On April 1st, she was delivered of a fully developed male child, after an easy labour.

She strictly kept to the recumbent position for fourteen days, and then got up and resumed the daily use of the alum injections, which she still continued. On May 30th, she told me that she had neither bearing-down nor the least discomfort, and was able to attend to her housework. VERE G. WEBB, L.K.Q.C.P.I. & L.M., Coleshill.

TOXICOLOGICAL MEMORANDA.

CASE OF MUSSEL-POISONING: RECOVERY.

ON January 28th, 1882, I was called to a patient, whom I found in the following condition. He was reclining in a chair, in an extreme state of collapse. His cold hands and feet were being vigorously rubbed by the attendants. The pulse at the wrist was almost imperceptible, though not much increased in frequency. The face was pale, except when occasional hectic flushes appeared on the cheeks. The nose was particularly white and pinched, looking quite bloodless. The pupils were natural; tongue clean. There was loud wheezing and rattling respiration, interrupted by frequent yawnings and sighings. The patient was continually fainting, notwithstanding the large quantity of brandy which was being poured into him; he had also frequent attacks of clonic spasms, which apparently implicated all the muscles of the body. He was perfectly calm and conscious; had no pain anywhere, but he complained of great thirst, and suffered from itching all over, as if his "clothes had all turned into lice." There was no feeling of constriction of the throat, nor headache, but "everything looked misty." A rash, exactly like ordinary erythema, was seen on his chest. Two and a half hours before, he had eaten about twenty mussels, which he had just taken out of Morecambe Bay; he had eaten them without picking out the "moss," as he had often done before with impunity, though not so many at a time. On this occasion, however, he almost directly began to feel sick and to have griping pains, and in the course of half an hour he vomited, and was also severely purged five or six times. He then began to feel faint and dizzy; and, these symptoms becoming more and more aggravated, he sent for me. I gave him frequent doses of hot brandy and water, and drinks of hot milk flavoured with ginger. His feet were placed in mustard and hot water, and a mustard poultice was placed over his heart; he was constantly kept in the horizontal position. The attacks of syncope with convulsions still, however, continued. I therefore gave him a mixture of tincture of opium and spirit of ether, every ten minutes. He showed decided signs of improvement directly after the first dose, and the mixture was then gradually given less frequently. An hour later the patient could sit up, and was able to talk freely about his case. Next morning the patient was quite well, complaining of nothing but the incessant thirst. He is sixty years of age, of regular and temperate habits, strong, and well-built.

With regard to such cases the question arises, Which is the poisonous part of the mussel? Is it, as commonly believed, "the moss" (*byssus*) which lies at the root of "the tongue" (foot), and which is nearly always carefully removed before the mussel is eaten? or is it the viscous secretion contained in the special gland to which the foot is subsidiary, and out of which secretion the *byssus* is moulded? Or, whatever part of the common mussel be poisonous, why should it exert toxic powers in some cases only? Mussel-poisoning is not, I believe, a common accident. This is the first time I have met with a case in my professional experience.

J. FARRAR, L.R.C.P.Ed., etc., Morecambe.

POISONING BY CARBOLIC ACID.

A CASE of poisoning by carbolic acid occurred in my practice on May 16th. A housemaid, aged 14, after being reprimanded by her mistress, swallowed intentionally, as nearly as I could ascertain, about six drachms of the undiluted acid. I saw her twenty minutes afterwards, when she was breathing stertorously; her face was livid, as if she had taken an overdose of chloral; her pulse small and irregular; she was quite comatose; and the pupils firmly contracted, but not so small as in opium-poisoning. With the assistance of my friend Dr. Gibson, I washed out the stomach thoroughly with soap and water, and also milk and water; and, after persevering for nearly an hour, the lividity became less, and consciousness slowly returned; and, two days afterwards, she was able to be sent to her home in the country.

From the above facts, we must infer that carbolic acid is a powerful narcotic, and rapidly absorbed; but, from its volatility, the injurious effects pass off, if it can be quickly removed from the stomach by the stomach-pump. It did not appear to act as an irritant, as the girl did not complain of any gastric discomfort afterwards.

R. H. WILBE, Finchley Road, N.W.

THERAPEUTIC MEMORANDA.

ON THE TREATMENT OF RINGWORM OF THE SCALP.

THE paper on this subject by Mr. Malcolm Morris (BRITISH MEDICAL JOURNAL, June 17th, 1882, p. 901) induces me to mention a somewhat similar plan which I have employed at St. George's Hospital for more than a year.

Thinking that the accumulation of sebaceous matter and epithelial *débris* in all probability prevents the penetration of remedies into the follicles, which are further blocked by the swollen diseased hairs, and that it should be our object to bring any parasiticide into contact with the most deeply seated fungus, it occurred to me that we might attain this end by the employment of a parasiticide held in solution in a fluid which should also dissolve fatty matters. It certainly seemed to me desirable to exclude fatty and oleaginous materials from the remedy, and to apply this in solution—*i.e.*, the minutest form of subdivision. Accordingly, I determined to employ a solution of boracic acid, twenty grains in an ounce of spirit, to which a drachm of ether was added; and directed this lotion to be forcibly rubbed into the affected parts of the scalp with a rag or moderately stiff brush three times daily, the whole head being ordered to be washed every morning with plenty of hot soap and water.

The result of this treatment in severe chronic uninflamed cases is certainly excellent, when it is faithfully carried out. The frosted scaly aspect of the diseased patches is soon replaced by healthy-looking scalp; the broken and twisted hairs appear to be removed; and a healthy growth makes its appearance. When the scalp is seen shortly after the application of the remedy, it is found to be shining, owing to the presence of a fine glaze. This, I presume, consists of dissolved sebaceous matter mixed with boracic acid, deposited in a thin film after evaporation of the solvent; and for this reason I think its removal by soap and water is a necessary adjunct to the treatment. This would, perhaps, be best effected by alkaline spirit of soft soap; which, however, I have not used.

Now, will this treatment suffice to cure chronic uninflamed ringworm? I should hesitate to say. I have certainly seen many cases in which the disease appears to have been entirely removed; but (there is always a "but" in the treatment of ringworm) I must admit the possibility of a diseased stump or two having remained. I find it an extremely difficult matter to be quite certain that every hair is healthy on a scalp which has once been affected with ringworm, and in this I believe my experience is not singular. I have had cases, which seemed cured, brought back to me on a future occasion with distinct ringworm; and it is, no doubt, possible that this may have started afresh from an old, undetected, excessively minute focus. But, with our very imperfect means of observation of hospital out-patients, it seems equally possible that such cases may be due to reinfection, either from other children in the same family or from a new source.

I may say, in conclusion, that Professor Kaposi (*Hautkrankheiten*, ed. i, p. 740) recommends, among other remedies, the application of alcoholic and ethereal solutions of carbolic and salicylic acids. These would, no doubt, do very well; but the entire absence of any irritation by the use of boracic acid seems to me in its favour, while its efficacy as a parasiticide is unquestionable. The remedy may be, no doubt, varied in different cases; but, if our object is that it should penetrate into the hair-follicles, I certainly think that it should be employed in solution and forcibly rubbed in, and that the use of an oily or fatty vehicle is to be deprecated.

JOHN CAVAFY, M.D., Upper Berkeley Street.

SURGICAL MEMORANDA.

A CASE OF POPLITEAL ANEURYSM.*

IN forwarding the details of this case, there is no attempt to claim any novel method of treatment, but simply to show what good results may follow the use of ordinary means when one has not the advantage of the usual compressing agents to be found in hospitals.

J. S., aged 32, was admitted on May 4th, at sea, with well-marked aneurysm of the left popliteal space, of about six weeks' duration. Compression was at once begun, and kept up until 8.30 P.M., when the limb was freely flexed, and kept in position by bandage. On May 5th, a leaden weight of nine pounds, conical in shape, was cast. The smaller end was placed over the femoral at the groin, the skin having been protected by white leather spread with soap plaster. Diet was restricted, especially in fluids. Eight minims of tincture of digitalis were given every three hours. Pressure by this weight was maintained

* Forwarded by the Director-General of the Naval Medical Department.

from daylight to about 8 P.M., when the limb was flexed and placed in position for the night. The weight was at first suspended, but afterwards was held in position by the patient himself, who was an intelligent man, and who had the principles of the treatment explained to him. A common screw-tourniquet was applied to the vessel in Hunter's canal when the patient was taking his meals, using the bed-pan, or tired of holding the weight. This treatment was steadily kept up until May 12th, when I was gratified by finding that all pulsation had ceased, and that a cure had been established. A fortnight afterwards, this man continued well, and was walking about.

W. ROCHE, Staff-Surgeon R.N.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

THE QUEEN'S HOSPITAL, BIRMINGHAM.

CASES OF COLOTOMY FOR CANCER OF LARGE INTESTINE.

(Under the care of Mr. BENNETT MAY, B.S.)

CASE I. *Right Lumbar Colotomy for Cancer of Transverse Colon.*—The patient was a woman, aged 53, and the symptoms set in gradually with gastric disturbance, sickness, and flatulence, soon followed by costiveness and paroxysms of severe abdominal pain. In about six months, they culminated in an attack of acute intestinal obstruction, for which she was admitted to hospital, after which her condition became less urgent.

There was great difficulty in determining the position of the stricture, though the presence of an ill-defined movable tumour in the left iliac fossa, and great distension along the course of the left colon, appeared at first to indicate the sigmoid flexure as the probable seat of the disease. Further examination, however, under ether, pointed to some other and higher portion of the large intestine as the seat of obstruction; and accordingly, when the symptoms again became urgent, the ascending colon was selected for operation.

This was performed on February 17th, when rather more than the average difficulty in finding an empty colon was encountered, and it was only by keeping strictly in Allingham's line, and patiently searching there between the layers of a great length of meso-colon, that the intestine was reached, collapsed and empty. It appeared for a little that an useless operation had been performed; but, soon after completion, there was very free escape of contents. There was little relief, however, to the general condition, which, prior to the operation, was at the lowest ebb; and she died exhausted on the fifth day.

Necropsy.—The transverse colon was found displaced from its normal position, being dragged downwards towards the pelvis and over to the left side. Near the right bend of this portion of intestine was a tumour implicating the whole circumference and two inches of length of the gut; it had contracted adhesions to coils of ileum prior to a gangrenous perforation, of the size of a sixpence, which had occurred in it. Round this spot was a considerable area of recent purulent peritonitis, but the rest of the peritoneum, including the neighbourhood of the operation-wound, was healthy.

The tumour, on examination, was found to be a fine specimen of cylinder celled epithelioma, undergoing colloid change. The muscular wall of the intestine as far back as the ileo-cæcal valve was enormously hypertrophied in thickness, as well as dilated. There were no deposits in other organs.

REMARKS.—This case shares the interest and difficulty surrounding the whole subject of diagnosis in cases of intestinal obstruction, and the choice of an operation (if any) in obscure cases. Colotomy, enterotomy, and laparotomy were entertained, but the two latter were negatived in view of the signs that, in the patient's then condition, they must be immediately fatal.

If the exact nature and position of the obstruction could have been known at an early period of the case, would the operation of abdominal section have been indicated? In view of the new departure in the treatment of certain cases of cancer of intestine by excision, such a proceeding might possibly have led to a brilliant termination. It certainly appears an almost ideal case for the operation of colectomy by abdominal section, as described by Mr. Marshall (*Lancet*, May 6th); but, to have had a chance of success, the operation must have been undertaken at an early period of the case, *before the tumour had become adherent to adjacent structures*, and whilst the powers of life still admitted of repair.

CASE II. *Colotomy for Cancer of Rectum with Fistulous Opening into Bladder.*—The operation in this case was undertaken for relief of the distressing and disgusting condition arising from the uncontrolled admixture of fæces with urine, and their escape indiscriminately by urethra and rectum. The patient, a tailor, aged 53, stated that, in the autumn of 1880, he was attacked with shivers and dysentery. The bowels were very much out of order during the winter, there being almost continuous diarrhœa with discharge of blood and mucus, and loss of flesh and strength. In the autumn of 1881, he noticed that slime and sand began to pass with the urine; and, after several weeks of this, he had an attack of retention. A surgeon, called in to relieve him, found two damson-stones impacted in the urethra, which he removed; and in this way the existence of a fistulous communication was first discovered.

Ever since that time, fæculent matter had continued to escape largely by the urethra, and, in consequence, he had suffered from painful cystitis. Not the least of his troubles was the entrance of flatus into the bladder, and its escape down the urethra; with a continuous oozing of urine and slime from the rectum. Examination at once discovered the cause of his misery in a hard cancerous mass encircling the lower bowel, just within reach of the finger, and to which also his cachexia and emaciation bore tribute.

The operation (on the descending colon) was performed on the day following that of the preceding case; and similar, though less, difficulty was encountered, and was dealt with in the same way. Several small hard scybalous pellets were dug out of the colon at the time, and after that he had no further action for several days. On the fifth day, a dose of castor-oil produced free diarrhœa, on the abatement of which, the intestine below the artificial opening was quite empty. From the ninth day onwards, fæces passed solely by the lumbar opening, though urine continued to find its way into the rectum for some time longer, and often poured out of the artificial opening as he lay on his back. In a little time, however, this ceased; and the bladder, being completely relieved of fæcal and gaseous contents, recovered its healthy condition. In little more than a month, he was able to leave the hospital; and, at the present time (four months after operation), his condition is one of great comfort, the bowels acting with regularity twice a day, and the functions of the bladder being under easy control. His strength, too, is so far restored, that he was able, one day this week, to take a railway journey, followed by a walk of two miles, in order to visit me at the hospital. The result has more than fulfilled the most sanguine expectations that could have been formed of the operation.

LIVERPOOL ROYAL INFIRMARY.

STRICTURE OF THE URETHRA, WITH PERINEAL FISTULA: RAPID STRETCHING AND CONTINUOUS DRAINAGE: CURE.

(Under the care of Mr. REGINALD HARRISON.)

[FOR the notes of this case we are indebted to Mr. RAYNER, House-Surgeon.]

The following case illustrates some recent improvements in dealing with tight and complicated strictures.

A. M., a mechanic, aged 47, was admitted on December 20th, 1881. He stated that he had suffered from stricture for the last eighteen years. He was only able to pass small quantities of urine at a time, and then with great pain and straining. About the bulbous portion of the urethra, there was considerable induration, and, just behind the scrotum, two fistulæ of recent formation, through which urine escaped. On examination, a long and dense stricture was found in the bulbo-membranous urethra, through which only a filiform bougie could be passed. The urine was very ammoniacal. The patient was kept in bed, and dilatation with the finest bougies was from time to time attempted, but little progress could be made; and, in spite of opiates and soothing applications, micturition was most distressing. Under these circumstances, Mr. Harrison considered it a case where stretching of the stricture, in accordance with the plan recently described by him, should be practised. This was accordingly done, under ether; and, in twenty minutes, a No. 10 catheter (English gauge) was introduced. With the view of allowing the urinary fistulæ to close, Mr. Harrison adopted the mode of drainage of the bladder which has recently been advocated by Mr. John Chiene, and which has been found exceedingly useful in cases of this kind, complicated with fistulæ. The catheter was changed every forty-eight hours, a new one being used on each occasion.

The patient experienced the greatest possible relief; and, on January 17th, it is reported that the catheter was removed, and the bladder drainage discontinued, as being no longer necessary. The fistulæ were found soundly healed, and the patient was able to pass urine without pain or inconvenience. He was instructed how to introduce an in-

strument for himself, and enjoined to use it daily. January 19th. He was discharged well.

REMARKS.—Mr. Harrison drew attention to this case, as illustrating the great advantage of the process which he had described under the name of "stricture-stretching," as well as Mr. Chiene's method of drainage of the bladder. Here, in the short space of three weeks, a stricture, almost impassable, had been rendered readily amenable to treatment, without distress to the patient. He was of opinion, having regard to the local condition, as well as to the general state of the patient, that no other procedure could have given such good results with so small amount of risk to life. Mr. Harrison mentioned that, of the thirteen cases of tight stricture, which on that day were under observation in his wards, in five he should resort to this mode of treatment. Sufficient time had now elapsed, since he had begun to practise stricture-stretching, to enable him to state that, with an ordinary amount of care on the part of the patients—such care as all persons who have ever suffered from stricture ought to take—the permanent results were most satisfactory.

CHELTENHAM GENERAL HOSPITAL AND DISPENSARY.

FRACTURES OF THE VERTEBRAL COLUMN.*

(Reported by G. AITKEN CARDEW, M.R.C.S., Honorary Medical Officer, Branch Dispensary.)

CASE I. *Fracture of Dorsal Spine: Plaster-of-Paris Jacket: Recovery.*—Charles M., aged 19, was admitted in July 1878, with fracture of the fibula, injury to the back, and severe contusions, the result of a crane-pillar falling on to him. Six weeks after admission, he was unable to rise in bed without great pain in the dorsal region of the spine. Examination revealed prominence of the tenth dorsal spine, with great thickening around it; manipulation or pressure gave pain; there were no symptoms of nerve-disturbance. Fracture of the spinous process of the tenth dorsal vertebra was diagnosed, the thickening being due to the callus.

A Sayre's plaster-jacket was applied without extension. In a few days, all pain had disappeared, he was able to walk about, and left the hospital fourteen days after the jacket was put on. Every two months the man came to have a new jacket, and each time, on removing the old one, less pain was caused by movement, and the prominence of the spine in the dorsal region lessened. By Christmas, the man was so well, that he was able to slide and skate. At Easter, he resumed his ordinary occupation of a blacksmith, having discarded his jacket in the previous February. The treatment occupied just nine months.

CASE II. *Fracture of Dorsal Spine: Plaster-of-Paris Jacket: Recovery.*—M. K., a man six feet high, whilst sitting on the ground working, was crushed by the fall of the doors of a shed; they weighed half a ton, and doubled him forward to the ground. On removal of the doors, he was found quite insensible, and was brought in that state to the hospital. On his admission, he was put to bed, and steadied by laying heavy sand-pillows along each side of his body. His urine was drawn off, and hot bottles applied to his lower extremities, which were icy cold. He recovered consciousness in twelve hours, and then complained of great pain in the centre of the dorsal region of his back, but none anywhere else. There was anæsthesia of the left leg from the hip downwards, and of the right one below the knee. Reflex movements could be obtained in both legs on tickling the soles of the feet, but he was unable to move them voluntarily. He was unable to retain urine or fæces. His temperature for the first three weeks was persistently below normal, ranging from 96.5° to 97.5° Fahr.

A fortnight after admission, it was decided to put on a Sayre's plaster-jacket. With the assistance of two porters and a nurse, he was held in an upright position, the porters grasping him under each axilla, and the nurse taking the weight of the head by placing one hand under the chin, and the other under the occiput. The case was completed and hard in fifteen minutes, and he appeared none the worse from the exertion. From this time, the pain gradually disappeared from his back, and power began to return to the legs, bladder, and rectum. He was ordered to sit up on the fifth day after the case was put on, and in a day or two afterwards he began to walk with assistance; in fourteen days, all paralysis had disappeared except a slight dragging of the left leg, which remained for upwards of twelve months. Every two or three months, he had a new case put on. A large hard mass of callus developed around the spinous processes of the lower dorsal region, forming a distinct prominence. From the time he had the case applied to the end of his treatment, his progress was sure and maintained. The treatment extended over eighteen months. This man is now working as a common labourer in the same works where he received his accident, and is able to do fairly hard work.

* Read before the Gloucestershire Branch of the British Medical Association.

CASE III. *Fracture of Cervical Spine: Death.*—A farm-labourer, fifty years of age, fell off the top of a load of hay, alighting on the back of his head, which was doubled forwards under his body: he was rendered insensible. Two hours afterwards, when admitted to hospital, he had regained consciousness, and complained of great pain at the back of his neck, increased by the slightest movement. There was total anæsthesia of the whole of his body, with paralysis of all the muscles of his trunk and limbs, except the diaphragm. He lived for three days, suffering no pain and being quite conscious the whole of the time, dying apparently of exhaustion, owing to defective respiration. Examination after death revealed fracture of the body and transverse processes of the sixth cervical vertebra, with laceration and contusion of the spinal cord.

REMARKS.—The first two of these cases demonstrate very forcibly the advantages to be gained in injuries of the spine by immobilising the trunk by external support. It would hardly be possible to apply a Sayre's plaster-jacket in cases of very extensive fractures of the spine; but the principle may still be carried out, although the method may be different. In such cases, the application of a case, after the Bavarian plan of encasing a fractured leg, may very well be adopted. This can be carried out without any serious amount of movement of the patient, as it is only necessary to roll him from his back to his side during the application. The third of these cases was so severe, that treatment was out of the question.

ASHTON-UNDER-LYNE INFIRMARY.

LITHOTOMY: PROLONGED RECOVERY.

(Under the care of Mr. E. ROBINSON.)

[Reported by Dr. HENY PAYNE, House-Surgeon.]

W. H., aged 69, married, an engineer, was admitted on August 24th, 1881. Stone in the bladder had been previously diagnosed. He was tall and thin, of a nervous temperament. He had never had a day's illness. There was no family history of stone, nor of any hereditary disease. He had always lived in the district of Ashton, where the drinking-water is soft. About two years before admission, he had passed a small stone, about the size of a grain of wheat, which caused some slight pain and a little bleeding from the urethra. He had never had renal colic, nor any symptom of stone, except increased frequency of micturition; this symptom had become very severe three months before admisson.

On August 27th, he was sounded, and a calculus about an inch long, rough and hard, was detected just at the neck of the bladder. He had been sounded two or three times before, the stone being always found in the same position. Nothing was felt in the prostate on examination by the rectum. The urine was acid, specific gravity 1017; it contained albumen (one-tenth) and blood.

Owing to the stone always being felt in the same position, and to the absence of the symptoms due to the irritation from a calculus free in the bladder, it was thought that a prostatic concretion was possibly present, and median lithotomy was resolved upon.

On September 5th, the patient was put under chloroform for operation, when, upon sounding, the stone was found to have altered its position, and to be freely movable in the bladder. Lateral lithotomy was therefore performed by Mr. Robinson in the usual manner. The only difficulty in the operation was the extraction of the stone, owing to the great depth of the perinæum and the close proximity of the ischial tuberosities. The stone was of uric acid, oval in shape, compressed laterally, smooth, hard, of a brownish colour, and weighed eleven drachms. After the operation, there was free oozing, the bladder became distended, and the patient suffered much pain. A catheter was passed by the urethra, the bladder washed out with warm water, all clots removed, the petticoat-tube reinserted, and the oozing gradually ceased.

Two or three days afterwards, the perinæum, scrotum, and lower part of the abdomen became discoloured; the wound showed no tendency to heal; very little urine was being passed; and the old man was very irritable and restless, complaining of great pain and tenderness about the abdomen. The wound afterwards became sloughy, discharging much offensive pus; the patient had delirium at night, and delusions, and refused food and medicines. This condition lasted two or three days. The wound, discharging freely and showing no tendency to heal, was treated by passing a catheter and injecting a solution containing ten grains of tannic acid and ten minims of tincture of iodine in an ounce of warm carbolic acid solution (1 in 60); and allowing this to flow over the wound from the bladder. A pad of lint soaked in the following lotion was kept over the wound: Spiritus vini rect. ℥j; glycerini ℥j; aquæ carbolic. (1 in 40) ad ℥xij. This syringing was continued

daily, with marked improvement in the condition of the wound. The patient's appetite improved, and he did well. No urine was passed by the urethra for five weeks after the operation. The wound gradually contracted; and by October 30th all the urine passed by the natural passage, and the wound was perfectly healed. Up to October 2nd, the temperature was always above 100°. He got up on November 13th, and was discharged perfectly well on the 18th.

REMARKS BY DR. PAYNE.—This case is interesting for the following reasons: 1. the age of the patient; 2. the only symptom of stone being the great irritability of the bladder; 3. the stone always remaining just at the entrance of the bladder, from spasm of the bladder; 4. the effect of chloroform in relieving this spasm, and so altering the diagnosis; 5. the great bruising to which the parts were subjected in extracting the stone; and (6) the long period of time elapsing (five weeks) before any urine came the right way.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JUNE 13TH, 1882.

JOHN MARSHALL, F.R.C.S., F.R.S., President, in the Chair.

The Action of Salts of Potash, Soda, and Ammonia on the Frog's Heart. By SYDNEY RINGER, M.D., and HARRINGTON SAINSBURY, M.D.—The paper described experiments, the special object of which was to compare the salts of soda and ammonia and potash, in respect of their action. The ventricle of the frog's heart was selected for this purpose: it was fed with a mixture of saline 0.75 per cent. and a solution of dried bullock's blood. To the circulating fluid the drug to be tested was added. The contractions of the heart were recorded on a revolving cylinder. The drugs were tested in two directions: 1. As to their influence on the spontaneous working of the heart; 2. As to their influence in modifying the effect of continuous faradisation on the heart. The results as summarised were these. In no case examined was the action exclusively on either excitability or contractility. This probably held for all drugs. The degree in which one or other suffered varied with the drug. Thus, with the chlorides, bromides, and iodides of sodium, ammonium, and potassium, salts of sodium and ammonium affected excitability but slightly; whilst those of potassium affected excitability markedly; and thus, whilst it was the exception in the case of the latter not to get permanent arrest of spontaneous beats before contractility was destroyed, with the salts of ammonium and sodium it was the exception when spontaneous beats did not continue up to the very end; and, moreover, with a final frequency little short of—often in excess of—the original frequency. In respect of influence on excitability, ammonium and potassium formed the extremes. Sodium was intermediate, though much nearer ammonium than potassium. As to the action on contractility, the quantities of the drugs used constituted the measures of the activity. Potassium and ammonium came very near together, whilst a very wide gap separated these from sodium salts. Thus, the highest estimate would represent the sodium salts of this group as one-tenth as poisonous as the potassium and ammonium salts. It was important not to take action on contractility as the exclusive measure of poisonous action; for arrest might also be effected by action on excitability; and, from a clinical stand-point, "arrest" was of special importance. Hence, in order of poisonous action, there were: 1. Potassium salts most poisonous, both excitability and contractility being powerfully affected; 2. Ammonium salts, excitability being practically unaffected, contractility powerfully affected; 3. Then (a wide gap separating) sodium salts, excitability being slightly affected, but contractility suffering chiefly. The therapeutic importance of these results was obvious—the more so, that the iodides and bromides of potassium and ammonium were very largely used. The experiments would suggest the substitution of the bromides and iodides of sodium, in preference to those either of potassium or of ammonium; and of these two, the ammonium salt was to be preferred to the potassium salt. So far as clinical experience went, the salts of sodium and ammonium appeared to be as effective as those of potassium. One or two points remained to be noted. Throughout the salts of potassium examined, certain characters are found to be in common. The same held for ammonium salts. The sodium salts were, for reasons given in the paper, less fitted for comparison. Confining attention to the salts of ammonium and potassium, the fact pointed out was that, along with identity of base went similarity of action. This implied that elements entering into combination did not lose their individuality of action; and this might possibly account for an apparent discrepancy between the results here given and clinical experience. As here given, the citrates of potassium and ammonium were at least as poisonous as the bromides, iodides, and chlorides—a result quite opposed to clinical experience; but not irreconcilable, if but one side, as it were, of a drug were taken into account. Experiments on the citrates of sodium, ammonium, and potassium were made. The results were very similar in kind to those already obtained, and the general statements applying to this chloride group might be extended to these salts. The chief points to be noted were these. In respect of the sodium salt, the citrate was, at the lowest estimate, doubly as poisonous as the sodium salts of the chloride group, but one-fifth as poisonous as the ammonium and potassium citrates. The ammonium and potassium citrates were about as poisonous as the salts of these bases belonging to the chloride group. These numbers referred alone to the effect on contractility; for, in respect of excitability, there was much less tendency towards inhibition with potassium citrate than with the potash salts of the chloride group. The essential points which these experiments established were: 1. The twofold mode in which drugs might affect the cardiac tissue—viz., in respect of excitability and contractility; 2. The relative activity of the salts of sodium, ammonium, and potassium, under similar conditions. Both of these points, but especially the latter, had very practical applications. —The PRESIDENT made a few remarks on the scientific and practical value of the paper.

A Narrative of Additional Cases of Osteitis Deformans. By Sir JAMES PAGET, Bart.—The paper consisted of the relation of seven cases of this disease observed by the author since the publication of his paper on the same subject in the sixtieth volume of the *Medico-Chirurgical Transactions*. They all confirmed the description there given, and were adduced as further evidence that the disease to which the name was given had well defined and distinctive characters justifying its being regarded as a special form of inflammation of bones. This affection usually concerned many bones, most frequently the long bones of the lower extremities, the clavicles, and the vault of the skull. The affected bones became enlarged and heavier, but so weakened that those which carried weight or bore much muscular straining bent, and became curved or misshapen. The disease was slowly progressive, giving rise to rheumatoid pain in the affected limb, and increased heat in the tibia. These symptoms were not constant, nor felt in all the bones. No special disturbance of the general health attended this affection. In all the twelve cases except the last, the disease had begun in persons over forty years old. There was no inherited relation to any disease except gout. The posture, general appearance and movements of the patients had been alike in all the cases observed. They often sufficed for the diagnosis.—Mr. BRYANT and Dr. BARLOW described similar cases which they had observed.

Two Cases of Malignant Pustule, together with a Table of Seventeen Cases treated at Guy's Hospital. By J. N. C. DAVIES COLLEY, M.B.—In this paper the author tabulated seventeen cases of malignant pustule or charbon which had occurred during the last nine years at Guy's Hospital, and gave more fully the details of two which were admitted into his wards last year. CASE I. F. R., aged 31, worked in a hide-warehouse, and had been engaged for eight days with Australian fleeces. On April 10th, 1881, a small red spot appeared on his right lower eyelid. It grew rapidly. On the 16th he was admitted with the eye closed, and with a partly dry, partly vesicular eschar, covering nearly the whole of the swollen lower eyelid. He was in little pain, but weak, trembling and feverish; the glands were swollen. Immediate relief followed the excision of the eschar. In a few weeks the wound had healed, but the eyelid remained everted. Bacilli were found in the blood at the time of the operation. CASE II.—T. W., aged 39, a tanner, had been handling foreign hides until July 2nd, 1881. He then left off work, and on July 6th noticed a red itching swelling on the cheek. It grew rapidly. On the 10th he lost appetite, and on the 11th he was admitted with a raised nearly circular patch of more than an inch in diameter in the middle of his cheek. The centre of this patch was slightly depressed, dry, and nearly black. The sides were covered with small, closely packed vesicles. There was swelling of the cervical glands and œdema of the neck. The eschar was excised, and chloride of zinc applied. He recovered rapidly. Appended was a coloured drawing of the charbon, and drawings of the microscopic sections of the eschar, showing the bacilli anthracis in the corium and round the hair follicles. The author called attention to the following facts: 1. Malignant pustule or charbon is not unfrequent among tanners or wharf labourers who have to handle foreign hides and fleeces. 2. It has not yet been observed at Guy's Hospital as a primary disease in the viscera, or in the form of malignant œdema of the integument. 3. It has been seen only on exposed parts of the body, *e.g.*, the face, neck, and arms, the most dangerous position being the neck, probably from its vicinity to the larynx. 4. The seventeen cases were between the ages of 11 and 47, and the majority were young adults of the male sex 5. Twelve out of seventeen cases occurred in September and the four following

months. 6. The disease may be confounded with malignant facial carbuncle, poisoned wounds, and primary chancres of the face. The chief points to notice are the painless character of the eschar, its vesicular margin, and slightly depressed, dry, blackish centre. 7. The nature of the disease is not unfrequently overlooked, and its symptoms have been attributed to such causes as the bite of a mosquito, or the absorption of arsenic through an abrasion. 8. It should be treated at once by excision or free cauterisation. Out of fifteen cases in which the eschar was excised, eight were already suffering from constitutional symptoms, and twelve had considerable œdema or glandular enlargement. The two cases in which excision was not performed, were admitted with dyspnœa and other serious symptoms, and it is probable that in them the operation would not have averted the fatal result. 9. Swelling of the most superficial part of the cutis with the formation of a ring of papules surrounding a zone of vesicles, at the centre of which is an eschar, is the earliest change recognised. 10. Bacilli are present in these papules but not beyond them, being numerous in the tissue of the cutis immediately below the eschar, and above to its borders, and most abundantly just below the Malpighian layer of the epidermis covering the outer part of the eschar.—After some remarks from Mr. BRYANT and the author, the Society adjourned until next session.

OPHTHALMOLOGICAL SOCIETY.

FRIDAY, JUNE 9TH, 1882.

GEORGE CRITCHETT, F.R.C.S., in the Chair.

DISCUSSION ON SCLEROTOMY.

THIS discussion was resumed, having been adjourned on the previous day.

MR. JAMES ADAMS had only performed the operation in chronic simple glaucoma with good central acuity of vision, because he had found iridectomy in these cases, followed by further deterioration of the field. He made the puncture and counter-puncture two millimètres from the corneo-sclerotic junction, and left a thin bridge of partially divided sclerotic at the centre; if the iris prolapsed he, following the recent practice of M. De Wecker, endeavoured to replace it, and to obtain a pupil free from deformity. As a rule his results were satisfactory, tension was reduced, and the field of vision was not narrowed. He did not use eserine until after the operation, as it narrowed the anterior chamber. If necessary, he repeated the operation, either in the same situation or in the opposite direction. In many cases the tension of an eye which had undergone sclerotomy could be diminished by pressure; a little fluid probably escaped each time the tension rose.

Mr. BRUDENELL CARTER had been led to operate by witnessing the results attained in some cases which had been operated upon at Guy's Hospital. The position of the incision might, he thought, be of considerable importance. He entered the knife close in front of the iris, and divided the sclerotic entirely, leaving only the conjunctiva to cover the wound. He agreed with those who thought that a large prolapse of the iris might be harmless, for, after injuries which produced this, recovery might be complete. Large incarcerations of the iris did not, in his experience, cause as much mischief as small. He referred at length to two cases of sclerotomy where prolapse of the iris had been followed by no evil consequences. He had found the operation of advantage after extraction of cataract. He desired to know whether sclerotomy was likely to be of use in cases of high progressive myopia, and referred to a somewhat similar operation frequently performed by the late Mr. Hancock in this class of cases.

Dr. BRAILEY pointed out the great difference existing between the various methods of performing sclerotomy. The original operation of De Wecker, making the puncture and counter-puncture one millimètre posterior to the cornea and cutting parallel to the plane of the iris, strictly speaking, could scarcely be called a sclerotomy, as the divided part was almost entirely corneal, the scleral part forming the undivided bridge. The more posterior incision, two millimètres behind the cornea, practised commonly in this country, cut more of the scleral tissue, but neither it nor the former operation divided the canal of Schlemm, and, as demonstrated on anatomical grounds and by examination of the microscopical sections, they often failed to cut even the *ligamentum pectinatum*. The same might be said of Bader's operation, with its large bulging of iris into the wound. Indeed, he regarded any operation designed to cut the canal of Schlemm as a most difficult and dangerous one, as this channel extended forwards less than half a millimètre from the iris angle, and consequently the incision must be made within narrow limits, and in dangerous proximity to the ciliary body. The reduction of tension which followed each of these operations he attributed either to the temporary evacuation of part of the contents of the globe, or to this combined with permanent filtration, either through the scar or into the lymph-spaces of this region. The relief from evacuation seemed to explain how even those operations in which a knuckle of iris prolapsed were sometimes successful. In the later stages of glaucoma, atrophy of the ciliary body and the iris probably led to so diminished a rate of inflow as the remaining channels would be adequate to remove, if once the excess were removed by sclerotomy or any other form of puncture. Permanent filtration through the scar, together with the additional elastic area which it afforded, would explain the success of Mr. Bader's operation. He had not been able to examine scars after successful sclerotomy, but in some unsuccessful cases he had noticed a retraction of Descemet's membrane; this would leave a space through which (or the scar tissue filling it) aqueous fluid might escape outwards, into the lymph spaces of the corneo-scleral region. Prolapse of a knuckle of iris not only obstructed the escape of fluid, but was more liable to cause dangerous iritis than a larger prolapse. On anatomical grounds, he suggested a radial incision into the most peripheral part of the external wall of the aqueous chamber. The numerous equatorial elastic fibres of this region would, he thought, then retract, and allow free entrance into the canal of Schlemm without risk of prolapse of the iris.

Mr. PRIESTLEY SMITH said that sclerotomy and iridectomy acted in glaucoma essentially in the same way, namely, by creating a channel for the escape of the pent up fluid; that the incision of the sclerotic was the essential part of the operation was shown, he thought, by the following facts. 1. Glaucoma was characterised by obstruction at the angle of the chamber, and to be successful the incision must pass through this region. 2. Excision, even of a large piece of iris through a corneal wound, did not cure. 3. The scleral incision by itself would effect a complete cure. 4. Clinical observation showed that variations of tension after operation were intimately connected with variations in the condition of the cicatrix. It was not necessary to suppose that, subsequently to the operation, the whole of the fluid had to escape through the filtration-scar. In those cases which were curable there was no solid adhesion at the angle of the chamber, and the slackening of the globe probably induced a reopening of the angle throughout the entire circle. With regard to Dr. Brailey's suggestion that the fluid might percolate the cornea centrifugally from the wound and thus escape, it should be noticed that Pflüger had recently given an almost conclusive proof that the lymph-streams traversed the cornea from periphery to centre, and passed backward from the cornea into the anterior chamber. Schoeler's experiments on rabbits, from which he inferred that the sclerotomy incision in glaucoma rather retarded than accelerates filtration of fluid, were fallacious, for the conditions of the experiment were not analogous. In spite of Mauthner's recent assertion to the contrary, it was certain that glaucoma was essentially due to pressure, that it was cured by the reduction of tension, and that this was due to restored filtration. He desired to know whether those who advocated sclerotomy made as favourable an incision in iridectomy. If the lance-shaped knife were used in glaucoma, with shallow anterior chamber, either the incision would lie too far forward, or the lens would be wounded. He attached great importance to using Graefe's knife in iridectomy for glaucoma, and cited cases considered least favourable for iridectomy. Ample proof had now been given that sclerotomy could effect cures in every form of glaucoma, but accurate statistics on a uniform method, and noting both tension and visual results, were wanted before it could be asserted that sclerotomy was superior to iridectomy. His impression was that the latter operation was slightly more dangerous in some cases with regard to the immediate occurrence of hæmorrhage, but that it afforded more trustworthy and permanent cures.

Mr. GEORGE COWELL had performed sclerotomy in the manner recommended by M. De Wecker. He had been disappointed with the result, but his cases had been unfavourable. He had frequently performed the operation introduced by the late Mr. Hancock, and called by him "division of the ciliary muscle," though it had never been generally accepted as such. By it, however, tension was certainly relieved, and he regarded the operation as more desirable than De Wecker's. He had lately modified it by using a broad iris knife, and making the puncture very far back; a little serous fluid escaped, and sometimes a little of the vitreous body protruded; the anterior chamber was not opened.

Mr. H. POWER said that he had only performed sclerotomy about half a dozen times, but he had found it successful in acute glaucoma, and Mr. Vernon had had one case of fulminating glaucoma which was completely cured by it. He had recently seen a woman upon whom he had performed Hancock's operation upwards of fifteen years before. She had never had any recurrence, and was now, when sixty years old, able to read the smallest type. In hæmorrhagic glaucoma iridectomy was most unsatisfactory; he would there use eserine, which he regarded

as a valuable remedy. If the pupil contracted well under eserine in any case, he would certainly go on with it. In the rare cases of glaucoma occurring in early life, from fifteen to eighteen, he would be inclined to try sclerotomy, since he had found that iridectomy always did harm; and in ladies he might also prefer sclerotomy, as it produced less deformity.

Mr. J. COUPER observed that sclerotomy was advocated on the Continent as a substitute for iridectomy, because the latter failed in a large number of cases, but this was not the experience in this country. The two operations were spoken of as essentially different, but he thought they were essentially the same. In performing iridectomy he made the section as far back as possible through the sclerotic, and tried to strike Schlemm's canal. Any knife might be used, but he preferred a very narrow angled knife.

Mr. MCHARDY had done the operation eleven times. In eight cases the eyes were blind, the result in four was unknown, in two pain and tension had ceased; in one iridectomy, and in one enucleation had subsequently to be performed. In three cases of chronic simple glaucoma, where vision remained, the tension at first diminished, but again increased and necessitated iridectomy.

Mr. ANDERSON CRITCHETT preferred sclerotomy in hæmorrhagic glaucoma, and in glaucoma after operation for cataract. In the case of a patient with chronic simple glaucoma of both eyes, he had done iridectomy on one side and sclerotomy on the other, but, after four months, tension recurred in this eye, and iridectomy had to be done. He operated on De Wecker's method, and included a considerable arc of sclerotic.

The CHAIRMAN, in closing the discussion, observed that the importance of sclerotomy as an element in the treatment of glaucoma had been forcibly shown by the debate. No doubt there were cases where, if sclerotomy were really equal to iridectomy, it would be the preferable operation; but, for himself, he was still inclined to think that iridectomy was more likely to give good results, at least in so far as tension was concerned.

OBSTETRICAL SOCIETY OF DUBLIN.

SATURDAY, MAY 6TH, 1882.

J. BYRNE, Esq., President, in the Chair.

Uterine Fibroid Tumour.—Dr. MORE MADDEN showed an uterine fibroid tumour which he had removed from the posterior wall of the uterus of an unmarried woman. It was situated in the utero-rectal space, and was subperitoneal rather than submucous. It had been noticed by its effects for three years, producing great dysuria and difficulty of defæcation. In removing the growth, the uterine structures gave way, and a large opening was made into the abdominal cavity, through which a coil of intestine came into the vagina and protruded through the vulva. This was pushed back into the abdomen, the vagina plugged with carbolised sponges, and the woman perfectly recovered, the rent healing by means of plastic adhesions after about ten days.

Asexual Fœtus.—Dr. HENRY showed the results of his examination of the asexual fœtus exhibited at the previous meeting. The intestine ended in a fleshy tumour, hollow and flattened, from which two small pockets extended down about three-quarters of an inch. There was no opening into it except that from the intestine; yet it was the sole representative of the kidneys, bladder, rectum, and genitals. The child was otherwise thoroughly natural in form. This *cul-de-sac* was filled with yellow fluid like bile.

Ovarian Cyst.—Dr. HENRY showed, for Dr. Atthill, an ovarian cyst of very rapid growth, only seven months, and accompanied with pain. It was fixed in the abdomen, and the pedicle was found to have three twists in it. He also showed a second ovarian tumour which had grown since Christmas last, consisting of multiple cysts.

Adjourned Discussion on Dr. Neville's Paper on Presentations.—Dr. MACAN thought that too much stress had been laid upon the action of gravity in the production of the presentation. Gravity was certainly not the only factor in the cases, for when gravity had most opportunity of acting, viz., between the sixth and eighth months, head-presentations were least common. Again, on the gravity theory, hydramnios should be accompanied by head-presentation, but this was rarely the case. So also in cases of twins, there were more than fifty per cent. of malpresentations. He therefore considered that the active motions of the fœtus produced by reflex actions were the most important factors; and in cases where, in the latter months, a head-presentation turned into a breech, there must be something more than gravity at work. The factors he considered of most importance were, after the active fœtal motions, contractions of the uterus in its long axis, the form of the uterus, and obliquity of the pelvis.—THE PRESIDENT remarked that the gravitation theory was one of the oldest; he regarded the size of the pelvic brim a determining factor in the case, for, as the fœtus revolved, if the pelvic brim were wide enough to accept the head, it would stop there; if not, it would seek another position.—Dr. DILL and Dr. CRANNY also joined in the discussion.—Dr. NEVILLE, in replying to Dr. Macan, considered that in pregnancy two periods should be distinguished; first, before fixation became pretty tight, up to which time gravity, besides being a constant force, was also the most potent factor in the production of head presentations. In the second period, the active fœtal movements might easily overcome or modify the action of gravity, as in changing breech into head presentation.

On the Rational Treatment of Anterior and Posterior Displacements of the Uterus.—Dr. MACAN read a paper on this subject, in which he quoted various authorities as to the origin of the conditions under consideration. The first important point to be decided was the normal position of the uterus; and on this point authorities showed a singular want of unanimity. Most modern writers, following Schultze, considered the normal position to be one of anteflexion when the bladder was empty, but becoming gradually pushed up in proportion to the degree of distension of the bladder—the chief factors in depressing it being abdominal pressure, and gravity. On this supposition, no single position could be regarded as the normal one, unless at the same time the degree of distension of the bladder and abdomen were stated. The neck of the uterus was supported by Douglas's folds, the fundus being at an angle of 90°, when the bladder was empty. Few cases, therefore, of anteflexion required mechanical treatment, nor were any of the pessaries of any use in it, whatever might be their use in anteversion. Retroflexion and retroversion, both pathological conditions, required active treatment. Hodge's lever-pessary possessed no lever action whatever; it was useless; for either it was driven out by the action of the abdominal muscles, or it became rotated in the vagina, or it produced pain. Nor were any of the dozens of modifications in use of any more value than Hodge's; for all were based upon wrong notions of the conditions to be corrected. The bimanual method of Schultze, which consisted in first producing exaggerated anteversion, and then fixing the cervix posteriorly with his figure-of-8 pessary, was the most rational as well as the most successful method. For fixing the cervix in such cases, Hodge's pessary was equally good with the figure-of-8. The cause of retroflexions and retroversions he considered to mainly consist in parenchymatous inflammation of the uterus. —The discussion on this paper was postponed till the next night of meeting.

CAMBRIDGE MEDICAL SOCIETY.

FRIDAY, MAY 5TH, 1882.

J. CARTER, F.R.C.S., Vice-President, in the Chair.

The Nature and Treatment of Acne.—Dr. J. HERBERT STOWERS, in a paper on the above subject, pointed out the frequency with which the varieties of this disease were met with in all classes of society; hence the necessity for their nature and appropriate remedies being well understood. After referring to the original classification of Willan and Bateman, and recommending that acne should be considered only in connection with the other cutaneous glandular affections, the author, in the first place, described common sebaceous acne, and pointed out that the subvarieties, A. punctata, coniformis, indurata, tuberculata, pustulosa, etc., were only stages of the same process, produced, in the first place, by a retention of the natural secretion of the gland and connected with debility, often general as well as local. The affection was most common upon the forehead, cheek, chin, nose, shoulders and back, and front of the chest, and seldom occurred before puberty. The treatment best adapted to remedy these conditions was washing with soap and hot water in the early stages, followed by the rubbing in of ointment, night and morning, composed of sublimed sulphur, ammoniochloride and bisulphuret of mercury, creasote, and vaseline. As soon as comedones formed, they should be removed by local pressure, thus avoiding the secondary inflammation, and consequently the scarring which followed the permanent destruction of the follicle. After referring to syphilitic acne proper as a separate affection, the author narrated two well marked cases of bromide acne, occurring in children, one of whom had been treated for cerebral symptoms with bromide of potassium, the other with bromide of ammonium. In illustration of the former, a coloured drawing was exhibited. A typical case of iodide acne was also described and illustrated. Referring to acne rosacea, Dr. Stowers dwelt upon the necessity of simple diet, the avoidance of alcoholic stimulants, and the use of soap and water locally, and recommended the application as many as twelve or fifteen times daily of a lotion containing precipitated sulphur, camphor, glycerine, and lime-water. After speaking of the advantages of local depletion, the author

described an instrument devised by Volkmann for producing multiple punctures—a plan which had recently proved of much service in a patient under his care in whom considerable vascular hypertrophy of the nose co-existed with acne rosacea.—Dr. INGLE asked whether it was contended that there were three distinct forms of acne, or whether the varieties should be regarded as stages of the same disease.—Dr. BACON observed that, though he had given for years bromide of potassium largely and also chloral daily, he had never seen any rash follow, and asked in what proportion of cases of acne this might be held to be a cause.—MR. SHANN advocated the use of potassa sulphurata, from which he had seen much benefit, even when other preparations of sulphur had failed.—Dr. STOWERS, in reply, said he recognised four varieties of acne: 1, acne sebacea, in which there were three stages of one morbid process, viz., congested follicles, inflammatory redness, and pustulation; 2, acne rosacea; 3, acne artificialis, due to accidental conditions such as drugs—bromide and iodide of potassium, etc.; and, 4, acne varioloformis, two cases of which rare affection were under his treatment. The bromide rash, when present, was generally due to some constitutional cause, or defect in the kidneys. He advocated the use of precipitated sulphur, in the proportion of four drachms to six ounces of lime-water, with three drachms of glycerine and a little spirits of camphor.

New Use of Drainage-Tubes as Dilators.—Mr. WHERRY exhibited India-rubber drainage-tubes distended with air or water, and a good brass ear-syringe, so that a fusiform dilatation was produced six or eight times the circumference of the tube. The only preparation necessary was a stretching of the tube at the spot where dilatation was to take place. A rubber catheter, so prepared with a stilette in the interior, was also shown; this had been used for dilating a stricture of the œsophagus in a child. A similar instrument might be used in stricture of the urethra, and would give continuous, gentle, even pressure. In the absence of Barnes's bags, the larger tube might be used for dilating the os uteri. The tube would also be of service in epistaxis, if a better apparatus were not at hand. If a stilette was not used inside the tube, a soft silk string should always be tied to the distal end for extraction. A pair of dressing-forceps could be converted into a clamp by drawing an inch of elastic tube over the handles; each blade was then thrust into a piece of tube—thus the forceps did no damage by their compression. This latter device had been used for securely and gently holding with the forceps, thus protected, a piece of bowel in the operation of resection for fæcal fistula. Mr. Wherry thought that, in various surgical emergencies, this knowledge of the pathology of drainage-tubes might be of great service.

Dudgeon's Sphygmograph.—Mr. SHANN exhibited this instrument, for Mr. Macalister, and explained its mechanism and application.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.

MONDAY, MAY 1ST.

S. LEE RYMER, L.D.S., President, in the Chair.

Extraction of Teeth during Pregnancy.—Mr. HENRY SEWILL brought forward this subject. Pregnant women were constantly applying for relief, but when extraction was proposed—it being evident that the tooth was past saving—one was met with the reply that the patient's medical man did not consider that it would be safe for her to undergo the operation; the patient continued to suffer, and her strength was reduced by the pain. His own opinion was that this was a prejudice very much on a par with the idea that it was wrong to extract a tooth during the acute stage of alveolar abscess; and his practice was, in the early stages of pregnancy, to give nitrous oxide gas and extract the tooth. In more advanced cases, one must be guided somewhat by circumstances; but even in most of these he believed that extraction did no harm. Even if the patient were weak and nervous, the slight shock of the operation did less harm than the exhaustion produced by long-continued pain.—Messrs. F. CANTON and A. COLEMAN said they had frequently been asked this question, and never hesitated to answer it in the affirmative. They preferred to give nitrous oxide in such cases, and took care to give it thoroughly. They had never seen any harm result from the extraction of teeth under these conditions.—Mr. GEORGE WALLIS never hesitated to operate in such cases when an operation was necessary. On one occasion he was called upon to extract a tooth for a lady who was very near her time, and the child was born within twelve hours after the operation; but the patient had previously been in great pain, and she had a much easier labour than she would have had with an aching tooth to add to her other troubles. Several other members spoke to the same effect.

Connection between Mechanical Injury and Caries of the Teeth.—Mr. STEELE of Croydon read a paper on this subject. He was of opinion that the influence of mechanical injury of the teeth as a primary cause of caries, had not received the attention which its importance deserved. The main factor in caries appeared to be the effect of acid on the dentine, decomposing its earthy constituents. So long as the enamel was perfect this sufficed to protect the dentine; but if it was imperfect, whether from congenital deficiency, or as the result of undue concussion or mutual pressure, or from unfair use, the acid fluid would obtain access to the dentine and serious results would follow. More pains should be taken to impress upon young people, especially, the importance of not abusing their teeth. They should be assured that, in subjecting these organs, which appeared to them so hard and strong, to all sorts of rough treatment, they were laying up for themselves serious trouble in the future. He felt sure that the spread of a better knowledge of the evils of maltreatment, and the consequent exercise of greater care, would be followed by a perceptible diminution in the ravages of dental caries.—A discussion ensued, in which the President and Messrs. Charters White, Weiss, Sewill, Canton, and Stockton, took part.

REVIEWS AND NOTICES.

CLINICAL LECTURES ON DISEASES OF THE HEART AND AORTA, By GEORGE WILLIAM BALFOUR, M.D.St. And., F.R.C.P.Edin., Senior Physician to the Royal Infirmary of Edinburgh. Second Edition. London: J. and A. Churchill. 1882.

WE gladly hail the second edition of this excellent work, and we may safely predict that it will be warmly welcomed by every physician. The first edition, which appeared six years ago, and has for the last two or three years been out of print, was much appreciated by the profession; and we may say with perfect confidence that the new appearance of the work will greatly enhance the reputation of its author. It has in great part been rewritten, so as to keep pace with the continued advance of physiological science, and it fully represents the latest teaching as well of the Continent as of our own country.

One of the greatest changes in the book is in the portion devoted to aortic regurgitation. In the first edition Dr. BALFOUR, following Stroem, Thibesius, and Brücke, upheld the theory that the heart was flushed with arterial blood during the diastole alone, and did so for the reasons—(1) That the aortic blood current flows at right angles to the axis of either coronary orifice; (2) That the heart in systole is so firmly contracted that the blood vessels would seem to be compressed, and thus limit the systolic supply; and (3) That the coronary orifices are placed within the valvular zone, and are covered by the segments of the valve during systole. If these reasons were correct, the theory of Brücke would be true, but the facts are altogether opposed to it. Gaskell has shown that even tetanic contraction aids the arterial blood-flow through a muscle. Hyrtl has pointed out that at least one of the coronary orifices is always above the margin of the aortic valves, and he states that on cutting across the coronary arteries in animals, the blood flows in systolic spurts; and Ceradini has demonstrated that the valve-segments are not closely applied to the aortic walls during the systole, but float in a position intermediate. These facts are quite conclusive, and give an intelligible explanation of the mode in which the heart is nourished and enabled to perform its duties, until the time arrives when the muscle has outgrown the feeding powers of the coronary arteries.

In order, as he says in the preface, "to obviate certain misconceptions to which some of the statements in the former edition seem to have been exposed," the author has largely rewritten the excellent but still disputed chapter on curable mitral regurgitation, and in doing so he has incorporated the recent observations by himself and his followers. In this chapter there is a full, descriptive, and historical account, of the hæmic murmur and its accompanying pulsation, and the facts in favour of its being a murmur of dilatations are stated with great cogency.

In concluding this short notice of a work which will long rank as a classic among our medical books, we would offer our hearty congratulations to the author, and express the hope that his *Lectures* will meet with the same success in the second as in the first edition.

AFTER a considerable amount of agitation on the part of the inhabitants at Cleator Moor, which contains a population of over 11,000, it has been decided to proceed with the construction of a reservoir for that town at Meadley Farm, to hold 40,000,000 gallons of water. For a long time past the population have been greatly inconvenienced on account of the inadequate water-supply; and the commencement of the reservoirs by the contractors, Messrs. Fleming and Murray, of Annan, is looked upon with much satisfaction.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1882.

SUBSCRIPTIONS to the Association for 1882 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JUNE 24TH, 1882.

A NEW FOOD AND HEALTH PROBLEM.

MUCH public interest has been excited during the last few weeks by a discussion on the nutritive value of the oleo-margarine cheeses now largely introduced into commerce, and their probable influence on health, or possible relations to disease. The subject is one on which the family medical adviser as well as the scientist is expected to form an opinion, and it is interesting to examine and discuss the facts.

A few years ago, a machine was brought into this country, by which it was possible to separate milk into cream and skimmed milk at the rate of about ten gallons per hour. The principle of Laval's separator is simply this, that, when milk is rotated in a drum at a speed of about three thousand to four thousand revolutions per minute, the oil-globules, being lighter than the skimmed milk, are drawn to the centre of the drum, the skimmed milk passing to the exterior. By a simple contrivance, the separated cream is led into proper receptacles, the skimmed milk being simultaneously withdrawn from the outer circle of the drum. This machine, and the very many similar ones which rapidly followed it, have caused a revolution in the manufacture of butter, which is now made in immense quantities at large butter-factories. The great production of butter, however, which daily takes place in these factories, leaves upon the hands of the manufacturer a very large quantity of blue skimmed milk, which, for the most part, has been hitherto wasted. The profitable utilisation of this skimmed milk is one of the manufacturer's greatest difficulties, and a question still unsolved. Of the few methods of utilising it, one is the manufacture of skimmed-milk cheese; but this seems to have met with little support, from which we may infer that skimmed-milk cheese can scarcely be manufactured at a price sufficiently low to compete with ordinary whole-milk cheese, or else that it does not suit the public taste. It is certain that skimmed-milk cheese is not a very saleable article, and this is generally considered due to the second reason which we have mentioned. The difference between skimmed-milk cheese and ordinary cheese is mainly the deficiency in fat of the former. To overcome this deficiency and utilise the blue skimmed milk of the factory, the practice has recently sprung up, in America, of adding lard or oleo-margarine to the skimmed milk, and converting the artificial milk thus obtained into "imitation cheese". A full description of the method of manufacturing this cheese was published in the last *Journal of the Royal Agricultural Society;* and at the same time two cheeses—one made from skimmed milk to which lard had been added, and the other from skimmed milk to which oleo-margarine had been added—arrived in England. Mr. Jenkins, the Secretary of the Royal Agricultural Society, to whom the cheeses were sent, at once forwarded samples to scientific men, to cheesemakers, and to cheesemongers, who were all unable to detect any difference between these and ordinary American cheeses. It appears evident, therefore, that if, from a superficial examination and from the taste and appearance of these cheeses, those who have a special knowledge of cheeses are unable to detect them, that the general public will be hopelessly ignorant of what they are eating unless Government steps in to interfere by insisting upon imitation cheeses being distinctly marked and sold as such. Should the Government take this step? Dr. Voelcker having found that it is possible, by chemical analysis, clearly and with certainty to determine whether a cheese be made from butter or some other fat, such as lard and oleo-margarine, the Government would not be taking up a position they could not maintain, as the public analysts would, by a method well known to them, be able to detect when imitation cheese was not being sold as such.

We are all anxious to welcome the advent of a cheap and wholesome food; and all praise is due to those who strive in this way to benefit their fellow men. That imitation cheese, if sold by its proper name, would be cheaper than whole milk cheese, is certain; but it is very doubtful whether the price will very materially differ from that of ordinary American cheese, unless this distinctive mark be insisted upon; and thus, instead of the public obtaining a cheap food, they will really be paying an unfair price for an article which pretends to be what it is not. The analyses of the two cheeses, as given by Dr. Voelcker, show that they contain far less fat and slightly less nitrogenous compounds than whole milk cheese, so that weight for weight they are not equally nutritious. But apart from relative composition, are their constituents equally nutritious with those of whole milk cheese? At present, perhaps, it is impossible to answer this question definitely. We know little as to the relative physiological properties of butter fat, as compared with lard and oleomargarine fats. It is rather improbable that the two are identical in value, for we know that whilst few children, or even infants, are incapable of assimilating milk fat, other so-called stronger fats are far from being easy of digestion. Even supposing the fats to be equally nutritious, there yet remains this question—a question of considerable interest to medical men in connection with these imitation cheeses: Are they wholesome?

The various fermentative changes which cheeses undergo are for the most part not productive of substances hurtful to man. But many medical men can probably call to memory cases of poisoning which have been caused by cheese. Certain it is that cheeses, in some cases, do undergo a fermentation resulting in substances not merely injurious, but most virulently poisonous, and several cases of death have been undoubtedly traced to the consumption of poisonous cheese. The manufacture of imitation cheese is in its infancy; what changes the cheeses may undergo upon keeping is at present only partially known, but we think it only right to draw the attention of our readers to a possibility which is not without precedent. Dr. Voelcker, in his report to the Royal Agricultural Society, drew attention to the fact that these cheeses are liable to be most rapidly overspread with various forms of fungi, and this corresponds to a well observed fact with regard to oleomargarine butter. If either the oleomargarine cheese or lard cheese be placed in bottles closed simply with blotting-paper, and a piece of whole milk cheese be similarly treated, the former is in a very short space of time covered with fungi, and the same occurs if oleomargarine butter is thus treated. The milk cheese and milk butter are only slowly attacked by fungi. It is difficult to explain this phenomenon at once, and we cannot say what it may lead to. We were struck, however, in reading the account of the manufacture of imitation cheese, with the following passage: "One notable circumstance in adding lard or butter-oil to skimmed milk is that the weight of cheese from a given quantity of milk is increased, not only by the weight of lard added, but nearly as much more weight is gained by the tendency of the curds after the fat is added to retain the moisture. In other words, if one and a half pounds of lard is added to one hundred pounds of skimmed milk, it makes nearly three pounds more product than could be obtained from the skimmed milk if made up without any addition of fat." The increase in the moisture of the cheese, however, can hardly be the cause of these fungi, although it may subsequently help to develop them. We are naturally led to ask: Are the germs of these fungi present in the cheese, and only waiting for a favourable opportunity to show themselves?

The question is one which the profession cannot ignore. The recent researches showing the communicability of diphtheria from man to animals, and *vice versâ*, is only one more proof of the liability of man to receive diseases from his animal food. If the statement made by

Mr. Bowles in his recent letter on imitation cheese, is only a highly exaggerated view of the utilisation of diseased meat for the manufacture of oleomargarine, yet it is evident that with the introduction of imitation cheese, the temptation to make use of diseased meat for that purpose would be increased, and it would be greater for the manufacture of cheese than it has been for butter, where purity and perfect freedom from smell and taste have been an absolute necessity.

The researches of Professor Lister on the oïdium lactis have already shown how wide a scientific interest and how close a medical relation attach to the study of these minute simple forms in milk and its derivatives. The investigations of Mr. Power for the Local Government Board indicate special applications of the study of the pathology of such products to human epidemiology. Just now, when the researches of Koch have set all our young and skilled observers to study bacteria in all their normal and pathological relations, this branch of the subject may readily attract fruitful investigation.

GUITEAUMANIA.

"WAS there ever", asked Dr. William A. Hammond when recently addressing the New York Medico-Legal Society on the case of Guiteau, "was there ever a man whose whole career, from childhood to the present day, has afforded a more striking example of that form of mental derangement called reasoning mania?" and seeing that what Dr. Hammond calls reasoning mania is synonymous with what he might as correctly call arrant roguery, the answer which he anticipates and desires may be given to his question. That Guiteau has been an arrant rogue, or, according to this new self-contradictory euphemism, a reasoning maniac, from his youth up until now, will scarcely be denied by anyone who has glanced at the reports of his trial; and we fail, therefore, to perceive the necessity for the elaborate proof which Dr. Hammond adduces in support of this self-evident proposition. It may be well to examine Dr. Hammond's position, and inquire what justification he has for applying the term lunatic to the assassin of President Garfield.

We do not now enter upon the general question whether it is expedient to divide lunatics into two classes, one of which shall be amenable to penal discipline, and the other only to medical treatment, further than to say that to do so would be to run counter to all advances hitherto made in the medical jurisprudence of insanity, and to create difficulties greater than have yet been experienced in the administration of the law. Efforts have heretofore been directed to reconcile the legal definition of insanity with the scientific description of it; and the attempt to force these two asunder, to limit the former to a small group of idiots and raving madmen, and to extend the latter so that it shall include half the human race, can only end in inextricable confusion. Putting aside, however, general considerations, let us see what grounds Dr. Hammond has for applying the term lunatic in this particular instance, and for arguing that Guiteau, although worthy of death, is still the victim of a disorder of the mind and a diseased brain. What, then, are the evidences of Guiteau's insanity which Dr. Hammond, after much probing of his life, and ransacking of the records of his trial, is able to bring forward? They are as follows:

"That he had several insane relatives; that while at college he abandoned his studies, and entered the Oneida community; that he left it, and subsequently returned; that he again left it, and went to New York to establish a newspaper devoted to the dissemination of peculiar religious ideas; that he abandoned this project; that he studied law, and was admitted to the Bar; that he was married, and then divorced through his own procurement; that he became interested in religion, and delivered lectures on the subject; that, whilst thus engaged, he attempted to strike his sister with an axe; that though a physician could find neither illusion, nor hallucination, nor delusion, he pronounced him insane, 'because of exaltation of the motives, and explosions of emotional feeling, also excessive egotism, and that he was the subject of pseudo-religious feeling,' and advised his confinement in a lunatic asylum; that he soon afterwards gave up lecturing; that he associated himself with the National Republican Committee, and prepared a speech, which, however, he only delivered once; that, after the election of General Garfield, he asked, by letter, for the appointment of Minister to Austria; that he went to Washington to urge his claims; that, not getting the position, he applied for that of Consul at Paris; that he earnestly and persistently followed up his application by verbal and written requests, having no special claims for this place except his own idea of the value of his services, and having the recommendation of but one person; that he unwarrantably inferred from a remark of the Secretary of State that he might be appointed; that, in spite of rebuffs from the officials in authority, he continued to expect the appointment; that he made inquiries about a pistol, which he subsequently purchased, borrowing money to pay for it; that he practised with it by shooting at a mark; that he followed the President on two occasions for the purpose of killing him, but was deterred once because his wife, who was sick, was with him; that, finally, he lay in wait for him at the railway station, and shot at him twice, intending to kill him, and inflicting a mortal wound. That, after the shooting, he attempted to get to the jail for protection; that he was arrested, and that a letter to General Sherman, asking for troops to protect him, was found upon his person; that, in two letters written several days before the shooting, he declares the President's nomination was an act of God, his removal an act of God; that, in another document, addressed to the American people, and dated as early as June 16th, he used this language: 'I conceived the idea of removing the President four weeks ago; I conceived the idea myself, and kept it to myself,' and other words of like character. That he subsequently claimed that he was inspired by the Deity to kill the President, and that he had had previous inspirations; that, for years before the shooting, he had procured a precarious living, not paying his board-bills, borrowing money, evading the payment of his railroad fares, retaining money collected by him as a lawyer, and being several times in prison on charges of fraud; and that, on the stand, he stated that he felt remorse for his deed so far as his personal feelings were concerned, but that his duty to the Lord and the American people was paramount."

Now, what does all this amount to but the description of the career of an unscrupulous and sanctimonious adventurer? Are there not thousands of men in the United States and every civilised country whose lives, if carefully reviewed, would present as many mad points as that of Guiteau—mad points which make a specious show when brought together, but which are really of no account when scattered over long tracts of commonplace rational conduct? An English psychological journal argued recently that the late Thomas Carlyle was a lunatic; and the proofs of that thesis which it adduced, such as his depression, hypochondriasis, irritability, and misanthropy, were quite as good in their way as Dr. Hammond's proofs of Guiteau's insanity. Taking these proofs individually, there is not one of them that bears the stamp of madness; and, taking them collectively, they are incompatible with any theory of mental aberration. Insanity is often regarded as a lawless condition, of which anything and nothing may be equally predicated; for it seems to those who look upon it carelessly from afar to be a wild storm of thought, blowing where it listeth, and without centre or limitations. To those, however, who have studied it more closely and discerningly, there are revealed order in its ravages, and system in its cycles; and to them it becomes possible to say, in many instances, what course it will pursue, what features are characteristic of it, and what conjunctions are never witnessed in it. And skilled students of mental meteorology of this kind, who are free from personal bias and the thraldom of premature judgments in print, will certainly say that Guiteau's case, as described by Dr. Hammond, is not classifiable under any variety of insanity with which they are acquainted. Dr. Hammond has evidently ranged through the medico-psychological literature of many lands in order to obtain precedents and opinions with which to fortify his position; and we may assume, therefore, that his quotations afford the nearest approaches to descrip-

tions of Guiteau's supposed malady that are to be found. Accepting these quotations, for the sake of argument, as fairly depicting genuine and recognised types of insanity—which might well be questioned—to which of them, we would ask, does Dr. Hammond's version of Guiteau's case correspond? To none of them, must be the reply. Were there in Guiteau those blind impulsions to the perpetration of acts of violence, or even of sanguinary fury, which Pinel makes the prominent symptom in mania without delirium? Certainly not. Was there in Guiteau that sudden transition from propriety of conduct and goodness of nature to licentiousness and moral degradation which Esquinol makes characteristic of his "reasoning monomania"? It cannot be pretended that there was. Did Guiteau exhibit the delusions of persecution which Morel enumerates amongst the active principles of mania of character? There is no evidence that he did. Was there in Guiteau that blind submission to sexual desires, jealousy, ambition, vengeance, which Dagonet insists on as marking out reasoning mania? His history does not sanction such an idea. There is just one description of a form of insanity given by Dr. Hammond to which Guiteau's case bears a striking resemblance; and that is his own description of reasoning mania, not quoted from his published writings, but prepared for the occasion; and to pronounce Guiteau insane because this description fits him would be very much as if, having seen Arthur Orton, and drawn a portrait of him, and called it Tichborne, we should swear that Orton was Tichborne because he resembled the portrait.

But Dr. Hammond's description of reasoning mania is not in conformity with medico-psychological experience on this side of the Atlantic. Such lunatics are not to be met with in asylums. They are a new discovery in the fauna of insanity in the United States; and we would suggest to Dr. Hammond that, as Guiteau is the most striking specimen of this kind of lunatic that has yet been discovered, he should substitute for the cumbersome and inconsistent name that he has adopted, the unmistakable designation of "Guiteaumania". We should then, with greater facility, be able to discuss with him the symptoms and medico-legal relations of this unique variety of mental alienation, as he would call it, or of moral turpitude, as we should prefer to designate it.

We have said that Guiteaumania is not recognised in Europe as a form of mental disease either involving irresponsibility or calling for curtailment of liberty or medical treatment. It may be admitted at once that Guiteau had an ill-balanced and depraved mind; but to this admission it must be added that he was not, in these respects, a whit worse off than three-fourths of the inmates of our convict prisons, who are notably infirm of purpose and inconsequential in thought, but who are nevertheless treated like accountable beings. The shrewdness and perspicacity which Guiteau displayed in his running accompaniment of interruptions throughout his trial, render it impossible to argue that his intellect is in any degree enfeebled. His power of apprehension and of forseeing the drift of any questions asked, was incontestably proved on innumerable occasions to be unusually acute; his memory was repeatedly shown to be tenacious and serviceable; and his judgment, when applied to the actions and motives of others, was often exhibited in a favourable light as regards its clearness and penetration. The anxiety which Guiteau displayed about his personal safety, and the precautions he took to secure it, are sufficient evidence that he is amenable to ordinary human motives; and the self-restraint which he more than once exercised when it suited his purpose to do so, betokened the possession of ample volitional power at his command. His crime was not a reckless and motiveless one, nor can it be said that it was prompted by any delusive belief. Of course, but few crimes have one sufficient motive; most are the resultants of several convergent mental forces; and so in Guiteau's case it may be impossible to put one's finger on any single spring of action, and say this impelled the fatal bullet; but still it may be safely averred that, in his itch for notoriety, his disappointments, his miscalculations, there is enough to account for his guilty performance without resorting to any theory of insanity in explanation of it.

The bodily or physical symptoms or accompaniments of insanity are obviously of the highest diagnostic value in doubtful cases, for they cannot be assumed at pleasure, and often supply the key to intricate and obscure mental phenomena. Dr. Hammond does not assert that there has been observed in Guiteau any bodily indication of disease of the brain or nervous system; but he quotes from Campagne's *Traité de la Manie Raisonnante* a list of the peculiarities of cranial configuration which are supposed to be characteristic of this disorder; and he leaves it to be inferred that Guiteau conforms in these as in other respects to his delineation of reasoning mania. The cranial peculiarities which Campagne enumerates, and which are set forth with affected precision, amount in substance to this: that reasoning maniacs have heads smaller than those of sane persons and other kinds of lunatics, larger than those of idiots, about the same size with those of imbeciles, and presenting an antero-posterior curve less than that of sane persons, lunatics and imbeciles, and even of idiots. They labour, we are dogmatically informed, under a congenital atrophy of the posterior lobes of the brain, the skull having been diminished in size, to the detriment of the occipital region. But could anyone we would ask, stand up with gravity in the presence of men scientifically acquainted with cranial morphology—men like Professors Flower and Turner, and Mr. Parker—and allege that there is anything distinctive in the cranial characteristics of moral maniacs which are thus put forward? Before attaching the slightest value to Campagne's statements, we should require to have full and authentic histories of the cases in which his measurements were made, a detailed description of his methods of observation, and all his tables of figures. And even on finding, after these conditions had been fulfilled, that his conclusions were justified, we should tell him that all he had succeeded in proving is that wicked and weak-minded people have, on the average, smaller heads than those who are more virtuous and intelligent, a generalisation which could be of no service in any particular case. It would not be difficult to submit to Dr. Hammond scores of persons whose heads present all the peculiarities which he claims for the heads of reasoning maniacs, and who have never manifested a trait of mental abnormality; and scores of persons corresponding with his description of reasoning maniacs whose heads present none of the peculiarities which he enumerates as characteristic of that condition. To found on such cranial measurements as those to which he refers, the statement that there is atrophy of the occipital lobes, betrays a want of sufficient acquaintance with recent advances in cerebral anatomy and physiology,

TWO HUNDRED AND FIFTY YEARS OF SMALL-POX IN LONDON.

THE above was the title of a paper read on Tuesday last at the Statistical Society by Dr. William A. Guy, F.R.S. The somewhat remarkable exceptional prevalence of small-pox in London in recent years lent special interest to the subject; and Dr. Guy's laborious analysis of the information bearing upon small-pox afforded by the London bills of mortality is an useful contribution to the literature of that exceedingly controversial problem, the true relations of small-pox and vaccination. Making due allowance for the well-known deficiencies and inaccuracies of the old bills of mortality, there are no sufficient grounds for distrusting the relative trustworthiness of the series of facts elaborated by Dr. Guy, or their value for comparative purposes.

The most important conclusions which may fairly be drawn from this paper are those which bear upon the relative fatality of small-pox in London, judged by the proportion of deaths from this disease, to deaths from all causes, in the seventeenth, eighteenth, and nineteenth centuries. Statistics of these three centuries have special interest in the statistical history of small-pox, because those periods may fairly be described as centuries of natural small-pox, of inoculated small-pox, and of vaccinated small-pox, respectively. Dr. Guy shows conclusively that, whether judged by the frequency or intensity of epidemics, the fatality of small-pox in London during the seventeenth and eighteenth centuries, when small-pox was either natural or inoculated, was enor-

mous, compared with that which has prevailed in the present century, during which vaccination has been generally adopted. By far the largest fatality of small-pox occurred in the latter half of the eighteenth century, after the introduction and somewhat general adoption of inoculation. The concurrence of this increased fatality of small-pox with the practice of inoculation led to the abandonment of the practice, and it can serve no useful purpose now to attempt the well-nigh impossible task of distinguishing the true effect of inoculation upon small-pox fatality. The comparison of the experience of small-pox fatality in the seventeenth century, before inoculation or vaccination was heard of, with that of the nineteenth century, after the introduction and general adoption of vaccination, is not open to a similar objection. During forty-eight years of the seventeenth century for which statistics are available, there were ten small-pox epidemic years, in which the deaths from small-pox in London exceeded 10 per cent. of the deaths from all causes; whereas, in the forty-four years of civil registration ending 1881, no single epidemic of an equal intensity has occurred. Measured by the population standard, the average of mortality in the forty-eight years of the seventeenth century was more than fifteen times as great as it has been in the forty-four years of civil registration ending last year. Such figures appear conclusively to dispose of the favourite argument of antivaccinators that natural small-pox, as they term it, was a much less terrible disease than small-pox in these days of vaccination.

Dr. Guy's method of dealing, for the purposes of his paper, mainly with the proportion of deaths from small-pox to total deaths, and his using this proportion as a test of epidemic years, is open to obvious statistical objection during centuries when the numbers of total deaths in a series of years was subject to such violent fluctuations from epidemics of plague and other epidemic diseases. This method, however, has a distinct advantage and value in its bearing upon one of the main objects of the paper in question, which was to show the fall in the fatality, whether of all diseases, or of other such zymotic diseases as measles or whooping-cough.

The favourite argument of those opponents of vaccination who can be got to admit that there has been a recent decline in the fatality of small-pox, is to attribute this decline entirely to improvement in the sanitary condition of the people. Now it has been conclusively shown, in the Registrar-General's last annual report, that there has been no general decline in mortality from other causes, since the advent of compulsory vaccination, in any way commensurate with the decline of small-pox mortality.

Dr. Guy's figures go far to prove that, judged by the old bills of mortality, the fatality of measles and whooping-cough in the nineteenth century is somewhat higher than in either of the two preceding centuries; thus forming a striking contrast to the marked decline in the fatality of small-pox. The Registrar-General's figures on this branch of the question add much force to Dr. Guy's conclusions; and it now appears to rest with the opponents of vaccination to suggest some other reasonable explanation than the adoption of vaccination for the marked decline in the fatality of small-pox compared with that of other kindred diseases, and of mortality generally.

WE regret to say that Mr. St. George Mivart, the well-known biologist, is seriously indisposed through an attack of bronchitis. A few days since he appeared to be advancing towards recovery, but a relapse has occurred, and he is now suffering from great prostration.

MR. ASA LEES of the Soho Iron Works, Oldham, has bequeathed £10,000 each to Owens College, Manchester, and to the Oldham Infirmary.

SMALL-POX and measles are very prevalent in Ireland, and are making fearful ravages among the population. The infection was, it is believed, brought from Europe.

WE have to acknowledge the receipt of a contribution of £10 10s. from Dr. Joseph Griffiths Swayne (Bristol), to the fund being raised on behalf of the family of the late Sir J. Rose Cormack.

A WHOLE family, consisting of six persons, living at Murceaux, in the Department of the Seine-et-Oise, have been poisoned through eating poisonous fungi in mistake for mushrooms. Medical aid was sought, but to no avail, and all six died in great agony.

AT the Bristol Town Council, a communication has been received from Sir Greville Smythe offering to the citizens a pleasure park of 22 acres, on the borders of the crowded parish of Bedminster, and adjoining his residential estate of Ashton Court.

THE President of the Royal Academy of Belgium has been invited by M. J. B. Dumas, Perpetual Secretary to the French Academy of Sciences, to join in the subscription organised by the members of various French learned bodies for a medal to be presented to M. Pasteur for his scientific discoveries.

THE honorary degree of D.C.L. has been conferred by the University of Oxford on Sir William Muir, K.C.S.I., Member of the Council of the Secretary of State for India; and Dr. Allen Thomson, F.R.S., formerly Professor of Anatomy in the University of Glasgow.

DURING the last fifteen months, as many as two millions of persons have been vaccinated and revaccinated in the State of Illinois. To this general vaccination is undoubtedly due the small progress that small-pox has of late made in the State—the disease having been, in the majority of cases, confined to those first attacked.

MALARIOUS fever, in an epidemic form, has of late been very fatal in the Mauritius. During April alone, there were no fewer than five hundred and ninety-six deaths, and these, unhappily, included some of the prominent officials of the island. The death-rate from fever has been higher than in the previous five years.

A MEETING will be held at Grosvenor House on Friday, July 14th, under the presidency of the Duke of Westminster, K.G., when the medals and recompenses to successful exhibitors of the Smoke Abatement Exhibitions of London and Manchester will be publicly distributed, and the reports of the jurors officially presented.

MUCH sickness and mortality prevail among the labourers employed on the works of the Panama Canal. During the greater part of the year the heat is very intense; but the total absence of any proper sanitary arrangements is said to be a far greater factor in the production of disease than the unhealthiness of the climate. The French have, however, commenced the erection of hospitals.

THE Council of the Society of Arts have awarded the Albert Medal of the Society for the present year, to M. Pasteur, Member of the Institute of France, for "his researches in connection with fermentation, the preservation of wines, and the propagation of zymotic diseases in silkworms and domestic animals, whereby the arts of wine making, silk production, and agriculture, have been greatly benefited."

AT a special meeting of the governors of the Chelsea Hospital for Women, held on Monday at the temporary hospital, King's Road, the following gentlemen were elected as additional members of the medical staff, in view of the early removal to the new hospital in the Fulham Road, and the consequent necessity for an increased staff:—*Physicians:* John James, M.B.; Arthur Wellesley Edis, M.D. *Assistant-Physicians:* Fancourt Barnes, M.D.; John Phillips, B.A., M.B.

THE Select Committee of the House of Commons on the Contagious Diseases Acts is still engaged in preparing its report. It has been announced in some newspapers that some of the members who entered the Committee opposed to the Acts have been converted by the evidence which they have heard. On the other hand, we are requested to state that it is believed that there is no foundation for this statement, and that members of the Committee who joined it opposed to the Acts have not, by hearing the evidence, been since led to change their opinions.

Mr. A. H. PRIDEAUX is calling attention to the need which exists in the region of Southwark for public baths and wash-houses. In one small district, he says, there are no less than 6,000 persons crowded together in an area of less than a quarter of a square mile. There is no convenience for the women to do the family washing, and no possibility of a bath. The one tub which stands in the yard is the sole supply of water for each house of five, and six, and often seven families. Mr. Prideaux feels sure that it is only necessary to make the need widely known for some benevolent and enterprising person to come forward and aid so good a cause.

THE affairs of the Home Hospitals Association appear to be so far flourishing, that the Home Hospital in Fitzroy Square has been full throughout the year, and it is proposed to take steps for a further enlargement of the Home. Mr. John Walter, M.P., warmly advocated the claims of this association for public consideration at the annual meeting held last week. This association, it will be remembered, has been founded under a rule which prohibits any division of profits under heavy penalty, and, in fact, makes it legally impossible that any profits shall accrue to those who have so liberally subscribed a large capital for the purpose of the association. In this Home the practitioner follows his patient, and remains in all respects master of the treatment and nursing. Dr. Playfair, Mr. John Wood, and others, wrote expressing their strong sense of the value of the institution, and of the careful manner in which it is conducted. The advising committee on the internal administrative arrangements for the purpose of securing its efficiency includes the president of the College of Surgeons, the president of the College of Physicians for the time being, and other eminent and well-known medical men.

THE report, or rather the various reports, of the Royal Commission on the Medical Acts, will not be officially published, we believe, until next week, as we last week intimated in anticipating some of the main features of its contents. The reports of dissentient members will, it may be feared, do something to counterbalance the good effects of the recommendations of the Commission itself; although these also are not of so complete a character as to be likely to give unqualified satisfaction to the friends of medical reform and direct representation. This Commission laboured under the radical defect of including in its composition very diverse and discordant elements. Able men, with strongly preconceived views, are little liable to change them under circumstances such as those which attended the formation and accompanied the deliberations of this Commission. The able chairman of the Commission had indeed a most difficult task in endeavouring to reconcile in any degree the radical differences of opinion which divided the members, and possibly a less able and powerful man might have failed altogether in the endeavour. If the result should prove not to be as efficient and complete as the profession generally would have desired, the cause of the failure will be in the original composition and in the difficulty of reconciling the strongly accentuated differences, and of conciliating interests so opposed as these which were associated together in the composition of this Commission.

IT is a sign of the times, and an indication of the continually growing influence of medical men, that more and more we find medical names at the head of important social movements, and presiding over large bodies of influential persons on important public occasions. On Tuesday night, Dr. Andrew Clark, at the invitation of the managers of the East London Hospital for Children, took the chair at a festival banquet, which was graced by the presence of Cardinal Manning, Lord Enfield, Lord Crewe, and Mr. Charrington, Mr. Prescott, Mr. Norris, and an influential company of upwards of 200 persons, including many names distinguished in commerce, literature, and art. In a speech of more than usual eloquence and power, Dr. Andrew Clark developed not only the special claims of this hospital, but the relations of the great hospitals of London to the social constitution of our time. He pointed out the peculiar temptations and dangers of special hospitals, and the strength as well as some of the weaknesses of the great metropolitan hospitals; and especially he pleaded against the sophisms which would suggest that too much care is taken in keeping alive the sickly and fragile offspring of parents who bequeath to their children the seeds of weakness and disease. The influence of the chairman was manifest not only in the unusually large company which assembled, but in the importance of the donations. The chairman's list alone amounted to upwards of £1,300, and the total sum subscribed at the dinner exceeded £2,000. Dr. Eustace Smith responded for the medical staff, to whose invaluable service emphatic testimony was gratefully borne. This hospital, which now numbers 90 beds, owes its origin to the well-known devotion of Mr. Heckford, a student of medicine at the London Hospital, and to the unceasing labours and liberality of his wife.

BOYLSTON PRIZE ESSAY.

ONE of the Boylston prizes awarded by the Harvard University has again come to England. Mr. T. M. Dolan, Halifax, Yorkshire, has won the prize of 300 dollars (£61 5s. 9d.) for an essay on Sewer-gas, its Pathological and Physiological Effects on Animals and Plants.

A SANITARY PRIMER.

A SANITARY Primer, prepared for the Government of India, has been extensively circulated, both in English and in the vernaculars, for the use of schools throughout the country, both in Bengal proper, the Punjaub, the Central Provinces, the North-West Provinces, and Oudh, Assam, Madras, Malabar, the Hyderabad Assigned Districts, Bombay and British Burma. Altogether over 100,000 copies of the different versions of the Primer have been issued, and it has been translated into fourteen vernacular languages.

DEATH-RATE OF SCARBOROUGH.

THE death-rate of Scarborough for the past year was as low as 16.34 per 1,000 of population, being, with the exception of 1876 when it was a trifle lower, the lowest rate that has been recorded in the borough. From zymotic diseases only 27 deaths were registered, representing the lowest rate ever known from these causes, viz., 0.8 per 1,000. Having regard to the conspicuous position which Scarborough holds as a health resort, these figures appear to have a more than local importance.

CRUELTY IN A WORKHOUSE.

AT a recent meeting of the Shardlow Board of Guardians, a report was presented by the Special Purposes Committee in regard to the cruelties inflicted on the patients in the workhouse by tying them down in their beds. The committee fully recognised the gravity of the charges against the officials, which appear to have been conclusively proved, and they recommended that the master and matron at once be required to resign their positions in the workhouse. In this view the guardians concurred, and, in addition, insisted upon the resignation of the porter and his wife.

COUNCIL OF THE COLLEGE OF SURGEONS.

THE following are the names of the eligible Fellows who are Candidates for seats in the Council at the ensuing Election on Thursday the 6th of July next, at 2 o'clock P.M. 1. John Marshall, Savile Row; 2. Alfred Baker, Birmingham; 3. Henry Power, Great Cumberland Place, (these three retire from the Council in Rotation); 4. George

Lawson, Harley Street, nominated by T. W. Nunn, Alfred Willett, Henry Smith, George Critchett, W. Bowman, T. Pridgin Teale; 5. John Croft, Brook Street, nominated by F. Le Gros Clark, T. Pridgin Teale, James F. West, W. Morrant Baker, William MacCormac, Arthur E. Durham; 6. Nottidge Charles Macnamara, Grosvenor Street, nominated by W. Bowman, J. Fayrer, Thomas Longmore, C. G. Wheelhouse, Alfred Willett, George Cowell.

ROYAL MEDICAL BENEVOLENT COLLEGE.

MR. J. F. France, who last year purchased a perpetual presentation to the Royal Asylum of St. Anne's Society, in favour of the Orphan Daughters of Medical Men who have practised in England or Wales, and vested the nomination in the Members of the Council of the Royal Medical Benevolent College, has now purchased a second perpetual presentation on the same conditions. The council will be ready to receive applications in July, on behalf of eligible candidates.

VACCINATION IN THE METROPOLIS.

DR. SWEETING, the late Superintendent of the Fulham Small-pox Hospital, has prepared a memorandum on vaccination, which has been adopted by the managers of the Metropolitan Asylums District. It contains a number of suggestions for improvement in the present system, the most striking being the substitution of the health-authority for the guardians, as the body responsible for the carrying out of the Vaccination Acts. It also suggests an increase in the staff of vaccination officers in connection with the sanitary authorities, and a more systematic method of house inquiry in non-epidemic as well as in epidemic years. The memorandum also contains a proposal, that the birth of no child should be registered unless a certificate of successful vaccination is produced; and that, for this purpose, the time now allowed for registration should be extended.

THE LATE SIR JOHN ROSE CORMACK.

AT a meeting of friends of the late Sir John Rose Cormack, at the house of Dr. Semple, on Monday last, it was decided to organise a committee in London for the purpose of raising a fund for the benefit of Sir John's family; for, notwithstanding the devotion of a long and laborious life to his profession, he has died without leaving any provision for his widow and children. The committee consists of Sir J. Risdon Bennett, Dr. Quain, Dr. A. P. Stewart, Dr. B. W. Richardson, Mr. W. H. Michael, Q.C., Dr. Thudichum, Dr. McIntyre (Odiham), Dr. Semple, and Dr. A. Henry. Dr. Semple was appointed chairman of the committee, Dr. B. W. Richardson treasurer, and Dr. A. Henry secretary. The following subscriptions, which are exclusive of any sent elsewhere, have been received:—Sir James Paget, Bart., £5 5s.; Sir J. Risdon Bennett, £5 5s.; Dr. Quain, £5 5s.; Dr. B. W. Richardson, £3 3s.; Dr. A. P. Stewart, £3 3s.; Dr. Semple, £3 3s.; Surgeon-General Gordon, £2; Dr. Paul, £1 1s.; Dr. Waller Lewis, £1 1s. Subscriptions will be received by the treasurer, Dr. B. W. Richardson, 25, Manchester Square, W.; by the secretary, Dr. A. Henry, 132, Highbury Hill, N., or by any of the members of the committee.

THE EIRA ARCTIC RELIEF EXPEDITION.

IN the spring of 1880, Mr. Leigh Smith started in the yacht *Eira* for high latitudes; during the summer he reached an extremely northerly point, and returned in the autumn to England without having suffered any accident. In the spring of last year, Mr. Leigh Smith again sailed for the North, intending, if possible, to reach the coast of Franz Joseph Land; the yacht was last seen on July 10th, 1881, by some walrus-hunters, off the coast of Spitzbergen, and considerable anxiety has been felt for her safety. At the instigation of the Royal Geographical Society, the Government advanced £5,000, and the friends of Mr. Leigh Smith, assisted by a further grant of £1,000 from the Society, have organised a search-expedition, which sailed on Thursday last (June 22nd), in the steam-whaler *Hope*, under the command of Sir Allen Young. Mr. Leigh Smith was accompanied on both his Arctic voyages by Dr. William Henry Neale, a former distinguished student of University College Hospital, and a son of Dr. Richard Neale, the well known author of the *Medical Digest*. The present season has been a very late one as regards the quantity of ice in the North; as recently as last month, fifty vessels were held ice-bound off Cape Breton; and, as the *Eira* was fully provisioned and otherwise prepared to winter in the ice, we trust that the anxiety which has been felt may soon be found to have been groundless.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

MR. FREDERIC S. EVE, the Erasmus Wilson Lecturer, commences his course of lectures on Cystic Tumours of the Jaws, this day, Friday. The following is his syllabus:—1. *Cystic Tumours of the Jaws.*—Multilocular Cystic Tumours:—Anatomy; microscopic anatomy; relations to rudimentary enamel-organ; pathogeny; clinical characters; treatment indicated by pathology; relation to Tumours generally: Mixed Epithelial and Sarcomatous Tumours. Dentigerous Cysts:—Anatomy; minute anatomy; pathogeny. Periosteal Cysts. 2. (Monday, June 26.) *General Characters and Ætiology of Tumours*: Definition: relation to hypertrophies and inflammatory new formations; subjection to physiological influences; relation to physiological condition of organ; heredity; local origin; injury and inflammation, etc., as occasional exciting causes; connection between, shown by microscope; effect of predisposition; conclusions. 3. (Wednesday, June 28th.) *Ætiology of Tumours* (continued). Bearing of Experiments:—Transplantation of adult and embryonic tissues; transplantation and auto-inoculation of Tumours; Cohnheim's theory of embryonic rudiments; arguments supporting it; criticism; comparison of congenital Tumours and monsters by excess; origin of Tumours in later life; evolution of Tumours.

ALLEGED DEATH FROM VACCINATION.

AN inquest has been held at Wolverhampton touching the death of a child nearly five months old, who, it was certified by the medical man in attendance, Dr. Freeman, had died from the effects of vaccination. Mr. W. H. Hayward, the surgeon who vaccinated the child, maintained that the operation was successfully performed, and that death arose from hereditary disease. In this view he was supported by Mr. C. A. Newnham, an independent witness called in by the coroner. The inquiry was adjourned for the attendance of a Government inspector as an expert. Dr. Ballard, of the Local Government Board, was sworn, and said he had examined the vaccination marks, which showed no signs of disease; they were perfectly healthy vaccine scars. He afterwards examined the body, head, and neck, and the eruptions on them presented appearances of hereditary or congenital disease. There were sufficient ulcerations and other disease to account for death. The symptoms of disease inoculated from vaccination were entirely different from hereditary disease. The illness from which the child died appeared to have commenced about the ordinary time after birth at which the symptoms of hereditary disease would present themselves. The evidence of the mother of the deceased, as to several children being born dead, confirmed Dr. Ballard in his opinion that the child died from hereditary disease, and not from disease inoculated by vaccination. The jury returned a verdict to the effect that the child died from natural causes, and not from the effects of vaccination.

THE SMOKE ABATEMENT EXHIBITION.

THE awards of the jurors of the Smoke Abatement Exhibition are now complete, notices have been forwarded to the exhibitors, and the lists have been issued. The lists are too long for production here, but will, we believe, be published, with the full reports, in a separate publication shortly. Meantime, a descriptive account of those exhibits to which the jurors have awarded the various medals is published in the *Sanitary Record* of the current month, with illustrations. The jurors in the various departments have been men of the highest eminence. In the section of stoves, grates, and kitcheners, the principal jurors were Professor Frankland, F.R.S., Colonel Festing, C.B., and Mr. Cutler, F.R.I., B.A. It may be noted that the chief prizes, both in kitcheners and in grates, have been awarded to Messrs. Brown and Green for their

very simple and very effective kitcheners and grates, in which great economy is effected, and the emission of smoke almost entirely prevented, by the adoption of a simple apparatus for under-feeding, which is effected without any complicated contrivance or unsightly addition to the grate or kitchener. Excellent results have also been obtained in similar directions by other manufacturers of kitcheners and grates, especially by Constantine; the Eagle Range Company; the Radiator Range Company; Brown and Green, etc., in kitcheners; and by Clark, Bunnett, and Co., in the Ingram Kaio Kapnos grate; Shorland, in the Manchester ventilating grate; and in the Feetham, Stanley, and other grates.

THE SANITARY ASPECTS OF THE OVERSIZING OF COTTON YARNS.

AT a deputation lately introduced to the Home Secretary, on the subject of the oversizing of cotton yarns, Mr. Birtwistle, Chairman of the North-East Lancashire Weavers, presented a memorial, which set forth that an addition of about 20 per cent. of size was required for manufacturing purposes; but that, of late years, a practice of adding from 50 to more than 200 per cent. of an admixture of various ingredients, which served no other purpose than to give a fictitious weight and appearance to the cloth, had become very common. They complained that the extraordinary addition to the yarn of this admixture gave off, in the process of weaving, a deleterious effluvium and dust, which was inhaled by the weavers to the injury of their health. Manufacturers of this kind of cloth introduced steam into their weaving sheds, to enable more of this admixture to be woven into the cloth, and to soften the stiff oversized threads, and render them more pliable and less subject to breakages. The clothes of persons, chiefly women and children, who were employed in these sheds, were so damped by the warm moisture given off by the steam, that, when they went out into the open air, coughs, colds, and the whole train of lung-diseases, were contracted; and rheumatism and many other bodily afflictions, which tended to enervate and break up the system at a premature age, followed.

ARTISANS' DWELLINGS.

THE Select Committee on the Artisans' and Labourers' Dwellings Acts have concluded the consideration of their report, which will shortly be published. The Committee lay emphasis on the immense advantages there would be to the working classes if the cheap train system in operation on the Great Eastern Railway could be extended to other railways running out of London. But this would by no means, they considered, meet all the circumstances of the case, as many workmen do not finish their labour until late at night, when such accommodation would not be available, and many persons are bound to live quite near their employment. After thoroughly considering the working of the two systems set on foot by Mr. Torrens's Acts and Sir R. Cross's Act, and the Acts amending them respectively, the Committee came to the conclusion that both were necessary to save the people from overcrowding. They would deal with some of the onerous provisions which hampered the working of Sir R. Cross's Acts; and they think that both those Acts and those of Mr. Torrens should be facilitated and reinforced, and their execution left to the local bodies. The recommendations of the Committee are based on these lines. They recommend that both the legislation introduced by Sir R. Cross, and the Acts known by the name of their author (Mr. Torrens), should be reinforced and worked each on their specific lines; and that, as occasion offers, the system of cheap trains for workmen should be extended to other lines running in and out of London. The Press Association states that the promoters of the Regent's Canal Railway have agreed to run upon their line cheap workmen's trains to the North of London, on terms similar to those already provided by the Great Eastern Railway Company.

PRESCRIBING DRUGGISTS.

A CASE is reported in the *South London Observer*, of June 17th, which shows how far some of the lower class of druggists are accustomed to go in defiance of the Apothecaries' Act of 1815, which, while reserving to them their trade rights in the "buying, preparing, compounding, dispensing, and vending drugs," expressly forbids, under a penalty of £20 for each offence, their acting as apothecaries by presuming to treat diseases. A man (a salesman in one of the markets, but residing at Walworth) came home on the previous Friday week at noon, complaining of pain in his chest, which he attributed to eating a steak for breakfast. Finding that the pain became worse, his wife went to a druggist in the neighbourhood, under the impression that he was a duly qualified medical man, as he had attended her and her children on previous occasions. The druggist wrote a prescription, and his assistant made it up. The next morning, the man was worse than ever; and, shortly after eight o'clock, the druggist visited him, and prescribed a second time; but, after taking two doses of the medicine, he suddenly died; and a coroner's inquest became necessary, at which the above facts were brought out. Mr. Hopkins, surgeon, deposed to making a necropsy, and finding heart-disease to have been the cause of death; and urged that the attention of the public should be drawn to the evils likely to result from practice by unqualified persons like the druggist in this case. It appeared that the relatives of the deceased man had no idea that they had engaged other than a duly qualified medical man. The coroner stated that he had no power to censure the individual referred to; it rested with the medical men themselves, through their Society. This is quite true; and we only regret that the Apothecaries' Society, with whom the duty primarily rests of enforcing their own Act, should not prosecute in such flagrant cases. Under the circumstances, we commend the case to the consideration of the Defence Associations.

PHTHISIS AMONG NEEDLE-MANUFACTURERS.

IN his recent report to the Stratford-on-Avon Combination of Sanitary Authorities, Mr. G. H. Fosbroke again comments upon the not uncommon prevalence of phthisis among needle-manufacturers. During 1880, no fewer than 45 deaths happened from this disease, 24 being registered in Alcester, which had then a population not exceeding 20,000; the remaining 21 deaths occurring in the Evesham and Stratford Districts, which contain together a population of not quite 26,000. Fourteen of the 24 deaths in Alcester took place in two subdistricts, both of which are needle-manufacturing centres. A somewhat similar mortality was registered during 1881, phthisis being held responsible for 24 deaths in the Stratford and Evesham Districts (population 24,597), whereas in Alcester, with a population of 17,387, there were 26 deaths. Mr. Fosbroke regrets that he is unable to give an explanation of this mortality, since the inspection of these needle-manufacturing factories does not come within his province. Whether it is in consequence of such trade employment, or that the workmen so generally keep their workshops too hot and "close," he is not in a position to say. This appearance of phthisis is, as Mr. Fosbroke observes, well worthy the consideration of factory inspectors; but it is also still more worthy the attention of the Medical Department of the Local Government Board, an inquiry by which, on the present state of the question as to the lung-diseasing conditions of various industries, is much to be desired. Such an inquiry was made on a large scale by the then Medical Department of the Privy Council in 1860-4, and Mr. Simon always recognised the importance of continuing the investigations on the subject. A series of fresh inquiries by various inspectors was indeed begun under his auspices in the year 1873, but the results were never published, and administrative changes put a stop to their further prosecution. The question is, however, one of no little hygienic as well as practical interest, and deserves exact and systematic study by a skilled investigator.

DEATH FROM CHLOROFORM.

WE have received from Mr. Crane, House-Surgeon of the Kent and Canterbury Hospital, the following account of a death from chloroform, that occurred in that hospital on Thursday, the 15th inst. J. S., aged 49, was admitted, under the care of Mr. T. W. Reid, on the 9th inst., for disease of the fifth metatarsal bone of the right foot. The toe had

been removed on the 7th April last, but the flap had not united. The great toe of the left foot had been amputated about five years before. On the 15th, Mr. Reid determined to remove the diseased portion of bone while the patient was under the influence of chloroform. For the first six or seven minutes, the chloroform appeared to have little effect; and, on an incision being made, the patient winced. Further operative proceedings were stayed for a few seconds, and on renewal, a piece of diseased bone was removed. The patient now struggled and sat up in the bed, when the pulse at the wrist suddenly became weak, flickered, and stopped; the face became livid; but the temporal artery could still be felt beating. The pupils were fixed, and not dilated. The breathing became sighing, and then stopped. As soon as the change in the pulse became apparent, the administration of the anæsthetic was discontinued, and the attention of the operator called to the patient's condition, artificial respiration being at once begun. In about a couple of minutes, the phrenic nerve was stimulated by a faradic current. All was of no avail, however, the patient merely giving two or three gasps. The quantity of chloroform used was about two drachms and three-quarters; and the time occupied, from the commencement of its administration until the setting in of the fatal symptoms, was less than ten minutes. The patient looked older than he really was. His pulse was strong and regular, and a little hard. There were no obvious signs of cardiac mischief. The urine was normal. He was accustomed to take large quantities of stimulants. There was unfortunately no necropsy, as the coroner did not deem it necessary, and the friends declined to consent.

THE DEAD IN HOSPITALS.

THE question as to the responsibility of public bodies for the burial of paupers dying in hospitals has for some time been a question of considerable discussion. In January last (see BRITISH MEDICAL JOURNAL, February 4th, 1882), the matter was brought before Mr. Bridge, at the Southwark Police Court, by a poor man, who asked for assistance in removing the dead body of his wife from Guy's Hospital, and having it buried by the parish. The applicant was living in the St. George's Union; but the relieving officer contended that, as the hospital was situated in St. Olave's Union, it was the duty of the relieving officer of that parish to go to the expense of removing the body and burying it. Mr. Bridge has since been in communication with the St. Saviour's Union respecting the burial of persons dying in Guy's Hospital who, previously to their admission, were resident in that union, and whose friends were unable to pay the funeral expenses; and Dr. Steele, the Superintendent of Guy's Hospital, has also brought the subject before the Local Government Board, with a view to the satisfactory settlement of this question. The Board have now expressed their opinion that, having regard to the opinion expressed by Lord Denman in the case of Regina *v.* Stewart, 12 A and E 773, in the event of a person dying in a hospital in such a state of indigence as to leave no fund applicable to the payment of the cost of interment, the primary obligation to bury the body devolves upon the hospital authorities, and that the guardians of the union of the parish in which the deceased resided prior to admission into the hospital are not legally bound to bear the expense of such interment. The statute of 7 and 8 Vict., cap. 101, section 31, however, enables the guardians of any parish or union to bury the body of any poor person which may be within such parish or union. As Guy's Hospital is within the St. Olave's Union, it will be for the guardians of that union to determine whether or not in any case they will interfere and exercise the power conferred upon them by that provision, and bury the body of any poor person which may be within the union. Seeing, however, that patients admitted into the hospital came from all parts of the metropolis, and even from the provinces, the guardians of the St. Olave's Union very naturally hesitate to adopt a practice which will render them liable to considerable expenditure. The subject is undoubtedly surrounded by considerable practical difficulty; but, with a view to diminish the hardship on the hospital authorities, of being at the charge of burying the bodies of persons dying in the hospital, the Board have suggested that the authorities should, when possible, make arrangements with the subscribers or persons sending or bringing patients to the institution, for the removal of such patients when they shall have been discharged from medical treatment, or, in the event of death, for the removal and burial by the Board. An undertaking of this kind is required by the authorities of some of the London hospitals, and its adoption at Guy's might go far to meet the difficulty which is now felt. Of course, no such arrangement would be possible in the case of persons brought to the hospital without an order, in consequence of sudden accident.

EXAMINATION IN ELEMENTARY ANATOMY AND PHYSIOLOGY.

THE following circular has been sent, by order of the Council of the Royal College of Surgeons, to all teachers of anatomy and physiology: "SIR,—I am desired to acquaint you, for the information of the authorities of your Medical School, that the Council of this college have adopted a resolution to the following effect, viz.:—'That it is desirable that an examination in elementary anatomy and physiology should be instituted at the several recognised schools of medicine after the end of the first year of professional study, and that any student commencing his professional education on or after the 1st of October 1882, should not be admitted to the primary examination for the diploma of Member of the College without the production of a certificate from his teachers that he has satisfactorily passed the examination in question at his medical school.'—I am, sir, your obedient servant, EDWARD TRIMMER, secretary. (1) What is your opinion on the propriety of holding the proposed examination in elementary anatomy and physiology after the end of the first year of professional study? (2) If it be determined to hold such an examination, what should be its scope in regard both to the subjects involved and the mode of conducting it? (3) At what period after the end of the first year would you propose that the examination should be held? (4) Would you allow any variation, as regards time, to meet the cases of exceptional students at which such examination should be held, or would you fix a certain date after the completion of the first year at which all candidates should pass it? (5) If you would allow a variation, how long would you delay the right on the part of the candidate to pass the examination before presenting himself for the primary examination for the membership? (6) And, generally, will you kindly favour the committee with any suggestions and observations you may have to make with respect to the examination?"

HUMAN PIGSTIES.

SOME very strong comments on the death of a child aged three weeks, which occurred at St. Mark's Mews, Notting Hill, lately appeared in a daily paper. It was stated that the evidence showed the premises to be in a filthy state, the atmosphere vitiated by an accumulation of stable-manure, and the bad condition of the drains; that there were two families, consisting of fifteen persons, living in six rooms. Dr. Dudfield reported to the Kensington Vestry that the statements were not true, as there were only fourteen persons, seven of whom were young children, occupying the six rooms; that the rooms were structurally like other rooms over stables, but required cleansing; and that there was no communication between the rooms and the drains. The latter were in good order, except that the inlets were trapped with bell-traps, the covers of which were movable; that there was no accumulation of manure, and indeed there could not be, as there is no dung-pit, nor any need of one, as sawdust is used instead of straw. The death was caused by overlying. Dr. Dudfield considered that there was absolutely nothing to justify the newspaper report. It does not appear whether, in addition to cleansing, any action will be taken to remove the bell-traps, and substitute a more efficient trap, which cannot be untrapped by the removal of the cover, or the evaporation of the very small quantity of water in the trap. Bell-traps are admittedly in very many cases no traps at all, even when they retain the covers, as in dry weather the water is absent, and the trap consequently untrapped;

and, in certain states of the atmosphere, sewer-gas will pass through the thin film of water which they ordinarily contain. It is to be hoped that before long all bell-traps in London will be taken away, and yard-gullies or some other similar trap be substituted.

SCOTLAND.

At a meeting of the Royal College of Surgeons of Edinburgh, held on the 21st inst., Dr. Patrick Heron Watson was elected representative of the College in the General Council of Medical Education and Registration of the United Kingdom for the period of three years, in the room of the late Professor Spence.

A HANDSOME TESTIMONIAL.

When it became known in Largs and the neighbourhood that Dr. Kirkwood, on account of the state of his health, had been obliged to give up practice of medicine, a number of his friends agreed to take the opportunity to present him with a testimonial of their grateful and affectionate appreciation of his invaluable professional and public services. The testimonial, consisting of a silver tea and coffee service, and a cheque for £1,435, was last week presented to Dr. Kirkwood.

DUNDEE LUNATIC ASYLUM.

At the annual meeting of the governors of the Royal Lunatic Asylum, Dundee, held on Monday, it was reported that the new asylum buildings at West Green were nearly completed, and that the patients would be transferred from the old buildings to them at an early date. In consequence, however, of want of room in the old house, 39 patients had already been placed in the new asylum buildings, and although there was five miles distance between the old and the new buildings, everything had been managed satisfactorily in conducting the work in direct connection with the old. During the year, 426 patients had been under treatment; this showed an increase of 41 on the previous year. The percentage of recoveries was 27.21, and the percentage of deaths 6.31. The income for the year was £9,109, and the expenditure £8,441.

THE MORISON LECTURES ON INSANITY.

The course of lectures delivered annually in Edinburgh, in the Royal College of Physicians, and known as the Morison Lectures on Insanity, is this year being delivered by Mr. D. J. Hamilton, Professor-elect of Pathology in the new chair of Pathology in Aberdeen University, and at present Pathologist to the Royal Infirmary, Edinburgh, and Teacher of Practical Pathology. The first lecture was delivered on Friday, June 16th; Dr. Haldane, the President of the Royal College of Physicians, in the chair. The lecturer treated of the nervous system; its evolution; the aid which phylogeny gave in understanding its structure and functions; its history as recorded in development, and as seen in different classes of animals; the relation of the sympathetic to the nervous system of invertebrates; also the development of the sense organs. The second lecture was delivered on Tuesday last, and in it the lecturer considered the development of the vertebrate brain; the comparative anatomy of the convolutions in relation to intelligence; Meynert's "Projection System," and the functions of the cerebral cortex as far as at present known.

REGISTRAR-GENERAL'S RETURNS.

From the returns of the Registrar-General for the week ending June 10th, it appears that the death-rate in the eight principal towns was 23.2 per 1,000 of estimated population. This rate is 4 5 above that for the corresponding week of last year, and 0.3 above that for the previous week of the present year. The lowest mortality was recorded in Dundee, viz., 18.2 per 1,000; and the highest in Greenock, viz., 29.7 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 3.5 per 1,000, or slightly below the rate for the previous week. Whooping-cough, diarrhœa, and other bowel-complaints were the most fatal miasmatic diseases in Glasgow. Six deaths from whooping-cough were registered in Edinburgh. Acute diseases of the chest caused 107 deaths, or 18 less than the number registered during the previous week. The mean temperature was 55.3°, being 0.1° below that of the week immediately preceding, but 7.5° above that of the corresponding week of last year.

TYPHOID FEVER IN GLASGOW.

There has been a sharp outbreak of this disease in a working-class portion of the western district of Glasgow. In the streets where it prevails the cases have occurred wholly within the area of one milk supply, and, as a consequence, all the farms given as the source from which the milk was derived have been inspected, and inquiries pushed in various directions without discovering the point of infection, so far as actual disease goes. Yet the association of the fever with the milk-distribution is very distinct—as distinct as in any previous experience. In the course of a complete house-to-house visitation in the locality, there has not been found a household infected which was not supplied with this milk. The history of the cases gives the beginning of May as the time when the contamination took place, and there is no evidence of any present or more recent injury. It is to be hoped that some light will yet be thrown on the cause of the outbreak.

THE HEALTH OF GLASGOW.

The report of the Medical Officer of Health for the fortnight ending June 10th shows that there were 479 deaths registered, giving a death-rate of 24.6 per 1,000 living. In the corresponding fortnight of last year the mean temperature was a degree lower, and the death-rate was also lower. The deaths from pulmonary diseases still continue in excess, being 12 per cent. more this year than last. They amounted to 184, representing a death-rate of 9 per 1,000 living, and constituting 39 per cent. of the total deaths. There were 4 deaths from fever, viz., 3 from enteric and 1 from typhus. The number of deaths from the infectious diseases of children was 33, viz., 21 from whooping-cough, 7 from measles, and 5 from scarlet fever. The cases of fever registered amounted to 73, viz., 67 of enteric fever, 5 typhus, and 1 undefined. There were also 91 cases of measles, 46 of whooping-cough, 46 of scarlet fever, and 9 of diphtheria registered, of which 25 were removed to hospital, and the remainder kept under sanitary supervision at home. On the whole, it may be said that the past fortnight has been one of increased mean temperature, the increase arising chiefly from warmer nights, so that the temperature has been more uniform. Although the number of deaths from pulmonary diseases is less than it has been, it is still higher than usual.

SICK CHILDREN'S HOSPITAL IN GLASGOW.

Considerable progress has been made with this institution, and it is hoped that it will be shortly open for the reception of patients. The hospital stands on Garnet Hill, which is a central situation, and one of the most airy in the west of Glasgow. The building is externally plain and inexpensive, but internally, as regards drainage, ventilation, heating, the arrangement of the wards and all other details, everything appears to be as perfect as possible. There are three wards, affording accommodation for about sixty patients, but only those suffering from diseases of a non-infectious character will be admitted. About £2,000 is still needed to defray the expenses of the building and its equipment, and a further sum will also be necessary to provide that most necessary adjunct of a children's hospital, a dispensary. Glasgow is to be congratulated on having at last made special provision for the sick children of the city, and no doubt ample funds will be forthcoming for the support of the hospital.

HEALTH OF THE PRINCIPAL SCOTCH TOWNS.

During the month of May, there were registered in the eight chief Scotch towns the deaths of 2,460 persons, of whom 1,247 were males and 1,213 females; this number is 226 under the average for the pre-

vious ten years, due allowance having been made for increase of population. The respective death-rates in the various towns were per 1,000 of their population: Leith, 15; Dundee, 19; Edinburgh and Aberdeen, 22; Paisley, 24; Greenock, 25; Perth, 25; and Glasgow, 28. Forty-three per cent. of all the deaths were of children under five years of age, and the percentage of each town was: Perth, 36; Leith, 37; Edinburgh and Dundee, 40; Greenock, 43; Glasgow, 44; Aberdeen, 45; and Paisley, 46 per cent. Fifteen and a-half per cent. of all deaths was due to zymotic diseases; but in Edinburgh, Aberdeen, and Paisley this rate was much exceeded. Whooping-cough, as usual, was most fatal, it having caused 4.9 of the entire mortality; while in several places it was more fatal: thus, in Glasgow 5.7 and in Aberdeen 8.7 per cent. of the deaths were due to it. Of 44 deaths ascribed to fever, 5 were registered as typhus, 37 as enteric, and 2 as simple continued fever. Of the other zymotics, measles was most fatal, having caused 78 deaths, diarrhœa 41, scarlet fever 28, diphtheria 27, croup 17, metria 6. In Edinburgh, 6.6 of the deaths were due to measles; but in that city the epidemic is certainly subsiding rapidly now. As to other diseases, apoplexy caused 63 deaths, paralysis 53, cardiac diseases 149, hydrocephalus 86, and premature birth debility 64 deaths. Phthisis pulmonalis caused 506 deaths, equal to 13.5 per cent. of the entire mortality; while inflammatory affections of the respiratory system, other than those already mentioned, actually contributed 20.6 of the total number of deaths. Of 62 deaths due to violent causes, only 5 were returned as of suicidal origin. Four males and one female died over ninety years of age, of whom the oldest, a labourer, was ninety-eight. During May, there were registered in those eight towns the births of 4,222 children, of whom 2,134 were males and 2,088 females. Meteorologically, the month of May was an ordinary month, its mean temperature being only half a degree above the average of the preceding 26 years. The mean barometric pressure was greater by 0.065 inch, the barometric monthly range greater by 0.279 inch, the mean temperature greater by 0.5°, the mean daily range of temperature greater by 2.6°, the mean humidity (73) was less by 5, the rain depth in inches greater by 0.20 inch, the wind pressure greater by 0.13 lbs. than the average of the same month during the preceding 26 years. The highest mean temperature, 51.4°, was at Paisley; the lowest, 48.8, was at Aberdeen. The maximum rainfall, 3.79 inches, was at Greenock; and the minimum, 1.58 inch, was at Aberdeen, the place which had also the lowest mean temperature.

IRELAND.

FIVE persons, suffering from small-pox, were last week admitted into Newry Workhouse, from the Camlough division of the union. On examination, four out of the number were destitute of vaccination marks; while in the case of the other patient, who had the disease very mildly, vaccination had been performed.

WOMEN AND CHILDREN'S HOSPITAL, CORK.

THE Board of Management of the County and City of Cork Hospital for Diseases of Women and Children have published a statement in reference to the propriety of amalgamating with the South Infirmary, which was suggested at the late annual meeting of the institution. They state that their hospital having adopted an entirely different system of nursing from that of the South Infirmary, the Board felt that the proposed amalgamation of the two institutions could not be made unless the trustees of the South Infirmary should consent to modify their system of nursing in the department for children. Shortly after this meeting, the intern medical staff of the infirmary issued a communication strongly putting forth the adaptation of the infirmary as much as any other institution for the treatment and nursing of women and children, and apparently pointing out that there was no necessity for a separate institution for these objects. The Board felt that, if such were the case, there was no reason why their institution should exist; and a meeting was arranged between their body and the trustees of the infirmary, when the former offered to use their influence to endeavour to transfer to the latter the funds and subscriptions of the Women and Children's Hospital on the following conditions: 1. That a separate department for children shall be established; 2. That the present medical staff of the Women and Children's Hospital be retained for that department; 3. That the mode of nursing now in operation in the Women and Children's Hospital shall be adopted for this department. Of these three propositions, the first and third were alone insisted on as being absolutely essential. After careful consideration, the trustees of the infirmary declined the proposed amalgamation, their chief objection being that the system of nursing at the Women and Children's Hospital was incompatible with that adopted and strongly approved of by the trustees of the infirmary. The board consider they are justified in still continuing to maintain the hospital as a separate institution, particularly as they have demonstrated by actual experiment the impossibility of amalgamating it with one of the larger institutions, without depriving the hospital of its most important and distinctive characteristic, viz., the system of lady nurses. It is hoped shortly to move the institution into a larger and more commodious building; and although a sum of £700 was obtained last November by means of a bazaar, a further sum of nearly the same amount will be required to enable the board to erect or otherwise provide a building suitable in every respect for a Women and Children's Hospital.

ARMAGH UNION.

THE Hospital Committee appointed by the guardians have recommended that the proposed paying hospital for infectious diseases for Armagh should be erected outside the workhouse walls, and that the cost should not exceed £1,000, which should be borne jointly by the rural and urban sanitary authorities. The matter is still under discussion, but will probably be decided at the next meeting of the board. There were no cases of small-pox admitted to hospital during the week, and the entire number under treatment is five, of whom three are convalescent.

CORK FEVER HOSPITAL.

ON the 15th instant, a meeting of the trustees was held for the purpose of electing an extra physician to the hospital, when Dr. Charles Armstrong Harvey was unanimously elected. Dr. Beamish, who recently resigned, was appointed consulting physician, and it is contemplated to present him with a testimonial of the esteem with which he is regarded by the Committee. It is not intended that this expression of opinion should assume any costly form, and probably an illuminated address will ultimately be decided upon.

LIGATURE OF THE INNOMINATE ARTERY.

WE have received fuller details of Mr. Thomson's case, briefly reported at page 920 of our last number. The patient, forty-five years of age, was suffering from a large aneurysm, involving the second and third parts of the subclavian artery, and three and a half inches in diameter. The operation was performed at the Richmond Surgical Hospital. An ox-aorta ligature, one-sixth of an inch in diameter, was employed, and was passed round the innominate artery by means of the instrument specially devised by Mr. Barwell for the purpose. On the third day, the tumour felt firm, and was already diminished in size; the wound remained aseptic, only a small quantity of serum oozing from the drainage-tube. On the thirteenth day, the pain, from which the patient had suffered much before operation, had completely disappeared; and sensation was returning in the right arm, which had been paralysed for several months. The tumour was steadily contracting, and the wound had entirely healed, except at one point, kept open by a few threads of catgut.

HISTORY OF THE BRANCHES OF THE BRITISH MEDICAL ASSOCIATION.

SUBJOINED are historical notes of the Branches of the British Medical Association, for which we are indebted to the local Secretaries. They will serve to show, at least to some extent, the important part which these societies have taken in promoting the objects for which the Association was founded. The record of the work is chiefly limited to their proceedings in relation to public questions which have been brought under their notice. Of their scientific work, we can only say that hundreds of papers on subjects in the practice of medicine have been read and discussed at the meetings, the mere enumeration of the titles of which would occupy more space than we have at our disposal. It is scarcely possible to overrate the beneficial influence which they have exercised on the progress of medical knowledge and on the general interests of the medical profession.

BATH AND BRISTOL BRANCH.

WITH one exception (the East Anglian Branch), this Branch—or rather the Bath division of it—is the oldest in the Association. The first steps to inaugurate a district Branch of the Provincial Medical Association in this neighbourhood were taken at Bath, November 18th, 1836, when a few influential members of the profession met and decided upon the formation of the Bath District Branch, of which Mr. W. Tudor, Serjeant-Surgeon to the King, was the first president, and Dr. Barlow secretary. The Bristol Branch was formed in 1839; Dr. J. C. Prichard being the first president, and Mr. Hetling secretary. In 1842, a proposal was made to amalgamate the Bath Branch with the Bristol; and in consequence the Bath and Bristol Branch was formed, consisting of 119 members, including many from the country around the two towns.

For some years, the Branch was managed by a council, consisting of eight members from Bath, eight from Bristol, and eight country members; and the president was chosen annually in rotation from each division; but since 1849, there have only been six country members in the chair. Since 1850, the council has consisted of twelve members elected in the Bath district, and twelve in the Bristol district, each including its neighbouring country range.

Each district has its own secretary. In the Bath district, the secretaries have been: Dr. E. Barlow (appointed 1836); Dr. W. I. Morgan (1843); Mr. J. S. Bartrum (1852); and Mr. R. S. Fowler (1859), who holds office at the present time. In the Bristol district, the first secretary was Mr. G. H. Hetling (appointed 1839); and his successors have been Mr. J. Colthurst (1847); Mr. Crosby Leonard (1853); Mr. H. Ormerod (1860); Dr. Henry Marshall (1861); Dr. C. Steele (1865); Mr. E. C. Board (1870); and Dr. E. Markham Skerritt (1880), who is now in office.

The following table shows the presidents of the amalgamated Branches, commencing from 1841. Previously to that time, the presidents were: Bath Branch: 1837, Mr. W. Tudor; 1838, Mr. G. Norman; 1839, Mr. J. S. Soden; 1840, Dr. W. I. Morgan. Bristol Branch: 1839, Dr. J. C. Prichard; 1840, Mr. R. Smith. The annual meetings are held alternately in Bath and Bristol, the president for the year being resident within the district in which the meeting is held. The first meeting on the list, that in 1841, was held in Bristol.

Year.	President.
1841	R. Godfrey, Esq.
1842	J. B. Daniel, M.D.
1843	Henry H. Fox, M.D.
1844	Richard F. George, Esq.
1845	J. B. Estlin, Esq.
1846	G. G. Bompas, M.D.
1847	J. Ormond, Esq.
1848	Farnham Flower, Esq. (Chilcompton)
1849	John C. Swayne, Esq.
1850	E. Hodges, M.D.
1851	J. A. Symonds, M.D.
1852	George Norman, Esq.
1853	Henry Clark, Esq.
1854	John S. Soden, Esq.
1855	William Budd, M.D.
1856	William Davies, Esq.
1857	Augustin Prichard, Esq.
1858	James Crang, Esq. (Timsbury)
1859	J. G. Davey, M.D. (Northwoods)
1860	John Soden, Esq.
1861	J. G. Swayne, M.D.
1862	W. J. Church, Esq.
1863	F. K. Fox, M.D. (Brislington)
1864	R. W. Falconer, M.D.
1865	F. Brittan, M.D.
1866	J. S. Bartrum, Esq.
1867	R. W. Coë, Esq.
1868	R. N. Stone, Esq.
1869	C. H. Collins, Esq. (Chew Magna)
1870	C. Bleeck, Esq. (Warminster)
1871	Crosby Leonard, Esq.
1872	T. G. Stockwell, Esq.
1873	E. Long Fox, M.D.
1874	Frederick Mason, Esq.
1875	W. Mitchell Clarke, Esq.
1876	H. F. A. Goodridge, M.D.
1877	H. Marshall, M.D.
1878	H. Hensley, M.D.
1879	J. Beddoe, M.D.
1880	A. Waugh, Esq. (Midsomer Norton)
1881	D. Davies, Esq.

Dr. J. K. Spender of Bath is the President-elect.

Six ordinary meetings of the Branch are held yearly during the session between October and May. They take place at Bath and Bristol alternately; and numerous papers bearing on the science and practice of medicine have been read and discussed at them. The Branch has also taken cognisance, from time to time, of medical reform and other matters connected with the interest of the Association and of the profession and public.

The first annual meeting of the Association, after its formation at Worcester in 1832, was held in Bristol in 1833 under the presidency of Dr. Carrick. Since the original formation of the Branch, there have been four meetings in the district: at Bath in 1838 (Dr. Barlow, president), in 1848 (Mr. G. Norman, president), and in 1878 (Dr. R. W. Falconer, president); at Bristol in 1863 (Dr. J. A. Symonds, president).

At the present time, the Branch contains 216 members, all residen in Somerset, Wiltshire, and Gloucestershire.

CAMBRIDGESHIRE AND HUNTINGDONSHIRE BRANCH.

THIS Branch is one of the oldest in the Association, and was projected, in the first instance, in the year 1842, by Mr. Crosse of Norwich, the founder of the "Eastern Medical Association", which had already been incorporated with the Provincial Medical Association established independently by Sir Charles Hastings. In the above year, Mr. Crosse wrote to Mr. G. M. Humphry, just elected surgeon to Addenbrooke's Hospital at Cambridge, asking him to enlist members, and to form a Branch. There were at that time a few members of the Association in Cambridge and its neighbourhood, including Dr. Haviland, Regius Professor of Physic, and Dr. Fisher, Downing Professor of Medicine, who became the first members of the Branch.

The earlier meetings were held at Huntingdon, under the presidency of Dr. Ward; at Ely, under that of Mr. Muriel; at St. Ives, March, Wisbech, and Bishop's Stortford, under the presidency respectively of Mr. Girling, Mr. O'Connor, Dr. Whitsed, and Mr. Cribb. The first meeting at Cambridge was held under the presidency of Dr. Paget, four years before the general meeting of the Parent Association at the same place in the year 1864. This meeting was highly successful, and resulted in a large accession to the number of members of the Branch, which has been steadily maintained up to the present time.

The following is a list of Presidents and a table of places of meeting.

Year.	Place of Meeting.	President.
1850	Huntingdon	William Ward, M.D.
1851	Ely	John Muriel, Esq.
1852	St. Ives	G. L. Gerling, Esq.
1856	March	T. O'Connor, Esq.
1857	Peterborough	W. G. Porter, Esq.
1858	Wisbech	John Whitsed, M.D.
1859	Bishop Stortford	H. Cribb, Esq.
1860	Cambridge	G. E. Paget, M.D., F R.S.
1861	Huntingdon	M. Foster, Esq.
1862	Saffron Walden	F. F. Welch, Esq.
1863	Peterborough	W. Paley, M.D.
1865	Ely	John Muriel, Esq.
1866	St. Neots	J. J. Evans, Esq.
1867	King's Lynn	J. V. Hawkins, M.D.
1868	Great Yarmouth	W. Vores, M.D.
1869	Cambridge	W. W. Fisher, M.D.
1870	Ipswich	B. Chevallier, M.D.
1871	Norwich	P. Eade, M.D.
1872	Ely	R. Muriel, Esq.
1873	Great Yarmouth	J. C. Smith, Esq.
1874	St. Ives	W. R. Groves, M.D.
1875	Cambridge	G. M. Humphry, M.D., F.R.S.
1876	Bedford	H. W. Sharpin, Esq.
1877	Saffron Walden	Henry Stear, Esq.
1878	Peterborough	T. J. Walker, M.D.
1879	Bishop Stortford	C. F. Hodson, Esq.
1180	Bury St. Edmunds	John Kilner, Esq.
1881	Huntingdon	Herbert Lucas, Esq.
1882	Wisbech	W. Groom, Esq.

The work of the Branch has been mainly confined to the reading and discussion of papers in medical science, and has rarely been extended to social or political questions affecting the profession.

POOR-LAW MEDICAL REFORM.—At the meeting at Ely, in 1865, a series of resolutions were adopted touching the question of Poor-law medical relief. One of these has a curious significance at the present moment, when it is proposed to increase the tax on carriages. The resolution stated it to be advisable "that every union medical officer should be entitled to keep one man-servant, one horse, and one two- or four-wheeled carriage, free from assessed taxes".

MEDICAL FEES.—At the meeting at Yarmouth in 1868, it was proposed and carried, "That, in the opinion of this meeting, it is expedient to appoint a committee in Section E at the annual meeting at Oxford, to draw up a recommendatory tariff of medical fees and club-remuneration'.

PROFESSIONAL SECRETS.—At the meeting at Cambridge in 1869, the question was discussed, "Is it proper that medical men should be compelled to divulge, in courts of justice, facts of a criminal nature which may have become known to them in answer to strictly professional questions?"

HABITUAL DRUNKARDS.—At the third meeting at Cambridge, in 1875, the question of legislation for habitual drunkards was taken up, and petitions to Parliament adopted.

Questions in Medical Ethics are remarkably absent from the records of the Branch, only two such having been dicsussed since 1850.

Medical Education has not occupied the attention of the Branch, except when, meeting in Cambridge, the advantage likely to accrue if the University could obtain a greater hold of the profession has been informally mentioned in speeches.

With regard to the purely medical work, at the earlier meetings, special questions in medical science were set for duscussion, so as to gather up the experiences of a large number of medical observers—a plan foreshadowing the system of collective investigation adopted by the Association. The same plan was again advocated by Mr. Stear at the meeting at Saffron Walden in 1877; but no definite result was arrived at.

Since 1850, regular annual meetings of the Branch have been held at the several towns within its area, or in combination with neighbouring Branches; and, within recent years, additional meetings have been held. The second general meeting of the Parent Association at Cambridge in 1880 is so recent as scarcely to require special notice. It has not been without its effect in furthering the prosperity of the Branch.

The secretaries have been: Mr. Humphry, from the foundation of the Branch to 1864; Dr. Latham (1864); Mr. Helm (1865); Dr. Bradbury (1873); Dr. Anningson (1877 to the present time).

MIDLAND BRANCH.

THIS Branch was formed at a meeting held at the Town Hall, Derby, on November 6th, 1851. Sir Charles Hastings was in the chair; and it was determined to form a Branch including the counties of Derby, Nottingham, Leicester, and Lincoln. Dr. Bent of Derby was appointed the first President, and Mr. Fearn Honorary Secretary; and a Committee of three members from each county was appointed to draw up rules.

The annual meetings are held alternately in the county towns. Quarterly meetings are also held at some place in one of the counties, named by the President. At these meetings, papers on professional subjects and matters of interest to the profession generally are discussed.

The following is a list of the Presidents of the Branch, and places of annual meeting, since its formation.

Date.	Place of Meeting.	President.
1852	Nottingham	J. C. Williams, M.D.
1853	Leicester	Thomas Paget, Esq.
1854	Lincoln	James Snow, Esq.
1855	Derby	James Heygate, M.D.
1856	Nottingham	Booth Eddison, Esq.
1857	Leicester	George Shaw, M.D.
1858	Spalding	Edwin Morris, M.D.
1859	Derby	J. Whitaker Johnson, Esq.
1860	Nottingham	George E. Stanger, Esq.
1861	Leicester	T. Macauley, Esq.
1862	Lincoln	T. Sympson, Esq.
1863	Derby	H. Goode, M.B.
1864	Nottingham	W. H. Ransome, M.D.
1865	Leicester	John Barclay, M.D.
1866	Lincoln	Septimus Lowe, Esq.
1867	Derby	John Hitchman, M.D.
1868	Nottingham	Joseph Thompson, Esq.
1869	Leicester	T. W. Benfield, Esq.
1870	Lincoln	G. Mitchinson, Esq.
1871	Derby	Wm. Ogle, M.D.
1872	Nottingham	W. T. Robertson, M.D
1873	Leicester	H. Lankester, Esq.
1874	Lincoln	T. Sympson, Esq.
1875	Derby	A. H. Dolman, Esq.
1876	Nottingham	Joseph White, Esq.
1877	Leicester	C. H. Marriott, M.D.
1878	Lincoln	A. Mercer Adam, M.D.
1879	Derby	J. Wright Baker, Esq.
1880	Nottingham	T. Wright, M.D.
1881	Leicester	W. E. Buck, M.D.

Among the subjects which have been discussed by the Branch are the following.

MEDICAL REFORM.—In 1858, a petition in favour of Mr. Cowper's Bill was ordered to be signed by the President and presented to both Houses of Parliament.

HOMŒOPATHY.—In 1858, the Branch passed a resolution declaring that homœopathy "stamps with degradation the intellect or honesty of him who possesses it; and that to give encouragement to homœopathists thus becomes impossible with the man of education and high principles; and he who assents to consultation or co-operation with them sinks below the respect of his professional brethren, and the membership of this Branch of the British Medical Association." The meeting also expressed its "high appreciation of the honourable and dignified course taken by Dr. Paley of Peterborough and Mr. Philbrick of Stamford, in refusing to consult or co-operate with a homœopathic practitioner."

POOR-LAW MEDICAL OFFICERS.—In 1858, the Branch passed a resolution, thanking Mr. Richard Griffin of Weymouth "for his able and untiring advocacy of the rights and claims of the Poor-law medical officers, and his noble efforts to obtain an immediate redress of their grievances."

ELECTION OF MEMBERS OF ASSOCIATION.—In 1875, the following motion was carried unanimously: "That it would be conducive to the interests of the British Medical Association if the election of its members rested primarily with the Branch Association in whose district the applicants reside, subject to final approval and confirmation by the General Council of the British Medical Association."

ADVERTISEMENT OF MEDICAL BOOKS.—In 1875, the members at the annual meeting expressed the opinion that the advertising of medical books in the general papers is undesirable.

HABITUAL DRUNKARDS BILL.—In 1876, at the annual meeting, a petition to Parliament in favour of some restrictive measures for habitual drunkards was signed by the President and members.

CRUELTY TO ANIMALS BILL.—At the annual meeting in 1876, Dr. Ransome proposed a series of resolutions on this subject as follows:

"This meeting desires to express its approval of the course of action which has been taken by Mr. Ernest Hart and the Parliamentary Bills Committee towards the amendment of the Bill relating to experiments upon animals. While congratulating the Committee upon the measure of success which has attended their efforts in the interests of scientific truth and of true humanity, this meeting trusts that those efforts will be continued until the Bill is so amended that it will secure for society at large the full benefits which attach to the progress and diffusion of biological science, as well as such securities against possible abuse of the power of man over animals as are consistent with equitable legislation between man and man. This meeting does not consider that legislation equitable which makes penal a given action done for the purpose of acquiring knowledge, while it permits as lawful a similar action done by the same or another person for profit or amusement. It would, however, consider the injustice of the present Bill in this respect removed, were a clause introduced limiting its operation to those animals which either now are, or may hereafter be, included in the operation of Martin's Act. In the opinion of this meeting, the Bill, as it stands, punishes, not the infliction of pain, but the pursuit of knowledge, and, by reason of its unequal treatment of different persons for similar actions, will fail to commend itself to the consciences of those who are affected by it."

MEDICAL EDUCATION.—In 1880, a special meeting was held at Matlock Bath, to discuss and consider the resolutions of the Metropolitan Counties Branch on Medical Education.

Quarterly meetings are held at some place in the county named by the President. At these meetings, papers on professional subjects are read, and matters of interest to the profession generally are discussed.

EAST ANGLIAN BRANCH.

THIS Branch consists of Members of the Association residing in the counties of Norfolk, Suffolk, and North Essex, consolidated from various local societies in connection with the Provincial Medical and Surgical Association, which then existed as the Eastern Branch. No minutes of the transactions of these various district societies are known to exist, and the history of the Branch has therefore to be traced from the record of the names of the gentlemen who have filled the various offices of importance.

Among the most distinguished of the earlier associates, was unquestionably that great provincial surgeon and ardent worker, Dr. John Green Crosse, F.R.S., who it appears (previously to the general meeting of the Association in Norwich in 1846, at which he ably presided), had mainly directed the secretarial work himself. In these important duties he was assisted by various local secretaries, among others by Mr. C. R. Bree of Stowmarket, Mr. G. M. Humphry (Cambridge), Dr. W. England (Wisbeach), Mr. G. Chaters, and Mr. J. B. Pitt (Norwich). About the year 1851 Dr. Kirkman (of the Suffolk County Asylum) became with Mr. J. B. Pitt conjoint secretaries; they worked together until 1857, when Dr. Barrington Chevallier of Ipswich succeeded Dr. Kirkman. After twenty years'

service, Dr. Chevallier resigned in 1877, and was succeeded by Dr. W. A. Elliston of Ipswich. In October 1880, Mr. J. B. Pitt resigned after thirty-four years of office, and was succeeded by Dr. Michael Beverley of Norwich. The two present secretaries are Drs. Elliston and Beverley.

A list of presidents, the names of whom have been carefully recorded by the secretaries, and of the places of annual meeting, is given below. The general meeting of the Association has been twice held at Norwich, viz., in 1846, under the presidency of Dr. Crosse, and again in 1874, under the presidency of Dr. Edward Copeman.

Year.	Place of Meeting.	President.
1843	Stowmarket	C. M. Durrant, M.D.
1844	Bury St. Edmund's	W. H. Ranking, M.D.
1845	Ipswich	G. Bullen, Esq.
1846	Norwich*	John Green Crosse, M.D., F.R.S.
1847	Beccles	W. H. Crowfoot, Esq.
1848	Bury St. Edmund's	R. Wake, M.D.
1849	Hadleigh	John Growse, Esq.
1850	Woodbridge	John D. Kirkman, M.D.
1851	Framlingham	Wm. Jeaffreson, Esq.
1852	Needham Market	J. Bedingfield, M.D.
1853	Ipswich	R. Martin, Esq.
1854	Bury St. Edmund's	W. E. Image, Esq.
1855	Colchester	Roger Nunn, Esq.
1856	Beccles	W. E. Crowfoot, Esq.
1857	Norwich	W. H. Ranking, M.D.
1858	Ipswich	C. M. Durrant, M.D.
1859	Lowestoft	J. Kirkman, M.D.
1860	Newmarket	R. Faircloth, Esq.
1861	Norwich	W. Cadge, Esq.
1862	Stowmarket	S. Freeman, Esq.
1863	Great Yarmouth	E. Copeman, M.D.
1864	Bury St. Edmund's	W. E. Image, Esq.
1865	Ipswich	A. H. Bartlet, M.D.
1866	Norwich	T. W. Crosse, Esq.
1867	King's Lynn	J. V. Hawkins, M.D.
1868	Great Yarmouth	W. Vores, M.D.
1869	Cambridge	W. W. Fisher, M.D.
1870	Ipswich	B. Chevallier, M.D.
1871	Norwich	P. Eade, M.D.
1872	Ely	R. Muriel, Esq.
1873	Great Yarmouth	J. C. Smith, Esq.
1874	Norwich*	E. Copeman, M.D.
1875	Cambridge	G. M. Humphry, M.D., F.R.S
1876	Lowestoft	W. E. Clubbe, Esq.
1877	Diss	T. E. Amyot, Esq.
1878	Peterborough	T. J. Walker, M.D.
1879	Bury St. Edmund's	J. Kilner, Esq.
1880	Lowestoft	F. S. Worthington, Esq.
1881	Great Yarmouth	C. Palmer, Esq.
1882	Beccles	W. M. Crowfoot, M.B.

* The annual meeting of the Parent Association was held at Norwich in 1846 and 1874; Mr. Crosse and Dr. Copeman being presidents.

The East Anglian Branch numbers 170 members. It has a Council, of which all past-presidents are members, in addition to the elected representatives. Two general meetings are held in the year, and the principal business is the reading of short papers, the exhibition of pathological specimens, and the like. A large majority indeed, almost all, the leading men of the district, are, or have been, connected with the Branch, and many valuable contributions have been made through its agency by such men among the dead as William Jeaffreson, of Framlingham, the first performer of the modern operation of ovariotomy in Great Britain; John Green Crosse, Copeman, and Ranking, of Norwich; George Bullen, of Ipswich, etc.

The Branch have from time to time expressed their opinion upon various matters of interest to the profession, such as the education of medical students, medical reform, sanitary legislation, the establishment of provident dispensaries, and of county medical clubs, the reform of the administration of medical relief to the poor, especially of the necessity of all drugs and medical appliances being supplied at the expense of the ratepayers in all parts of the kingdom, etc.

The meetings of the Branch are generally well attended, and the annual meeting has more than once been amalgamated with that of the Cambridge and Huntingdon Branch, and also with the South Midland Branch.

SOUTH-WESTERN BRANCH.

THIS Branch was founded in 1840 by some of the earlier members of the Provincial Medical and Surgical Association. The Association having agreed to hold the annual meeting of 1840 in Exeter, it was thought that the formation of a Branch for the South-West of England would help to strengthen the Association, and would place the local members in a better position for receiving and entertaining it with honour.

The organisation of the new Branch was entrusted to Dr. T. Shapter, whose tact and energy soon attracted most of the leading medical practitioners of Devonshire into the ranks. Rules were drawn up, and a first list of officers made. Dr. Blackall was appointed "Patron"; Mr. J. H. James, President; Mr. S. Barnes and Mr. W. Collyns, Vice-Presidents; and Dr. T. Shapter, Secretary. The Branch prospered; for, at the third annual meeting, held at the Exeter Hospital in 1843, the number of members on the roll was stated to be 120. All of these members belonged to Devon and Somerset, but, in the following year, the Council had the satisfaction of reporting to the annual meeting "a considerable accession from the neighbouring county of Cornwall". The Branch is now practically confined to Devon and Cornwall, Somersetshire members being served by other Branches. There are now about 180 members on the roll of the South-Western Branch. At the annual meeting of 1844, the rules for the working of the Branch were finally settled. The number of the Council was fixed at fifteen, one-third of the number to retire annually in rotation. The subjoined table gives the places of the annual meetings, and the names of the presidents, in each year since the foundation of the Branch.

Year.	Place of Meeting.	President.
1841	Exeter	J. H. James, Esq.
1842	Exeter	J. H. James, Esq.
1843	Exeter	P. Miller, M.D.
1844	Plymouth	J. C. Cookworthy, M.D.
1845	Bideford	J. H. Baker, Esq.
1846	Exeter	S. Barnes, Esq.
1847	Truro	C. Barham, M.D.
1848	Plymouth	J. Butter, M.D.
1849	Exeter	R. L. Pennell, M.D.
1850	Dartmouth	R. F. Burrough, Esq.
1851	Devonport	P. W. Swain, Esq.
1852	Exeter	P. C. De la Garde, Esq.
1853	Torquay	B. Toogood, Esq.
1854	Plymouth	W. J. Square, Esq.
1855	Exeter	T. Shapter, M.D.
1856	Tiverton	G. Paterson, M.D.
1857	Plymouth	J. C. Cookworthy, M.D.
1858	Exeter	John Edye, Esq.
1859	Torquay	C. Radclyffe Hall, M.D.
1860	Torquay	C. Radclyffe Hall, M.D.
1861	Truro	C. Barham, M.D.
1862	Plymouth	John Whipple, Esq.
1863	Exeter	S. Budd, M.D.
1864	Torquay	C. B. Nankivell, M.D.
1865	Bideford	T. L. Pridham, Esq.
1866	Launceston	D. Thompson, Esq.
1867	Exeter	P. C. De la Garde, Esq.
1868	Plymouth	John Whipple, Esq.
1869	Truro	C. Barham, M.D.
1870	Torquay	Wm. Pollard, Esq.
1871	Exeter	P. C. De la Garde, Esq.
1872	Bideford	J. Thompson, M.D.
1873	Callington	John Kempthorne, Esq.
1874	Torquay	Spencer Thomson, M.D.
1875	Devonport	P. W. Swain, Esq.
1876	Exeter	C. H. Roper, Esq.
1877	Penzance	J. B. Montgomery, M.D.
1878	Torquay	C. Radclyffe Hall, M.D.
1879	Exeter	A. J. Cumming, Esq.
1880	Plymouth	R. Hogarth Clay, M.D.
1881	Redruth	R. Hudson, M.D.
1882	Barnstaple	J. Harper, Esq.

The treasurership has always been held by the secretary. The first secretary was Dr. T. Shapter of Exeter, to whom belongs the credit of being the founder of the Branch. Dr. Shapter held office till 1847, when he was succeeded by Dr. W. D. Kingdon. In 1853, Dr. A. Drake was appointed, on the resignation of Dr. Kingdon; and, on Dr. Drake's retirement in 1856, the late Mr. C. H. Roper took office. Mr. Roper resigned in 1866, and was followed by Mr. S. Edye, who gave up the post to Mr. J. Woodman in 1872. Mr. L. H. Tosswill succeeded Mr. Woodman in 1876, but resigned in 1879, when Dr. S. Rees Philipps, the present secretary, was appointed.

The objects for which the Branch was organised were, to promote friendly intercourse, and establish harmony and good feeling between the medical practitioners resident in the west of England.

Meetings have been held annually from the time of the foundation of the Branch, and at these meetings some able addresses have been delivered by the Presidents, and some interesting papers read. The annual meetings have, however, been chiefly valued as affording opportunity for pleasant social gatherings. At the meeting of 1843, it was suggested that the Branch should meet quarterly, "for pathological and other professional purposes"; and it was left to the Council to consider the matter, and, if it found it practicable, make the necessary arrangements. Nothing, however, seems to have been done in this way, the Branch contenting itself with annual meetings, Council meetings, and occasional special meetings, till 1881, when the Council, to whom the matter had been referred by an extraordinary meeting held at Plymouth in the early part of the year, presented a scheme providing for three quarterly meetings in addition to the annual meeting. This scheme was approved by the members, and has since been brought into successful operation. Of these quarterly meetings, one is to be held at Exeter, one at Plymouth (or Devonport or Stonehouse), and one in

some town in Cornwall. These meetings are entirely given to work and discussion, there being no public dinner. The annual meeting is held in turn at Exeter, Plymouth (or Devonport or Stonehouse), some town in Cornwall, and some town in Devonshire other than Exeter or Plymouth. In 1877, a Sub-Branch for Cornwall was founded, but, after a short existence, it was dissolved, and the members were, in 1878, received back into the South-Western Branch.

MEDICAL REFORM.—This subject has, from time to time, occupied the attention of the Branch. On March 10th, 1852, a special meeting was held in Exeter, under the presidency of Mr. P. W. Swain of Devonport, for the purpose of discussing the "Draft Bill for Medical Reform". This Bill had been drawn up by Mr. G. W. Hastings, son of Sir Charles Hastings, under the auspices of the Council of the Association. The Bill was by no means satisfactory to the Branch. It was resolved unanimously to recommend that the period of professional study should be five years, instead of four, as proposed in the Bill, and that no student should be permitted to attend the required lectures until a satisfactory preliminary examination had been passed. The clauses referring to registration and penalties met with entire approval. At the annual meeting of the same year, this Bill was discussed carefully by the President in a very able address, and by the members. It was held to be unsatisfactory, even if regarded merely as an instalment of medical reform. It was considered to compare very unfavourably with Sir James Graham's repudiated Bill. The Bill of Sir James Graham undoubtedly contained the elements of practical reform: it annihilated cheap schools and shabby honours. The points in which the Association Bill seemed to the Branch specially defective were, the want of any direct representation of the profession on the proposed Council, and the lack of information as to the disposal of the income derivable from the fees to be paid by medical practitioners. The Branch considered that, in addition to the general registrar, paid sub-registrars should be appointed in various parts of the country, whose duty it should be to inquire into all cases of irregular practice within their respective districts, and to take the necessary steps for their repression. A subcommittee of the Branch was appointed to confer with the promoters of the Bill, and to draw up a report containing the objections of the Branch to many of the provisions of the Bill. On April 26th, 1853, a special meeting was held in Exeter to receive the report of the subcommittee. The chairman expressed the feeling of the meeting when he stigmatised the Bill as "a Bill to authorise certain persons (to be nominated hereafter by some authority as yet undetermined) to levy on medical men certain taxes, and to apply, or otherwise distribute, the proceeds of the said taxes in such manner as to them shall seem best, and for other purposes." A committee was appointed to watch the progress of the Bill. On May 5th, 1854, a special meeting was held in Exeter, and a memorial to Lord Palmerston, opposing the amended Bill of the Association, was approved, and ordered to be forwarded.

On May 14th, 1858, a special meeting was held to consider the propriety of supporting Mr. Cowper's Medical Bill. It was unanimously resolved: "That this meeting cannot concur in any Bill which does not provide for the direct representation of the great body of medical practitioners in the country, or even for their communicating their own views with reference to the important matters entrusted to the Council, either by deputation or petition. They would, therefore, urge that not less than two-thirds of the members of Council to be nominated by the Crown be selected from eminent provincial practitioners, two of them practising in England, one in Ireland, and one in Scotland." A deputation was requested to wait on the members for the county and city, with a request that, in the passage of the proposed Bill through Parliament, they would support the views entertained by this meeting. The Council of the Branch was able to report at the next annual meeting that the Branch had been supported in its opposition to the Medical Bill by the members of Parliament for both city and county. Some of the points insisted on by the Branch were inserted in the Bill, which was duly passed during the session.

In 1859, a special meeting was held, to advocate the formation of a registration society for the district, to watch over the interests of registered medical practitioners.

HOMŒOPATHIC AND IRREGULAR PRACTITIONERS.—On several occasions, this question has been under the discussion of the Branch. At the annual meeting of 1858, the following resolution was unanimously passed: "That the members of this Branch, considering the practice of homœopathy in all instances to be either a delusion or a deception, pledge themselves neither to meet in consultation, nor to attend in conjunction with homœopathic practitioners; and that the members of this Branch will avoid meeting in consultation, or referring their patients to, any member of the profession who knowingly violates the spirit of this resolution."

Again, at a quarterly meeting held at Plymouth, December 31st, 1881, the following resolutions were unanimously passed:

"1. That this meeting desires to express its entire disapproval of the views in relation to consultations with homœopathic practitioners expressed by the readers of addresses in medicine and surgery at the annual meeting of the Association at Ryde in 1881.

"2. That this meeting desires to direct the attention of the Committee of Council of the Association to the resolutions in regard to homœopathic practitioners, passed at the annual meeting of the Association in 1852, and reaffirmed at the annual meetings of 1858 and 1861; and now calls upon the Committee of Council to put in force as speedily as possible By-law 3,* against homœopaths and all members of the profession who assume designations implying the adoption of special modes of treatment."

It having been decided by the Association, at the annual meetings of 1852, 1858, and 1861, that there were "three classes of practitioners who ought not to be members of the Association—viz., 1, real homœopathic practitioners; 2, those who practise homœopathy in combination with other systems of treatment; 3, those who, under various pretences, meet in consultation, or hold professional intercourse with, those who practise homœopathy"—the Branch called upon the Committee of Council to expel a professed homœopathist and medical officer to a homœopathic dispensary in the district served by the South-Western Branch, on the ground that any action against homœopathists would bring them into the notoriety they desire, the Committee of Council declined to act. The Branch, considering that it was the duty of the Committee of Council to carry out the rules of the Association or propose the rescinding of them, was much dissatisfied; and, at a quarterly meeting held in Cornwall on April 17th, 1882, these resolutions were unanimously adopted.

"1. That this meeting heartily approves of the resolutions relative to homœopaths passed at the Plymouth meeting of this Branch; that it regrets that the Committee of Council have not yet seen their way to expel an avowed homœopath when requested to do so by the unanimous vote of one of the oldest Branches of the Association.

"2. That this meeting requests members of the South-Western Branch to help on any movement for obtaining such remodelling of the constitution of the Committee of Council of the Association as shall insure that the Committee of Council will carry out unhesitatingly resolutions that have been adopted by the Association at its annual meetings."

COLLECTIVE INVESTIGATION.—A large subcommittee, embracing the whole of Devon and Cornwall, has been appointed to help in the work of collective investigation.

MEDICAL EDUCATION.—Some important resolutions on the subject of medical education, drawn up by the Metropolitan Counties Branch on December 6th, 1879, were discussed at a Council meeting of the South-Western Branch on May 25th, 1880. The matter was considered so important, that the Council ordered the resolutions to be printed and circulated among the members, with a view to their being discussed at the annual meeting. Each member was invited to express his opinion in writing. The resolutions were further discussed at the annual meeting of 1880, and the opinions of the members collected. The opinion of about 100 members was almost unanimous in favour of the spirit of the resolutions.

GUY'S HOSPITAL.—The matters which led to the resignation by Mr. Cooper Forster and Dr. Habershon of their positions on the staff of Guy's Hospital, were discussed at an extraordinary meeting of the Branch at Plymouth, on January 11th, 1881, when a resolution, expressing sympathy with these gentlemen, and appreciation of their manly conduct, was unanimously passed, and a copy of the resolution ordered to be sent to them.

[The histories of other Branches will be given next week.]

* By-law 3. "Any member may be expelled from the Association by a resolution of the Committee of Council if carried by three-fourths of the members present, subject to confirmation by the next annual meeting, and he shall thereupon cease to be a member, and shall not be eligible for re-election. One month's notice of the intention to propose such resolution shall be given to any member affected thereby."

BEQUESTS AND DONATIONS.—Mr. James Dench has given £300 towards the sea-side branch of the Metropolitan Convalescent Institution.—Mr. and Mrs. Edward Vickers, of Goldicote, have given £150 to the building fund, Children's Hospital, Western Bank, Sheffield.—St. Peter's Hospital for Stone has received £50 from Mr. James Chadwick, and 25 guineas from Mr. F. T. Galsworthy, in aid of the new building.—Mrs. R. Barclay has given £50 to the North-Eastern Hospital for Children.—Sir Charles James Freake, Bart., has given £50 to the National Hospital for Diseases of the Heart and Paralysis.

THE UNRECOGNISED CLAIMS OF HARVEY.

An abridged article on this subject appeared in the BRITISH MEDICAL JOURNAL for July 5th, 1879, page 23. The author, Mr. E. Nock, of London, has sent for publication a second article, of which the following is an abstract.

The writer, being much interested in the works of Harvey, was led to examine the statements made by Dr. W. S. Forbes, U.S.A., who first advocated Harvey's knowledge of those vessels now called capillaries. Since that time he has further examined and compared the Latin text of the various editions of Harvey's works; has discovered variations therein, and by whom, and for what alleged reasons, such were made. The claims of Harvey, in respect of his possession of considerable knowledge of the circulation through the capillaries, do not rest upon the misinterpretation of a word, as the following statements, it is suggested, will prove. Harvey's most illustrious advocates in his own day did not comprehend his simple statements about minute vessels, then unknown to exist, save to Harvey himself. What were the discoveries made by Harvey? 1. That the pellicle membrane of the "punctum saliens sanguinis" is the rudimentary auricle or auricles of the heart, from which are developed all blood-vessels; together with other organs and structures in the higher animal organisms having a distinct heart. 2. The correct rhythmic actions and functions of the heart; and the correct actions and efficient uses of the valves of the heart. 3. That the animated heart is without the sense of touch. 4. That the blood circulates through the entire system, by its transit being in one direction only; and that its transit is rapid. He discovered its complete and complicated route throughout the entire system, and the correct and efficient uses of the valves in the veins. 5. That there is only one kind of blood, in which, in every complete circulation, important changes occur; the blood being thinned and brightened in colour in its transit through the lungs, thickened and darkened in its transit through the general system. Harvey attributed these changes to a straining of the blood through the narrow passages (*Opera*, page 114, and *Works*, page 114),* and not to the double exchange of gases—the discovery of much later years. 6. That the pulsation of the arteries is caused by the rhythmic contraction (systole) of the left ventricle, which forcibly expels the blood into the arteries in waves.

Harvey also made other discoveries, not generally attributed to him. 7. That there is no interstitial division or areola between arteries and veins; and consequently no orifices, meatus, or foramina to arteries and veins, as described by Galen, and asserted by him to be inconspicuous, *i.e.*, to his unaided eye; and which were generally supposed to exist by the anatomists of Europe until 1661—that is, after Harvey's time—when Malpighius, with the aid of his microscope, demonstrated the capillaries. 8. That some exceptional arteries inosculated with some veins. 9. The writer also contends that Harvey discovered those vessels now called "capillaries", which he called "ductus", "ramuli", "capillares", "porositates", "vasa", "artificio admirabili", "minimum arteriolæ"; the first discovery of which vessels has hitherto been erroneously attributed to Malpighi, by whom they were denominated "tubuli".

Harvey has stated: "I have myself pursued this subject of the anastomosis with all the diligence I could command, and have given not a little both of time and labour to the inquiry; but I have never succeeded in tracing any connection between arteries and veins by a direct anastomosis of their orifices ("per orificia"). I would gladly learn of those who give so much to Galen, how they dare swear to what he says? Neither in the liver, spleen, lungs, kidneys, nor any other viscus, is such a thing as an anastomosis to be seen." (*Opera*, page 105; *Works*, page 103). And Galen, never having seen the continuation of the walled vessels, had asserted that the communication was through inconspicuous orifices and an areola; yet he stated that only a small quantity of the blood made its way through the areola of the lungs, and that the chief of the blood made its way through holes in the septum cordis, which Vesalius was the first to pronounce solid, although such view was not much accepted until the time of Harvey. In many other passages, besides the one quoted, does Harvey deny that anastomoses of the kind described by Galen exist. He has stated: "The arteries being smaller than the veins, it is impossible that their sides can mutually conjoin in such a way as will allow of their forming a common meatus: it seems matter of necessity that things which join in this way should be of equal size." (*Works*, page 602.) Willis has translated Harvey as saying, where he describes the transit of the blood through the pulmonary vessels, that the blood percolates the substance of the lungs, and that the blood forced into the lungs by the action of the heart could be loose in the lungs in "pores" and "porous structures" out of walled vessels. (*Works*, page 40, *et seq.*) Willis has asserted, too, that "Harvey's idea.....was this: that the arteries ended, by open mouths we must presume, in the areolæ of the tissues they supplied, and that the veins arising in the same manner drank up the blood;" and that "Harvey believed that the arteries ended in the interstices." ("Harvey", 1878, pages 227 and 350.) But it is absurd to suppose that so accurate an observer as Harvey entertained such ideas as, that a great quantity of blood could rapidly percolate through a porous interstice; moreover, such ideas are quite opposed to the quotations previously made from Harvey's writings. Harvey has stated, "that in three places only did he find anything equivalent to an anastomosis," or to an immediate inosculation of arteries with veins. He has written: "In the same way are the ultimate ramifications of the arteries, which run to the umbilical vein, lost in the tunics of this vessel." (*Works*, p. 103.) Modern physiologists mention three places—the cavernous structures of the sexual organs, the uterine part of the placenta, and the spleen—as the only known places in which the arteries communicate directly with the veins, without the intervention of capillaries. Harvey was the first, then, to suggest that some arteries do immediately inosculate with some veins.

That Harvey discovered the vessels now called capillaries, is proved by a comparative analysis of some words which he has employed regarding them. He speaks of pori choledochi (*Opera*, page 105); pori bilarii (page 617); porique choledochi (page 618); and Willis has translated these terms by the single expression "biliary duct". Where Harvey has referred to more than one, or even all blood-vessels, he has frequently used the same word pori (*i.e.*, passages) (*Opera*, pp. 9, 10, 139, 618); in all of which places Willis has translated the word by the English word "pores". Where Harvey has referred to or described the transit of the blood, from the last ramifications of the arteries into the radicles of the veins, he has employed the word "porositates" about eighteen times, and the word "ductus" several times, which word, by common consent, is understood to mean walled channels or conduits. Willis has translated "cæcas porositates" as "secret pores", and "cæcos ductus" as "invisible pores". (*Works*, page 57.)

Harvey has employed the word "porositates" (ferries) four times when controverting the belief in the supposed channels through the septum cordis for the transit of the blood in one direction only, and, in ringing the terms of expression in the same category, has employed also the words "foramina" (holes) and "ductus" (channels); and Willis has rendered each of the three words "pores". And yet, in reference to these same supposed conduits in the septum cordis, another of Harvey's expressions, "cæcosque meatus" (embedded passages), Willis renders as "unknown passages"; and Harvey's sentence, "per tantillos cæcosque septi mæandros", he thus translates: "by a set of inscrutable passages of the septum" (*Works*, p. 99).

As before stated, Harvey has used the expression "porositates" or "porositates partium" about 18 times when referring to the intercommunication between the last ramifications of the arteries and the radicles of the veins, and Willis has given them seven various renderings: "pores", "pores of the living tissues", "pores or interstices of the tissues", "porous structure", "porosities", "interstices", "interstices of the tissues". Harvey Latinised the term "porus", which he adopted from the Greek word "πόρος", which Liddell and Scott interpret as a "means of passing (a river), a ford, or ferry", and they support their meaning with several classical references. Some writers may have confounded therewith the word "πῶρος", tuff-stone, white and sparkling, but light, friable, and porous; but the two words have no connection.

That Harvey discovered the vessels now called "capillaries" is to be further proved by his direct statements. He has stated, "sanguis vel per anastomosin immediate, vel mediate per carnis porositates, vel utroque modo, transit ab arteriis in venas"; again "per pulmonum cæcas porositates et vasorum eorum oscilla", and "per cæcas porositates", and "per cæcos ductus", as already noticed. In one passage, Harvey has stated, in Willis's rendering, "by boiling, I have rendered the whole parenchyma of these organs [liver, spleen, lungs, kidneys, and other viscera] so friable, that it could be shaken like dust from the fibres, or picked away with a needle, until I could trace the fibres of every subdivision, and see every capillary filament distinctly" ("omnia capillamenta", *Opera* p. 105, and *Works*, p. 103). Again, Harvey has observed, "Once in the pulmonary artery, the blood cannot return, by reason of the sigmoid valves; and then the lungs, alternately expanded and contracted during inspiration and expiration, afford it passage (transitumque) by the proper vessels into the pulmonary veins (*Works*, p. 132). This language is both simple and plain. The gist of Harvey's letter to Schlegel describing the circulation is to the effect that

* References to *Opera*, signify the edition of Harvey's works published in Latin by the Royal College of Physicians of London, in 1766, edited by Lawrence and Akenside. References to *Works*, signify the English translation of the same, made by Willis, and issued by the Sydenham Society in 1847.

the transference of the blood from the extremities of the minute arteries into the finest veins is "not effected without some other admirable artifice" (non sine artificio quoque admirabili", *Opera*, p. 616), and that this other admirable artifice is by ducts ("ductus") or very small arteries ("nimirum artericlæ"), two or three times smaller than the veins which they accompany, and within the tunics of which they are finally lost ("et tandem intra tunicas venarum obliterantur"), and that these vessels (arteries, veins, and very little arteries) at their termination encounter one another (*Works*, pp. 599-602). The words "arteria" and "vena" are always understood to mean "walled vessels". That when Harvey employed the word "porositates" he also meant "walled vessels", is confirmed by his employing synonymously the word "ductus", and the terms "vasa", "artificio admirabili", "nimirum arteriolæ", "et tandem intra tunicas venarum obliterantur".

Many writers have asserted that Harvey knew nothing of the capillaries, without examining or comprehending what he has written on the subject; their assertions can generally be refuted even by his words or the substance of his statements. In an article on Harvey and Cæsalpinus which appeared in the *Edinburgh Review* for January 1878, it is stated: "In fact, until Malpighi discovered the capillaries in 1661, this part of the system remained conjectural, and.....the flaw made itself felt. Harvey, while he maintained his solid conviction that in some mode the transference was effected, nevertheless remained in doubt (?) as to what that mode was. He hesitated (?) whether to believe that the blood was conveyed by means of direct inosculations between the extremities of the vessels, or that it forced its way through the 'porosities of the parts'. He knew nothing of vascular tissue. Indeed, Cesalpino's ideas on the subject seem to have been more advanced, since he insisted, as we have seen, that the blood must everywhere be conveyed in channels continuous with the heart" (p. 42). Setting aside Cesalpino's ideas, one may remark that there is nothing in Harvey's writings, especially if the original text be examined as the standard of authority, to substantiate the charge of doubt and hesitation regarding the mode of communication between the last ramifications of the arteries and the radicles of the veins. Respecting the fact of the blood being contained in channels, Harvey has stated: "We find the blood formed in the egg and embryo before any other part; and almost at the same moment appear its receptacles, the veins and the vesicula pulsans"; and, on the same page, he has stated: "For the blood is necessarily inclosed and contained in vessels" ("in vasis", *Opera*, p. 409, *Works*, p. 392). Has Cæsalpinus stated anything of the kind? Surely this remark of Harvey, that at the time of its earliest appearance the blood of the punctum saliens is contained in vessels, goes a long way to prove that he knew that the blood in later life circulated completely through continuous walled channels.

Harvey attributed the pulsation of the arteries to the quantity of blood forcibly expelled by the rhythmic impulse of the left ventricle of the heart, which distends the elastic walls of the arteries in a wave-like manner, but Lawrence and Akenside attributed the pulsation solely to a pulsific power inherent in the coats of the arteries themselves, or to a pulsific power transmitted to them by the heart (*Opera*, p. xiii); as they erred in this and other subjects, so they have failed to comprehend Harvey's description of the exact mode of communication from arteries to veins through the capillaries.

Harvey has referred in many places to the use which he made of his double convex lens. Besides the three places (*Opera*, pp. 249, 255, and 267) noted in the BRITISH MEDICAL JOURNAL of July 5th, 1879, he has remarked that, with its aid, he had observed the heart of the slug, the snail, and the shrimp, and had also seen the upper part of the tail of the wasp, the hornet, and the fly pulsating (*Opera*, pp. 31 and 77). He has asserted that, on the sixth day of incubation of the chick, which, though it was then extremely small, yet he had cut off its head, and with the aid of his magnifying glass observed the blood-vessels, as bloody points, ascending to the brain (*Opera*, p. 257). It has also been suggested that, if Harvey had viewed the web of a frog's foot, spread out on a pane of glass against the light, with his magnifying glass, he probably would have seen the transit of the blood in the capillary vessels.

Willis' translation of Harvey's works, and his biographical sketches of Harvey published in 1847 and 1878, sufficiently proclaim Willis to have been a sincere admirer of Harvey; yet in many places Willis's renderings are erroneous or unsatisfactory—the result of his own incorrect preconceived opinions of Harvey's meaning rather than exact interpretations of Harvey's own words. "Ductus" undoubtedly, for instance, means "walled channels", yet Willis has rendered it "pores", which Harvey could not have meant. Again, the term "pori biliarii", etc., literally translated, means "biliary passages", and Willis has rendered it "biliary ducts", instead of "biliary pores", which would agree with his usual mode of translating the word "pori" in other places.

"To err is human"—"Truth wants an advocate"—and the writer of this article, of which we have thus endeavoured to give an abstract, offers these statements, hoping that all impartial thinkers who, like Harvey, "esteem it not discreditable to desert error, though sanctioned by the highest authority", will be led to recognise that Harvey believed in no porous structure, and was the first to discover those vessels now called "capillaries".

PARLIAMENTARY BILLS COMMITTEE.

LORD CARLINGFORD, Lord President, and Mr. Mundella, Vice-President, of the Privy Council, received on Friday, June 16th, a deputation from the Parliamentary Bills Committee of the British Medical Association, on the subject of the examination and registration of widwives. The deputation included Mr. Ernest Hart, Chairman of the Committee, Dr. Quain, F.R.S., Dr. Priestley, Dr. Barnes, Dr. J. H. Aveling, Dr. Farquharson, M.P., Dr. Grigg, and Mr. Nelson Hardy.

The deputation put in the hands of the Lord President a Bill drafted on the lines of the previous resolutions and reports of the Parliamentary Bills Committee, and on the bases of the regulations approved by the Obstetrical Society, and in accord with the spirit of the clauses of the Duke of Richmond's Bill. The Bill has been drafted for the committee by Mr. Vesey Fitzgerald. After the introductory statement of the chairman, Dr. Priestley, Dr. Grigg, Dr. Quain, Mr. Nelson Hardy, and Dr. Aveling addressed the Lord President, explaining the importance of the subject in its various aspects.

The Lord President and Mr. Mundella expressed their warm sympathy with the objects, and approved of the proposals contained in the Bill in the main; and Lord Carlingford said that he would at once submit the Bill to the General Medical Council for their consideration and approval. He could only say that, personally, he thought the object a very useful one, and one which deserved all the support he could give it. The present session was peculiarly unfavourable to legislation; but he should be glad to give such assistance in the matter as the circumstances allowed after receiving the opinion of the General Medical Council on the Bill.

COLLECTIVE INVESTIGATION COMMITTEE.

AT a general meeting, held on June 14th, at 4.30 P.M., the Honorary Secretary reported that Committees had already been appointed, and cards had been sent to them for distribution, in the following Branches and Districts.

Bath and Bristol: Honorary Secretary, Dr. Markham Skerritt, Bristol.
East Anglian: Dr. Elliston, Ipswich.
Lancashire and Cheshire: (Not yet completely organised; many subdivisions); Dr. Davidson, Liverpool; Dr. Ransome, Manchester.
North of England: Dr. Drummond, Newcastle.
South Eastern: East Sussex: Dr. Uhthoff, Brighton; West Sussex: Mr. G. B. Collett, Worthing; East Kent: Mr. A. Hallowes, Maidstone; West Kent: Mr. Whitehead Reid, Canterbury.
South Wales and Monmouthshire: Dr. A. Sheen, Cardiff.
South-Western: Dr. Rees Philipps, Exeter.
Thames Valley: Dr. Atkinson, Kingston-on-Thames.
West Somerset: Dr. Kelly, Taunton.
Yorkshire: Mr. Arthur Jackson, Sheffield.

Many districts have decided to hold special meetings, and appoint local secretaries.

The work of the Committee has also been brought before the following Branches, who have referred the matter to special meetings of the Branch, or of the Branch Council, with a view to the organisation of the Branch for the collective investigation of disease: Staffordshire Branch (Mr. Vincent Jackson); East York and North Lincoln (Mr. E. P. Hardey); South Midland (Mr. Kirby Smith).

The Secretary is in communication with the Secretaries of the following Branches, with a view to the objects of the Committee being brought before their approaching annual meetings: Birmingham and Midland Counties; Border Counties; Cambridge and Huntingdon; Edinburgh; Glasgow and West of Scotland; Midland; Northern Counties of Scotland; Reading; Southern. The few remaining Branches will be communicated with as their meetings approach. No Branch yet appealed to has declined to appoint a committee.

The Secretary especially wished to draw the attention of the Committee to the extent to which it is indebted to the various Honorary Secretaries of the Branches, for the cordial and energetic manner in which they had each taken up the work in their Branches, and had so successfully promoted it.

In two instances, subjects of especial local interest had been proposed

for investigation by Branch Committees; and, no doubt, the example would be followed in other districts. In these cases, a scheme having been drawn up by the Branch Committee, is submitted to the General Committee for criticism and approval. The inquiries are thereby made as authoritative as possible; and the General Committee are enabled to recommend the expenditure on cards, with schedules of questions, etc., necessary for the inquiries. It was stated, as a direction to local Secretaries, that the cards should be returned to them as soon as filled up; and that all the cards should be returned to the General Secretary at the end of the year, for the purpose of tabulation.

An offer to assist the Committe in statistical work, especially with regard to any extracts required from the Registrar-General's returns, was made by Dr. Longstaffe, and accepted. The Secretary was requested to tender the thanks of the Committee to Dr. Longstaffe for his kindness.

A resolution, passed at the East Anglian Branch, and recommending that the effect of syphilis on the civil population should be made the object of a special inquiry, was read.

It was proposed by Dr. PARSONS (Dover), and seconded by Dr. CARPENTER (Croydon): "That syphilis be made a subject of investigation by the Committee; and that a subcommittee be formed for the purpose of considering the line of inquiry, and of preparing a scheme for the investigation, to report to this Committee at its next meeting; the subcommittee to consist of Mr. Palmer (Yarmouth); Mr. Jonathan Hutchinson; Dr. Barlow; Mr. Jackson (Sheffield); Mr. Butlin; Mr. Macnamara; and Dr. S. Mackenzie; with power to add to their numbers: Mr. Henry Lee and Mr. Berkeley Hill to be invited to join the Committee."

It was proposed by Dr. ATKINSON (Kingston), and seconded by Dr. RANSOME (Manchester): "That a scheme for the local investigation of a recent epidemic of diphtheria, presented by Dr. Atkinson on behalf of the Thames Valley Branch, be referred to a subcommittee to report to this Committee at its next meeting; the subcommittee to consist of Dr. Atkinson (Kingston); Dr. Ransome (Manchester); Dr. Carpenter (Croydon); Dr. Barlow; and Dr. Cheadle; with power to add to their numbers: Dr. Thorne Thorne and Dr. Buchanan to be invited to join the Committee."

It was proposed by Dr. SIEVEKING, and seconded by Dr. PARSONS (Dover): "That the suggestion for an investigation concerning the life-history of persons who suffered from typhoid fever, made by Dr. Ransome, be referred to the same Committee for consideration."

It was resolved: "That a meeting of this Committee be held on Tuesday, July 11th, at four o'clock."

MILITIA SURGEONS.

ON Thursday 15th instant, the following question was put to Mr. Childers on the compulsory retirement of Militia Surgeons at sixty-five, and depriving them of the pension of six shillings a day to which they were clearly and justly entitled by Acts of Parliament dating from 54 Geo. III to 31 and 32 Vic. His reply we cannot consider as satisfactory, and we believe it to be not in accordance with the legal aspect of the case.

"Mr. O'SHAUGHNESSY asked the Secretary of State for War whether it was true that on the compulsory retirement, under 68a Circular, January, 1882, of Militia surgeons holding commissions from lords lieutenant of counties at the age of 65, the pension of 6s. a day, to which, under certain circumstances, such surgeons were entitled, had been refused them; and whether he would explain under what enactment the right to this pension was alleged to have been destroyed."

"Mr. CHILDERS: In reply to my hon. and learned friend, I have to state that until 1829 Militia surgeons were members of the permanent staff, and, like other officers of that staff, entitled to pensions on reduction of the force or on retirement through age or infirmity. But no Militia surgeon appointed since 1829, that is to say, during the last 53 years, has been entitled to a retiring allowance. Her Majesty has always had the power to decide at what age Militia officers should cease to serve, and in 1872 this age was fixed at 60, although retirement was not enforced in every case. In 1881 it was decided that at 65 all Militia surgeons must retire, this being a boon to them compared with other Militia officers."

Exception must be taken to most of the statements therein made; and we regret that, after the reply that appeared in the BRITISH MEDICAL JOURNAL in April to Mr. Campbell Bannerman's letter to Mr. Ernest Hart, chairman of the Parliamentary Bills Committee of the British Medical Association, and the communications since made to Mr. Childers on this subject, in his answer to Mr. O'Shaughnessy the Secretary of State for War should have again fallen back upon an Act of Parliament, that has no bearing whatever on the case. We have shown that the Act of 1829 was not only not repealed at that date, but was in force, and continued by succeeding Acts of 10th Geo. IV and as lately as 31 and 32 Vict.

None of these Acts from 54 Geo. III, up to that latter Act of Victoria, contained a word implying that it was necessary that the Militia surgeon should be on the permanent staff to entitle him to pension. We have pointed this out so repeatedly in the articles alluded to, and in one so lately as May 20th, that it is useless to again refer to them. Suffice it to say that by the 17th section of the 54 Geo. III. the words are, "surgeons were after 30 years' service, or becoming unfit for duty, to be entitled to a retiring pension of 3s. a day—this was when the pay was only 6s. a day—not a word here of its being necessary to be on the permanent staff. So also the 10th Geo. IV, which we must remark was passed subsequently to 1829, the period to which Mr. Childers alludes, contains these words, "all surgeons of Militia who shall have served for 20 years, and who shall be retired from age or infirmities shall be entitled to 6s. a day pension"; not a word here as to being on the permanent staff—as by Mr. Childers own statement in the above reply surgeons of Militia were on the permanent staff only up to 1829. We could still further prove the undeniable claims of the Militia surgeons to this pension by subsequent Acts; and, even as lately as 1854, Lord Panmure, when Secretary of War, issued a circular granting half-pay to Militia surgeons under certain conditions. And surely he would not have issued this if, as Mr. Childers now states, for fifty-three years Militia surgeons were not entitled to pensions.

Mr. Childers, we are persuaded, would be loth to act harshly and in an arbitrary manner, and we trust he will not refuse to at least allow the Militia surgeons a fair and dispassionate hearing. This is all they ask for. If Mr. Childers's contention be correct, and the Militia surgeons be wrong in their representation of the several Acts, surely it is only equitable that their case should be fully inquired into. We have reason to know that they have had the opinion of two eminent Queen's counsel as to their being justly and legally entitled to this pension, and this view has been further confirmed by the legal investigation which we have caused to be made of the case: the result was set forth fully in the BRITISH MEDICAL JOURNAL for May 20th, as well as in a letter on simiiar lines addressed by Mr. Hart, as chairman of the Parliamentary Bills Committee of the British Medical Association, to Mr. Childers. If a Minister choose to act in an arbitrary manner, he can refuse to grant any relief; but it is manifestly not the spirit of the Constitution (especially as no legal action can be taken against the Government by any private individual) that all redress of grievances should thus be cut off. The Militia surgeons merely ask that they may either have their case referred to a committee, before whom they may be represented by a counsel who has made himself fully acquainted with all the several Acts; and if they fail to establish their position, and if Mr. Childers's interpretation of the Acts be correct, they must then be content; but until they are heard, we contend that it is not in accordance with the equity of the case. They would, as an alternative course, be willing to be allowed to institute an amicable suit in one of the courts of law, and rest satisfied with its decision. We think these requests so reasonable, that we trust Mr. Childers will not refuse to grant one of them.

As to the "boon" which Mr. Childers stated was conferred on the Militia surgeon, by allowing him to serve until he was sixty-five years of age, against sixty years, it is not easy to see wherein the boon consists. It may be thought a piece of rather grim irony to call that a boon which deprives a man of the whole, or even part, of his income without compensation, and casts him adrift on the world without any means of livelihood, and at a time when he most requires it; and this for no fault of his own, but from the so-called exigencies of the service. Mr. Childers may be right when he says that Her Majesty has the power to decide at what age Militia officers should cease to serve; but the Crown would, we believe, not willingly sanction its faithful servants being turned adrift penniless, or deprived of the larger portion of their income. When in 1872, as Mr. Childers states, the age was fixed that Militia officers should cease to serve, it was, as we remember, applicable to field-officers, meaning no doubt thereby colonels and majors. These were officers who in almost every instance were men of position and means, who held these appointments for the rank and standing it gave them in their respective counties, and to whom the loss of twenty-seven days' training-pay was a matter of no consideration. It is a different matter in the case of the Militia surgeons, dependent on the earnings derived from their profession; and, in the case of many of the older Militia surgeons, who sacrificed their private practices to accompany their regiments when embodied, it is a hard saying that it is a boon to cast them adrift at sixty-five years of age, and with no provision in their old age.

We are unwilling to believe that any minister, Liberal or Conservative, will refuse to reconsider the case of the Militia surgeons, as we were led to believe Mr. Childers promised to do. We feel assured, moreover, it only wants the public and the House of Commons to be made fully acquainted with the facts as set forth in the petition and other documents submitted to Mr. Childers to at once obtain a recognition of their claims. We trust, however, that Mr. Childers will listen to the requests here shadowed forth, and consent to at least hear what the Militia surgeons have to adduce on their side. A refusal to hear both sides of a question is always a sign of weakness on the part, especially of the stronger, in matters of private life, and how much more so must it be in the case of the Government or its ministers? and we feel assured that it will not be permissible to say that as regards the Militia surgeons' case, might is right.

In conclusion, we would desire to take exception to the statements contained in Mr. Bannerman's recent letter, in which he stated that the 5th Geo. IV, and all other militia Acts, were only in force a year, and expired in 1830. We have already pointed out to Mr. Bannerman that whilst these Acts were annual, they were continued from year to year by the Expiring Acts Continuance Bill. It can, we think, be learned from the statute book that this Act of 5th Geo. IV was not repealed till the close of the session of 1873; and it is a strange coincidence that it should have been so only a few months after a deputation had waited on Mr. Hardy, and was informed by him, no doubt under an erroneous impression, that the Act had been repealed in 1829-30. The other Acts, 10th Geo. IV, Vict. 18 and 19 and 31 and 32, were not repealed until 1876, when the militia were finally transferred under the authority of the Crown, in which year the warrant placing Militia surgeons on the Departmental list was issued, and these gentlemen, in accepting service under that warrant, were distinctly assured that in so doing they did not forfeit any right or claims they previously possessed. Their contention is that these appointments under the jurisdiction of the Lord Lieutenants were retainable for life; and, nothing having been said in that warrant intimating that they were to be forced to retire at a certain age, they feel that they have been unjustly treated, and that the right to pension, so clearly defined by the Acts quoted, was also one of those rights which the War Office assured them they did not forfeit by accepting service in the departmental list.

THE MEDICAL DEFENCE ASSOCIATION.

THE annual general meeting of this association was held on Wednesday, the 21st inst., at the rooms of the Medical Society of London; Dr. B. W. RICHARDSON, F.R.S., presiding.

On the motion of Dr. JOSEPH ROGERS, the president, vice-president, and treasurer of the Association were re-elected.

The CHAIRMAN thanked his associates for having re-elected him and his colleagues, and said that the report would show that the Association had not been inactive since the last general meeting. Considering that the funds of the Association were very limited, it was remarkable that even a part of the work which had been effected had been carried out by the council. At first it was assumed that its objects were to support the professional interests as apart from those interests which were due from the profession to the people at large, and the name of the Association tended to keep up a misunderstanding. The "Medical Defence" was as much a defence of the public as of the faculty, it being understood, of course, that the profession worked for the public good. He lamented that there was less strict etiquette now with regard to consultants than formerly; in fact, he said he found the rules much opposed and much relaxed, though they were altogether necessary in the interests of the sick man, and he did not consider that the practitioner who "sold" his professional brother would be a safe adviser of a patient, for such a trader in the issues of life and death could not fail to trade on the advantage he had achieved. In his experience he had never met with an instance in which a practitioner who ignored medical etiquette was an honest practitioner, such a man as one would endow with any responsibility bearing upon his own interests or those of his intimate friends. Billroth had said he had come to the conclusion that it was the safest and best rule of practice to treat every sick person as if the person treating were the person treated. This rule was not new but it was golden, and it was the principle laboured for in the Association, which was striving to make sure that the sick might be treated in their sickness as medical men would be treated. It was the duty of the skilled in every profession to warn the public against the dangers of employing the unskilled, and it was urgently necessary that those who in times of sickness and anxiety were least of all able to exercise a calm judgment, should have protection against the false promises of the false-hearted and treacherous who lay in wait for them. The Association had discharged this anxious duty in the public service, and the proof that this was so was to be seen in the fact that the Registrar General and the authorities at Scotland Yard had voluntarily referred to the Association in relation to important irregularities which had come before their departments. The profession and the public had referred to the Association for advice, and the Royal Commission on Medical Legislation had solicited the views of the Association. The Association was much hampered by the lack of resources, for it had had to consider £100 a year a handsome revenue so far, and of necessity it was often obliged to let important cases go by; and it was harassed by the perplexities which impeded it in carrying out the simplest legal procedures against the most flagrant offenders. Little assistance was given by the legally constituted medical authorities—the Apothecaries' Company being slow and hesitating in the exercise of its powers, the College of Surgeons seeming to possess no power, and the Medical Council claiming to have no ready means of enforcing law. He spoke warmly of the services given by Mr. Pridham, as solicitor, and concluded by expressing the hope that the promised legislation would make unnecessary the work of the Association, which might then with honour cease to exist, its part played, and its labours no longer a necessity.

Mr. GEORGE BROWN read the report, which gave in detail the matters upon which the President had spoken in general terms. It dealt with the great amount of work the Association had to cope with upon its foundation—with the unqualified practitioners who had assumed medical titles, the men who were practising under the names of qualified practitioners, the "provident dispensary" practice, this being a system by which one qualified man held three or four places, carried on, miles from his house, by unqualified and often ignorant persons. The report showed the steps which had been taken against some of these people, and spoke cordially of the assistance given by the coroners in exposing the evils to which the public were exposed by the action of these unqualified persons.

Dr. DANFORD THOMAS moved the adoption of the report. While of opinion that "counter-practice" had not increased, he was of opinion that the sale of patent medicines had increased. He had held many inquests on persons who had died from their use.

DR. STEVENSON seconded the motion, and suggested that the address by Dr. Richardson should, as well as the report, be printed and circulated.

Dr. J. ROGERS remarked that the principle of the people being treated by unqualified practitioners was supported in the Poor Law-service with the perfect cognizance of the Local Government Board. He also strongly commented upon the lack of educated material in the present "qualified" assistants, some of whom, he said, from his experience, were not grounded in the knowledge of medicine.

Dr. GLOVER spoke of the evil wrought by the sham "Dispensaries," and stated that some were administered by men who were paid 25s. a week, these persons seeing the patients and prescribing for them. Sir W. Harcourt had stated in the House of Commons that the General Medical Council had power to deal with these evils in the profession, and he thought the council should be called upon to take action.

Mr. BROWN said the General Medical Council had been applied to take action under the Act of 1858, and the reply was to the effect that the Council had decided that it was not within their province to prosecute; but that it was open to the public to do so.

Mr. PRIDHAM understood the Home Secretary, in the answer referred to, to mean that the General Medical Council could strike the name of any practitioner guilty of any illegal practices off the Register.

SURGEON-GENERAL GORDON expressed his approval of the work undertaken by the Association.

The report was adopted, and the chairman's address was ordered to be printed. The name of Surgeon-General Gordon was added to the Council.

Dr. DANFORD THOMAS moved: "That in the opinion of this Association, in any new legislation, it should be provided that the public prosecutor should be required to undertake prosecutions under the Act."

Mr. HEMMING seconded the motion which was carried.

Thanks were voted to the Secretary, and the Honorary Solicitor, and the proceedings terminated.

THE National Health Society has placed six seats in the churchyard of St. John's, Horsleydown, now converted into an open garden. Seats have also been placed in the new garden in Philpot-street.

PRESENTATION.—Mr. Joshua Edward Adkins, surgeon, of Yeamton, has been presented with a silver epergne and a silver-mounted claret jug, by the subscription of about three hundred of the inhabitants, as a mark of esteem on his leaving the district.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL.

NOTICE OF MEETING.

A MEETING of the Committee of Council will be held in the Council Room of Exeter Hall on Wednesday, the 12th day of July next, at two o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, London, June 15th, 1882.

BRITISH MEDICAL ASSOCIATION:

FIFTIETH ANNUAL MEETING.

THE Fiftieth Annual Meeting of the British Medical Association will be held at Worcester, on Tuesday, Wednesday, Thursday, and Friday, August 8th, 9th, 10th, and 11th, 1882.

President: BENJAMIN BARROW, F.R.C.S., Consulting-Surgeon to the Royal Isle of Wight Infirmary.

President-elect: WILLIAM STRANGE, M.D., Senior Physician to the General Infirmary, Worcester.

An Address in Medicine will be delivered by W. F. WADE, F.R.C.P., Physician to the Birmingham General Hospital.

An Address in Surgery will be delivered by WILLIAM STOKES, M.D., F.R.C.S.I., Professor of Surgery in the Royal College of Surgeons, Ireland.

The business of the Association will be transacted in Eight Sections, viz.:

SECTION A. MEDICINE. (Council Room, Guildhall.)—*President:* Thos. Clifford Allbutt, M.D., F.R.S. *Vice-Presidents:* George W. Balfour, M.D.; William Henry Broadbent, M.D.; G. H. Philipson, M.D.; *Secretaries:* Edwin Rickards, M.B., 14, Newhall Street, Birmingham; H. Ashby, M.D., 13, St. John Street, Manchester.

SECTION B. SURGERY. (Recorder's Court, Guildhall.)—*President:* Augustin Prichard, F.R.C.S. *Vice-Presidents:* T. W. Walsh, F.R.C.S.; Reginald Harrison, F.R.C.S.; T. H. Bartleet, M.B., F.R.C.S. *Secretaries:* F. E. Manby, F.R.C.S., 10, King Street, Wolverhampton; Richard Clement Lucas, M.B., F.R.C.S., 18, Finsbury Square, E.C.

SECTION C. OBSTETRIC MEDICINE. (Committee Room Assembly Room, Guildhall.) — *President:* William Leishman, M.D. *Vice-Presidents:* Henry Vevers, M.R.C.S.; J. G. Sinclair Coghill, M.D.; Arthur W. Edis, M.D. *Secretaries:* C. J. Cullingworth, M.D., 25, St. John Street, Manchester; Tom Bates, L.R.C.P., Worcester.

SECTION D. PUBLIC MEDICINE. (Civil Court, Shire Hall.)—*President:* Alfred Carpenter, M.D. *Vice-Presidents:* Alfred Hill, M.D.; Horace Swete, M.D.; E. T. Wilson, M.B. *Secretaries:* Geo. Haynes Fosbroke, jun., M.R.C.S., Bidford, Redditch; Francis Edward Atkinson, L.R.C.P., Settle, Yorkshire.

SECTION E. ANATOMY AND PHYSIOLOGY. (North Wing Committee Room, Guildhall.)—*President:* George M. Humphry, M.D., F.R.S. *Vice-Presidents:* S. S. Roden, M.D.; Frank Payne, M.D.; Gerald Yeo, M.D. *Secretaries:* J. B. Haycraft, M.D., Mason's College, Birmingham; James Shuter, M.B., F.R.C.S., 58, New Broad Street, London.

SECTION F. PATHOLOGY. (South Wing Committee Room, Guildhall.)—*President:* J. Hughlings Jackson, M.D., F.R.S. *Vice-Presidents:* W. R. Gowers, M.D.; H. T. Butlin, F.R.C.S.; Wm. Smith Greenfield, M.D. *Secretaries:* Sidney Coupland, M.D., 14, Weymouth Street, London; F. Treves, F.R.C.S., 18, Gordon Square, London.

SECTION G. OPHTHALMOLOGY. (County Grand Jury Room, Shire Hall.)—*President*: James Vose Solomon, F.R.C.S. *Vice-Presidents:* David Everett, F.R.C.S.; F. Mason, M.R.C.S.; Edwyn Andrew, M.D. *Secretaries:* Geo. Edwin Hyde, L.R.C.P., Worcester; J. A. Nunneley, M.B., 22, Park Place, Leeds.

SECTION H. OTOLOGY. (City Grand Jury Room, Shire Hall.)—*President:* W. Laidlaw Purves, M.D. *Vice-Presidents:* Geo. P. Field, M.R.C.S.; A. H. Jacob, M.D.; E. Cresswell Baber, M.B. *Secretaries:* J. J. Kirk Duncanson, M.D., 22, Drumsheugh Gardens, Edinburgh; Peter McBride, M.D., 20, Alva Street, Edinburgh.

Honorary Local Secretaries: George W. Crowe, M.D., Shaw Street, Worcester; H. C. Moore, M.R.C.S., 7, King Street, Hereford; Thelwell Pike, M.D., 2, Montpellier, Great Malvern.

Honorary Treasurer: G. A. Sheppard, M.R.C.S., Worcester.

TUESDAY, AUGUST 8TH.

2.15 P.M.—Meeting of Committee of Council. (Committee Room off Assembly Room, Guildhall.)
3 P.M.—Meeting of the Council of 1881-82. (Council Room, Guildhall.)
4.15 P.M.—Service in the Cathedral, with sermon by the Dean of Worcester.
8 P.M.—General Meeting. President's Address; Annual Report of Council, and other business. (Assembly Room, Guildhall.)
Tea and Coffee after the Meeting.

WEDNESDAY, AUGUST 9TH. (Jubilee day).

9.30 A.M.—Meeting of Council of 1882-83. (Council Room, Guildhall.)
11 A.M.—Second General Meeting. Address in Medicine.
1.30 P.M.—Luncheon given by the Worcester and Hereford Branch to Members of the Association (limited to 500), and afterwards presentation of bust of Sir Charles Hastings to the Mayor and Corporation of Worcester. (Great Hall, Shire Hall.)
3 to 5.30 P.M.—Sectional Meetings.
7.45 P.M.—Special Service in the Cathedral, at which, by permission of the Dean, Haydn's Sacred Oratorio, "The Creation", will be performed by the Philharmonic Society, assisted by members of the Worcester, Gloucester, and Hereford Choirs, and conducted by W. Done, Esq., Organist to the Cathedral.

THURSDAY, AUGUST 10TH.

9 A.M.—Meeting of the Committee of Council. (Committee Room off Assembly Room, Guildhall.)
10 A.M.—Third General Meeting. Reports of Committees. (Assembly Room, Guildhall.)
11 A.M.—Address in Surgery. (Assembly Room, Guildhall.)
2 to 5.30 P.M.—Sectional Meetings.
6.30 P.M.—Public Dinner. Tickets will not be issued later than twelve o'clock on the day of the dinner. (There will be two kinds of dinner ticket: one for those who take wine, and the other for abstainers, 21s. and 14s. each.) (Assembly Room, Guildhall.)

FRIDAY, AUGUST 11TH.

9.30 to 11.30 A.M.—Sectional Meetings.
11.30 P.M.—Concluding General Meeting. Reports of Committees. (Assembly Room, Guildhall.
3 P.M.—Garden Party, at Madresfield Court, Great Malvern, given by the Lord-Lieutenant and the Countess Beauchamp.
9 P.M.—Soireé of the President and G. W. Hastings, Esq., M.P.

EXCURSIONS.

On Saturday, August 12th, there will be—1. An excursion to Malvern Hills, including the ancient British Camp, the chief interesting features of which will be explained to the visitors on the spot. 2. An excursion to Stratford-on-Avon to visit Shakespeare's house, the church and tomb, Shakesperian Museum, etc. The party will then proceed to Warwick and Kenilworth Castles, returning by way of Leamington. 3. An excursion to the Wye, by which the beautiful scenery on the banks of that river may be viewed either from the railway or by boats from Ross to Monmouth. Particulars of these excursions will be published in an early number. 4. There are steamers and pleasure-boats on the river Severn at Worcester, which will afford very enjoyable short trips up or down the river.

DINNER TICKETS.

Applications should be made as early as possible to the Honorary Treasurer, G. A. Sheppard, Esq., Foregate Street, Worcester; accompanied, in all cases, by a remittance of 21s. or 14s.

HOTELS AND LODGINGS.

A list of accommodation will be shortly published in the JOURNAL. Members may apply for information to Messrs. Griffiths and Millington, House Agents, 50, Foregate Street, Worcester.

ANNUAL MUSEUM.

The sixteenth annual exhibition of objects of interest in connection with medicine, surgery, and their allied sciences will take place in the Music Hall, Worcester, during the second week of August, 1882. The floor-space of this building amounts to 4,000 square feet. The Committee appointed to take charge of the arrangements for this Museum will be glad to receive—1. Pathological specimens (wet or dry); 2. Drawings or diagrams illustrating disease; 3. Casts or models; 4. Surgical instruments and appliances; 5. Microscopic preparations; 6. Microscopes, thermometers, and other instruments of investigation; 7. Preparations, diagrams, etc., relating to investigations in anatomy and physiology; 8. New drugs, chemicals, pharmaceutical preparations, and dietetics; 9. Sanitary appliances, including drawings or models illustrating the ventilation of hospitals or private dwellings; 10. New medical books. It is intended that the surgical instruments, sanitary appliances, etc., shall be *bonâ fide* novelties, or improvements on those in common use. The pathological specimens will be arranged in departments.

Exhibition of Instruments and Apparatus.—It is intended to arrange for the exhibition of complete series of instruments, electro-therapeutic apparatus, instruments for physical diagnosis, and appliances relating to sanitary science and public health. Facilities will also be afforded,

when requested, for the display of instruments in action, or for special explanation by the exhibitors of apparatus, etc.

The Catalogue.—It is intended to print a catalogue, which will be as complete as circumstances may permit. The Committee earnestly request those who intend to exhibit to bear in mind that it is impossible that descriptions, etc., can be included in the catalogue unless sent in early. They should be received at least a month before the meeting, that is, not later than July 8th.

Communications, objects intended for exhibition, etc., to be addressed to the Secretary of the Museum Committee, Mr. J. RANDLE BUCK, 26, Sidbury, Worcester. During the week preceding the meeting all articles should be sent direct to the Music Hall, Worcester, and addressed to the care of the Curator of the Museum of the British Medical Association.

FRANCIS FOWKE, *General Secretary.*

London, April 13th, 1882.

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH.—President, EDWIN SAUNDERS, F.R.C.S.; President-elect, THOMAS BRIDGWATER, M.B. The thirtieth annual meeting of this Branch will be held at the Crystal Palace, Sydenham, on Wednesday, July 19th, at 4 P.M. Dinner at 6 P.M.; tickets 12s. 6d. each, exclusive of wine.—ALEXANDER HENRY, M.D., W. CHAPMAN GRIGG, M.D., Honorary Secretaries.

BATH AND BRISTOL BRANCH.—The annual meeting will be held on Thursday, June 29th, at the Mineral Water Hospital, Bath, at 4.30 P.M.; when the President-elect, Dr. J. K. Spender will deliver his address, and the general business of the Branch will be transacted.—R. S. FOWLER, E. MARKHAM SKERRITT, Honorary Secretaries.

GLASGOW AND WEST OF SCOTLAND BRANCH.—The annual meeting of this Branch will be held in the Western Infirmary, Glasgow, on Friday, June 30th, at 3 P.M. The President-elect, Professor George Buchanan, after taking the chair, will give a clinical demonstration on the Operation for the Radical Cure of Hernia; will show cases in which the operation has proved successful; and will perform the operation. Thereafter the President will conduct the members to the University, where they will inspect the Bute Hall, the Randolph Hall, and other new buildings which are approaching completion. The members will afterwards be conveyed into the city, and the annual dinner will take place at 5.30. N.B.—Members of the Association who have not joined the Branch are invited to do so by communicating with the secretary before the meeting.—JOSEPH COATS, Honorary Secretary.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH.—The annual meeting of this Branch will be held at the Medical Library, Peirpoint Street, Worcester, on Tuesday, June 27th at 3 o'clock. Business: To elect Officers and Council for the ensuing year. To elect Representatives of the Branch in the General Council. The following new rules will be proposed: 1. That any gentleman wishing to become a member of this Branch shall pledge himself that he is not practising, and will not in future practise, homœopathy or any kind of irregular practice. 2. The name of any member may be removed from the roll of this Branch by a resolution carried by a two-thirds majority at a meeting of the Branch specially convened for this purpose, of which meeting fourteen days' notice shall be given. 3. That any member of this Branch whose subscription shall have remained in arrear for two years shall receive a written notice of the same from the Honorary Secretary, and should he not pay the same by the next quarterly meeting of the Branch, he shall cease to be a member of the Branch. Members wishing to read papers, or to exhibit specimens, etc., are requested to communicate with Dr. Crowe. The annual dinner will be held at the Star Hotel, at 5 o'clock. Dinner ticket, exclusive of wine, 5s. 6d. Any member who desires to be present is requested to communicate with Dr. Crowe, not later than Saturday, the 24th instant.—GEORGE W. CROWE, Honorary Secretary, Shaw Street, Worcester.—June 12th, 1882.

EDINBURGH BRANCH.—The annual general meeting of this Branch will be held at 5, St. Andrew Square, Edinburgh, on Tuesday, June 27th, at 4 o'clock.—CHAS. E. UNDERHILL, Honorary Secretary.

NORTHERN COUNTIES (SCOTLAND) BRANCH.- The annual meeting of this Branch will be held at Nairn on Wednesday, July 12th. Members desirous of reading papers or other communications are requested to forward the titles to the Honorary Secretary by the 30th of June.—J. W. NORRIS MACKAY, M.D., Honorary Secretary and Treasurer, Elgin.

LANCASHIRE AND CHESHIRE BRANCH.—The annual meeting of this Branch will be held at the Town Hall, Chester, on Wednesday, June 28th, at 2 P.M. The Council meets at 1 P.M. The medical practitioners of Chester will entertain the members at lunch at the place of meeting. Dinner at the Grosvenor Hotel at 5 P.M.; tickets 7s. 6d. The gardens and part of the house at Eaton Hall will be open to visitors during the day.—A. DAVIDSON, Honorary Secretary, 2, Gambier Terrace, Liverpool.—June 12th, 1882.

THAMES VALLEY BRANCH.—The annual meeting of the Branch will be held in the Board Room of the Richmond Hospital on Thursday, July 13th, at six o'clock. Members desirous of bringing forward any subject for discussion are requested to communicate with the Honorary Secretary, E. L. FENN, Richmond.—June 20th, 1882.

NORTH OF ENGLAND BRANCH.—The annual meeting will be held in the Library of the Newcastle-on-Tyne Infirmary on Thursday, July 13th, at 2.30 P.M. Dr. Eastwood, the retiring President, will resign the chair to Dr. Embleton, the President-elect, who will deliver an address. Dinner at the Douglas Hotel at 5 P.M.; tickets 6s. 6d., exclusive of wine.—T. W. BARRON, M.B., Durham; D. DRUMMOND, M.D., Newcastle, Honorary Secretaries.—June 21st, 1882.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.

THE seventh meeting of this District was held at the New Town Hall, Hackney, on May 18th, at 8.30 P.M.; HERBERT DAVIES, M.D., in the chair. Thirty members and visitors were present.

Sir William Mac Cormac read a paper on Some of the newer Operative Procedures in Abdominal Surgery.

SOUTH-EASTERN BRANCH: WEST SUSSEX DISTRICT.

A MEETING of the above District was held, at the Worthing Infirmary, on May 31st; W. J. HARRIS, Esq., in the chair.

Next Meeting.—It was decided that the next meeting should take place in September, at Horsham; and that Mr. E. J. Bostock be requested to take the chair.

Collective Investigation.—A subcommittee was formed to carry out the objects of the Collective Investigation Committee.

Papers.—The following papers were read.

1. Dr. Kelly read a paper on Small-pox, bearing especially on those cases which had occurred within the last twelve months in the district; and showed that, by proper precautions, patients could be treated in their own homes without the disease spreading.

2. Mr. Simpson read notes of two cases of Spina Bifida, occurring in the same family, both of which were born with breech presentation. The second child he had treated successfully with injections of solution of iodine.

3. Dr. Uhthoff read a paper on the Early Treatment of some Eye-diseases; and drew attention to the proper use of Atropine.

4. Dr. Galton showed a specimen of Congenital Malformation of the Heart. It consisted of one ventricle and two auricles.

Dinner.—Seventeen members afterwards dined together, at the Marine Hotel.

EAST ANGLIAN BRANCH: ANNUAL MEETING.

THE annual meeting of the East Anglian Branch was held at the Rectory Rooms, Beccles, on Thursday, May 25th; WILLIAM MILLER CROWFOOT, M.B., President.

New Members.—The Council recommended the election of eight gentlemen as members of the Association and Branch.

Collective Investigation.—An influential Committee, with Dr. Elliston as Honorary Secretary, was appointed to assist the Collective Investigation Committee in their work.

Meetings.—It was resolved to hold the autumnal meeting at Dereham, Norfolk, in September; and the next annual meeting at King's Lynn, in association with the Cambridge and Huntingdon Branch.

President's Address.—An address was delivered by the PRESIDENT (Dr. Crowfoot) upon the Germ-Theory of Disease; and a vote of thanks to him, for his able and exhaustive address, was carried, upon the motion of Dr. BATEMAN.

Papers.—The following papers were read.

1. Mr. W. Cadge (Norwich): On Nerve-section in the Treatment of Neuralgia.

2. Dr. H. J. Benham (Ipswich): The Treatment of Intestinal Obstruction; and the necessity, in many cases, of Laparotomy.

3. Mr. James Worthington (Lowestoft): A case of Acute Intestinal Obstruction, relieved by Puncture of the Bowel.

4. Mr. T. W. Crosse (Norwich): Details of a case of Obstruction of the Bowels, and operation for its relief; with specimens of concretion found, *post mortem*, in the appendix vermiformis.

5. Dr. M. Beverley (Norwich): A case of Obstruction of the Bowels.

6. Mr. F. Haward (Halesworth): A case of Obstruction, with pathological specimens.

7. Dr. Barnes (Eye) related details of a case in which Laparotomy had been successfully practised for the relief of an Intussusception in a Child.

Dejeuner.—The members of the Branch adjourned to a *dejeuner* at 4 P.M., at the King's Head Hotel. Upwards of thirty sat down, under the presidency of Dr. Crowfoot. Previously to the general meeting, the Branch Council were most hospitably entertained at breakfast by the President. They subsequently visited the new hospital, the large printing establishment of Messrs. Clowes, and the highly successful sewage farm. The President, who is also Mayor of Beccles, informed the visitors that the farm is now conducted at a profit.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.

A MEETING of the above District took place at the Castle Hotel, Hastings, on Wednesday, May 24th; Dr. TROLLOPE in the chair.

Papers.—The following communications were made:

1. Dr. Humphreys: On the Treatment of the Febrile Condition.

2. Mr. Baber: On Adenoid Vegetations of the Naso-Pharynx. The pathology, etiology, and symptoms were described, and also the treatment illustrated by cases under the author's care.

3. Mr. Maynard read notes of six cases of Rotheln, laying special stress on one case which was attended by serious complications. In this case, on the twenty-first day from the appearance of the rash, the child became feverish; subsequently, she complained of pain in and about the left ear. There was afterwards discharge from this ear, becoming more profuse, and then the right ear became affected. After some days' interval, symptoms arose of affection of the kidneys and heart, there being albumen and blood-casts in the urine, and a basic systolic *bruit* over the semilunar valves. There was never any dropsy; albuminuria lasted fourteen days. The fever, which assumed a hectic type, gradually yielded to remedies (aconite, potash, quinine, iron, etc.), and the hearing, which had been materially impaired, returned. The cases were treated with antiseptic syringing. The basic *bruit* was persistent, but the child's health is improving, and the urine is free from albumen.

4. Mr. Campbell: Two Cases of Hip-Joint Disease.

5. Dr. Trollope exhibited the Cirrhotic Liver of a Child eight years old.

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

THE sixth ordinary meeting of the session was held at the Museum and Library, Bristol, on Wednesday, May 24th; DAVID DAVIES, Esq., President, in the chair. There were present fifty-one members and four visitors.

New Members.—The following gentlemen were duly elected: Surgeon-General P. G. Fitzgerald, M.D., of Clevedon; and Messrs. D. A. Fraser, M.R.C.S., of Burnham, and J. R. Woolby, L.R.C.P., M.R.C.S., of Bristol.

Collective Investigation Committee.—Dr. Markham Skerritt read a communication from the honorary secretary of the Central Committee, with reference to the work of the Committee, and cards were distributed among the members present.

Tax on Carriages.—A petition for the exemption of medical men from the proposed increase of the tax on carriages was signed by all the members present.

Discussion.—The afternoon was devoted to a discussion on Bone-Setting, which was opened by Mr. Richardson Cross. Mr. Howard Marsh, of London, was next invited by the President to speak; and the discussion was continued by the President, and by Dr. Marshall and Messrs. Parette, Greig Smith, Wilcox, Dobson, and Tivy.

CORRESPONDENCE.

SAMARITAN HOSPITAL OVARIOTOMY AND ANTISEPTICS.

SIR,—Your strictures on this matter being admittedly founded on the ovarian practice of Dr. Bantock and Mr. Thornton for one year only, I hope, in justice to all parties concerned, you will accord a small space for a short statement of the remainder of it.

Six years is the extent of their ovarian experience at the hospital, resulting, for Dr. Bantock, in a mortality, including his last run of bad cases, of 15 per cent.; for Mr. Thornton, including his run of forty-one cases (two deaths), a mortality of 10.17 per cent., a fraction below Mr. Wells's results, concluding his work at the hospital. Thus, as you see, this comparison, fairly denoting the mortality of the two surgeons respectively, is a very different thing from that appearing in your article. Mr. Wells frequently met with these runs, good and bad, during his long ovarian career at the hospital, without much affecting his averages in the long run.

As to the action of the committee, which you thought somewhat questionable, "antiseptic precautions" is a comprehensive term. With us, it includes objections against the presence at operations of anyone recently participating in septic matters, such as dissecting-rooms, *post mortem* examinations, infectious diseases, etc., together with the observance of the accepted methods of insuring for the patient wholesome surroundings. The committee merely enjoined continued attention to these provisos, in which and on all such Lister appears more or less, in spite of what has been argued not too generously to the contrary. Surgeons of much longer experience than six years appeal impressively to their superior results without the spray; hence the impossibility of forcing it into the practice of any medical officer. The committee could not have done this, and they did not try.

Mr. Thornton is a believer in the spray, and he insisted, against all precedent, that his practice should appear in a table by itself; unfortunately, his name was appended in such a way as to lead to what would doubtless in reality be a misunderstanding of his intentions. Hitherto, our reports have not been honoured by the least notice on the part of the journals. Copies of this one were not sent to them from the office, nor were those now circulating—the special page marked, or leaf turned down. This page might as well have recorded that, two years ago, the balance moved in favour of Dr. Bantock. The action of the committee did not appear in the report; both probably came to your notice through the same channel.

The flexibility of statistics is notorious. A contemporary makes ours prove Dr. Bantock's mortality to be five times greater than Mr. Thornton's. During their commencing year, the former lost one case, the latter none; *ergo*, they have been going on from bad to worse ever since—conclusions equally tenable statistically.

As the professed object of your article was to assist in the solution of the antiseptic question, I am surprised Dr. Bantock's superior results in "other operations" were allowed to pass unnoticed.

About oöphorectomy, the least said the better, except to denounce it as a detestable mutilation. There are evidences more than enough against the expectation of lasting benefit from that odious operation. It is to be hoped that the few recorded of the many deaths due to it may operate as an enduring sting on the consciences of those who hereafter have recourse to it.

The results hitherto of ovariotomy in London hospitals are not of a character to encourage the hope of reducing their ovarian mortality below 10 or even 15 per cent., antiseptics or no antiseptics. London is not Edinburgh, nor is it Birmingham.—I am, sir, yours obediently,

HENRY SAVAGE, M.D.,
Member of the Committee of Management,
Samaritan Free Hospital.

*** This question is one which interests the profession, and concerns us, solely as one of scientific and practical importance. It is to be regretted that names and individualities have been imported into it, contrary to expectation, and to what we should have wished. Where it has been a question of doing justice to individuals, we could not, however, refuse to publish what was addressed to us on either side. In any other further discussion of this important subject, we must particularly request that all personal questions be set aside, on the principle that methods and results are alone what we desire to see discussed.

SIR,—In reply to the question put by Dr. Savage, I beg to say that my information was got from the article in your JOURNAL of May 20th, in which the writer speaks of the interference in surgical matters by a committee of laymen at the Samaritan Hospital. I have not seen last year's report of the hospital, and the words House Committee were used quite inadvertently. There is thus no mistake on my part. It was the principle of interference by any lay committee that was objected to.

Dr. Savage seems to think that I am blessed with no colleagues. There are at least a dozen. We are a happy family; we have no red tape. "Ephraim does not envy Judah, and Judah does not vex Ephraim."—Yours obediently, T. KEITH.

2, North Charlotte Street, Edinburgh, June 6th, 1882.

SPECIAL CORRESPONDENCE.

MANCHESTER.

New Pathological Theatre at the Royal Infirmary.—Ophthalmoscopic Demonstration at the Royal Eye Hospital.

THE arrangements for *post mortem* examinations and pathological teaching at the Royal Infirmary have, owing to the increasing number of students, become entirely inadequate. The governors of the institution having refused to provide the necessary accommodation, on the plea that they do not feel themselves justified in spending the funds of the hospital in extension of the teaching department, from which they derive no revenue, the medical staff have generously come forward and undertaken to make the necessary structural alterations at their own expense. A pathological theatre for the accommodation of students is to be built, and a new room will be provided for the examination of pathological specimens. It is estimated that the new buildings and appliances will cost about £400.

At the Royal Eye Hospital, Dr. Glascott has commenced his summer course of ophthalmoscopic demonstrations, which is numerously attended by the students of Dr. Little's class of Systematic

Ophthalmology at Owens College. Each student is individually taught the use of the ophthalmoscope, a large supply of typical cases of intra-ocular disease being drawn from the extensive out-patient department connected with the hospital.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Monday, June 19th.

Fruit-Pickers.—On the motion of Earl STANHOPE, the Public Health (Fruit-Pickers' Lodgings) Bill was read a second time, the noble lord explaining that its object was to authorise local authorities to look after the housing of fruit-pickers, in the same way that they could control the accommodation for hop-pickers.

HOUSE OF COMMONS.—Thursday, June 15th.

Pensions of Militia Surgeons.—Mr. O'SHAUGHNESSY asked the Secretary of State for War whether it was true that on the compulsory retirement, under 68a. Circular, January 1882, of Militia Surgeons holding commissions from lords-lieutenant of counties, at the age of 65, the pension of 6s. a day, to which, under certain circumstances, such surgeons were entitled, had been refused them; and whether he would explain under what enactment the right to this pension was alleged to have been destroyed.—Mr. CHILDERS replied that, until 1829, militia surgeons were members of the permanent staff, and, like other officers of that staff, entitled to pensions on reduction of the force or on retirement through age or infirmity. But no militia surgeon appointed since 1829—that is to say, during the last fifty-three years—has been entitled to a retiring allowance. Her Majesty has always had the power to decide at what age militia officers should cease to serve; and in 1872 this age was fixed at 60, although retirement was not enforced in every case. In 1881, it was decided that at 65 all militia surgeons must retire, this being a boon to them compared with other militia officers.

Monday, June 19th.

Local Improvement Bills.—On the consideration of the Blackburn Improvement Bill as amended, Mr. HOPWOOD moved that it was inexpedient to proceed with the consideration of the Improvement Bills, or any of them, included in the reference to the Committee on Sanitary and Police Clauses of March 13th, 1882, unless such portions thereof as created local sanitary or police law exceptional to the law of the realm be omitted therefrom. The hon. and learned member renewed the protest he had made on a former occasion against the slovenly manner in which Local Improvement Acts were passed, whereby alterations were made in the general criminal law by means of private legislation. The influence of the Local Government Board had been felt by the Committee in a far larger degree than was consistent with the interest of the public. He was, however, glad to see that two sets of clauses in the Bill had been rejected; and he would like to give the House one or two instances of the kind of evidence on which large and special powers were obtained. In one case, a medical man declared that infection might be carried by the distribution of tracts and magazines. He moved the following resolution: "That it is inexpedient to proceed with the consideration of the Blackburn Improvement Bill, or any of the Improvement Bills included in the reference to the Committee on Sanitary and Police Clauses of March 13th, 1882, unless such portions thereof as create local sanitary or police law exceptional to the law of the realm be omitted therefrom."—Mr. SCLATER-BOOTH said that these Bills had been submitted to a Select Committee, who had considered them with care, and had greatly improved them by striking out their objectionable parts. If they were to be allowed to pass that House, any amendment that the hon. and learned member might think desirable to have inserted might be inserted during their passage through the House of Lords, where, of coure, they would be subject to re-examination.—Mr. PLAYFAIR trusted that, after the great labour which it was well known that Committee had bestowed on those measures, his hon. friend would withdraw his amendment, and that the House would allow their consideration to be proceeded with.—Mr. HOPWOOD withdrew his amendment.

THE second reading of the Infectious Diseases Notification (Ireland) Bill is set down for Tuesday, July 11th.

THE Public Health (Scotland) Act Amendment Bill has been agreed to in the House of Lords.

THE Vivisection Abolition Bill is set down for second reading on Wednesday, June 28th. It is, however, very improbable that any Bills introduced by private members will have a hearing during this session.

A COPY has been presented to the House of Commons of special pensions or gratuities granted to civilian medical officers and members of the auxiliary forces who were wounded in the South African wars.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

THE DEGREE OF BACHELOR OF SURGERY.—The regulations for the new Degree of Bachelor of Surgery at Cambridge require the candidate to pass all the examinations for the degree of Bachelor of Medicine, and, further, to undergo an examination in surgical operations and the application of surgical apparatus, and in the examination of surgical patients, as well as to have gone through a course of instruction in practical surgery, and attended two years' surgical practice at a hospital, and acted as dresser for six months, in addition to the requirements for M.B. The ordeal, therefore, will be no light one, and the rank of the degree will be proportionately high. With the view of meeting some of the requirements, Professor Humphry announces that he will take classes for instruction in surgery during the vacation, and Mr. Wherry will give a course of instruction in practical surgery.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, June 15th, 1882.

Kealey, John William Gregory, Gosport.
McDougall, Herbert Alan Hosier, Winchester.
Papillon, James William, Reading.

The following gentlemen also on the same day passed their Primary Professional Examination.

Lane, Frederick Herbert, University College.
Dodd, Henry Work, St. Bartholomew's Hospital.
Mitchell, Walter Frederick, St. Bartholomew's Hospital.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the usual monthly examinations for the Licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, May 8th, 9th, 10th, and 11th, the following candidates were successful.

For the Licences to practise Medicine and Midwifery.—George Valentine Byrne, Bray, Co. Wicklow; Edward Baldwin Cashel, Dublin; Frederick Hone Moore, Cootehill, Co. Cavan.

For the Licence to practise Medicine only.—Joseph Ignatius Purcell Doyle, Dublin.

For the Licence to practise Midwifery only.—Samuel Macaulay, Belfast.

The following Licentiates in Medicine of the College, having complied with the by-laws relating to Membership, in accordance with the provisions of the Supplemental Charter of December 12th, 1878, have been duly enrolled Members of the College.

Leslie Maturin, 1875, Dublin; Michael Francis Cox, 1877, Dublin; Joseph John Nicholson, 1877, Exeter.

At the usual monthly examinations for the Licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, June 5th, 6th, 7th, and 8th, the following candidates were successful.

For the Licences to practise Medicine and Midwifery.—Morris Asher, Sydney, New South Wales; Joseph Lievesley Beeston, Newcastle, New South Wales; Joseph Henry Bond, Rathgar, Co. Dublin; Matthew Maria Louis Hutchinson, New Ross, Co. Wexford; FitzJames Molony, Tulla, Co. Clare; Edmund Rundle, Crediton, Devon; Macnamara Morgan Williamson, Dublin.

For the Licence to practise Midwifery only.—Alan Montgomery Irwin, Donadea.

The following Licentiates in Medicine of the College, having complied with the by-laws relating to Membership, pursuant to the provisions of the Supplemental Charter of 1878, have been duly admitted Members of the College.

Laurence Joseph O'Neill, 1877, St. Doulough's, Co. Dublin; John Freeman Knott, 1877, Dublin; Patrick Matthias Poett, 1878, Rathgar, Co. Dublin.

(The numerals appended to the names indicate the year in which the Licence to practise Medicine was obtained.)

MEDICAL VACANCIES.

The following vacancies are announced :—

BARNET UNION.—Medical Officer and Public Vaccinator for the 3rd District. Salary £60 10s. per annum. Applications by July 4th.

BRADFORD INFIRMARY AND DISPENSARY.—House Surgeon. Salary £150 per annum. Applications by July 3rd.

CITY OF LONDON INFIRMARY, Bow Road, E.—Resident Assistant Medical Officer and Dispenser. Salary £100 per annum. Board, etc. Applications by 26th instant.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E. Assistant Physician. Applications by the 28th instant.

CUMBERLAND INFIRMARY, Carlisle.—House-Surgeon. Salary, £100 per annum. Applications by June 27th.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge Road, S.E.—House-Surgeon. Salary, £70 per annum.
FRENCH HOSPITAL AND DISPENSARY, 10, Leicester Place.—Resident Medical Officer. Salary, £60 per annum.
GOVAN POORHOUSE AND ASYLUM, Merryflats, Govan.—Assistant Medical Officer. Salary £120 per annum. Applications by July 1st.
GREAT NORTHERN HOSPITAL, Caledonian Road, N.—House-Surgeon. Salary, 60 guineas per annum. Applications by June 30th.
GUEST HOSPITAL, Dudley. Resident Medical Officer. Salary £120 per annum. Applications to E. Poole.
HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Assistant Physician. Applications by July 5th.
HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Resident Clinical Assistant. Applications by July 1st.
HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Mount Vernon, Hampstead.—Physician. Applications by July 6th.
HOSPITAL FOR WOMEN, Soho Square.—House Physician. Applications by the 27th instant.
LIVERPOOL DISPENSARY.—Assistant Resident House-Surgeon. Salary, £108 per annum. Applications by the 26th instant.
MARKET BOSWORTH UNION.—Medical Officer and Public Vaccinator. Salary, £35 per annum. Applications by June 27th.
METROPOLITAN FREE HOSPITAL, 81, Commercial Street, Spitalfields, E.—Assistant House-Surgeon.
METROPOLITAN ASYLUMS BOARD.—Senior Assistant Medical Officer. Salary £150 per annum. Applications by 29th instant.
MID AND SOUTH YELL AND FETLAR AND NORTH YELL.—Medical Officer. Applications to the Inspector of Poor, Mid Yell, Shetland.
ST. MARY'S HOSPITAL.—Clinical Assistant. Applications by July 1st.
ST. PETER'S HOSPITAL FOR STONE AND URINARY DISEASES, 54, Berners Street, W.—House-Surgeon. Applications by July 1st.
UNIVERSITY COLLEGE.—Resident Medical Officer. Applications by July 1st.
UNIVERSITY COLLEGE.—Surgical Registrar. Applications by July 1st.
WESTERN OPHTHALMIC HOSPITAL, 155, Marylebone Road.—Clinical Assistant. Applications to the Hospital any afternoon from 1 to 3 o'clock.
WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Resident Assistant. Applications by the 26th instant.
WYNAAD, SOUTH INDIA.—Medical Officer, to take charge of the Staffs. Applications by July 1st.
YORK COUNTY HOSPITAL.—Honorary Physician. Applications by June 24th.

MEDICAL APPOINTMENTS.

AIRSLEY, Thomas G., M.B., M.R.C.S., appointed Honorary Physician to the Hartlepools Hospital, *vice* J. W. Crowe, F.K.Q.C.P., resigned.
ARGO, G. C., M.B., appointed Junior Assistant Medical Officer and Pathologist to the Durham County Hospital, *vice* J. G. Hardy, L.R.C.P., resigned.
BARNES, R. S. F., M.D., appointed Assistant-Physician to the Chelsea Hospital for Women.
BIRT, C., M.R.C.S., appointed Third Assistant Medical Officer to the South Yorkshire County Lunatic Asylum, *vice* H. C. MacBryan, L.R.C.P., resigned.
BOYD, Stanley, F.R.C.S., appointed Assistant-Surgeon to the Charing Cross Hospital, *vice* H. R. Whitehead, L.R.C.P., resigned.
BRADSHAW, O. G., L.R.C.P., appointed Clinical Assistant to the Royal South London Ophthalmic Hospital.
CAMERON, Alex., M.B., appointed Medical Officer for the Parishes of Glenlivet and Kirkmichael.
CRESSWELL, N. E., M.R.C.S.E., appointed Medical Officer for the Blisworth District to the Towcester Union, *vice* J. A. B. Thompson, M.D., resigned.
EDIS, A. W., M.D., appointed Physician to the Chelsea Hospital for Women.
EDWARDS, A. R., M.R.C.S., appointed Assistant House-Surgeon to King's College Hospital.
HARRIS, A. G. R., L.R.C.P., appointed Medical Officer to the Kington Union, *vice* W. Langston, M.R.C.S., resigned.
HART, W. H., M.R.C.S., appointed Resident Medical Officer to the Royal Pimlico Dispensary, *vice* H. G. Brigham, M.R.C.S., resigned.
JAQUET, J. L., M.R.C.S., appointed Clinical Assistant to the Royal South London Ophthalmic Hospital.
LOGAN, J. R., M.B., appointed Assistant House-Surgeon to the Liverpool Northern Hospital, *vice* W. Y. Orr, M.B., resigned.
ODLING, A. E., M.R.C.S.E., appointed House-Surgeon to the Croydon General Hospital, *vice* W. Cooper, M.R.C.S., resigned.
PROTHERO, Richard, M.R.C.S., appointed Medical Officer for the Workhouse, Walton-on-the-Hill, to the West Derby Union, *vice* R. Worrall, M.D., resigned.
ROBERTS, T. A., M.R.C.S., appointed Medical Officer to the Chapel Hill District of the Boston Union, *vice* C. Blades, M.R.C.S., resigned.
ROWLAND, E. D., M.B., appointed Resident Clinical Assistant to the West Riding Lunatic Asylum, Wakefield.
SHEPHERD, T. A. J., M.R.C.S., appointed Junior Assistant Medical Officer to the Surrey County Lunatic Asylum, *vice* J. E. Barton, L.R.C.P.
SKERRITT, F. T., L.R.C.S.I., appointed Medical Officer for Ardrahan Dispensary District to the Gort Union.
THOMSON, T. P., M.B., appointed Assistant Medical Officer to the Leeds Union, *vice* R. T. Richardson, M.R.C.S., resigned.
WILLIAMS, W. H., M.R.C.S., appointed Honorary Medical Officer to the Yeatman Hospital, Sherborne, Dorset.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths 3s. 6d., *which should be forwarded in stamps with the announcements.*

BIRTH.

CLARKE. On May 25th, at Somerset East, South Africa, the wife of Thomas Furze Clarke, M.R.C.S.Eng., etc., of a daughter (Sylvia).

HEALTH OF FOREIGN CITIES.—The following statistics, derived from a table in the Registrar-General's last weekly return, afford trustworthy indications of the recent health and sanitary condition of various foreign and colonial cities. In Calcutta, Bombay, and Madras, the annual death-rate averaged 28.4 per 1000; cholera caused 73 deaths in Calcutta, and measles 23 in Bombay. In Alexandria, the deaths were equal to a rate of 33.7 per 1000, and included 3 cases of whooping cough. According to the most recent weekly returns, the average annual death-rate in twenty-two European cities was equal to 29.5 per 1000 of their aggregate population; this showed the usual marked excess upon the average rate in twenty-eight of the largest English towns, which did not exceed 19.0 per 1000. The rate in St. Petersburg was 51.6, and was somewhat lower than the exceptionally high rates prevailing in that city in recent weeks. In three other Northern cities—Copenhagen, Stockholm, and Christiania—the death-rate did not average more than 22.0, the highest rate being 25.3 in Copenhagen, where 7 of the 121 deaths were from scarlet fever. The Paris death-rate was equal to 23 4, and showed a further decline from the rates prevailing in the three preceding weeks, which had been 26 9, 26.3, and 25.7 per 1000 respectively; typhoid fever caused, however, 43 and small-pox 22 deaths during the week. The deaths in Brussels were equal to a rate of 21.3 per 1000, and included 7 fatal cases of small-pox. The rate in Geneva was 26.3, and exceeded that returned in any recent week. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the death-rates averaged 26.9, and ranged from 22.3 in the Hague to 29 5 in Amsterdam, where 14 fatal cases of measles were recorded. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged 29 7, and ranged from 25.1 and 25.9 in Berlin and Dresden, to 35.5 and 35 7 in Prague and Vienna. Small-pox caused 33 deaths in Vienna and 5 in Prague; while 27 deaths were referred to diphtheria in Berlin. The death-rate averaged 35.4 per 1000 in the four large Italian cities, and ranged from 27.8 in Rome to 44.5 in Naples; measles showed fatal prevalence in Rome, and scarlet fever in Naples. In four of the principal American cities, the death-rate was 27.5; it was equal to 23 4 in Baltimore, 24.4 in Brooklyn, 24.5 in Philadelphia, and 32.8 in New York. Scarlet fever caused 61 deaths in New York and 25 in Brooklyn, and typhoid fever 15 deaths in Philadelphia.

TINEA FAVOSA IN A RABBIT.—M. Megnin, at a recent meeting of the Paris Biological Society, described a case of tinea favosa of an unusual form he had observed on a rabbit. The animal died when it was a little more than a month old. A scab closing the anus was the cause of death. The scab was hard only on the surface; it was easily torn, and a white floury-like substance escaped, which, on microscopical examination, was seen to be composed solely of sporules, generally oval or spherical in form; some few lengthened out; their diameter varied between four and seven thousandths of a millimètre. The latter were the most numerous. This form of tinea is not cup-shaped; it sooner resembles an unbroken blister. It resembles achorion Schönleinii in all respects, except its whiteness and that it is free from a mousy smell. This form of tinea is very contagious among rabbits four months old. Whether it can be communicated to the human subject is a question M. Megnin hopes to be able to answer.

SINGULAR LEGACY TO THE FRENCH GOVERNMENT.—M. Giffard, the well-known Parisian inventor of balloons, who died some time ago, has left a legacy to the French Government under the most singular conditions. He desires that it be devoted to the establishment of *suicidaria*, or national institutions in which persons suffering from painful and incurable diseases may be allowed, by the use of chloroform and other such agents, to shorten their own existences, acting under the direction of medical experts, and with the consent of their friends. M. Giffard secured a euthanasia for himself by a special apparatus he invented for the inhalation of chloroform. M. Renaud has joined the movement for the promotion of painless suicide in France, his only stipulation being that no man shall, by law, be entitled to take his own life, until he has obtained the consent of his friends in what is known as the *conseil de famille*.

MR. JACOBSON has been appointed surgeon, and Mr. Day assistant-surgeon and administrator of anæsthetics, to the Royal Hospital for Children and Women, Waterloo Bridge Road.

DR. LIONEL A. WEATHERLY has been appointed Deputy Coroner for the North-East Division of Somerset, in the place of Mr. Robert Biggs of Bath, deceased.

A COPY of a short memorial of the late Dr. William Paterson, printed for private circulation, having been forwarded to the Queen, Dr. Paterson (Bridge of Allan) has received a gracious reply, accompanied by a portrait of Her Majesty.

OPERATION DAYS AT THE HOSPITALS.

MONDAY..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p. Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu.F., 9.30; o.p., Tu. F., 2; Eye, Tu F., 9.15; Ear, M. Th., 2; Skin, Tu.Th., 1.30; Throat, M. Th., 1.45; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. T., F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15. Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Royal College of Surgeons of England, 4 P.M. Mr. Frederic S. Eve: On the Etiology of Tumours.

WEDNESDAY.—Royal College of Surgeons of England, 4 P.M. Mr. Frederic S. Eve: On the Etiology of Tumours.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

PATHOGENIC ORGANISMS.

SIR,—Will you kindly allow me to mention, through your columns, that at the *soirée* of the Royal College of Physicians, on the night of the 14th instant, several visitors who took an interest in the pathogenic organisms which I was there showing under the microscope wrote their names and addresses on a sheet of paper, with a view to my sending them reprints of an article describing these organisms in the current number of the *Journal of the Royal Microscopical Society;* but at the conclusion of the meeting, the paper with their addresses was unfortunately lost, and I have consequently no means of fulfilling my promise to them; but if they will be good enough to write to me here, I shall have much pleasure in doing so.—I am, sir, yours faithfully,

G. T. DOWDESWELL.

The Windham Club, St. James's Square, S.W., June 22nd, 1882.

DR. HARRIS.—At the last election into the Council of the College, only ninety-three provincial Fellows attended. There was one provincial candidate, Mr. Reginald Harrison of Liverpool, who polled 87 votes, with 12 plumpers, against Mr. Haynes Walton's 72, with 5 plumpers. Mr. Walton was unseated by Mr. Christopher Heath, who polled 133, with 5 plumpers. Mr. Harrison declines to oppose Mr. Baker of Birmingham, who has been as regular in his attendance as the metropolitan Councillors.

SINGLE QUALIFICATIONS.

SIR,—Can an L.S.A., recently passed, practise with one qualification; can he call himself surgeon; and also, is he allowed to sign death-certificates in surgical cases?—I am, etc.,

W. B.

*** According to the thirty-first clause of the Medical Act of 1858, an L.S.A. is legally entitled to practise medicine, and to recover in any court of law, with full costs of suit, reasonable charges for professional aid, advice, and visits, and the cost of any medicines or other medical appliances rendered or supplied by him to his patients. By Clause 40, it is enacted that "Any person who shall wilfully and falsely pretend to be, or take or use the name or title of, Surgeon (etc.), shall, upon a summary conviction for any such offence, pay a sum not exceeding £20." An L.S.A., according to the strict letter of the law, is not entitled to sign death-certificates in surgical cases; but no registrar of deaths would, we apprehend, refuse to accept a certificate so signed by a registered medical practitioner.

T. M. R.—The aniline and other dyes may be obtained from Mr. Martindale, 10, New Cavendish Street, or from Messrs. Hopkins and Williams.

NETHERFIELD INSTITUTION FOR INFECTIOUS DISEASES.

SIR,—The statistics of a single year in any hospital are hardly enough to draw conclusions from, still less so if the hospital be a small one. The following table, showing the number and mortality of the various cases treated in this hospital from its foundation up to June 1st, will compare favourably with those quoted in your article on this institution on May 27th.

Disease.	Total Number of Cases.	Deaths.	Mortality per cent.
Typhus	958	214	22.2
Small-pox (vaccinated and unvaccinated)	921	125	13.4
Measles	161	1	0.6
Typhoid	299	53	17.7
Scarlatina	682	48	7.0
Other diseases simulating fever	307	47	15.3

The somewhat higher mortality from small-pox last year, is accounted for by the severity of the type of the disease.—Your obedient servant,

E. W. HOPE.

Liverpool, June 20th, 1882.

A YOUNG MEMBER.—The late Mr. Partridge was very particular about thoroughly clean sponges, and recommended, for the purpose of softening and cleaning them, to put a teaspoonful of the liquor soda chlorinatæ in half a tumblerful of water, and wash well, rinsing afterwards in fresh cold water.

THE MEDICAL CONGRESS AT SEVILLE.

SIR,—In your account of the Medical Congress at Seville, you state that a paper was read by Dr. Arthur of Edinburgh on an "Antiseptic Naso-oral Respirator". The paper was one which I communicated to the Congress, concerning certain advantages possessed by Messrs. Mayer and Meltzer's naso-oral respirator (one of which respirators was sent by that firm to the exhibition of the Congress). I can only account for the mistake in name and address by the assumption that my first name has been used in place of my surname, and the address of the Edinburgh College of Physicians as my private address.—Yours, etc.,

ARTHUR ALLBUTT, M.R.C.P.E.

24, Park Square, Leeds, June 17th, 1882.

A LIFE SUBSCRIBER would need to append his name to his letter if he desire publication for it.

A CONVENIENT CARRIAGE FOR MEDICAL MEN.

SIR,—Practising as I have for fifty years in a bleak and hilly country with bad roads, I have long wished for a vehicle of light weight and draught in which I should be protected from the weather. A brougham is out of the question, on account of its weight and expense. For years, I have driven a Victoria phæton with a head, but I was not protected from a driving storm, besides being very cold and draughty. Seeing the advertisement of Messrs. Harrison and Brass, of Elgin, Scotland, I concluded it was just the conveyance I wished for, and I ordered one. I am happy to say I have not been disappointed, and am highly pleased with it. I consider it a highly finished, convenient, and most comfortable carriage, even without the head on; and, in the back seat, with a small umbrella, I am more sheltered from the rain than in the Victoria with the head up. The Elgin Acme Car, with the hood on behind, is a complete and perfect protection from wind and rain.

I certainly have much pleasure in strongly recommending to the notice of my professional brethren (who are in want of a handsome, well built, and most comfortable conveyance) the Acme Car, built by Messrs. Harrison and Brass, carriage manufacturers, of Elgin, Scotland.—I remain, yours truly,

WILLIAM HEANE, F.R.C.S.Eng.

The Lawn, Cinderford, Gloucester, June 14th, 1882.

SPECIALITY.—*See* the BRITISH MEDICAL JOURNAL, December 17th, 1864, p. 675. "A man may know how to make a nail, and not know how to make a lock; but would it be possible for a doctor to understand the eyes, and be totally ignorant of the ears? A speciality is good, provided always there is generality also."

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

CARRIER PIGEONS.

SIR,—Having used carrier pigeons for many years in country practice, and being now overstocked, if there are any of my medical brethren who would like to keep birds of this description for the purpose of medical work, I shall be happy to give away some very good young birds, if they will communicate with me, and state how they are to be sent. They are all from the eggs of hardy, long-distance parents; and, with teaching and keeping, I am persuaded that many practitioners in country parts would be pleased with the experiment, if they would exercise a little patience at first.—Your obedient servant,

GEORGE H. R. DABBS, M.D.

Highfields, Shanklin, Isle of Wight, June 20th, 1882.

VARIOLA.—Dr. Tinsley, an English practitioner in Cuba, alleges that vaccine virus, after passing through a negro's system, is valueless for the white race.

ABUSE OF HOSPITALS.

SIR,—The great yearly contribution to hospitals has now been made. It is, therefore, just and proper, alike to donors and recipients of charity, that a slight protest should be raised against any indiscriminate use of the large sums of money collected.

For some years, it has been obvious to those familiar with hospital management that many thousands of fairly well-to-do people regularly avail themselves of the benefits of these institutions; thereby supplanting the necessitous poor, for whom the hospitals were originally intended. In the appeal made to the public on June 7th by the Lord Mayor, his lordship estimated that half the population of London would, if sick or injured, have a claim on charity. This may or may not be correct; it can, however, scarcely be reconciled with his lordship's designation of London as a "rich and vast metropolis".

It is impossible to deny that nearly all medical charities are grossly abused by persons well able to pay a small fee to the general practitioners, without ever availing themselves of charity. I regret to say that this is entirely overlooked by the heads of our profession, who do not scruple to treat those who are virtually other men's patients.—I am, sir, your obedient servant, EQUITY.

Formerly attached to four charitable institutions.

DR. CAMPBELL.—You will find a curious account of the treatment of a parturient female two hundred years ago, in the BRITISH MEDICAL JOURNAL of December 17th, 1864, p. 682.

HOME FOR DELICATE CHILDREN.

SIR,—In the interests of delicate children whose parents are not able to take them from London, may I point out the advantages of the St. Christopher's Home at Hayward's Heath? Miss Jamieson, who was attached to the staff at our hospital in Great Ormond Street, may be trusted to take every care of children sent there; and it seems to me that the home only requires to be known to make itself appreciated.—Yours faithfully,

ROBERT LEE.

6, Savile Row, June 9th, 1882.

A MEMBER OF THE SOUTH MIDLAND BRANCH is thanked for his communication, which has been forwarded to the manager.

THE TITLE OF DOCTOR.

SIR,—In the discussion that often arises in medical journals respecting the degree of M.D., and also the assumption by non-graduates of the title of Doctor, the fact seems to be lost sight of, on the part of those who desire to be so styled without graduation, that the value of the same is simply that all medical practitioners are not M.D. If it were granted that any and every examination, from the L.F.P.&S. Glasgow, upwards, entitled the practitioner to the style of M.D. or Doctor, the sole worth would at once be destroyed. Surgeons, etc., would be in no way benefited, while those who have had to work at their hospitals or elsewhere considerably longer would be losers.—I am, sir, your obedient servant,

A COUNTRY PRACTITIONER.

CORONERS AND MEDICAL WITNESSES.

SIR,—I think I can give your correspondent "J. W." some idea of the vagaries of coroners in their dealings with medical witnesses. During three and a half years, I held the position of house-surgeon to a provincial hospital in a large town in the north of England, and, during the whole of that period, I was never once called to give evidence before a coroner, although numerous cases of accident that were either brought in dead, or else died in the hospital, occurred. The practice of the coroner (a medical man) in these cases was to call the nurse of the ward in which the patient died, or, if dead before admission, to give the jury the benefit of his medical knowledge, and call no surgeon. One case made a deep impression on me at the time, and was a fair sample of the manner in which the "Crowner's Quest" was often conducted. A young man, apparently in good health, on his way to the hospital one morning (where he was engaged at work), suddenly fell down insensible, and was at once conveyed to the hospital, when it was found that life was extinct. The coroner held an inquest in due course, and called no medical evidence, but told the jury that "he had often seen similar cases, and he had no doubt that death was due to apoplexy." Verdict accordingly. In another case, that of a man who had been brought to the hospital insensible, at a time when the whole staff happened to be present, and who died shortly afterwards, without the surgeons having arrived at a definite diagnosis, the jury returned a verdict of death from sunstroke, without calling any medical evidence! This state of things will, I think, show "J. W." to what lengths coroners will go in order to save expense; *à propos* of which, will you allow me to correct a statement of yours on "J. W.'s" letter, in which you say, "You do not understand the motive for not doing so (refusing to call medical evidence), as no fee is payable". It is perfectly correct that no fee is paid to a house-surgeon when he gives evidence at an inquest touching the death of a person dying in the hospital, but the usual fee of a guinea is allowed when the death took place before admission —I am, sir, yours truly,

F. REKAB.

P.B.—The late Dr. Billing prescribed half-drachm doses of bismuth to allay irritable stomach; and even two scruples. *See also* Pereira's *Materia Medica*.

CHEAP EDITIONS OF MEDICAL WORKS.

SIR,—In your extremely interesting remarks on cheap publishing, you say, referring to one of the American editions of the *Index of Surgery*, that, "of course, all that is looked for in this competition of rival American publishers is, a shade of profit to the trader, the author being left out of the question." In the case in question, not even a shade of profit appears to be looked for by the firm who sell the *Index of Surgery* at half-a-dollar. Their advertisement amusingly says: "It is hardly necessary to say that the price at which this book is now sold, namely, fifty cents, is fixed, for certain reasons, without any regard to cost." These "certain reasons" are explained in the following extract from the American *Annals of Anatomy and Surgery*. "The good old days—when a mutual understanding among our enterprising literary buccaneers caused them all to work in harmony, and mutually to let alone whatever prize had been marked out for his own by another—seem to have passed away, and the spectacle is now presented of these adventurous spirits quarrelling among themselves over their prey, and striving to cut each other's literary throats."

Your reflection that cheapening medical books might pay by extending the circle of buyers, has suggested to me an idea, concerning which I should like to hear the opinions of other members of our Association. A society should be organised for the purpose of inducing publishers and living English authors to follow the example of Sir Henry Thompson. This would not be a publishing society, like the Sydenham, but an association ready to bargain, on behalf of its members, with living English authors and publishers. The particular books suitable for such negotiations could be selected by the votes of the subscribers. Such a society might at once become a means of encouraging English authors, and of supplying medical men (of whom the vast majority are out of the reach of good medical libraries) with a collection of the newest and most practical works.—I remain, sir, yours obediently,

C. B. KEETLEY.

A FELLOW.—Unfortunately, it is your own fault. There will not be another meeting of the Council until after the annual election; you can take part in the festival afterwards.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Mr. J. D. Williams, Portsmouth; Our Glasgow Correspondent; Mr. C. A. Hankey, London; Mr. E. W. Hope, Liverpool; Dr. J. Braxton Hicks, London; Dr. T. S. Reed, Pool, Cornwall; Mr. E. Prideaux, Wellington; Our Dublin Correspondent; Mr. Alfred Teevan, London; Mr. T. H. Elliott, London; Mr. T. M. Stone, London; Dr. A. H. Hassall, London; Dr. A. W. Edis, London; Mr. W. W. Morris, East Bridgeford; Dr. Thomas Alexander, London; Mr G. F. Crooke, Leeds; Dr. Addison, London; Mr. J. S. Wood, London; Mr. J Answorth, London; Mr. T. M. Dolan, Halifax; Messrs. Chas. Griffin and Co., London; Mr. Robert Barker, Hatcham; Mr. Charles Palmer, Great Yarmouth; Mr. Shirley T. Murphy, London; Dr. A. Paterson, Bridge of Allan; Mr. T. J. Webster, Merthyr Tydfil; Dr. Geo. Thomson, Oldham; Dr. R. Liveing, London; Dr. C. Swaby Smith, Seaforth; Dr. Holman, Reigate; Dr. Alfred Hall, West Brighton; Mr. Jas. Greenwood, London; Dr. J. G. Swayne, Clifton; Dr. Bampton, Plymouth; Dr. Wm. A. Guy, London; Mr. Watson Cheyne, London; Dr. Mahomed, London; Dr. John Cavafy, London; Dr. J. S. Scriven, Duffield, Derby; Mr. Lawson Tait, Birmingham; Dr. J. F. Goodhart, London; Mr Vincent Jackson, Wolverhampton; Dr. Herman, London; Dr. Herbert Davies, London; Dr. J. A. Irwin, Liverpool; Dr. Lionel A. Weatherley, Portishead; Mr. J. L. Milton, London; Mr. T. L. Walford, Reading; Dr. George H. R. Dabbs, Shanklin; Dr. J. W. Moore, Dublin; Mr. F. J. Lloyd, London; Dr Chas. E. Beevor, Vienna; Mr. Geo. Brown, London; Mr. Burrows, Witheridge; Mr. A. Allbutt, Leeds; Dr. Thin, London; Dr. Morley Rooke, Cheltenham; Dr. T. G. Ainsley, Hartlepool; Mr. John Fisher, Devonport; Dr. R. Bruce, Edinburgh; Dr. H. J. Benham, Ipswich; Mr. J. W. Olpherts, Lurgan; etc.

BOOKS, ETC., RECEIVED.

Spasmodic Asthma: a Thesis for the M.B. Degree of the University of Cambridge By W. E. Steavenson, M.B., M.R.C.S. London: G. Bell and Sons. 1882.

A Handbook on Diseases of the Skin; with especial reference to Diagnosis and Treatment. By Robert Liveing, A.M., M.D., F.R.C.P. Third edition, revised. London: Longmans, Green, and Co. 1882.

Manual of Diseases of the Skin, with an Analysis of Eight Thousand Consecutive Cases, and a Formulary. By L. Duncan Bulkley, A.M., M.D. London: J. and A. Churchill. 1882.

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